ВИЗНАЧЕННЯ СТРАТЕГІЧНИХ ПРИОРИТЕТІВ РОЗВИТКУ ВНУТРІШНЬОГО ВОДНОГО ТРАНСПОРТУ УКРАЇНИ

Актуальність. В контексті глобалізації та зростання міжнародної торгівлі, водний транспорт стає ключовим для транспортної інфраструктури, особливо в Україні з її стратегічним розташуванням та річковим потенціалом. Важливість внутрішнього водного транспорту для економіки та екології є очевидною, але його розвиток стримується через ряд виклика, включаючи інфраструктурні обмеження, економічні труднощі, екологічних вимог та законодавчих бар’єрів. Актуальність теми дослідження у необхідності аналізу цих викликів та визначення стратегій для підвищення конкурентоспроможності та інтеграції українського внутрішнього водного транспорту в міжнародні логістичні цепі.

Мета та завдання. Визначити пріоритетні стратегічні напрямки розвитку внутрішнього водного транспорту України, акцентуючи увагу на інтеграції з міжнародними мережами, адаптації до геополітичних змін, економічні ефективності та екологічних інноваціях. Завдання включають аналіз поточного стану, оцінку впливу зовнішніх факторів та формулювання рекомендацій для підвищення конкурентоспроможності та сталого розвитку галузі, використовуючи міжнародний досвід.

Матеріали та методи. Дослідження базується на офіційних документах, науковій літературі та статистиці для аналізу стану галузі та міжнародного досвіду. Методологія об'єднує порівняльний аналіз, експертні оцінки та статистичний аналіз для виявлення тенденцій. Це допоможе оцінити ситуацію в українському внутрішньому водному транспорті та розробити рекомендації для підвищення його ефективності, сталого розвитку та інтеграції в міжнародні логістичні мережі.

Результати. З огляду на зростаючу потребу в ефективних та екологічно сталих транспортних рішеннях, внутрішній водний транспорт України виявляє значний потенціал для розвитку. Аналіз сучасного стану та міжнародного досвіду вказує на критичну необхідність реалізації стратегічних напрямків, спрямованих на модернізацію інфраструктури, впровадження екологічних стандартів, розвиток мультимодальних перевезень, залучення інвестицій та активізацію міжнародної інтеграції.

Модернізація інфраструктури, включаючи оновлення шлюзів, портів та навігаційних систем, є фундаментальною для забезпечення безпеки, ефективності та доступності водного транспорту. Це дозволить Україні підвищити пропускну спроможність річкових шляхів та оптимізувати логістичні цепи.

Впровадження екологічних стандартів та інновацій, зокрема використання екологічно чистих видів палива та автономних суден, сприятиме зниженню викидів та підвищенню екологічності галузі. Це відповідає глобальним трендам екологізації транспорту та забезпечує сталій розвиток водного транспорту.

Розвиток мультимодальних перевезень, що інтегрують водний транспорт з іншими видами перевезень, відрізняє нові можливості для оптимізації вантажопотоків та підвищення ефективності транспортної системи країни.

Залучення інвестицій, як внутрішніх, так і міжнародних, є ключовим для реалізації проектів модернізації та інновацій. Створення сприятливого інвестиційного клімату та підтримка держави через стимули та гарантії зможе прискорити розвиток галузі.

Активізація міжнародної інтеграції через співпрацю з міжнародними організаціями та адаптацію до міжнародних стандартів дозволить Україні інтегруватися в глобальні транспортні мережі, залучити міжнародний досвід та інвестиції для розвитку водного транспорту.

Висновки. Рекомендовано державну програму з інвестиційними стимулами, модернізацію та екологічними інноваціями; законодавчі покращення для підтримки водного транспорту; бізнес-інвестиції в флот та інфраструктуру; міжнародну підтримку для інтеграції України в глобальні мережі. Майбутні дослідження мають зосередитись на адаптації до глобальних змін та стратегіях приватних інвестицій.

