

Prospects of the National Transport Strategy of Ukraine

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Abstract. The relevance of this study stems from the need to reassess the directions of Ukraine's transport system development in the context of military challenges, the restoration of damaged infrastructure, and deeper integration into the European transport area. Of particular importance is the formulation of an effective, sustainable and environmentally oriented transport policy capable of ensuring economic recovery and improving the quality of transport services. The aim of the study was to analyse the objectives of the National Transport Strategy of Ukraine up to 2030, assess the status of its implementation under current conditions, and justify the priority directions for the further development of the transport system, taking into account European standards and the principles of sustainable development. The study utilised methods of analysis and synthesis of scientific sources, comparative analysis of strategic and regulatory documents, as well as a systematic approach to assessing the state of transport infrastructure and the prospects for the development of electric transport. The information base comprised state programmes, scientific publications and analytical materials in the field of transport. The study analysed the key provisions of the National Transport Strategy of Ukraine up to 2030, in particular the directions for infrastructure modernisation, integration into the Trans-European Transport Network (TEN-T), the development of multimodal transport, and the introduction of environmentally friendly modes of transport. It has been established that the implementation of a significant portion of the measures is being hindered in part by financial constraints, institutional problems and the impact of military operations. The main challenges facing the development of public transport have been identified, including the ageing of the rolling stock, insufficient funding and the underdevelopment of the charging infrastructure for electric transport. Based on the analysis, promising directions for formulating an updated transport strategy have been substantiated, including the development of electric buses, the expansion of the charging station network, the introduction of intelligent transport systems, and increased state support for the modernisation of the transport fleet. The practical value of the results lies in their potential application in the development of national and regional transport infrastructure programmes, as well as in the formulation of an effective transport policy for Ukraine in the context of post-war reconstruction

Keywords: public transport; recovery of Ukraine; development strategy; transport issues; electric bus

Introduction

The development of Ukraine's transport system under current conditions is becoming critically important for ensuring economic stability, population mobility, and integration into the European transport space. Transformational processes in the sector are accompanied by the need for simultaneous infrastructure restoration, modernisation of public transport, and the introduction of environmentally safe technologies. Electric transport

plays a particularly important role in this context as a tool for improving energy efficiency and reducing negative environmental impact. An important direction is also the renewal of transport systems, which involves the digitalisation of management, increasing the efficiency of transport services, and integrating different modes of transport into a single functional network. Consequently, there is a need to rethink current strategic approaches and

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formulate an updated transport policy capable of ensuring the sector's sustainable development and the modernisation of transport systems.

Research into the implementation of the strategy reveals a number of systemic issues affecting both scientific and practical tasks: the modernisation of public transport, the development of charging infrastructure, and the optimisation of investments (Olishevskaya & Olishevskiy, 2022; Vnukova & Pozdnyakova, 2023; Markiv & Ryshkovets, 2024). One of the priority areas of modern transport policy is the development of electric transport and the reduction in the use of traditional fuels. The expansion of electric transport is seen as a key tool for reducing the negative impact of transport on the environment, improving energy efficiency and decreasing dependence on fossil fuels. At the same time, the development of electric transport requires comprehensive changes to the transport system, including infrastructure modernisation, the development of charging stations, improvements to the regulatory framework, and the attraction of investment. Contemporary challenges, both local ones facing Ukraine and global ones, demand rapid adaptation by the country and a comprehensive resolution of transport issues. Issues such as climate change, rising fuel prices, the obligation to comply with international agreements on reducing greenhouse gas emissions, and the introduction of environmentally friendly transport technologies. Resolution of the Cabinet of Ministers of Ukraine No. 430 (2018) was aimed at creating a foundation for addressing key challenges. However, these are compounded by contemporary unforeseen challenges – an increase in the number of passengers entitled to concessions and disabled passengers, insufficient modernisation and maintenance of public transport, and a funding shortfall in the passenger transport sector.

In contemporary research, the development of the transport system is increasingly viewed not merely as a technical or organisational task, but as part of a broader transformation linked to the modernisation of outdated infrastructure, the greening of transport, energy efficiency and alignment with European standards. It is precisely this approach that best aligns with the focus of this study, which analyses not a single element of transport policy, but the need for a comprehensive review of the current transport development strategy in Ukraine. N. Ivanenko (2023) examined the introduction of electric transport in relation to the operation of Ukraine's integrated power system and argues that the development of electric transport must be planned with due regard to energy loads, charging regimes and grid stability. As a result, electric transport emerges not merely as an environmentally friendly alternative, but as an element of a new transport-energy model. This position aligns with the findings of a study in which the modernisation of the transport system is viewed as a combination of infrastructural, technological and energy solutions.

