

# 4.2. TRANSPORTATION AND LOGISTICS

## 4.2.1. Current situation and sector role

### BACKGROUND

Ukraine is connected to 5 European countries - Poland, Slovakia, Hungary, Romania, Bulgaria and Moldova on the western and southern borders. It has access to the Black Sea through its deep-water ports and its Danube River ports facilitate river transport connections with European countries. Ukraine also has ports in the Sea of Azov (which are currently temporarily occupied). Ukraine's rail network (TOP-3 in Europe) is integrated with the networks of Poland, Romania, Slovakia, Hungary and Moldova.

Ukrainian transport infrastructure, largely established during the Soviet Union era, was designed to meet the goals of that time. Today, Ukraine has an extensive network of state-controlled transportation infrastructure, including roads and railways. Additionally, ports and airports are in the process of being privatised, leased, or managed through public-private partnerships (PPPs). However, years of underinvestment and a lack of strategic planning have hindered the industry's growth and compromised its capability to serve the business sector effectively.

### SECTOR IMPORTANCE

The transportation sector is the economic backbone, with its various modes either complementing each other or competing to some extent in terms of ways of cargo delivery.

Prior to the full-scale Russian invasion, maritime transport was pivotal for exports in terms of volume. Additionally, an increase in recent operations of inland waterways, creates expectation that they will play a more significant role in the long term. Rail transport, which serves as the primary means of transporting export cargo to ports overland, has seen its importance surge during the war, ensuring continued export-import operations with the EU. Road transportation complements rail by providing essential connectivity to remote areas and last-mile delivery services.

Although air passenger transportation, which showed significant growth in the pre-COVID period, is crucial to ensure economic growth, boost international trade, and help in attracting foreign investment in the post-war development.

### CURRENT STATE

Transport and logistics ensure the country's trade operations. Since the start of the war, Ukrainian GDP dropped by roughly 28.8% in 2022 due to significant destruction of infrastructure and disruption of logistics. The table 1 shows comparison of transport sector indicators in the pre-war period and changes caused by the full-scale Russian invasion:

**Table 1: Comparison of transport sector indicators**

Metric	Units	2021	2022	2023
Share in GDP <sup>1</sup>	%	5.4	4.3	4.3
Export value <sup>2</sup>	USD billion	68.2	44.8	36.2
Volume of freight traffic, of which <sup>3</sup> :	million t	621.3	317.5	327.9
- Rail transport <sup>4</sup>	million t	314.3	150.6	148.4
- Seaports	million t	153.3	51.2	62
- Road transportation <sup>5</sup>	million t	224	175	n/a
Cargo turnover <sup>6</sup>	billion tkm	289.6	166.7	163.4