Ключові слова: внутрішній водний транспорт, розвиток, стратегічні напрямки, економічна ефективність.
DETERMINATION OF STRATEGIC PRIORITIES FOR INLAND WATER TRANSPORT DEVELOPMENT OF UKRAINE

Topicality. In the context of globalization and the growth of international trade, water transport is becoming key to transport infrastructure, especially in Ukraine with its strategic location and river potential. The economic and ecological importance of inland waterway transport is obvious, but its development is held back by a number of challenges, including infrastructure constraints, economic difficulties, environmental requirements and legislative barriers. The relevance of the study lies in the need to analyze these challenges and define strategies to increase the competitiveness and integration of Ukrainian inland water transport into international logistics chains.

Aim and tasks. Determine the priority strategic directions for the development of inland water transport of Ukraine, focusing on integration with international networks, adaptation to geopolitical changes, economic efficiency and environmental innovations. Tasks include analyzing the current state, assessing the impact of external factors and formulating recommendations for increasing the competitiveness and sustainable development of the industry, using international experience.

Materials and Methods. The research is based on official documents, scientific literature and statistics to analyze the state of the industry and international experience. The methodology combines comparative analysis, expert evaluations and statistical analysis to identify trends. This will help assess the situation in Ukrainian inland water transport and develop recommendations for increasing its efficiency, sustainable development and integration into international logistics networks.

Research results. In view of the growing need for efficient and environmentally sustainable transport solutions, the inland water transport of Ukraine shows significant potential for development. Analysis of the current state and international experience indicates a critical need to implement strategic directions aimed at modernization of infrastructure, implementation of environmental standards, development of multimodal transportation, attraction of investments and activation of international integration.

Modernizing infrastructure, including upgrading locks, ports and navigation systems, is fundamental to ensuring the safety, efficiency and accessibility of water transport. This will allow Ukraine to increase the carrying capacity of river routes and optimize logistics chains.

The introduction of environmental standards and innovations, in particular the use of environmentally friendly fuels and autonomous ships, will help reduce emissions and increase the environmental friendliness of the industry. This corresponds to the global trends of greening of transport and ensures the sustainable development of water transport.

The development of multimodal transport, integrating water transport with other types of transport, opens up new opportunities for optimizing cargo flows and increasing the efficiency of the country's transport system.

Attracting investments, both domestic and international, is key to the implementation of modernization and innovation projects. Creating a favorable investment climate and state support through incentives and guarantees will be able to accelerate the development of the industry.

Activation of international integration through cooperation with international organizations and adaptation to international standards will allow Ukraine to integrate into global transport networks, attract international experience and investments for the development of water transport.

The implementation of these strategic directions will require an integrated approach, coordinated work of the government, business and international partners, as well as taking into account the economic and environmental requirements of today.

Conclusion. A government program with investment incentives, modernization and environmental innovation is recommended; legislative improvements to support water transport; business investments in the fleet and infrastructure; international support for Ukraine's integration into global networks. Future research should focus on adaptation to global change and private investment strategies.

Keywords: inland water transport, development, strategic directions, economic efficiency.

Problem statement and its connection with important scientific and practical tasks. In the current conditions of economic globalization and the growth of international trade, water transport acquires special significance as a key element of a country's transport infrastructure. Ukraine's inland water transport, having a strategic geographical location and significant potential of river routes, plays an important role in the development of the national economy, ensuring environmentally

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sustainable and efficient movement of goods and passengers. However, despite its significant potential, the inland water transport sector faces a number of challenges that hinder its development and integration into European and global transport networks.

The relevance of the research topic is determined by the need for a deep analysis of the current state of inland water transport in Ukraine, identifying priority strategic directions for its development taking into account the geopolitical situation, global trends, technological progress, and modern environmental standards. The significance of the research lies in identifying effective strategies that will contribute to enhancing the competitiveness of Ukrainian inland water transport, ensuring its sustainable development, and integration into international logistic chains.

An analysis of the current situation in the field of inland water transport in Ukraine reveals a complex of challenges and opportunities that cover geopolitical, infrastructural, economic, ecological, and legislative aspects. Despite the significant potential, determined by the branched network of rivers, the industry faces a number of problems that restrain its development.

