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STRATEGIC MANAGEMENT OF SUSTAINABLE DEVELOPMENT OF TRANSPORT INFRASTRUCTURE AS A COMPONENT OF THE ECONOMIC SECURITY OF UKRAINE

Viktor Koval, Larysa Soroka, Tetiana Metil, Iryna Honcharova, Oleh Kior, Serhii Khakhlov. *«Strategic management of sustainable development of transport infrastructure as a component of the economic security of Ukraine». Infrastructure provision is a key factor in the efficiency of the transport service system for consumers. Therefore, in the process of implementing strategic management for the sustainable development of transport infrastructure, scientific issues arise that require a comprehensive solution. This study is devoted to determining priorities in the process of forming the concept of strategic management of sustainable development of transport infrastructure of Ukraine in general, and maritime transport infrastructure in particular, since it is precisely on the ability of maritime transport to ensure export-import operations that the economic security of Ukraine, and in some cases the global system of economic security, depends. The article proposes a scheme for interaction among various participants in the strategic management of sustainable maritime transport infrastructure development. The system of organizational and economic measures to enhance the efficiency of maritime transport infrastructure is also analyzed. The level of provision of the system of various transportation with maritime transport infrastructure depends on Ukraine's economic security and its image as a reliable partner in the process of implementing international agreements, which are the basic motives for the formation of sustainable infrastructure development.*

Keywords: transport infrastructure, maritime transport infrastructure, strategic management, sustainable development, economic security, food security, fixed assets, transport services, grain exports, water transport, maritime transport.

Віктор Коваль, Лариса Сорока, Тетяна Метіль, Ірина Гончарова, Олег Кіор, Сергій Хахльов. *«Стратегічне управління сталим розвитком транспортної інфраструктури як складова економічної безпеки України». Інфраструктурне забезпечення є одним з головних чинників ефективності системи транспортного обслуговування споживачів, тому в процесі здійснення стратегічного управління сталим розвитком транспортної інфраструктури постають наукові питання, що потребують комплексного вирішення. Ця стаття присвячена визначенню пріоритетів у процесі формування концепції стратегічного управління сталим розвитком транспортної інфраструктури України взагалі, та морської транспортної інфраструктури в частці, оскільки саме від спроможності морського транспорту забезпечувати експортно-імпорتنі операції залежить економічна безпека України, та у деяких випадках загальносвітова система економічної безпеки. У статті запропоновано схему взаємодії різних учасників стратегічного управління сталим розвитком морської транспортної інфраструктури. Також проаналізовано систему організаційно-економічних заходів щодо підвищення ефективності*

використання морської транспортної інфраструктури. Від рівня забезпеченості морською транспортною інфраструктурою системи різноманітних перевезень залежить економічна безпека України, імідж держави як надійного партнера в процесі виконання міжнародних угод, що є базисними мотивами до формування сталого розвитку інфраструктури взагалі.

Ключові слова: транспортна інфраструктура, морська транспортна інфраструктура, стратегічне управління, сталий розвиток, економічна безпека, продовольча безпека, необоротні активи, транспортні послуги, зерновий експорт, водні види транспорту, морський транспорт

Introduction. The formation of the country's economic security is based on a strategic combination of various factors and components, including both physical and virtual elements. However, it considers the formation of various components of economic security. A system of indicators is created, most of which depend on the quality of transport services, since transport service operations accompany any physical movement of goods, and in some cases, services. That is, the level of development of transport infrastructure has a direct impact on the formation and degree of ensuring the country's economic security.

In Ukraine, the transport infrastructure is quite developed, but in conditions of military and geopolitical threats, it requires significant use of strategic development, since the requirements for its condition and quality of transport services are constantly changing, which creates the need for a fundamentally new approach to strategic management of transport infrastructure development.

The growth of demand for multimodal transportation, the presence of special requirements for the conditions of transportation and storage of goods, bringing information support for freight and passenger transportation in line with consumer requirements leads to the need to improve all components of the transport infrastructure, both directly on transport. and in the field of providing related services [1].

The creation of new approaches to the formation of the offer of transport services on the market of these services forms updated algorithms of actions in the context of determining consumer characteristics, forming a system of requirements, and

creating infrastructure components in accordance with consumer expectations.

Ensuring high-quality strategic management in the field of improving transport infrastructure has specifics for different types of transport. For land transport, the basis is measures to improve highways, since the level of consumer satisfaction in transport services depends on the degree of coverage of the transport network. Of particular importance for the development of transport infrastructure as a set of material and technical means is maritime transport infrastructure, since the level of its development depends on the country's export capacity [2].