B. Verbrugge *et al.* (2022), N. Brinkel *et al.* (2023) and P. Jarvis *et al.* (2024) investigated various aspects

of electric bus operations: charging strategies, energy consumption forecasting, timetable optimisation, and the coordination of transport solutions with energy infrastructure. Taken together, these works demonstrate that the modernisation of the transport system can no longer be limited to simply replacing the rolling stock. Standardised approaches to charging infrastructure, precise route planning, digital monitoring and the integration of transport with energy systems are required, as noted by R. Lacombe *et al.* (2024) and N. Kulbashna *et al.* (2025a). This directly echoes research emphasising the need to move from piecemeal modernisation to a comprehensive transport renewal strategy. Y. Khodova (2020) and M. Mytko *et al.* (2025) further demonstrated that improving the efficiency of urban transport is possible through a combination of various technological solutions, in particular overhead contact lines and autonomous driving. At the same time, materials on the environmental and economic benefits of electric transport for Ukrainian communities emphasise that the key focus of modernisation should be on reducing emissions, energy efficiency and compliance with environmental requirements, which is particularly important in the context of the European direction of transport policy development. In conclusion, the analysed works confirm that the renewal of outdated infrastructure, the development of electric transport, the greening of transport, and alignment with European standards should be viewed as interrelated components of a new transport strategy for Ukraine.

The results of the analysis of scientific works indicate that contemporary research focuses on interrelated issues in the development of the transport sector: the modernisation of outdated infrastructure, the expansion of the charging network, the improvement of energy efficiency, the reduction of environmental impact, and the alignment of the transport system with European norms and standards. At the same time, in most of the works examined, these issues are addressed primarily in separate areas, without integrating them within a holistic strategic approach. This suggests that the further development of the transport system in Ukraine requires the formulation of a new transport strategy, in which these issues must be addressed comprehensively, taking into account contemporary infrastructural, environmental, economic and technological challenges. The aim of this study was to analyse the current problems in the development of the transport system of Ukraine and to identify promising directions for the formulation of a new transport strategy, taking into account contemporary economic, environmental and technological challenges. The study had the following objectives: to analyse the initial goals of the current strategy and the status of its implementation by 2025; formulating tasks for a new transport strategy; to draw the attention of researchers to transport issues and to encourage the development of academic work that addresses transport-related issues in economic, environmental, socio-political and other spheres.



🌐 Materials and Methods

The study employed a combination of analytical, comparative and descriptive-predictive methods, which made it possible to examine Ukraine's National Transport Strategy not merely as a regulatory document, but as a comprehensive system of interrelated objectives, instruments and outcomes implemented within specific economic, infrastructural and institutional contexts. The methodological framework comprised the analysis and synthesis of academic sources, a comparative analysis of strategic documents, a content analysis of regulatory and legal acts, as well as a systematic approach to assessing the state and development of transport infrastructure. The information base for the study was formed on the basis of specific official and academic sources. First and foremost, Resolution of the Cabinet of Ministers of Ukraine No. 430 (2018) was analysed, the action plan for its implementation, approved in 2021, as well as the updated version of the strategy, adopted at the end of 2024 together with the operational plan for 2025-2027 (Resolution of the Cabinet of Ministers of Ukraine No. 1550, 2024). This made it possible to compare the initial strategic guidelines with the current conditions of the transport system's operation and to identify changes in state policy priorities in accordance with the approved resolution. In addition, statistical data from Ukraine's state statistical bodies were utilised, covering indicators of transport network development, passenger transport volumes and passenger turnover, as well as data on the operation of urban electric transport. Furthermore, analytical materials from relevant state bodies were taken into account, reflecting the state of road infrastructure, the scale of its restoration and modernisation, as well as the dynamics of electric transport implementation and the development of charging infrastructure. The use of these sources made it possible to track changes in the functioning of the transport system and to compare the regulatory targets with statistically recorded results, as confirmed by statistical data (State Statistics Service of Ukraine, n.d.).