The geopolitical situation, caused by military actions from Russia on the territory of Ukraine, has completely changed the balance of power in the country's transport sector. There has been a shift in cargo flows between different types of transport. Navigation on the Dnieper has practically stopped. The dangerous situation at sea calls for an increased need for navigation on the Danube.

Infrastructure limitations, such as outdated port facilities and insufficient depth of river routes, limit the throughput capacity and efficiency of water transport. This is emphasized in the work of Romanchuk S. (2020), where attention is focused on the need for modernization of river ports and locks to activate the development of the industry.

Economic challenges include insufficient funding, lack of investment, and low profitability of some directions. At the same time, inland water transport can become an economically advantageous alternative for large-sized and bulk cargoes if investments are attracted for the modernization of the industry (Burkinsky B.V., Gryshchenko V.F., 2022).

The ecological aspect becomes particularly relevant in the context of global efforts to reduce carbon emissions. Inland water transport has the potential to become one of the most environmentally friendly modes of transport, but this requires the introduction of modern technologies and environmental standards.

Legislative aspects include the need to update the regulatory base to promote the development of the industry, attract investments, and implement environmental innovations (Haversky V.V., 2021). It is necessary to explore the prospects for the development of inland navigation in Ukraine against the backdrop of sea traffic restrictions due to military actions in the Black Sea. It is important to analyze legal and economic aspects for science and practice, especially in the context of the reduction of maritime transport and the search for alternative ways to develop inland waterways (Kuznichenko, S., Moshak, G., Kuznichenko, O., 2023).

In conclusion, to realize the potential of inland water transport in Ukraine in the post-war period, a comprehensive approach will be required, including infrastructure modernization, investment attraction, implementation of ecological innovations, and legislative base renewal. Such an approach will allow unlocking the potential of inland water transport as an effective, economically advantageous, and environmentally friendly mode of transport.

Analysis of recent publications on the problem. A review of the current state of inland water transport in Ukraine reveals a complex impact of historical, contemporary problems, strategic perspectives, as well as the importance of legal regulation and innovations in this sphere.

Pidlisnyi (2016) in his research analyzes the historical stages of development of inland water transport in Ukraine, highlighting the problems that led to the loss of competitiveness of river transport compared to other modes of transport. The author emphasizes the need for measures to revive navigation on Ukraine's inland waterways and improve their operational and environmental efficiency.

As early as 2019, the necessity for a comprehensive set of measures for the development of container cargo transportation was emphasized. Researchers analyzed the market of river container transport in Ukraine compared to the European Union and the USA, identified the main problems of the development of inland water transport, and measures for their further development (Lashutina, 2019).

Water transport globally expanded until 2022, increasing volumes and diversity of transportation, which is key for international trade. Access to sea routes and the development of port infrastructure, including quality logistics services and effective regulation, determined success in the water transport sector. Ukraine, having significant potential in this industry, did not fully utilize it.
before 2022 due to shortcomings in state management, outdated infrastructure, and logistics. Improvement of the sector already then required comprehensive state and regional measures, active participation, and investments from private companies in the industry (Tymchenko N.M., Kuzmenko O.Yu. Kuzmenko V.S., (2021)).

Partola (2021) in his study focuses on analyzing the operating conditions of inland water transport enterprises in Ukraine and identifying barriers to their effective development. The author classifies all problems into groups such as natural, technical, political, and economic, allowing a deeper understanding of the challenges facing the industry.

The development of water transport in Ukraine requires improving the investment climate and reforming the water use system, with an emphasis on ecologization and infrastructure improvement. It is important to consider global environmental challenges and synchronize national and international environmental priorities. The development and implementation of Ukraine's Water Strategy, which corresponds to modern trends of sustainable water use, is critically important for the country's integration into global water initiatives. Insufficient attention is paid to the development of education and scientific research in the field of water resources, which is key to achieving strategic goals (Khvesyk M., Levkovska L., Mandzyk V., 2021).