<sup>1</sup> <https://www.ukrstat.gov.ua>

<sup>2</sup> <https://customs.gov.ua>

<sup>3</sup> <https://www.ukrstat.gov.ua>

<sup>4</sup> <https://www.uz.gov.ua>

<sup>5</sup> <https://www.ukrstat.gov.ua>

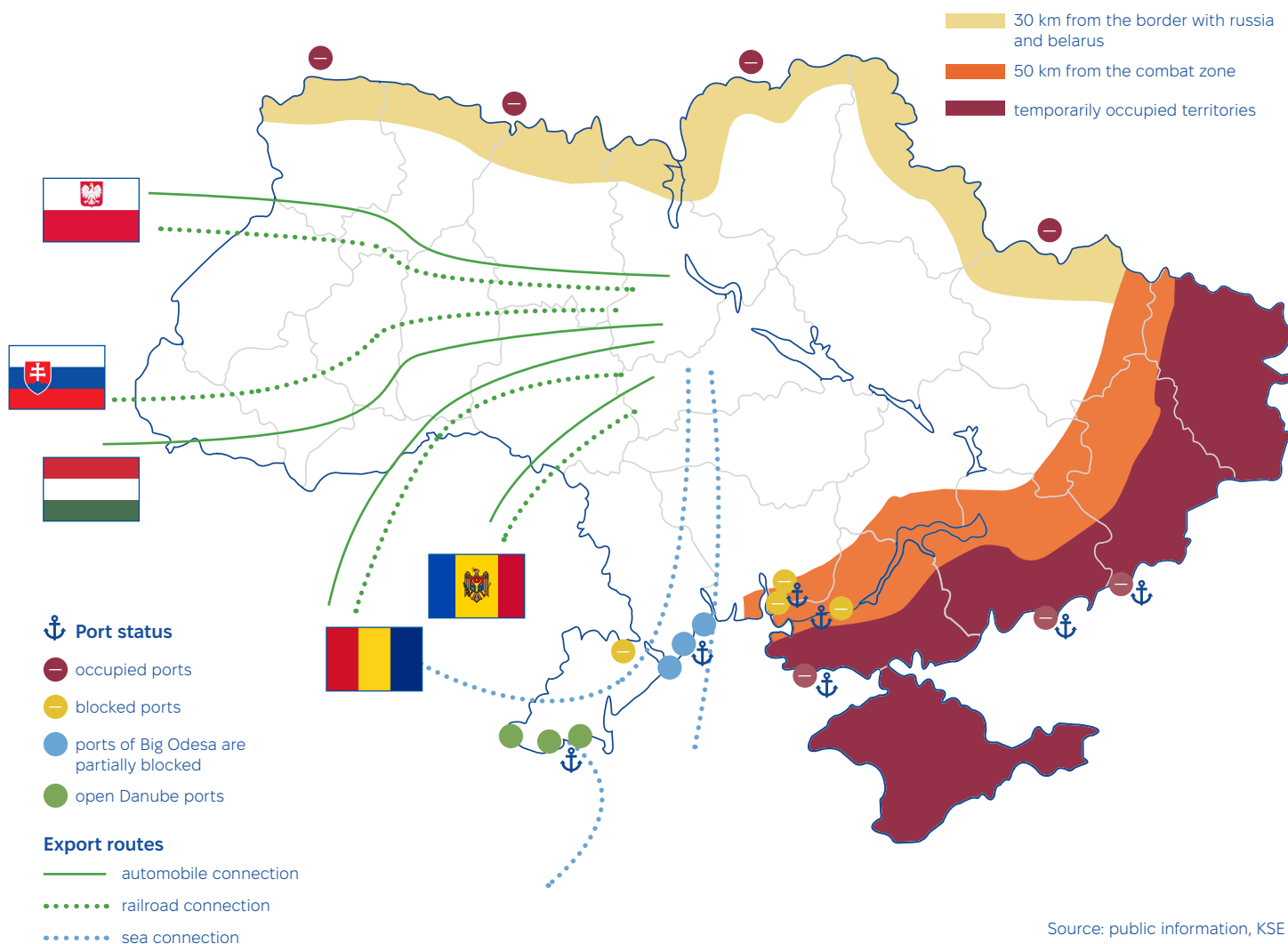
<sup>6</sup> <https://www.ukrstat.gov.ua>

## WAR IMPACT ASSESSMENT (AS OF DECEMBER 31, 2023)

During the war, established logistic chains were disrupted, and sea transportation faced initial blockades. This disruption shifted the demand for transportation services among different modes. To offset the decline in deep-sea transportation, there has been a marked

increase in cargo transshipment through the Danube River ports, resulting in the construction of 23 new terminals. Additionally, there has been a rise in land-based exports, highlighting the strong interdependence between transportation modes.

**Figure 1: Transport network of Ukraine: main export routes**



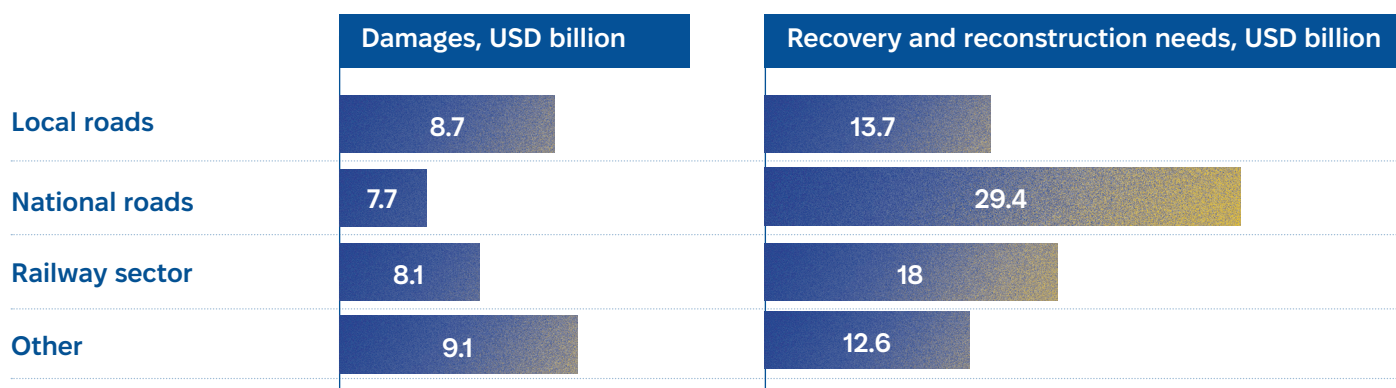
The increased reliance on land freight for exports has led to peak loads in rail and road transportation, exposing capacity bottlenecks at western border crossings. These include a limited number of exit points, rail gauge standards differing from those in the EU, and a need for intermodal transshipment terminals and warehouses.

A significant portion of civil aviation infrastructure has been damaged or destroyed, with airspaces closed to civilian traffic indefinitely. Airline operators have ceased operations and returned leased aircraft to lessors.