The purpose of writing the article is to determine the priority areas for the development of maritime transport infrastructure as an integral part of the overall infrastructure system.

In the process of achieving the set goal, the current state of infrastructure provision for export-import operations in the seaports of Ukraine was determined, and what measures are envisaged by the National Transport Strategy of Ukraine for the period until 2030 to improve the infrastructure provision for export-import operations in the seaports of Ukraine were considered.

Literature review. Many scientists study the impact of transport infrastructure development conditions on the economic security of countries with different levels of involvement in the international transport system, especially in the implementation of agreements aimed at forming a global food security system. However, previously conducted studies do not fully reproduce the theoretical and methodological provisions,

the diversification of which is aimed at improving the system of strategic management of transport infrastructure development.

If we consider global trends in the development of transport and logistics services, then, as M. Kyrpyk (2021) notes, there are threats of significant imbalances in the development of transport services in different parts of the world, primarily due to different access to different types of energy sources [3]. V. Yevtushenko and others (2023) note that for Ukraine in the process of developing global transport and logistics routes there is a large transit potential, which is reflected in the prospects for the development of the logistics services market in Ukraine [4].

However, according to O. Kalchenko and A. Belorus (2021), there are a number of problems in the development of the transport sector in Ukraine, in particular infrastructure problems, which arise both due to the obsolescence of material assets and the lack of high-quality channels for the circulation of significant amounts of information, which are necessary for high-quality information support when making strategic decisions on the development of transport infrastructure, especially as a component of economic security [5]. V. O. Kopylova and Y. V. Pichugina (2024) provided interesting proposals for the use of cooperation between different types of transport, which should contribute to the qualitative improvement of transport and logistics systems operating in Ukraine, including taking into account the characteristics of maritime transport [6].

To improve the quality of use of Ukraine's transit potential, T. Bernevek and V. Prokhorov (2024) propose to expand the degree of integration of Ukraine's maritime transport system into global transport networks, however, the authors do not focus on the components of strategic management of transport infrastructure development as a whole, which does not fully reflect the possibilities of using maritime transport infrastructure in the process of improving Ukraine's economic security [7]. D.M.

Zagirnyak et al. (2021) focus on ways to ensure the competitiveness of transport services, but do not take into account some features of strategic management of transport infrastructure development [8]. V. Stepanenko and Y. Shtyk (2022) when studying the areas of increasing the competitiveness of Ukraine's maritime transport infrastructure also do not take into account the features of strategic management of the complex development of various components of transport infrastructure, as a result of which Ukraine's economic security may be limited [9].

Considering various components of building strategic management models in the process of forming a sustainable development system by various components of transport infrastructure, different researchers offer different concepts of this management. V. Koval et al. (2023) offer ways to manage an integrated model of innovations in maritime transport [10].

M. Penev et al. (2024) consider multimodality as an integral part of the modern system of transport provision for consumers, therefore emphasize the need for timely adaptation of infrastructure components to the provision of services in the process of multimodal transportation [11]. Y. Klyus et al. (2023) propose to apply various analytical approaches to the choice of directions of strategic management of innovative development of enterprises in the region, including transport, which makes it possible to form a unified approach to measures aimed at increasing the economic security of Ukraine [12]. These separate components need to be generalized in order to create effective recommendations for improving the system of strategic management of transport infrastructure development as a component of Ukraine's economic security, since there are certain threats that are reflected by L. Zaborsky and D. Shaposhnykov (2024) in the process of studying the security of transport provision of Ukrainian grain exports [13].

In addition to purely economic security issues, balanced strategic decisions are needed in the process of managing the development of transport infrastructure on an ecological basis, since, as noted by V. Koval et al. (2024), there are a number of problems with the development of environmentally dangerous and economically feasible solutions in the field of transport infrastructure development on the basis of the digital economy [14]. V. Koval et al. (2025) note that there are certain threats when imbalances arise in the development of various components of transport infrastructure [15].

Therefore, the process of optimizing the conditions for making balanced decisions in the course of implementing strategic management of transport infrastructure development is one of the important components of Ukraine's economic security. However, since the processes of forming the components of strategic management of sustainable development of maritime transport infrastructure are constantly improving, they require additional study.

Presentation of the main material.