Ukraine's river transport has its peculiarities, affecting its role for the country's economy. The authors (Tserkovna A.V., Rakhimi A.M., 2023) performed a detailed analysis of the current transport and logistics system of Ukraine in wartime, including inland water transport, and changes in state policy, pointing to the potential of river transport as a national asset. Western experience demonstrates its environmental friendliness and cost-effectiveness, especially in transporting bulk goods like grain or metals, where speed is not as important as regularity of delivery. Understanding global and national trends in river infrastructure will facilitate its modernization in Ukraine. River transport has advantages compared to other modes of transport and illustrates changes and measures for stabilizing the transport industry during wartime, indicating Ukraine's significant potential and the importance of utilizing all possible resources, including geographical location.

Today, there is a crisis in Ukraine's inland water transport, with a significant decline in transportation volumes. Authors (Lubianyi P.V., Voitovych O.A., Kuzmenko I.O., 2023) highlight problems: high costs of delivery and transshipment, competition with railways, costly shipbuilding, and infrastructure limitations that reduce the efficiency and investment attractiveness of the industry. The historical role of the Dnipro and the need for its restoration as a key to reintegrating Ukraine into the European river space are emphasized. The importance of a clear economic policy and integration with the EU for the revival of the sector is underlined.

The impact of global trends on Ukraine’s inland water transport is significant and varied, covering aspects ranging from military conflicts to changes in logistics, exports, as well as the need for infrastructure and legislative development.

The full-scale war in Ukraine, which began on February 24, 2022, affected inland navigation, especially in the Danube region (Dávid, A., Blaško, S., Ficzere, P., 2023). The war changed transportation routes between Ukraine and other countries, leading to the blockade of some routes and increased use of others. The Danube region remains an important logistical corridor for Ukraine, despite military actions.

Ukraine's economic recovery after the war largely depends on the development of water transport, a key element of which is qualified seafarers. Research (Ilchenko S.V., Hryshchenko V.F., Hryshchenko I.V., 2023) revealed a direct dependence of the profitability of water transport enterprises on the number of staff. Analysis of salary dynamics and staff structure allowed the development of a model that emphasizes the need to increase the number of seafarers to enhance the industry's efficiency. Recommended measures are aimed at strengthening Ukraine's competitive positions in the water transportation market through increasing qualified personnel.

The above studies highlight the impact of global trends on Ukraine's inland water transport, including the military conflict. Identifying key challenges and opportunities for Ukraine in the context of developing inland water transport requires a comprehensive approach, including analysis of existing infrastructure, legislative base, as well as geopolitical and economic conditions.

These studies point to key challenges for Ukraine in the field of inland water transport, including the need for infrastructure development, modernization of the legislative base, and adaptation to changing geopolitical and economic conditions. At the same time, there are significant opportunities for the industry's development, particularly through the use of Ukraine's geographical location, development of export potential, and increasing the efficiency of internal
transport routes.

The Development Strategy of Inland Water Transport of Ukraine for the period up to 2031 (2019) was an ambitious plan aimed at stimulating the development of cargo and passenger transportation through inland waterways. This initiative aims to create a competitive, safe, and business-attractive inland water transport (IWT) system that meets the market needs for cargo and passenger transportation.

Key directions of the strategy include:
- Infrastructure modernization - improving the efficiency of navigation locks and creating a modernized, technological, and efficient public infrastructure;
- Development of logistics centers - creating an optimal logistics system through the development of logistics centers along navigable rivers, which will facilitate more efficient cargo distribution;
- Fleet renewal and personnel training - ensuring the availability of a modern, ecological, and energy-efficient fleet, as well as training and certifying qualified personnel to work on it;
- Reorganization of inland water transport management - improving the state management system, including eliminating administrative function duplication and implementing a quality management system;
- Effective management and administrative structure - creating a clear and efficient administrative management structure capable of responding promptly to changes in the industry and economy.

The implementation of this strategy was expected to promote the effective development of river logistics, enhance Ukraine's competitiveness in the global market, activate international trade and economic ties, reduce the load on highways, leading to savings in road fund costs, increase budget revenues, stimulate domestic shipbuilding, create new jobs, and have a positive impact on the environment, as IWT is one of the least harmful modes of transport for the environment. The adoption and implementation of the Strategy is currently on pause.

