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STRATEGIC TRANSFORMATION AND LOGISTIC CHALLENGES OF RAIL TRANSPORT IN UKRAINE

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Since 2024, rail transport in Ukraine has been experiencing one of the most difficult periods in its development. The sector is forced to simultaneously perform humanitarian and military-logistical functions, support exports, and compensate for the loss of maritime routes. The main operator of the system remains Ukrzaliznytsia, which has effectively become the country’s key transport artery.

A significant imbalance characterizes the company’s financial situation. In 2024, operating expenses reached UAH 107.2 billion, and in 2025, they increased to UAH 110 billion, with a projected rise to UAH 129 billion by 2027. The primary causes are rising energy prices and increasing labor costs. Specifically, the price of electricity for the railway has increased by more than 2.3 times since 2022, while fuel prices have risen by approximately 17%. An additional factor contributing to financial pressure is significant foreign-currency debt. As of 2025, it is estimated at approximately UAH 60.6 billion, 51% higher than in 2021, the pre-war year. The largest debt payments are expected in 2026, when the company must repay more than UAH 31 billion in Eurobonds. The situation is further complicated by a decline in freight volumes: while in 2021 they amounted to 306 million tons, by 2025 they are projected to reach only 160 million tons. This is due to the destruction of mining and metallurgical enterprises and of energy infrastructure [1].

Ukraine’s railway infrastructure is in a precarious technical state. According to experts, the average track wear is about 70%, and in industrial regions, it may reach 90% [2]. A similar situation is observed with rolling stock. Due to limited funding, most work is carried out as emergency repairs. Scheduled capital overhauls are performed much less frequently than required by regulations.

In response to these challenges, a railway development strategy for 2024-2027 has been established. It includes: the development of infrastructure with the European standard gauge of 1435 mm; modernization of the existing 1520 mm network; renewal of passenger and freight rolling stock; creation of a centralized traffic management system; technical modernization of the locomotive fleet; and the formation of a barrier-free environment at transport facilities.

An important direction is the integration of the Ukrainian railway into the Trans-European Transport Network (TEN-T), which will attract European Union funding for modernizing the system. One of the key infrastructure projects is the construction of a 1435 mm standard gauge track. The largest project of this kind is

the Mostyska II – Sknyliv (Lviv) section (approximately 78-80 km). The European Union has allocated more than €70 million for its implementation through the Connecting Europe Facility program [3].

The blockade of seaports forced Ukraine to change its logistics model. Rail has become the foundation of multimodal transport. Container transportation began to recover after a sharp decline in 2022; in 2023, volumes exceeded 200,000 containers, a 34% increase over the previous year [4]. About 62% of this flow consists of export cargo. Despite this positive dynamic, multimodal transportation in Ukraine still accounts for less than 1% of total freight turnover, well below levels in EU countries. The main obstacles remain a shortage of container terminals, complex customs procedures, and insufficient specialized wagons [5].

The full-scale war has significantly altered the structure of transportation. Since 2022, more than 24,000 railway infrastructure facilities have been damaged or destroyed. Main freight flows have shifted from southern ports to the western borders with Poland, Slovakia, Hungary, and Romania. Despite these conditions, the sector demonstrates resilience. Key priorities for further development include financial stabilization, infrastructure modernization (especially the European gauge), and the active digitalization of logistics processes through systems such as AS Client-UZ and Art:Direct UZ.

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