The implementation of the Strategy was assessed using a system of qualitative and quantitative criteria. Qualitative criteria included the alignment of strategic objectives with current challenges in the transport sector, the level of alignment with European development trends, and the presence of mechanisms for digitalisation, decarbonisation, inclusivity and integration into the TEN-T. Quantitative criteria were formulated on the basis of statistical indicators characterising the pace of restoration and modernisation of transport infrastructure, trends in passenger transport and passenger turnover, changes in the use of urban electric transport, the scale of public transport renewal, in particular the electric bus segment, the development of charging infrastructure, as well as the promotion of integration processes towards TEN-T.

Conceptual modelling was used to construct a generalised logical framework for updating the transport strategy. Within this framework, the following components are sequentially linked: "challenges", "strategic

objectives", "implementation tools", "coordinating bodies" and "expected outcomes". The "challenges" block includes the consequences of hostilities, financial constraints, the need for European integration, environmental requirements and the technological limitations of the existing infrastructure. Implementation tools included regulatory updates, funding mechanisms, the development of charging infrastructure, the standardisation of technical requirements for electric buses and the introduction of monitoring systems. A separate component of the model was the coordination unit in the form of an inter-agency mechanism, which assesses the readiness of cities and routes for the introduction of electric transport, analyses infrastructure provision, and monitors the effectiveness of investments. This enabled the formation of a comprehensive understanding of the interrelationship between strategic objectives, the instruments for their implementation, and the expected outcomes of transport system development.

This study employed a range of scientific analysis methods, enabling a systematic assessment of the current state and development prospects of Ukraine's transport system. The main methods included the analysis and synthesis of scientific sources, a comparative analysis of strategic documents, a systematic approach to assessing transport infrastructure, and content analysis of regulatory acts and state programmes in the fields of transport and ecology. In addition, elements of forecasting and conceptual modelling were used to assess potential scenarios for the development of the National Transport Strategy and the integration of electric transport into urban and inter-city transport. The subject of the analysis was Resolution of the Cabinet of Ministers of Ukraine No. 430 (2018), the status of its implementation, current issues in public transport and electric transport, charging station infrastructure, financial support for the sector, as well as issues of inclusivity and modernisation of public transport. In addition, practical and scientific developments by Ukrainian and foreign researchers in the field of electric transport and the sustainable development of transport systems were examined.

The research database included official statistics from the Ministry of Infrastructure of Ukraine and the State Statistics Service, regulatory and legal acts and state programmes, as well as contemporary scientific sources, conference materials and academic publications. To assess the infrastructural and technological aspects of electric transport development, the results of research by Lviv Polytechnic National University on optimising the placement of charging stations using Big Data were utilised, as confirmed in the relevant studies by O. Markiv & Y. Ryskhovets (2024) and in the regulatory document Resolution of the Cabinet of Ministers of Ukraine No. 430 (2018). During the study, forecasting techniques were applied to assess the economic efficiency of electric transport implementation, identify optimal infrastructure development models, and develop scenarios for integrating the latest technologies into the national transport system. Conceptual

modelling enabled the assessment of various pathways for implementing the future transport strategy, taking into account the economic, environmental and social challenges facing Ukraine.

The study's timeframe covered the period 2018-2025, which allowed for the consideration of current trends in the transport sector, changes in financial and regulatory frameworks, as well as the impact of war damage on transport infrastructure. The combination of these methods and the use of a comprehensive information base ensured the scientific reliability and practical value of the study's findings and enabled the identification of promising directions for the development of the national transport system.

Results and Discussion

Resolution of the Cabinet of Ministers of Ukraine No. 430 (2018) sets out the country's plan to modernise transport infrastructure, improve safety, ensure environmental sustainability, integrate transport systems, attract investment and implement regulatory reforms. The strategy's objectives were to develop multimodal transport and integrate into the Trans-European Transport Network (TEN-T) by establishing logistics centres and reforming and upgrading transport infrastructure to improve international transport, aligning legislation with EU standards, digitising processes, introducing new environmental standards, encouraging the use of public transport, and increasing the proportion of electric transport. Electric transport, particularly electric buses, is one of the key elements of the decarbonisation strategy, which will help reduce the impact of fossil fuels and improve the environmental situation. In its efforts to integrate into the transport system, Ukraine has developed Resolution of the Cabinet of Ministers of Ukraine No. 430 (2018), which aims to modernise infrastructure and develop environmentally friendly modes of transport. The strategy's plans focus on the development of transport infrastructure, with particular attention paid to the development of international transport routes that will ensure integration with the EU transport system, as well as a gradual transition to European standards in the manufacture and operation of electric transport (NULES, 2019; INSAT, 2021).

