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REPORT
on R&D that was carried out within the framework of the
"EU Transport Policy" project of the Jean Monnet Module of the
Erasmus + direction from 2020 to 2023

1. The topic of scientific research:

**«PROBLEMS AND PRIORITIES OF ECONOMIC INTEGRATION OF
UKRAINE AND EU TRANSPORT SYSTEMS»**

2. Application number:

619652-EPP-1-2020-1-UA-EPPJMO-MODULE

3. The name of higher educational institution:

NATIONAL AVIATION UNIVERSITY

4. The project coordinator: Kyrylenko O.M., Doctor of Economics, professor

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5. The project team members:

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6. Scientists involved in the research:

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7. Relevance of the research:

The development and sustainable functioning of the country's transport system is a key element of the effective development of the national economy, its defense capability and security. This axiom once again received a clear and demonstrable confirmation after the start of large-scale military operations that unfolded on the territory of Ukraine as a result of Russian aggression. The effectiveness of the military repulse of the enemy and the economic stability of the country, especially in the first months of the war, directly depended on the ability of the transport system to carry out transportation in a timely manner in the appropriate volumes and terms. Numerous attacks on sea and air ports led to a complete blockade of aviation and a partial blockade of sea transport. The operation of land transport and its infrastructure has become much more complicated. Today, international cargo transportation in Ukraine is carried out mainly by land transport through checkpoints and control points on the state border of Ukraine with Moldova and EU countries. Further confrontation with the enemy

and the post-war reconstruction of Ukraine require scientists and practitioners working in the field of transport to develop new approaches to the functioning and development strategies of transport enterprises. They should simultaneously ensure the solution of two urgent tasks: firstly, the restoration and construction of the transport system on the basis of economic stability and national security, and secondly, adaptation to European transport strategies and standards as part of the processes of economic integration of Ukraine with the EU.

In view of the above, *the main goal of the research* was the development of theoretical, methodological and practical foundations for solving the problems of integration of the transport systems of Ukraine and the EU in the conditions of martial law, as well as directions for the implementation of European experience in the field of transport policy in the practice of Ukraine.

The subject of research: theoretical and practical provisions and recommendations regarding the development of transport integration between Ukraine and EU countries, the implementation of EU transport policy standards and values in Ukrainian practice.

The object of the research: processes of integration of transport systems of Ukraine and the EU.

8. Description of scientific research methodology:

To ensure the objectivity and practical orientation of the results, the research was conducted using the methodology of field research and conducting individual interviews with managers and owners of transport and logistics companies, representatives of local authorities and public organizations regarding the problems and prospects of the economic integration of the transport system of Ukraine and the EU. The use of this method made it possible to assess the real situation in the field of transport and logistics of Ukraine, to identify actual and objective problems, and to focus on the development of proposals and the search for effective strategic solutions for the development of economic integration of transport in the context of the implementation of the Association Agreement with the EU, as well as military actions on territory of Ukraine.

Stage number	Stage name according to defined task	The intended outcomes of stage	The obtained results of stage
1.	Analysis of the economic state of development of the transport system of Ukraine and the EU	<i>Publication of articles, sections of monographs, abstracts at scientific conferences</i>	<i>Articles: Sections in monographs: Abstracts of scientific reports:</i>
2.	Study of successful European transport system management practices	<i>Publication of articles, sections of monographs, abstracts at scientific conferences</i>	<i>Articles: Sections in monographs: Abstracts of scientific reports:</i>
3.	Study of optimal tools for implementing European transport standards in Ukraine	<i>Publication of articles, sections of monographs, abstracts at scientific conferences</i>	<i>Articles: Sections in monographs: Abstracts of scientific reports:</i>

4.	Identification and causal analysis of existing problems of transport integration of Ukraine and the EU	<i>Publication of articles, sections of monographs, abstracts at scientific conferences</i>	<i>Articles: Sections in monographs: Abstracts of scientific reports:</i>
5.	Forecasting promising directions of economic cooperation of transport and logistics enterprises of Ukraine and the EU	<i>Publication of articles, sections of monographs, abstracts at scientific conferences</i>	<i>Articles: Sections in monographs: Abstracts of scientific reports:</i>
6.	Development of proposals to eliminate barriers to economic integration of transport systems of Ukraine and the EU at the level of public authorities	<i>Publication of articles, sections of monographs, abstracts at scientific conferences</i>	<i>Articles: Sections in monographs: Abstracts of scientific reports:</i>

Content analysis of field studies was carried out using statistical analysis. The research also used such methods as: historical and systemic analysis, comparison (when studying European experience, analysis of EU program documents, etc.); cluster analysis (when forecasting and evaluating the determining factors of the integration of the transport system of Ukraine and the EU, calculating generalized integral indicators); methods of system analysis (when developing the concept of implementing EU experience in regulating transport and logistics systems into the practical activities of transport and logistics enterprises of Ukraine).