Ukraine is actively working to restore and develop its export and logistics capabilities, with an emphasis on integrating with the TEN-T and meeting EU transportation standards.

The transport and logistics sector's needs have been reassessed, revealing substantial potential for development and foreign direct investment (FDI), particularly in the recovery and modernization of assets damaged by military aggression. According to the RDNA 3 as of December 31, 2023, the total direct damage to infrastructure in transport was estimated at approximately USD 33.6 billion, while recovery and reconstruction needs (building back better) is USD 73.7 billion over 10 years. Apart from assets on the occupied territory, among the main damaged or destroyed assets are near 8,400 km of motorways, highways, and other national roads, bridges on the national and regional and village roads (over 140 and 150 bridges respectively), more than 50 km of railways and 83 railway bridges.

**Figure 2: The assessment of direct damage and the recovery needs**



- Motorways, highways, and other national roads;
- Bridges on the national road network and on the regional and village roads;

- Railway rolling stock and equipment;
- Ports and inland waterways infrastructure;
- Airports, public and private transport.

Source: RDNA 3

The war has had a considerable effect on the warehouse logistics market. The total available warehouse space has shrunk from 4 million square metres in 2020 to approximately 2.6 million square metres in 2023. The Kyiv region alone has seen a loss of over 0.45 million

square metres. Warehouse operators in Eastern Ukraine have been compelled to either relocate their assets to the Western Ukraine or adopt cross-docking operations. Furthermore, some market participants have completely vacated their warehouse and storage facilities.

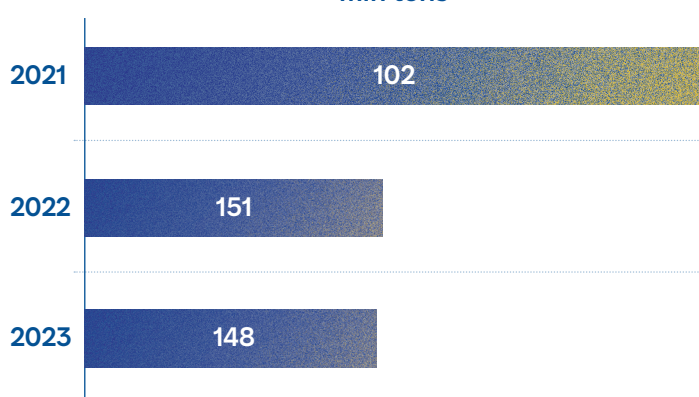
### Land Freight – Rail Transport

- **Infrastructure:** UZ, wholly owned by the state, holds a natural monopoly over the majority of the railway transportation infrastructure, with 19,787 kilometres of railway network and 1,402 stations. The predominant railway track gauge is 1,520 mm, which is standard across former Soviet Union countries. Additionally, there are several tracks of 1,435 mm gauge (EU standard) that facilitate direct transshipment with the EU.
- **Transportation:** Rail transportation is operated by both state and private entities. The state controls passenger services, locomotives, and 51% of cargo capacities, where Ukrzaliznytsia, the state

operator, provides the passenger transportation and locomotives using priority access to the infrastructure. Key private players in the market are Lemtrans, Ferrexpo, Kernel Trade, Metinvest-Shipping, and OTP Leasing.

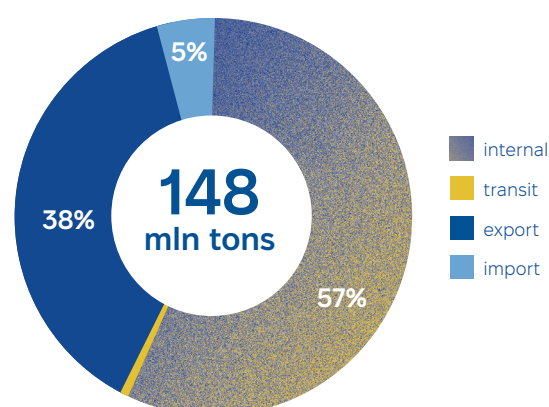
- **Cargo:** In 2022, rail exports were the second highest in terms of volume, with 34 million tonnes (34% of total exports). In 2023, transshipped volumes decreased to 148.4 million tonnes, which is 53% lower than the 314.3 million tonnes in 2021. This significant drop is attributed to the disruption of (i) supplies to Black Sea ports and (ii) transit traffic on international corridors between Asia and Europe.