Key objectives in the road transport sector: improving safety, reducing harmful emissions from internal combustion engines, increasing the proportion of electric vehicles, modernising outdated public transport, improving the quality of public transport services, and preparing for a gradual increase in fares to bring them into line with EU levels (EBRD, n.d.). The results obtained are consistent with current research on the development of electric transport and the introduction of electric buses into urban transport systems. Many authors note that the electrification of transport is one of the key areas for improving the environmental sustainability of the urban environment and reducing the negative impact of transport on the environment. In particular, the work by O. Shostal (2025) examines the trends in Ukrainian

cities' transition to the use of electric buses and the gradual reduction in the number of route taxis. The author notes that active procurement of electric buses could lead to a significant transformation of the urban transport structure as early as 2030. The results obtained in this study generally confirm these conclusions, as they also indicate the potential for the introduction of electric transport within the context of the development of modern transport infrastructure. At the same time, the study focuses more on the general environmental and energy aspects of such transport's operation.

Similar conclusions regarding the positive impact of electric vehicles on the environment are presented in the study by N. Vnukova & O. Pozdnyakova (2023), which emphasises the importance of transitioning to environmentally friendly modes of transport to reduce emissions of harmful substances. The study also notes the environmental benefits of developing electric transport, but additionally emphasises the need for a comprehensive approach to introducing such technologies into the urban environment. The prospects for the development of electric mobility in Ukraine are also examined by L. Nikiforova & R. Lukian (2019), who note that the spread of electric transport depends on infrastructure development, state support and the economic viability of using such vehicles. Similar aspects are highlighted in the study, which emphasises the importance of creating the right conditions for the effective operation of electric transport. The studies by S. Würtz *et al.* (2024) and O. Markiv & Y. Ryshkovets (2024) are devoted to analysing the electric transport infrastructure in Ukraine. The authors draw attention to the need to develop a network of charging stations and improve transport infrastructure to ensure the stable operation of electric transport. The results obtained also confirm the importance of these factors, as the effective operation of electric buses depends to a large extent on the availability of charging infrastructure and the proper organisation of the transport system.

A separate area of research concerns the optimisation of electric bus charging processes and the improvement of their energy efficiency. In particular, L. Caustur *et al.* (2025) examine the issue of planning electric bus charging schedules, taking into account the use of renewable energy sources. Similar issues are also investigated in the work of N. Kulbashna *et al.* (2025b), where the authors analyse the energy aspects of charging schedule formulation and propose approaches to improving the energy efficiency of transport systems. In this study, these issues are examined in a more generalised manner; however, the results obtained confirm the relevance of rational planning of electric bus energy consumption. Furthermore, the study by N. Kulbashna *et al.* (2025b), dedicated to improving the energy efficiency of electric buses using modern photovoltaic technologies, highlights the potential for utilising alternative energy sources to reduce electricity consumption and enhance the efficiency of transport systems. The results are also consistent with these approaches, as they confirm the feasibility of using innovative technologies to

improve the efficiency of electric transport. Thus, a comparative analysis shows that the study's findings are generally consistent with international trends: the effective development of electric transport requires the integration of route planning, energy management and financial support mechanisms. At the same time, the Ukrainian context is characterised by a high level of underfunding of public transport and the need for state incentives, which makes the introduction of electric buses a more complex task than in countries with developed transport infrastructure.

An analysis of electric transport infrastructure in Ukraine by O. Markiv & Y. Ryshkovets (2024) demonstrates the effectiveness of modelling the placement of charging stations and their integration into urban transport and energy systems, confirming the validity of conclusions regarding the need for strategic planning of charging infrastructure development. In their work, L. Zhang *et al.* (2025) emphasise the economic rationale for a gradual increase in the number of electric vehicles in Ukraine and highlight the main stages of electric transport implementation, which partly echoes the findings, particularly regarding the planning of the transition from conventional to electric transport, taking into account financial and organisational aspects.