Strategic management of the improvement of various infrastructure components is based on the principles of systematicity, complexity, priority, application of innovative solutions, sustainable development, partnership and coordination, economic feasibility, flexibility and adaptability, and territorial balance. Infrastructure improvement should be carried out in a comprehensive manner, which is of particular importance for the economic security of Ukraine. Infrastructure development measures should cover all levels, such as technical, organizational, institutional, and financial. The effectiveness of strategic management of sustainable development of maritime transport infrastructure is significantly affected by the formation of interaction between various participants in the processes of supporting measures to modernize infrastructure components. Figure 1 shows a general scheme of interaction between participants in the strategic management of sustainable development of maritime transport infrastructure.



Figure 1 – Scheme of interaction of participants in the strategic management of sustainable development of maritime transport infrastructure.

Source: summarized by the authors

Transport provision is of particular importance for the formation of a balanced system of general infrastructure renewal. Therefore, one of the priority tasks in the process of comprehensive infrastructure renewal is the renewal of transport infrastructure and modernization of the existing fleet of vehicles, which will allow for a systematic approach to strategic planning of the modernization of other components of economic infrastructure [16].

Ukraine has certain problems with comprehensive infrastructure renewal, which is characterized by significant volumes of

assets, the original cost of which is fully depreciated, namely, in 2019 this cost amounted to 1138.6 billion UAH., in 2020 - 1376.8 billion UAH., in 2021 - 879.4 billion UAH. Unfortunately, similar studies have not been published by the State Statistics Service of Ukraine for the periods before 2019 and after 2021. If we consider the original cost of non-current assets for which depreciation has been fully accrued, then for the period from 2019 to 2021, the average indicators of the composition of the original cost are shown in Figure 2.

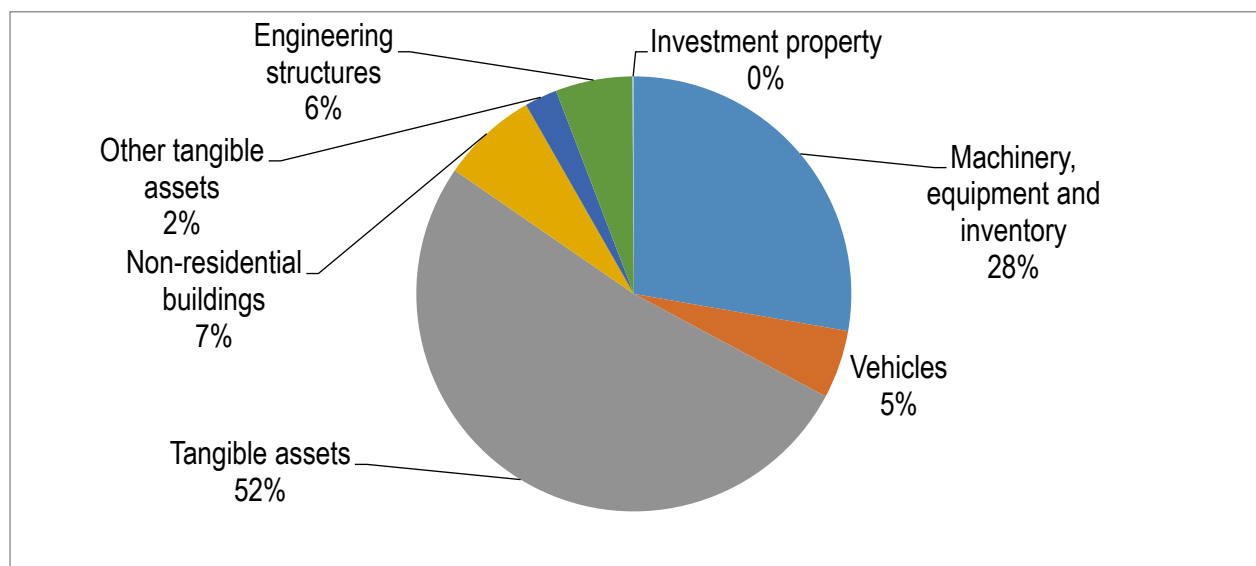


Figure 2. Structure of fully depreciated non-current assets, average figures for 2019-2021

Source: [17]