**Figure 3: Volume of freight transportation by UZ, mln tons**



Source: public information, KSE

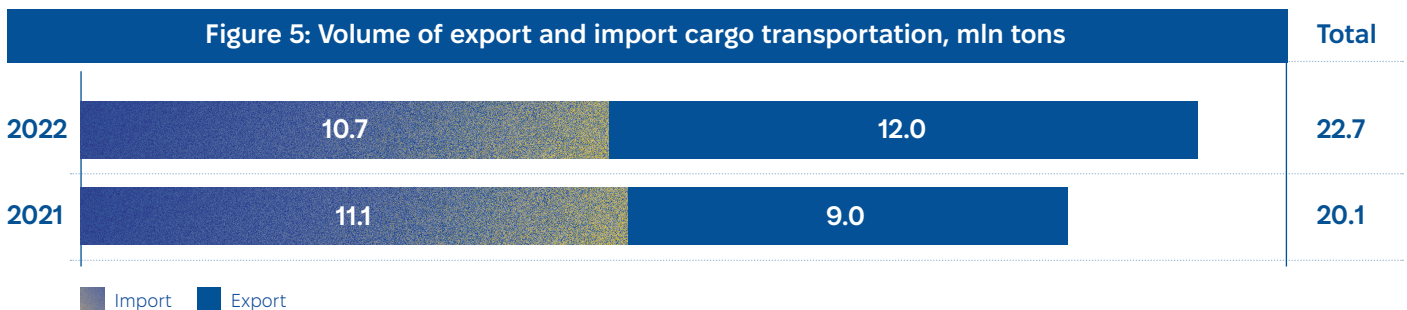
**Figure 4: Structure of UZ freight transportation in 2023, %**



<sup>7</sup> <https://documents.worldbank.org>

## Land Freight – Road Transport

- Infrastructure:** Ukraine's road network comprises 52.0 thousand kilometres of state roads and 117.2 thousand kilometres of local roads, managed and maintained by central or local authorities. The State Agency for Restoration and Infrastructure Development of Ukraine (Recovery Agency) is the primary executive body responsible for the maintenance and development of national roads. In 2019, a new program was launched with plans to construct over 40 new public highways, overhaul more than 130 roads, and repair over 200 public roads. Prior to the war, over 14 thousand kilometres of roads had been built or refurbished. However, during the war, funds allocated for this program have been redirected to support military needs. The warehouse segment is predominantly operated by private companies. Before the conflict, the segment encompassed about 3 million square metres, with the Kyiv region representing over 54% of the total capacity. Notable warehouse projects currently underway include the M10 Lviv Industrial Park, Mostysky Dry Port Industrial Park, and Vinnytsia Industrial Park.
- Transportation:** The road transportation services market is highly diversified and dominated by private companies. Major private players include Nova Poshta Logistics, FM Logistic, Kuehne+Nagel, Ekol Logistics, and Raben Ukraine.
- Cargo:** In 2022, road-based exports ranked third with 12 million tonnes (12% of total exports). The volume transshipped reached 175 million tonnes, which is 21% lower than the 2021 figure.



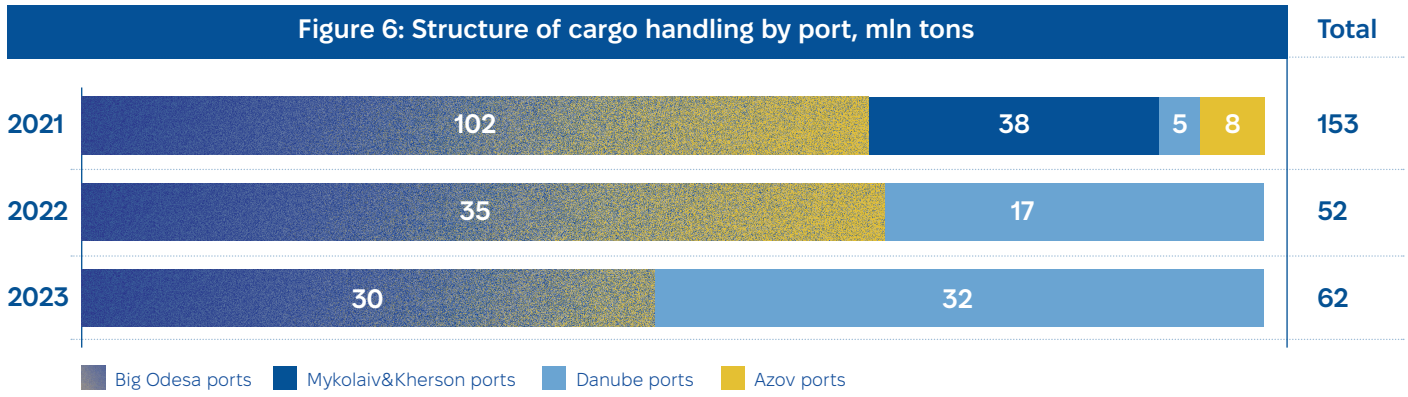
Source: State Customs Service of Ukraine, KSE