An important part of the environmental sustainability strategy is the integration of renewable energy sources, such as solar and wind power, into the process of generating electricity for the needs of electric transport. This approach ensures a full cycle of environmental efficiency, reducing dependence on fossil fuels and cutting CO₂ emissions not only during transport operation but also in the production of energy for it. The development of infrastructure for electric transport is a key element of the strategy. Plans were in place to install charging stations across the country, particularly in major cities and along major motorways. It was projected that the share of electric vehicles in the total fleet would increase to 5% and that up to 30% of the urban public transport fleet in major cities would be replaced by modern electric transport, through the expansion of trolleybus networks and the creation of new routes (Resolution of the Cabinet of Ministers of Ukraine No. 430, 2018).

The strategy envisages the development of multi-modal transport, which will ensure cooperation between different modes of transport (road, rail, water and air). Plans were in place to establish logistics centres to ensure the smooth movement of goods and passengers between EU countries and other neighbours. Integration with the Trans-European Transport Network (TEN-T) is a key priority for improving international transport. To implement the strategy, the plan was to attract foreign investment in transport infrastructure through public-private partnerships and optimise the use of public funds. Securing international grants and loans is a vital element of project financing. Regulatory reforms include aligning Ukrainian legislation with EU standards, simplifying procedures for businesses, and improving the efficiency of public administration in the transport sector. Plans were made to

digitise processes and introduce new standards for safety and the environment. To encourage the use of electric transport, the plan provides for the introduction of tax incentives and subsidies for electric vehicle users, the adoption of European standards for the production and use of electric transport, and regular monitoring of compliance with environmental standards.

Subsidising public transport in Ukraine is a pressing issue in both large and small towns and villages, where the problem of air pollution is far from being the main concern. In towns with a population of no more than 70,000, there remain issues regarding the modernisation of public transport (where public transport services are usually provided by private operators). In other words, around 80% of towns have the potential to develop their transport systems, particularly public transport, but due to chronic underfunding, the age of the vehicles is unsatisfactory and they require replacement (Palant *et al.*, 2023; Pryimak, 2024). At the same time, the criteria for replacing vehicles are low purchase cost, fuel economy, maintainability and durability. If the Ukrainian market for electric buses can be developed, with vehicles made affordable for city budgets through subsidies and state loans, then the construction of component factories and electric bus production could reach a new level in Ukraine. All this meets the needs of cities: an electric bus means electricity, and therefore fuel savings, durability and reliability, as electric motors and batteries have a much longer service life. With state interest and subsidies for the purchase of Ukrainian electric buses, the cost of vehicles could be significantly reduced, which would help to renew the fleet and assist private operators in smaller towns.

In the coming years, the number of alternatives for key electric transport components will increase, which will lower the price of the end product. Another issue is the development of infrastructure for electric transport, its universality and standardisation, particularly as regards public transport. The speed of decision-making after the war ends must be taken into account, as the priority tasks will be the restoration of road infrastructure and the rehabilitation of public transport companies (PTCs). It is necessary to introduce standardisation of processes, which will help avoid waste; for example, the restoration of public transport will be more effective if it is brought into line with EU standards from the outset. Such an approach can contribute to the efficient use of resources and ensure the long-term sustainability of the transport system.

To regulate and monitor the expansion of electric transport, the future development strategy must include the establishment of a commission capable of providing support for the integration of public electric transport in urban areas. It will help analyse the increase in the number of electric vehicles, the population size, route lengths, the number of regular public transport users, the complexity of transport routes, the cost of electricity in the region, and calculate the prospects for transport development in this city, payback periods, etc. It should ensure coordination and facilitate development, taking into account the

technical, financial and infrastructural aspects of monitoring for each route or PTCs as a whole. The commission should assess the need to introduce electric buses for each specific city, which will allow for the rational and effective planning of fleet renewal, following the example of EBRD commissions (n.d.). The commission must ensure: the standardisation of technical requirements for electric buses, including specifications regarding maximum range, charging time, energy efficiency and safety; financial support, which will analyse opportunities to attract additional funds for the renewal of the city's transport fleet; verification of the readiness of the charging infrastructure, including the installation of charging stations on routes, at car parks and other locations; monitoring and evaluation of the introduction of electric transport in cities, analysing effectiveness and making the necessary adjustments to optimise the process.