Significant volumes of obsolete non-current assets that do not meet the conditions for effectively ensuring the economic security of Ukraine create challenges for urgent solutions to infrastructure issues. According to the World Bank, in 2021, infrastructure projects worth 1.4 billion euros were implemented in Ukraine in the transport sector, with 7% of investments in innovative projects coming from the state budget, 8% from local budgets and loans, 3% from foreign investors, and 82% from private investors, which demonstrates the great interest of private business in improving transport infrastructure. However, during the full-scale

invasion, the transport infrastructure suffered significant damage. Most of the Ukrainian ports were affected by the strikes and were partially or indefinitely withdrawn from full round-the-clock support in a functional state. The main ports remain the ports of Greater Odessa, namely Odesa, Pivdennyi and Chornomorsk, which operate under increased risk and with damaged infrastructure. The total cost estimate for the reconstruction of critical port infrastructure is about 500 million euros according to estimates by independent experts. The cost of a complete modernization of the port infrastructure has not been determined, since information on

the strategic needs of the ports is not systematized. At the same time, significant investment projects for the entire port infrastructure are being implemented in the Black Sea region, especially in the Romanian port of Constanta, which diverts part of the cargo flow that was previously transported through the ports of Ukraine. Due to partial damage to berths and port cranes, a shortage of warehouses and capacities, weak logistical support, and increased operational risks, Ukraine is losing confidence in its international positions as a reliable transport partner, so there is an urgent need to improve transport infrastructure.

To streamline measures to update transport infrastructure and to determine the main measures for strategic management of transport infrastructure development as a component of Ukraine's economic security, in 2024 the Cabinet of Ministers of Ukraine adopted the National Transport Strategy of Ukraine until 2030. The main measures of the

Strategy are aimed at bringing the level of infrastructure support closer to European standards. General measures aimed at modernizing transport infrastructure for the high-quality functioning of water transport, including sea and river, consist of creating infrastructure capabilities for cargo handling, security, and integration with other modes of transport. It is also proposed to increase the institutional capacity of port management [18].

Despite the obsolescence of the infrastructure support of the transport system of Ukraine, in order to streamline the measures that will be implemented within the framework of strategic management of the development of transport infrastructure as a component of the economic security of Ukraine, the following organizational and economic measures aimed at increasing the efficiency of the use of maritime transport infrastructure are currently relevant (Table 1).

Table 1. Main organizational and economic measures to increase the efficiency of the use of maritime transport infrastructure

Direction	Main activities
Improving port management	Implementation of corporate governance principles
	Optimization of organizational structure
	Creation of a single digital port management center
	Implementation of the "single window" system
Economic and investment mechanisms	Development of public-private partnership models
	Attracting private investors
	Differentiation of tariffs and port dues
	Optimization of port capacity utilization
Technical and innovative modernization	Creation of free economic zones
	Automation of port processes
	Intelligent cargo flow management systems
	Reconstruction of berthing facilities
	Development of intermodal transport hubs
Logistics and marketing policy	Implementation of "green port" technologies
	Optimization of logistics routes
	Creating marketing strategies for ports
	Development of transport and logistics clusters
Personnel and institutional measures	Increasing the share of high-yield cargo
	Staff training
	Implementation of a staff motivation system
	Development of scientific and educational centers
	Harmonization of the legal framework with EU requirements

International cooperation and integration	Participation in international transport corridors
	Involvement of international financial institutions

Source: summarized by the authors

The listed organizational and economic measures will make it possible to take into account modern global trends in strategic management of maritime transport infrastructure development at the stage of forming the prerequisites for creating a high-quality environment for the development of transport infrastructure as a component of Ukraine's economic security.

Conclusions. Creating conditions for high-quality and timely strategic management of sustainable development of transport infrastructure is one of the main factors of Ukraine's economic security, since the quality of ensuring many processes in the state's vital activity system depends on the flexibility and adaptability of this management. This multi-component and multi-vector process has a large number of stakeholders, each of which ensures the effectiveness of the implementation of management decisions at its own level.

However, the overall effectiveness of sustainable development of transport infrastructure depends on the formation of the strategic management system itself, which should encourage those responsible for making management decisions to pay increased attention to each of the infrastructure elements.

A special role in the formation of domestic Ukrainian and global economic security systems is played by components of maritime transport infrastructure, which creates the necessary conditions for managing components of maritime transport infrastructure, since the quality of sustainable development of both individual elements and the industry as a whole depends on this. High-quality strategic management of sustainable development of transport infrastructure allows for the formation of an effective infrastructure environment, which is a necessary condition for ensuring economic security.