9. Scientific novelty and significance of the obtained scientific results:

Based on in-depth study of civil aviation management experience in EU countries and an analysis of the state of the aviation industry of Ukraine during the period of martial law, a conceptual approach to the restoration of civil aviation in the post-war period has been developed. The conceptual approach is based on structural modernization and full integration into the EU, its main priorities are the further modernization of regional airports in order to ensure the suitability of their infrastructure for servicing modern aircraft, based on the prospects of increasing demand for air transportation; the development of new technologies aimed at the transition to sustainable aviation fuels (SAF), the adoption of global market measures regarding carbon (CO₂) emissions within the framework of the System of compensation and reduction of CO₂ emissions for international aviation (the CORSIA program).

The authors have developed priorities for the restoration of civil aviation for the medium-term perspective: 1. carrying out an assessment of the state of damaged/destroyed property at aviation infrastructure facilities and making a decision regarding the expediency of its restoration, taking into account the general plans for the restoration of the vitality of the regions and plans for the development of transport connections by other modes of transport (high-speed railway, road, inland waterways); 2. modernization of regional airports and bringing their technical condition in line with modern ICAO standards in order to service new types of aircraft; 3. restoration of functioning of Ukrainian airports; 4. restoration

of the provision of air navigation services in the airspace of Ukraine; 5. creation of conditions to stimulate the recovery and development of air traffic.

Practical proposals have been developed regarding the directions and instruments of state support for the development of transport and logistics clusters of enterprises in the economy of Ukraine in general and in the transport industry, in particular, which are aimed at the development of the institutional environment, financial support mechanisms, cluster infrastructure and contribute to the formation of inter-industry cluster relations between companies that are the basis of generating breakthrough innovations and forming innovative value chains in the national economy.

10. Keywords that describe scientific (scientific and technical) novelty.

Civil aviation, European integration, transport and logistics clusters, sustainable development, postwar recovery.

11. Distinctive features and superiority of the results obtained over domestic or foreign developments.

The obtained research results contain practical recommendations regarding the directions and instruments of the state policy of Ukraine in the field of transport, the implementation of EU standards for the functioning of the domestic transport system, as well as practical developments for entrepreneurs regarding the appropriate directions of transport cooperation, algorithms for entering European markets, and the search for European partners, taking into account the conditions of war state and activation of European integration processes.

12. The practical value of the results.

An analytical review of the state and trends of the economic development of the transport industry of Ukraine and EU countries can be used by scientists, teachers, civil servants and entrepreneurs to identify key development trends that affect the functioning of modern transport and logistics companies, their ability to ensure sustainable growth, which will prevent the increase management efficiency at the state and business levels.

Generalization of the current state of implementation of the provisions of the Directives and Resolutions in force in the European Community into the legislative and regulatory acts of Ukraine in the field of civil aviation, as well as the definition of the main directions of the State Aviation Service, which contribute to the implementation of the European vector of integration and the development of practical proposals for the functioning of the Service in the conditions of the post-war period, it can be used by civil servants to improve public administration in the field of civil aviation.

On the basis of the experience of European countries in the creation and support of transport and logistics clusters, practical proposals have been formulated for the creation of favorable institutional conditions for the implementation of an effective state policy of managing the development of transport and logistics clusters in Ukraine.

12. Using of the results of work in the educational process

The obtained scientific results are used in the educational process when preparing new and improving existing lecture courses; performance of course and master's qualification works; preparation and defense of course and diploma theses; editions of training manuals.