Strategy targets have been met. Ukraine's National Transport Strategy for the period up to 2030 was launched in 2018, and significant progress has been made since then. One of the main achievements has been the modernisation of transport infrastructure, which has included the construction and reconstruction of roads, bridges and railways. The President of Ukraine's "Great Construction" initiative has played a key role in these achievements. Since 2018, over 10,000 km of roads have been repaired, including motorways and regional roads. Over 560 bridges have also been repaired, as stated in the materials from the plenary session (Verkhovna Rada of Ukraine, 2021). In the context of electric transport, Kyiv and other major cities have taken significant steps towards the introduction of electric buses. Around 50 new electric buses were introduced in Kyiv, and the total number across the country reached 200. Over 10,000 charging stations for electric vehicles were installed, which contributed to the growth in demand for electric transport among the population. As a result, according to expert estimates, 35-40% of the strategy was implemented during the 2018-2022 period.

Assessment of uncompleted projects. The National Transport Strategy envisaged the further expansion and modernisation of transport infrastructure by 2030. However, it can be accurately concluded that the plans concerning the expansion of electric transport routes, safety measures, and the reconstruction of the urban road network (provision of charging stations, improved road markings, widening of roads in problem areas, etc.) could not be fully implemented. As of 2025, work on projects for which funding had already been allocated up to 2022 but which had not yet been completed is continuing. The pace of completion of such projects has slowed. Those projects for which funding was planned have been frozen or cancelled (those 90% complete remain unfinished) and may not be completed by the end of hostilities. Since 2022, the condition of the infrastructure has deteriorated; parts of the road surface used by military vehicles once again require assessment and repair. The infrastructure situation in the south and east of the country is critical in certain areas.

The war in Ukraine has significantly impacted the ability to fully implement the National Transport Strategy up to 2030. Many infrastructure facilities have been damaged or destroyed as a result of military operations, complicating the process of restoration and modernisation. Despite these challenges, Ukraine continues to work on implementing the strategy. Given the circumstances, around 30% of the planned measures have been implemented by 2025, which is a significant achievement in wartime conditions. However, full implementation of the strategy by 2030 appears unlikely (Resolution of the Cabinet of Ministers of Ukraine No. 430, 2018).

The analysis conducted indicates that the current transport development strategy no longer fully corresponds to the current conditions of the sector's operation. Large-scale changes resulting from hostilities have necessitated a thorough investigation of the state of transport infrastructure, an assessment of existing losses, and the identification of priority areas for its restoration. In this regard, particular importance is attached to the systematisation of statistical data, the clarification of strategic objectives, the formulation of relevant tasks, and the development of comprehensive plans for the development of the transport system. Further strategic planning must be based on a clear breakdown of general directions into specific practical measures, which will ensure a more informed formulation of a new transport development strategy. At this stage, Ukraine is facing numerous problems arising from the war. Large-scale damage to infrastructure, roads, bridges and other transport network facilities requires urgent restoration. Current conditions demand that the strategy be adapted to the new realities. The new transport development strategy must take these challenges into account and adapt to changing conditions.

An important part of the new strategy should be the incorporation of European standards and legislative requirements. This includes the introduction of environmentally friendly technologies and approaches to road construction and maintenance, the specifications of charging stations, and electric transport itself (including its end-of-life management). The development of electric transport will reduce dependence on diesel fuel and enhance the environmental sustainability of the transport system. Additional incentives are needed for citizens and businesses to switch to electric transport. Subsidies, reduced taxes on the import of spare parts and the charging of electric vehicles, as well as the development of charging station infrastructure, must be key elements of the new strategy.

Battery technologies used in electric transport also overlap with modern unmanned aerial vehicles (UAVs). Ukraine has significant potential for technological development, particularly in the field of UAV components, which have seen rapid development since 2022. Unmanned technologies themselves can be integrated into electric transport, which will enhance its efficiency, cost-effectiveness and safety. The production of sensors, gyroscopes, GPS systems, lidars, cameras and other

components for electric vehicles could be a logical next step in the industry's development. There remains significant potential for investment in Ukraine's industry. Given that the development of innovative technologies has slowed considerably due to the crisis in the region, Ukraine is capable of establishing a leading position in the production of affordable electric buses on the market, meeting both domestic and external demand. Its unique location at the heart of Europe and its aspiration to join the EU will serve as a major incentive for partnership with many countries.

Effective investment management and cooperation with international partners will help Ukraine restore and develop its transport system. Ukraine also possesses significant reserves of lithium, a strategic resource that is key to battery production. The development of the metallurgical industry and the production of lithium-ion batteries could become a key element of the strategy, providing the country with the necessary materials for the production of electric transport. All of this is prompting the Ukrainian government to choose the most promising market for the coming years – the development of electric transport, which will make it possible to: increase Ukraine's energy independence from fuel prices; promote the export of technologies and components for electric transport, thereby boosting the country's economic potential; expand the use of electric transport; modernise standards and accelerate European integration; improve the outdated transport system; and develop the industrial sector, creating new jobs in the production and maintenance of electric transport.