## Water Freight

- Infrastructure:** In 2021, the five largest seaports in the Odessa and Mykolaiv regions represented approximately 80% of Ukraine's total port capacity, among 18 ports. The country also has 16 river ports and terminals, which are currently underutilised due to the conflict. The river transportation infrastructure includes 2,241 kilometres of inland waterways. As of early 2024, Ukraine has lost access to 9 of its 18 seaports; 5 have been occupied since 2014 and an additional 4 since 2022. There are 9 operational seaports remaining: the Great Odessa cluster (three ports) operates under a temporary «corridor» mode with limited capacity, the Mykolaiv cluster (three ports) is blocked, and the Danube River cluster continues to transship cargoes to the EU via inland waterways. There has been a recent shift towards privatising operations at public ports, while strategic infrastructure remains state-owned and managed by the Ukrainian Sea Port Authority. The Ukrainian Sea Port Authority oversees 143 berths (totaling 40 kilometres), approach channels, water areas, protective structures, lighthouses, internal railways and roads, utilities, security, and coordinates port area development. Terminal ownership can be private, leased, or under public-private partnerships (PPP). As of 2021, berth ownership was 39% private and 61% public.
- Transportation:** Services are provided by nearly 90 stevedoring companies, with 78% privately owned and 22% state-owned. Key private players include TIS, Transbulkterminal (Kernel), Brooklin Kyiv Port, M.V.Cargo, and Risoil terminal
- Cargo:** In 2022, sea freight was the leading export mode with 53.8 million tonnes (54% of total exports). In 2023, the transshipped volume reached 62 million tonnes, which is 60% less than the 153.3 million tonnes in 2021.

<sup>8</sup> <https://www.ukrstat.gov.ua>

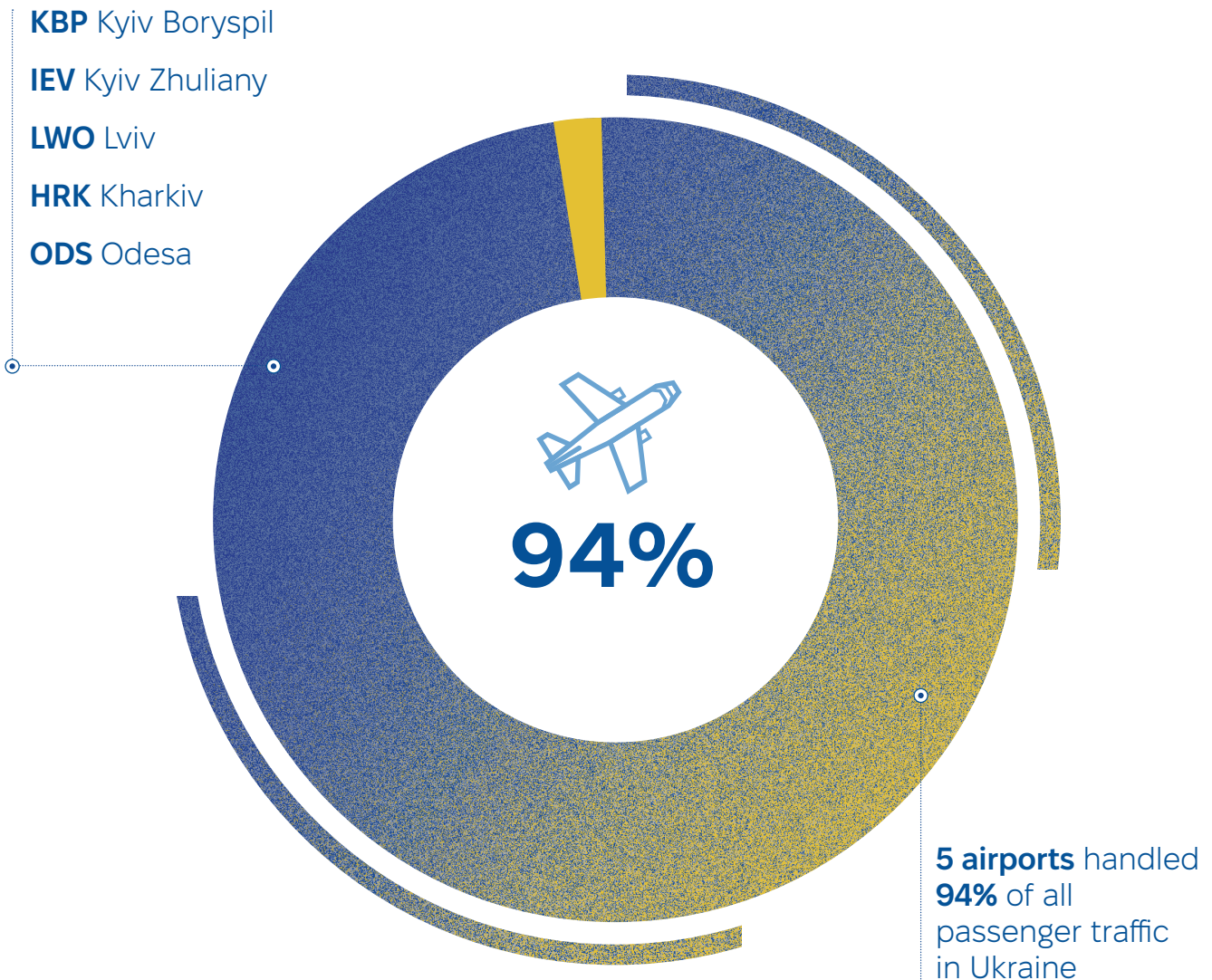
Figure 6: Structure of cargo handling by port, mln tons