Allocation of previously unsolved parts of the general problem. Based on the analysis of the current state of inland water transport in Ukraine, a comprehensive unresolved issue has been identified that encompasses the need for adaptation to geopolitical changes, integration with international transport networks, infrastructure modernization, ensuring economic efficiency, and the implementation of environmental standards and innovations. This issue requires the development of a comprehensive strategy that takes into account changing geopolitical conditions, the need for compatibility and cooperation with global transport systems, infrastructure renewal and funding, identification and development of profitable directions to enhance economic benefits, and the integration of advanced environmental practices for sustainable development. Addressing this issue requires coordinated interaction between the government, private sector, scientific community, and international organizations to ensure a comprehensive and effective development of inland water transport in Ukraine.

Formulation of research objectives (problem statement). The aim of the article is to define strategic priorities for the development of inland water transport in Ukraine, with a focus on integration with European and global transport networks, adaptation to geopolitical changes, increasing economic efficiency, and implementing environmental standards and innovations. The article aims to identify specific actions to improve water transport infrastructure that meet current challenges and requirements, considering international experience and practices. Through the analysis of the current state of the industry, assessment of the impact of geopolitical, economic, and environmental aspects, the article aims to formulate strategic recommendations that will facilitate Ukraine's integration into international logistical chains, ensure sustainable development, and increase the competitiveness of inland water transport.

Materials and Methods. The research is based on official documents, scientific literature, and statistical data, which allowed for a deep dive into the analysis of the current state of the industry and international experience. The methodology includes analysis for comparing Ukrainian and international experience, expert assessments to involve professional views, and statistical analysis to evaluate trends. This approach not only assesses the current state of inland water transport in Ukraine but also formulates specific recommendations for increasing its competitiveness, sustainable development, and integration into global logistical chains, considering the economic and environmental requirements of modernity.

An outline of the main results and their justification. According to the legislation of Ukraine, "inland water transport is a type of transport that includes vessels, business entities that carry out and ensure the transportation of goods, passengers, luggage, and mail predominantly through inland waterways, are used
for fisheries activities, provide other services using inland navigation vessels, ensure navigation on inland waterways, maintain infrastructure objects of inland waterways, and carry out navigational and hydrographic support for navigation” (Law of Ukraine “On Inland Water Transport”, edition as of 01.01.2024).

Since 2014, the demand for inland water transport in Ukraine has increased due to economic instability and conflict in the east, prompting metallurgical companies and grain traders to look for ways to reduce transportation costs. River navigation, as an economically viable and ecological alternative, gained popularity and could become a competitor to rail and road transport, supporting the economy and contributing to the creation of an efficient logistical system (Fig. 1).

![Figure 1: Volume of transported goods by river transport in Ukraine according to the State Statistics Service of Ukraine (*excluding temporarily occupied territories)](image)

Fig. 1. Volume of transported goods by river transport in Ukraine according to the State Statistics Service of Ukraine (*excluding temporarily occupied territories)

River transport, with its high cargo capacity and cost-effectiveness, can reduce road maintenance costs and decrease environmental impact, becoming an attractive alternative to road and rail transport. Ukraine has significant potential in the development of river transport, which can contribute to energy efficiency, environmental friendliness, and the development of multimodal transportation, reducing the load on other types of transport and improving logistics.

Expert analyses before the full-scale invasion of Russia into Ukraine indicated the potential for cargo transportation by the Dnipro River from 12 regions of Ukraine, predicting an increase from 60 million tons to 80 million tons by 2030, provided there is a change in legislation and development of inland water transport. Considering the export orientation of the economy, the modernization of locks could increase transportation volumes to 45 million tons annually (Information on water transport in Ukraine, 2020).

Simultaneously with the increase in transportation volume (Fig. 1), the cargo turnover of Ukraine's water transport was decreasing, meaning that with the increase in the volume of transported goods, the transportation distance was reduced (Fig. 2). At that time, experts already noted that the development of inland water transport requires the improvement of infrastructure, including locks and navigation systems, the creation of port hubs, and the use of an ecological fleet.