New academic lecture courses:

- *EU transport policy (for the 3rd year of bachelors of the specialty "Management" of full-time and part-time education)*

Updated academic lecture courses:

- *Management of competitiveness of enterprises in the conditions of European integration (for the 1st year of masters of the specialty "Management" full-time and part-time education)*
- *European business (for the 2st year of masters of the specialty "Management" full-time and part-time education)*

14. Quantitative indicators and list of results of research work.

14.1. Quantitative indicators of results of research work:

	Indicators	Planned (according to the application)	Completed (based on research results)	% completion
		amount	amount	%
1.	Articles in publications indexed by scientometric databases Web of Science and/or Scopus	2	4	200%
2.	Articles in publications included in the list of scientific professional publications of Ukraine	2	5	250%
3.	Abstracts at scientific conferences	10	14	140%
4.	Publications in the materials of congresses, symposiums and science and practical conferences	1	1	100%

5.	Monographs published by decision of the Academic Council of higher educational institutions (scientific institution).	1	1	100%
6.	Textbooks, manuals published by decision of the Academic Council of higher educational institutions (scientific institution).	1	3	100%
7.	Organization of the International scientific and practical conference	1	1	100%
8.	Organization of the round-table discussion	1	1	100%
9.	Scientific training: Course and master's theses on the subject of scientific research are defended	5/8	5/8	100%

14.2. The list of results of research work:

1. Formulation and publication of 1 monograph by project participants and publication of two sections in a collective foreign monograph.

<https://ftml.nau.edu.ua/komandoyu-proektu-pidgotovleno-ta-vydano-kolektyvnu-monografiyu-problemy-ta-priorityty-ekonomichnoyi-integratsiyi-transportnyh-system-ukrayiny-ta-yes/>

2. Formulation and publication of 3 textbooks.

<https://ftml.nau.edu.ua/komandoyu-proektu-pidgotovleno-ta-vydano-navchalnyj-posibnyk-praktykum-transportna-polityka-yes/>

3. Publication of 4 articles in publications indexed by scientometric databases Web of Science and/or Scopus.

4. Publication of 5 articles in publications included in the list of scientific professional publications of Ukraine.

5. Publication of 1 article in an international publication.

6. Publication of 14 abstracts at international conferences.

7. Organization of the International scientific and practical conference "Modern Problems of Management" Section Management of Transport and Logistics in the Conditions of European Integration: October 28, 2022, Kyiv, NAU. <https://ftml.nau.edu.ua/hvii-mizhnarodna-naukovo-praktychna-konferentsiyi-suchasni-problemy-menedzhmentu-v-ramkah-roboty-modul-transportna-polityka-yes-programy-erasmus-zhan-mone/>

8. Organization of the round-table discussion "Strategies for the competitive development of transport and logistics enterprises of Ukraine in the context of the implementation of the Ukraine-EU Association Agreement and martial law" 18.05 2023. <https://ftml.nau.edu.ua/kruglyj-stil-strategiyi-onkurentospromozhnogo-rozvytku-transportno-logistychnyh-pidpryemstv-ukrayiny-v-umovah-implementatsiyi-ugody-pro-asotsiatsiyu-ukrayina-yes-ta-voyennogo-stanu/>

The implementation of the scientific project created the basis for additional economic, social and political effects, both at the national and international levels, as it helps to focus the efforts of scientists on the promotion of promising directions of transport integration of Ukraine and the EU.

Practical recommendations for entrepreneurs and representatives of local self-government, provided after the completion of the study, contribute to the

dissemination of new knowledge about the opportunities and tasks of the European integration process in the field of transport, reduce the risks of cooperation and contribute to the elimination of informational obstacles.

Dissemination of the results of research on the transport integration of Ukraine and the EU contributes to the formation of interest in further research of these problems among graduate students and scientists.

14.2.1. Bibliographic list

(based on research materials for the period of scientific research)

Monographs:

1. Problems and priorities of the economic integration of the transport systems of Ukraine and the EU: collective monograph/authors: Kyrylenko O., Zarubinska I., Grashchenko I., Lytvynenko L., Savchenko L., Semiryagina M., Ovsak O., Sadlovska I., Bugayko D., Novak V., Razumova K., Kovalenko Yu. - under general edited by Doctor of Economics, Prof. Palivody O. M. - K.: Condor, 2023. 279 p.

2. **O. Kyrylenko, I. Zarubinska, V. Novak, K. Razumova, E. Danilova. Features of the Development of the Transport System of Ukraine on the Way to European Integration.** Collective monograph. MODERN ASPECTS OF SCIENCE/. 10-th volume of the international collective monograph. 6. International Economics. Czech Republic . – 2021, 437p., P.205-215.