Source: public information, KSE

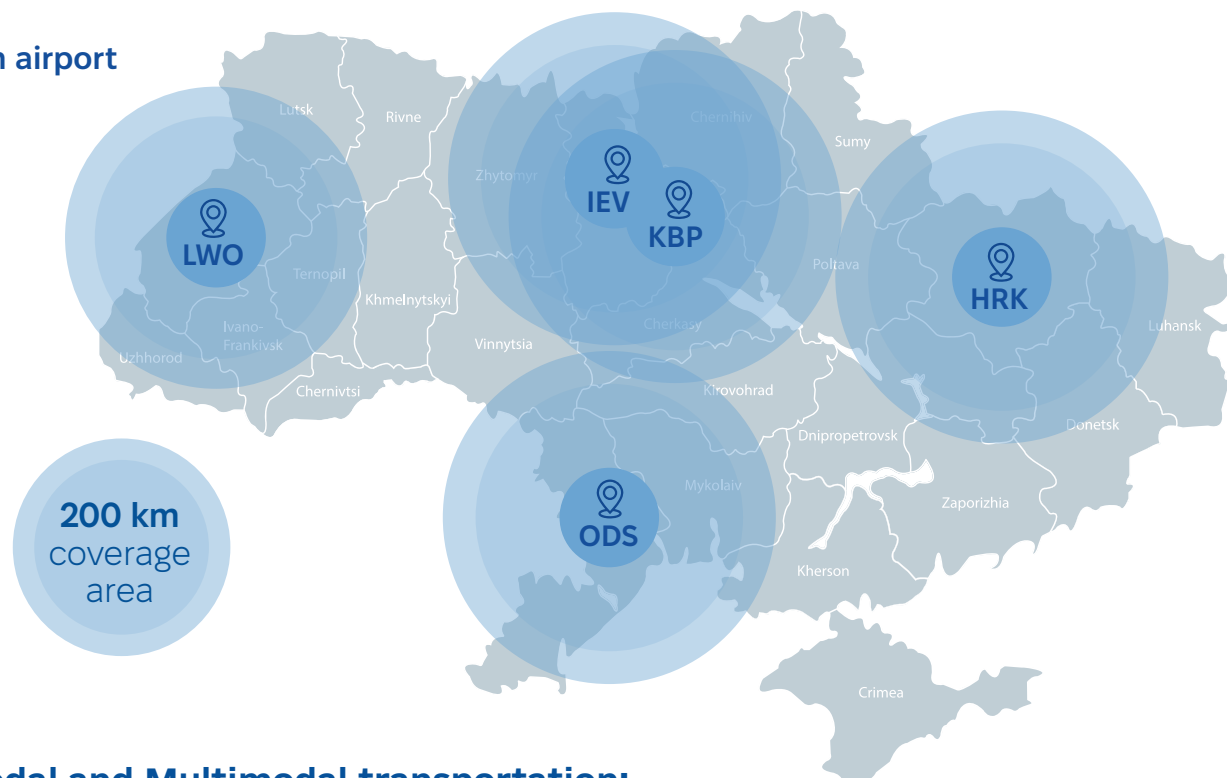
### Air Freight

- Infrastructure:** Ukraine possesses 20 airports and airfields capable of providing commercial flights. All runways are publicly owned, either by central or local authorities. Airport terminals are managed by both state and private operators, with a 74% state to 26% private ownership ratio as of 2021. The state-owned entity Ukraeroruch is responsible for air navigation services.
- Transportation:** In 2021, approximately 94% of passenger transport and nearly all cargo transport were concentrated in two publicly controlled airports (Boryspil, Lviv) and three privately operated airports (Kyiv-Zhuliany, Odesa, Kharkiv). Air transportation services are provided by private operators. The key players in terms of flight numbers during the pre-COVID period include Ukraine International Airlines (UIA), Turkish Airlines, Wizz Air, Belavia, LOT, SkyUP, Windrose, and Ryanair. Industry is currently blocked due to hostilities.