In the current conditions, the development of Ukraine's inland water transport, both passenger and freight, acquires strategic importance. Passenger transportation will contribute to the development of tourism and improve the mobility of the population, but this will happen after the war. At the same time, freight transportation currently acts as a critical element of the economic infrastructure, ensuring efficient and environmentally sustainable movement of goods. With limited access to sea routes, the focus on freight transportation becomes particularly relevant, as it provides alternative logistical routes for export and import, supporting the economic stability and security of the country.
In the context of globalization and increasing attention to environmental issues, Ukraine's water transport, along with the consequences of military aggression, faces the need to adapt to global trends. These include innovations and technological development, the implementation of environmental standards, and the application of effective development strategies tested in other countries.

### Innovations and Technological Development

- **Implementation of Environmental Standards**
- **Application of Effective Development Strategies**

Fig. 3. Global Trends in the Development of Inland Water Transport

*Source: developed by the author*

The modern development of water transport in Ukraine is impossible without the integration of innovations and the latest technologies. Particularly, the implementation of autonomous vessels is an important aspect, which can significantly increase the efficiency and safety of transportations. The use of alternative fuels, such as LNG, which contributes to the reduction of carbon emissions and increases the environmental friendliness of water transport, is also relevant (Demyanchuk M.A., Kolosok V.M., Kostyuk Y.D., 2021). Environmental standards play a key role in shaping the development strategy of Ukraine's water transport. In the context of climate change and increasing demands for the environmental friendliness of transport, Ukraine seeks to adapt international environmental standards and norms. This includes the development and implementation of national strategies to reduce emissions from water transport and improve the efficiency of water resource use (Khvesyk M., Levkovska L., Mandzyk V., 2021). In February 2024, the UN launched the Global Strategy for Decarbonization of Road, Rail, and Inland Water Transport (Strategy on Reducing Greenhouse Gas Emissions from Inland Transport, 2024), which sets ambitious goals for inland water transport to reduce greenhouse gas emissions and achieve carbon neutrality by 2050. Analysis of effective development strategies for water transport in other countries highlights the importance of a comprehensive approach, including infrastructure modernization, development of international cooperation, and implementation of innovative technologies. The experience of countries with developed water infrastructure shows that success in this area is achieved through private investment, state support, and active implementation of environmental initiatives (Burkynskyi B.V., Hrystchenko V.F., 2022). As a result of analyzing...
the profile of competitive strategies of Ukraine's inland water transport, using "SNW", "SPACE", and "ADL" methods to assess its efficiency, the authors (Burkynskyi B.V., Ilchenko S.V., Hryshchenko V.F., Hryshchenko I.V., 2023) propose a system of strategic recommendations to increase competitiveness in the European market in the context of Eurointegration. They developed a new methodological approach that considers key elements of competitive potential, providing a comprehensive assessment of economic threats. Strategic directions for the development of inland water transport in Ukraine cover a wide range of measures aimed at modernizing the industry, increasing its efficiency and environmental friendliness, and integrating Ukrainian water transport into European and global transport networks (Fig. 4).

**Fig. 4. Strategic Directions for the Development of Inland Water Transport in Ukraine**

*Source: developed by the author*

In the context of the strategic development of inland water transport in Ukraine, infrastructure modernization stands as a fundamental direction requiring a comprehensive approach to the radical renewal and expansion of existing facilities. This process encompasses several key aspects, each of which is crucial for enhancing the efficiency and competitiveness of the sector.

The renewal and expansion of port facilities are critically important for providing a high level of logistical service and meeting the growing needs of cargo owners. The construction of modern berths, storage facilities, and terminals, along with the implementation of modern service systems, will allow for increased cargo processing volumes and improve the speed and quality of vessel services. This, in turn, will attract additional cargo flows and increase the profitability of port infrastructure.