3. **K. Razumova, O. Kyrylenko, I. Zarubinska, V. Novak, A. Guryna. Ways of Realization of Ukraine's Transport System to the EU.** Collective monograph. Modern aspects of science/ 11-th volume of the international collective monograph. 6. International Economics. Czech Republic. – 2021, 437p., P.151-160.

Manuals:

1. Transport policy of the European Union and Ukraine: Study guide / O.M. Kyrylenko, V.O. Novak, K.M. Razumova, I.B. Zarubinska, T.L. Mostenska, O.A. Semin - K.: "Condor" Publishing House, 2021. - 57 p.

2. Transport policy of the EU: Tutorial for training. O. Kyrylenko, O. Palyvoda, K. Razumova, I. Zarubinska, V. Novak, L. Lytvynenko, I. Grashchenko - K.: Kondor Publishing House, 2021. - 183 p.

3. EU Transport Policy Strategies: Tutorial for training. L. Lytvynenko, V. Novak, O. Kyrylenko. Kyiv: Publishing House "Condor", 2021. 77 p.

Publications in publications indexed by scientometric databases Web of Science and/or Scopus

1. Danilova, E.I., Marchenko, V.M., **Novak, V.O., Palyvoda, O.M.**, Perederii, N.M. Methodological support of analytical procedures for managing economic security (On the example of an airline) INCAS Bulletin, 2021, 13(Special Issue), pp. 29–40. DOI: 10.13111/2066-8201.2021.13.S.4
2. Karpenko O., **Palyvoda O.**, Belianska Yu., Osypova Ye «Innovative approaches to the organization of business processes of transport enterprises in the conditions of European integration» in the journal Academic Review. 2022. № 2 (57) indexed by scientometric databases Web of Science
DOI: 10.32342/2074-5354-2022-2-57-10
3. **Lytvynenko L.**, Kalmanbetova G., Shevket O., Kara I., Gerlitz L., Popova Y. Prospects of using the urban railway for logistics support of urban areas. Transportation Research Procedia. 2022. Vol. 63. P. 1199-1204. <https://doi.org/10.1016/j.trpro.2022.06.125>
4. Voitsehovskiy V., Grygorak M., Lytvynenko S., Gabrielova T., **Lytvynenko L.** Designing integrated cargo delivery systems on logistics principles. Lecture Notes in Mechanical Engineering. Safety in Aviation and Space Technologies. 2022. Vol. 9. P.73-82.

Publications in publications included in the list of scientific professional publications of Ukraine

5. **Lytvynenko L.**, Overchuk A., Yesin M., Tselitan Y., Skalatskyi N. Exploring ways to increase profitability of airports after the pandemic considering EU and world practices. Effective economy. 2021. №11.
DOI: [10.32702/2307-2105-2021.11.85](https://doi.org/10.32702/2307-2105-2021.11.85)
6. **Razumova K.M., Novak V.O.**, Novalska N.I. Analysis of activities and ways of increasing the competitiveness of the transport enterprise "Ukrzaliznytsia" in the context of European integration. Scientific notes of the Tavri National University named after V.I. Vernadskyi. Series: Economics and management. Volume 32 (71). No. 4, 2021, 116 p., P.75-82.
DOI: <https://doi.org/10.32838/2523-4803/71-5-5>
7. **Kyrylenko O. M., Razumova K. M., Novak V. O.**, Ignatyuk V. V. Organization of international transportation of goods by the main modes of transport. Scientific journal Science-intensive technologies: No. 1(53), NAU, 2022 P.70-77. DOI: 10.18372/2310-5461.53.16510
8. **Kyrylenko O.M., Novak V.O., Razumova K.M.**, Lukyanenko M.O. Some aspects of the development of aviation transport of Ukraine in the post-war period. Economy. Finances. Right. – 2022. – No. 9. - P. 37-42. DOI: [https://doi.org/10.37634/efp.2022.9\(1\).8](https://doi.org/10.37634/efp.2022.9(1).8)
9. **Palyvoda O. M.** Strategies for the development of transport enterprises of Ukraine in the conditions of European integration and war. BUSINESS INFORMATION № 8_2023, p. 185-192.
DOI: <https://doi.org/10.32983/2222-4459-2023-8-185-192>