Source: public information, KSE

**Figure 7:  
Ukrainian airport  
network**



### Intermodal and Multimodal transportation:

- **Infrastructure:** Intermodal terminals in Ukraine are operated by both private entities and the state-owned company UZ. In November 2021, Ukraine passed the «Law on Multimodal Transportation,» establishing the legal framework for the multimodal transportation sector.
- **Transportation:** UZ offers intermodal transportation services that combine container train and combined transport train operations. Private companies function as multimodal/container hub operators and container fleet owners. Leading players in this segment include Liski (a subsidiary of UZ) and private companies such as Laude, Levada-Cargo, and TIS. These entities control 90% of the container platform fleet and managed about 70% of all shipments in 2022.
- **Cargo:** From 2018 to 2021, container traffic consistently grew by 22%, 20%, 11%, and 14% annually, culminating in a total of 279.8 thousand TEU transported in 2021. Following Russia's full-scale invasion in 2022, container traffic saw a 46% decline. However, in 2023, there was a significant rebound of 34%, reaching 201.3 thousand TEU, driven by the need to diversify grain and general cargo transshipment. Of this volume, 62% was exported, while imports and domestic transportation accounted for 19%. In 2022, the commodities transported in containers included ferrous metals (27%), grain (18%), oilseeds and cakes (14%), chemical products, foodstuffs, and vegetable oil. Of the total volume, only 32% was transported using UZ's platforms. UZ's strategic goal for 2031 is to boost container traffic to 1 million TEUs annually.

## 4.2.2. Overview and outlook of key reforms

Transport and logistics are key to export-oriented development. Ukraine is moving towards the implementation of the EU's Ukraine Facility program<sup>9</sup>, under which the transport sector development will stimulate broad economic growth. Thus, it is necessary to modernise logistics systems, integrate with the EU's transport space (TEN-T network), bring the railway sector in line with EU standards, and improve port services. To achieve this, following priority goals are set:

- Restoration and development of transport infrastructure based on the long-term strategy and addressing recovery needs.
- Liberalisation in the railway transportation sector to provide a competitive rail transportation market.
- Modernization of routes for export to the EU to develop Ukraine's export potential.
- Improved shipping and port services, ensuring safety of navigation, security of ships and ports and efficiency of service provision.

This will result in the modernization of Ukraine's transportation sector and closer integration with both the European Union and the global economy.

<sup>9</sup> <https://www.ukrainefacility.me.gov.ua>

**Reform 1.  
(Q4 2024)**

**Comprehensive planning of the transport sector (including recovery).**

**A potential impact of the reform:** The new transport strategy shall provide a framework for an efficient, safe, sustainable transport system which will enable a swift reconstruction and post-war economic recovery and development, including war-affected territories and the country's export and logistics potential.

**Reform 2.  
(Q4 2024)**

**Development of Ukraine's export logistics potential**

**A potential impact of the reform:** This strategy is of utmost importance for the coordination of different investments available for the BCPs and shall ensure Ukraine, EU Member States and the Republic of Moldova enhanced transport connections in a well-coordinated manner.

**Reform 3.  
(Q4 2027)**

**Liberalisation in the railway transport sector**

**A potential impact of the reform:** Creation of a competitive rail market as per the essential requirements of European Union legislation will ensure improvements in the quality and effectiveness of passenger and cargo rail services and foster the integration of Ukraine's rail network and markets with the EU.

**Reform 4.  
(Q1 2027)**

**Improved shipping and port services**

**A potential impact of the reform:** Ensuring further development of the state safety navigation system, improved qualification level of Ukrainian seafarers, the proper level of security for vessels and ports, enhanced efficiency improvements in Ukraine's performance of its obligations under international treaties in the field of merchant shipping to ensure safety of life at sea, increasing the efficiency of service provision in seaports of Ukraine. Improved shipping and port services along with a more environmentally friendly mode of transport is expected to contribute positively to the mitigation of climate changes, to the extent possible in a context of war or post-war recovery and reconstruction.

### 4.2.3. Tendencies and trends

Main regional and global trends influencing the development of Ukraine's logistics sector:

**1 Ukraine integration with the European Transport Network:** Ukraine is actively working to integrate with the European transport network, while the ongoing war with Russia has led to the loss of logistical connections with post-Soviet countries. This shift necessitates a realignment of Ukraine's transportation strategies and partnerships.

**2 Disruption of West-East Logistic Routes in Ukraine:** The conflict has also disrupted traditional West-East logistic routes (Europe-Asia), prompting Ukraine to explore the potential development of North-South routes as alternatives. This redirection aims to maintain and enhance connectivity between Europe and other regions.

**3 Shift from Cost-Effective to Resilient Logistic Models:** Ukraine is moving away from purely cost-effective logistic models towards more resilient ones. This involves diversifying supply chains to mitigate risks and enhance reliability in the face of disruptions, ensuring a more secure flow of goods and services.

