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INCREASING THE EFFICIENCY OF USING THE RAILWAY INFRASTRUCTURE UNDER MODERN CONDITIONS

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Transport is a crucial component of Ukraine's economy. The level of economic development of the country directly depends on the operation of the transport complex. The backbone of the transport complex consists of the infrastructure of railway, automotive, water, aviation, and pipeline transport. The development of railway infrastructure affects the state of the country's economy. Under wartime conditions, the transport infrastructure requires the development of measures aimed at increasing the efficiency of using railway infrastructure. This will ensure the possibility of integrating railway transport into the global transport network.

Integrating the railway infrastructure into the transport network of Central and Western Europe is of significant importance for Ukraine. Solving this issue will eliminate existing problems in organizing international transportation and increase the volume of international cargo flows. A limiting factor in the delivery of international cargo remains the infrastructure of border railway crossings.

Given this situation, the infrastructure of border railway stations located at the junction of 1520 mm and 1435 mm tracks of neighboring states requires further improvement. Improving the technology of border station operations will enhance the efficiency of the transportation process by reducing the time international freight wagons spend at the stations.

The aim of the study is to increase the efficiency of using the railway infrastructure of border stations involved in servicing international freight flows.

An analysis of the volumes of international freight transportation by rail in Ukraine and the main reasons for delays of wagons at border crossings showed:

- Low quality of transport services;
- Simultaneous use of the railway network for passenger and freight transportation;
- Difference between the track gauge of the Ukrainian railway network (1520 mm) and the European one (1435 mm);
- Lagging technical and technological condition of the infrastructure and rolling stock.

Modern approaches to overcoming the infrastructural constraints of Ukrainian railway transport were studied. It was determined that the railway infrastructure at the junctions of different track gauges needs modernization to

increase the volume of rail transportation of Ukrainian goods. This requires attracting external sources of funding for the modernization of domestic railway infrastructure and deepening cooperation with European partners to use Ukrainian rolling stock on the railways of EU countries.

A comprehensive approach to increasing the efficiency of using the railway infrastructure of border stations, considering the peculiarities of servicing international freight flows with different track gauges, has been proposed. The obtained results can be used to substantiate the feasibility of improving the technology of border station operations located at the junctions of different track gauges.

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IMPROVEMENT OF WAGON FLOW MANAGEMENT TECHNOLOGY IN THE RAILWAY NETWORK BASED ON THE USE OF INFORMATION TECHNOLOGIES

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The geographical location of Ukraine and the significant volume of cargo flows directed towards Europe create prerequisites for integrating Ukraine's transport network into the international transport system. The presence of a powerful transport system and railway infrastructure enables Ukrainian railways to participate in transportation along international transport corridors.

Ukraine's international transport corridors remain key freight corridors, even with a decrease in transit traffic volumes. The goal of their development is to increase the efficiency of foreign trade transportation by ensuring optimal conditions for the functioning of the transport system as a whole. For the successful integration of Ukrainian railways into the European Union, it is necessary to improve the technology for advancing international wagon flows.

Currently, due to the mismatch of technical and technological parameters of the railways of neighboring countries, international wagon flows are idle while waiting for certain operations to be performed. To improve the operation technology of railway transport, technological modernization of the transportation process management system is necessary.

The purpose of this study is to reduce the unproductive idle time of rolling stock during the advancement of wagon flows in international traffic through the application of intelligent technology elements.