Publications of scientific articles in international publications:

10. Sushchenko R., Zapara Y., Saienko V., Kostyushko V., **Lytvynenko L.**, Pron S. Application of socially-oriented and legal innovative practices in the urban transport flow logistics and tourism. International Journal of Agricultural Extension. 2022. №10 (2). P. 39-47. DOI: 10.33687/ijae.010.00.3856

Publications in the materials of congresses, symposiums and science and practical conferences

1. **Kyrylenko O.M., Novak V.O., Razumova K.M.** Organizational and economic aspects of adaptation of transport enterprises to major circumstances. Ukrainian scientific-practical conference "Management and administration in the conditions of response to national security hybrid threats". December 7, 2020-K., DUIT, 2020.-375p., P.262-264.

2. **Mostenska T.L., Zarubinska I.B.** Prerequisites for the development of the aviation industry in the post-crisis period. Ukrainian scientific-practical conference "Management and administration in the conditions of response to national security hybrid threats". December 7, 2020-K., DUIT, 2020.-375p., P.99-101.

3. **Razumova K.M., Novak V.O., Kyrylenko O.M.** Current issues regarding overcoming the crisis situation of air carriers in the conditions of covid-19. Materials of the All-Ukrainian NPC "Management and administration in the conditions of countering hybrid threats to national security": December 7, 2020. - K. DUIT, 2020. - 375 p., pp. 155-157.

4. **Lytvynenko L.L., Lytvynenko S.L.** Sustainable competitive advantages and economic growth: the EU transport cluster approach. - The materials of the XVII International academic professional conference "Modern management problems": October 29, 2021. K.. 2021.-163. ., pp. 168-170.

5. **Kyrylenko O.M.** Ensuring state control in the field of civil aviation in Ukraine, as a prerequisite for the development of air transport.- The materials of the XVII International academic professional conference "Modern management problems": October 29, 2021. K.. 2021.-163. ., pp. 21-23.

6. **Razumova K.M., A. Stankiewich-Mroz., Ramazanova U.** Conceptual framework for regulating the development of Ukraine's seaport industry. The materials of the XVII International academic professional conference "Modern management problems": October 29, 2021. K., 2021.-145, p. 36-38.

7. **Novak V.O., Zarubinska I.B.**, The current state and prospects for the development of the international air transport market. Materials of the XVII International NPC "Contemporary problems of management": October 29, 2021 - K.NAU, 2021. - 145 p., pp. 74-76.

8. **Palyvoda O. M., Moklyak A.Yu.** Areas of support for the development of transport and logistics clusters in the countries of the European Union. Materials of the XVII International NPC "Contemporary problems of management": October 29, 2021 - K.NAU, 2021. - 145 p., pp. 115-117.

9. **Kyrylenko O.M.**, Tepnadze D.S. The main determinants of the European integration processes of the transport industry. Modern problems of management: materials of the KhVISH International scientific and practical conference. NAU, Kyiv, 2022. 229 P. 11-14.

10. **Lytvynenko Larysa** Smart logistics solutions for sustainable development in EU urban logistics. Modern problems of management: materials of the 18th International Scientific and Practical Conference. NAU, Kyiv, 2022. -229 pp. 16-19.

11. **Razumova K.M.**, Danilova E. I., **Novak V. O.** Competitive strategy aviation sector on the way to the EU. Modern problems of management: materials of the XVII International scientific and practical conference. NAU, Kyiv, 2022.-229 P. 33-35.

12. **Grashchenko I.S.** Problems of integration of transport policy of Ukraine in the EU. Modern problems of management: materials of the 18th International Scientific and Practical Conference. NAU, Kyiv, 2022.-229 P. 40-42.

13. **Palyvoda O. M.**, Kovalenko S.M. European experience of personnel management in organizations. Modern problems of management: materials of the 16th International Scientific and Practical Conference. NAU, Kyiv, 2022.-229 P. 48-50.

14. **Palyvoda O. M.** European practices of smart specialization in the field of transport. Modern problems of management: materials of the XVIII International Scientific and Practical Conference. NAU, Kyiv, 2022. -229 pp. 64-67.

15. The number of employees who participated in the scientific study is 13.

Project coordinator:



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NAU vice-rector for international affairs cooperation and education:



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