The installation of modern navigation systems and the updating of hydrographic equipment are necessary measures to ensure the safety of navigation on inland waterways. This includes the implementation of Automatic Identification Systems (AIS), Vessel Traffic Management Systems (VTMS), and modern methods of hydrographic surveying for accurate depth and navigational obstacle determination. Enhancing navigational safety will reduce the risk of accidents and ensure more efficient use of waterways.

The restoration and modernization of locks and other hydraulic structures are important aspects of ensuring the uninterrupted and efficient operation of water transport. Locks play a key role in regulating water levels in rivers, allowing for the maintenance of necessary conditions for navigation even during periods of low water supply. The modernization of lock complexes, including the automation of management processes and the use of modern materials, will increase the carrying capacity of rivers and reduce the time it takes for vessels to pass through locks.

The implementation of the mentioned strategic directions requires coordinated efforts from the government, local authorities, port administrations, and the private sector. It also involves attracting investments, both domestic and foreign, to fund large-scale modernization projects. Considering the strategic importance of inland water transport
for the country's economy, such investments can be a significant step towards enhancing the efficiency of the national transport system and strengthening Ukraine's economic security.

Designing the development of Ukraine's inland water transport in the post-war period should immediately consider and actively implement modern environmental standards.

Updating environmental standards in the field of inland water transport is an important step towards sustainable development and minimizing environmental impact. The application of international environmental norms and standards aims to reduce emissions of harmful substances into the atmosphere and water bodies. This involves the introduction of modern emission cleaning technologies, the use of environmentally friendly fuels, and the optimization of vessel operational processes to reduce their environmental impact.

Updating the fleet with low-emission vessels is a strategically important direction of environmental policy in the field of inland water transport. The use of alternative fuels, such as liquefied natural gas (LNG), biofuel, as well as electric and hybrid technologies, significantly reduces CO2 emissions and other harmful substances. Developing a "green" fleet not only contributes to environmental protection but also increases energy efficiency and the economic benefit of vessel operation. This should be considered already at the stage of developing a strategy for the development of inland water transport in Ukraine.

Developing effective logistical schemes that integrate inland water transport with other types of transport is a key factor in increasing the competitiveness and efficiency of the country's transport system. This includes creating multimodal transport hubs that allow for quick cargo transshipment between different modes of transport, optimizing routes, and improving logistical services. Such an approach contributes to reducing transport costs, increasing the speed of cargo delivery, and enhancing the overall efficiency of logistical operations.

Introducing new services for clients, particularly in the field of container transport and the development of cruise tourism after Ukraine's victory, will open new opportunities for the development of inland water transport. The development of container transport facilitates the increase in volumes of international trade and the efficiency of cargo transportation, while cruise tourism opens new prospects for the development of the tourism industry, attracting investments, and enhancing the attractiveness of river routes.

The implementation of these strategic directions requires coordinated interaction between government bodies, the private sector, and international partners, as well as attracting investments to fund innovative projects and modernize infrastructure.

Attracting investments is critically important for supporting and developing inland water transport in Ukraine. Attracting domestic and foreign investments allows for the implementation of a wide range of projects, from modernizing existing infrastructure to building new facilities and introducing innovative technologies. Effective investment attraction requires creating a favorable investment climate, including legal and economic stability, transparency in licensing and regulation processes, and guarantees for investment return and project profitability.

State support plays a key role in financing and subsidizing projects in the field of water transport. The development and implementation of state financing programs can include providing direct budget allocations for capital investments, subsidies to cover operational costs, and incentives for private investors, such as tax benefits, loan guarantees, and assistance in attracting international financing. State support can also be directed towards developing research projects aimed at innovations in water transport.

Ensuring the sustainable development of inland water transport in Ukraine requires a comprehensive approach to investment and financing, involving both private investment attraction and active state support. This implies not only funding specific projects but also developing strategic programs aimed at enhancing the efficiency, safety, and environmental friendliness of water transport, as well as expanding its integration with other modes of transport into a unified multimodal transport system.