Conclusions

The study involved a comprehensive analysis of the provisions of the National Transport Strategy of Ukraine up to 2030, which was approved by the government in 2018. The assessment revealed that certain provisions of this strategic document have become partially outdated due to changes in the economic, social and infrastructural conditions affecting the development of the country's transport system. Current challenges related to economic instability, war-related damage to infrastructure, rising energy costs and the need to fulfil international environmental commitments have significantly impacted the feasibility of achieving certain objectives of the strategy. Consequently, it has been established that even under favourable conditions, the full implementation of the envisaged measures by 2030 is unlikely; thus, this document should be regarded primarily as a general guideline for the further development of the

transport sector. In the process of analysing the strategy's initial objectives and the status of their implementation, a number of pressing issues regarding the development of public transport in Ukraine were identified. Among the main challenges are the high cost of implementing modern transport technologies, the insufficient level of infrastructure development to support electric transport – in particular, charging stations for electric buses – as well as financial difficulties in the area of passenger transport subsidies. A separate issue remains ensuring the accessibility of public transport for people with reduced mobility, which requires a comprehensive approach to the modernisation of vehicles and transport infrastructure.

Prospects for further research in this area involve studying modern technological solutions that could help improve the effectiveness of implementing Ukraine's future transport strategy. In particular, research aimed at reducing the production costs of public electric transport, improving its energy efficiency and operational reliability is of particular relevance. Another important area is the development of approaches to standardisation and the optimal placement of charging infrastructure, which will ensure the effective integration of electric transport into the transport systems of Ukraine's cities and regions. The implementation of such research could form the basis for the development of an updated national transport policy and contribute to the sustainable development of the transport sector. The prospect for further development lies in researching modern technologies that will help accelerate the implementation of the future strategy. Specifically, this involves reducing the cost of manufacturing public electric transport, making it more economical and efficient, and enabling the standardisation of charging stations for electric transport.

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Перспективи Національної транспортної стратегії України

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🌐 **Анотація.** Актуальність дослідження зумовлена необхідністю переоцінки напрямів розвитку транспортної системи України в умовах воєнних викликів, відновлення пошкодженої інфраструктури та поглиблення інтеграції до європейського транспортного простору. Особливого значення набуває формування ефективної, стійкої та екологічно орієнтованої транспортної політики, здатної забезпечити відновлення економіки та підвищення якості транспортного обслуговування. Метою роботи був аналіз цілей Національної транспортної стратегії України до 2030 року, оцінка стану її реалізації в сучасних умовах та обґрунтування пріоритетних напрямів подальшого розвитку транспортної системи з урахуванням європейських стандартів і принципів сталого розвитку. У дослідженні використано методи аналізу та узагальнення наукових джерел, порівняльного аналізу стратегічних і нормативних документів, а також системний підхід до оцінювання стану транспортної інфраструктури та перспектив розвитку електротранспорту. Інформаційну базу становили державні програми, наукові публікації та аналітичні матеріали у сфері транспорту. В роботі проаналізовано ключові положення Національної транспортної стратегії України до 2030 року, зокрема напрями модернізації інфраструктури, інтеграції до транс'європейської транспортної мережі (TEN-T), розвитку мультимодальних перевезень та впровадження екологічно чистих видів транспорту. Встановлено, що реалізація значної частини заходів відбувається частково через фінансові обмеження, інституційні проблеми та вплив воєнних дій. Виявлено основні проблеми розвитку громадського транспорту, зокрема зношеність рухомого складу, недостатній рівень фінансування та нерозвиненість зарядної інфраструктури для електротранспорту. На основі проведеного аналізу обґрунтовано перспективні напрями формування оновленої транспортної стратегії, серед яких розвиток електробусів, розширення мережі зарядних станцій, впровадження інтелектуальних транспортних систем та посилення державної підтримки модернізації транспортного парку. Практична цінність отриманих результатів полягає в можливості їх використання при розробленні державних і регіональних програм розвитку транспортної інфраструктури, а також при формуванні ефективної транспортної політики України в умовах післявоєнного відновлення.

🌐 **Ключові слова:** громадський транспорт; відновлення України; стратегія розвитку; проблеми транспорту; електробус