References

1. Dimitrova, T., Komandrovskaya, V., Marinov, M., & Taranenko, A. (2025). Strategic innovative management and sustainable development of industrial enterprises. *Economics Ecology Socium*, 9, 77–89. <https://doi.org/10.61954/2616-7107/2025.9.1-7>
2. Coşkun, A., & Erturgut, R. (2024). How do uncertainties affect supply-chain resilience? The moderating role of information sharing for sustainable supply-chain management. *Sustainability*, 16(1), 131. <https://doi.org/10.3390/su16010131>
3. Kyrlik, N. (2021). Global trends in the development of transport and logistics services. *Actual Problems of Economics*, 3(237), 53–59. <https://doi.org/10.32752/1993-6788-2021-1-237-53-59>
4. Yevtushenko, V., Shuba, T., Tsvyatko, L., & Popkova, D. (2023). The state and prospects of the development of the logistics services market in Ukraine. *Bulletin of Khmelnytskyi National University. Economic Sciences Series*, 316(2), 117–120. <https://doi.org/10.31891/2307-5740-2023-316-2-17>

5. Kalchenko, O., & Belorus, A. (2021). Modern problems of the development of Ukraine's transport sector. *Problems and Prospects of Economics and Management*, 99–107. [https://doi.org/10.25140/2411-5215-2021-2\(26\)-99-107](https://doi.org/10.25140/2411-5215-2021-2(26)-99-107)
6. Kopylova, V. O., & Pichugina, Yu. V. (2024). Problems and prospects of the development of transport and logistics systems of Ukraine. *Black Sea Economic Studies*, 92–97. <https://doi.org/10.32782/bses.86-15>
7. Bernevek, T., & Prokhorov, V. (2024). Integration of the maritime transport system of Ukraine into global transport networks. *Scientific Notes of V. I. Vernadsky TNU. Technical Sciences Series*, 35(74)(5), 68–72. <https://doi.org/10.32782/2663-5941/2024.5.2/12>
8. Zagirniak, D. M., Zalunina, O. M., & Chumakova, A. H. (2021). Ensuring the competitiveness of transport services. *Bulletin of Kremenichuk Mykhailo Ostrohradskyi National University*, 1(126), 17–21. <https://doi.org/10.30929/1995-0519.2021.1.17-21>
9. Stepanenko, V., & Shtyk, Yu. (2022). Directions for increasing the competitiveness of Ukraine's maritime transport infrastructure. *Scientific Notes of V. I. Vernadsky TNU. Economics and Management Series*, 33(72)(2), 14–21. <https://doi.org/10.32782/2523-4803/72-2-3>
10. Koval, V., Honcharova, I., & Lysenko, N. (2023). Management of an integrated model of innovation in maritime trade. *Philosophy, Economics and Law Review*, 80–87. <https://doi.org/10.31733/2786-491X-2023-2-80-87>
11. Penev, N., Shyriaieva, L., Legeza, D., Merkulov, M., & Honcharova, I. (2024). Marketing analysis of multimodal transportation dynamics in logistics infrastructure. *E3S Web of Conferences*, 558, Article 01030. <https://doi.org/10.1051/e3sconf/202455801030>
12. Klius, Yu., Sieriebriak, K., & Kerezvas, I. (2023). Selection of strategic management directions for innovative development of regional enterprises. *Digital Economy and Economic Security*, 5(05), 134–138. <https://doi.org/10.32782/dees.5-21>
13. Zaborskyi, L., & Shaposhnikov, D. (2024). Transport support for Ukrainian grain exports. *Scientific Notes of V. I. Vernadsky TNU. Economics and Management Series*.
14. Koval, V. V., Merkulov, M. M., Kravchenko, M. S., & Honcharova, I. M. (2024). Management system for the transformation of enterprise logistics activities based on the digital economy and environmental regulation. *Bulletin of the Eastern European University of Economics and Management*, 1(31), 220–234. [https://doi.org/10.58253/2078-1628-2024-1\(31\)-018](https://doi.org/10.58253/2078-1628-2024-1(31)-018)
15. Koval, V., Shmygol, N., Durovic, S., Pavicevic, D., & Honcharova, I. (2025). Analysis of innovative electromobility development and the advancement of eco-friendly transport infrastructure. *Sustainability*, 17(3), 1010. <https://doi.org/10.3390/su17031010>
16. World Bank Group. (2023). *Private sector opportunities for a green and resilient reconstruction in Ukraine*. World Bank.
17. State Statistics Service of Ukraine. (2025). *Statistical data explorer*. <https://stat.gov.ua/uk/explorer>
18. Cabinet of Ministers of Ukraine. (2024). *Resolution No. 1550 on the approval of the National Transport Strategy of Ukraine until 2030 and the operational plan for its implementation in 2025–2027*. <https://zakon.rada.gov.ua/laws/show/1550-2024-%D0%BF#Text>