International integration plays a fundamental role in the development of Ukraine's inland water transport, opening new horizons for cooperation, investment, and experience exchange. This process encompasses several key aspects:

1. Cooperation with international organizations. Ukraine's participation in international projects and programs is critically important for ensuring the sustainable development of water transport. Cooperation with the European Union, the International Maritime Organization (IMO), and other international partners allows Ukraine to integrate into the European and global transport space. This not only enhances the efficiency and safety of water transport but also
opens access to international investments, technologies, and markets;

2. Harmonization of legislation. Aligning national legislation with international standards and agreements is a necessary step to ensure the seamless operation of inland water transport at the international level. Harmonizing legislation eliminates legal barriers to international trade and transportation, ensures the protection of the rights and interests of transport process participants, and enhances the level of environmental safety and protection. Adapting to international conventions, such as the SOLAS Convention (International Convention for the Safety of Life at Sea), MARPOL (International Convention for the Prevention of Pollution from Ships), and others, is a key element of this process.

International integration requires Ukraine's active participation in international initiatives, continuous dialogue with international partners, and adaptation of national legislation to international requirements. This will not only contribute to the development of inland water transport but also strengthen Ukraine's position on the international stage, opening new opportunities for economic growth and development in the post-war period.

The implementation of these strategic directions will enable Ukraine to enhance the efficiency and competitiveness of inland water transport, ensure its sustainable development, and integrate it into the global transport system.

The role of the state in the development of inland water transport is key, as it involves the development and implementation of state policy, strategic planning, providing support and stimulating investments, and interacting with the private sector and international organizations. Let's examine each of these aspects in more detail.

State policy and strategic planning in the field of inland water transport include developing a regulatory framework that governs the industry's activities, setting safety standards and environmental norms. This also involves planning the development of infrastructure, such as ports, locks, navigation systems, necessary for ensuring the efficiency and competitiveness of water transport. The state determines priority development directions, such as fleet modernization, development of multimodal transportation, improving the level of service and accessibility of water transport. State support and investment stimulation can be provided through tax incentives, subsidies, grants for enterprises engaged in the development of inland water transport. This also includes state budget funding for infrastructure projects, developing new technologies, and implementing environmental initiatives. Additionally, the state can attract international financial institutions and investors to implement large-scale projects in this field.

Cooperation between the state and the private sector is important for attracting investments, implementing innovations, and increasing the efficiency of water transport. This can be achieved through the creation of joint ventures, public-private partnerships, concessions. International cooperation allows for experience exchange, integration of Ukrainian water transport into European and global transport networks, and attracting international financing.

The state plays a decisive role in the development of inland water transport in Ukraine, defining strategic development directions, creating conditions for attracting investments, and facilitating the integration of Ukrainian water transport into the international transport space.

**Conclusions and perspectives of further research.** The analysis of strategic directions for the development of inland water transport in Ukraine revealed key aspects, including infrastructure modernization, implementation of environmental standards, development of logistics and services, attracting investments, and international integration. These directions play a crucial role in enhancing the efficiency, safety, and environmental friendliness of water transport, as well as ensuring its competitiveness at the international level. The conducted research allowed formulating the following recommendations:

1. For the government:
   - Develop and implement a comprehensive state program for the development of inland water transport, including incentives for investments, infrastructure modernization, and the introduction of environmental innovations;
   - Strengthen the legislative base to support the development of water transport, including improving conditions for public-private partnerships;

2. For business:
   - Activate participation in the development of water transport through investments in fleet modernization and port infrastructure, the introduction of the latest technologies and environmental solutions;
   - Expand cooperation with the state sector and international partners to attract experience and financing;

3. For international partners:
   - Support Ukraine in integrating its water
transport into European and global transport networks through joint projects and programs:

- Provide expert and technical assistance in implementing environmental and innovative projects.

Future research in the field of the development of inland water transport in Ukraine may focus on:

- Analyzing the impact of global economic changes and adapting the water transport economy to them;
- Developing strategies to attract private investments in the development of water transport, including innovative financial instruments. Focusing on these aspects will allow Ukraine not only to enhance the efficiency of inland water transport but also to ensure its sustainable development in accordance with global trends and challenges.

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