**4 Development of Electric and Automated Transport:** Ukraine is focusing on the development of electric and automated transport solutions, moving away from fossil fuels in the transportation sector. This transition supports sustainability goals and aligns with global environmental trends, aiming to reduce emissions and improve energy efficiency in logistics.

## 4.2.3. Successful private sector investments during wartime

### M-10 Lviv Industrial Park

- **Warehousing facilities** in the Lviv region is planned to be developed in 6 stages. Located next to M10 international highway, 60 km from the Polish border, covers 23.5 hectares.
- **1st stage was** commissioned in February 2024.
- **Funding:** Project is actively developed by Dragon Capital. Total investments – USD 70 million, while EBRD will invest up to 35% (USD 24.5 million). In September 2023, MIGA, the World Bank's International Investment Guarantee Agency, provided a 10-year guarantee for a USD 9.2 million, that covers the risks of physical destruction due to enemy shelling and/or loss of control over it.

### Mostytska dry port container terminal

- **Terminal is located** in Lviv Region near border crossing point with Poland (Shehyni — Medyka). Total area – over 36 hectares, designed for handling containers (up to 100 k TEU), grain, general and bulk cargoes. Terminal uses developed network of railway tracks of 1435 and 1520 mm and operates own locomotives fleet.
- **The terminal was** commissioned in 2022. In 2023 it handled over 72,400 TEU and 286,000 tons of other cargoes.
- **Funding:** Terminal is a partnership project of Lemtrans and Rail Trans Investment with total investments near USD 15 million.

### Transshipment complex on the border with Poland - MOST Logistic Terminal

- **Project is designed** as a grain transshipment complex and container yards. The grain complex is to have a throughput capacity of more than 400 thousand tons per year and should be completed by the end of 2024. The container complex is planned to be built within the same timeframe.
- **The first phase of the project** was commissioned in 2022 (an automated unit for direct transshipment of grain between wide and narrow-gauge railcars).
- **Funding:** Complex is managed by private company Agrosem. Total investments – EUR 13.7 million, while EBRD has invested EUR 9.6 million, EUR 1.5 million – investment grant from the US, EUR 2.6 million – own funds of Agrosem.

### Nibulon port terminal in Izmail

- **Since the outbreak** of the war 23 new port terminals were opened on the Danube, including Nibulon's port terminal in Izmail with a transshipment capacity of 300 thousand tons of grain cargo per month.
- **Terminal was commissioned** in 2022. As of April 2024, the terminal handled almost 3.1 million tons of grain.
- **Funding:** USD 15.5 million (equity funding).

### Two-sided Risoil pier in the port of Chornomorsk

- **A 342-metre-long** double-sided pier able to handle different types of cargo simultaneously on both sides and capable of handling vessels with a draft of up to 15 metres.
- **Pier had been under** construction since 2021, and was successfully launched by Risoil Group in 2023.
- **Funding:** Total investments – UAH 1.5 billion (publicly announced USD 40 million), that included cost of unique technological equipment for oil and grain transshipment.



## 4.2.5. Prospects and potential for the sector

Considering principles for build back better, sustainability and resilience and strategic planning future investment plans can be divided into 3 blocks:

Recovery of damaged infrastructure	Development of new routes to EU	Resolving pre-war existed needs
Land freight:	Land freight:	Land freight:
<ul style="list-style-type: none"> <li>• Rail tracks, turnouts and supporting stations</li> <li>• Railway rolling stock</li> <li>• Roads, bridges and bridge crossings</li> </ul>	<ul style="list-style-type: none"> <li>• Upgrade of main roads (priority - TEN-T network)</li> <li>• Construction and modernisation of road border crossing points</li> <li>• Construction of 1,435 rail to the EU border</li> </ul>	<ul style="list-style-type: none"> <li>• Renewal and modernization of the railway stations (esp. near seaports)</li> <li>• Electrification of railway infrastructure</li> <li>• Reconstruction and modernization of roads and bridges (Kyiv Ring Road, Lviv Ring Road, etc)</li> </ul>
Water freight:	Intermodal and Multimodal transportation:	Water freight:
<ul style="list-style-type: none"> <li>• Sea and river berths, warehouses, terminals' assets and water fleet</li> </ul>	<ul style="list-style-type: none"> <li>• Construction of new logistics centres and multimodal hubs (agri. storages and terminals)</li> </ul>	<ul style="list-style-type: none"> <li>• Sea ports concessions (Chornomorsk, Izmail, Pivdennyi, etc.)</li> </ul>
		Air freight:
		<ul style="list-style-type: none"> <li>• Local airports concessions and airfield infrastructure modernization</li> <li>• Boryspil airport reconstruction and development</li> </ul>



TRANSPORTATION AND LOGISTICS

# Highlighted investment projects

# FERREXPO MODERNIZATION OF EXISTING LOCOMOTIVES TO AVOID THEIR SHUTDOWN

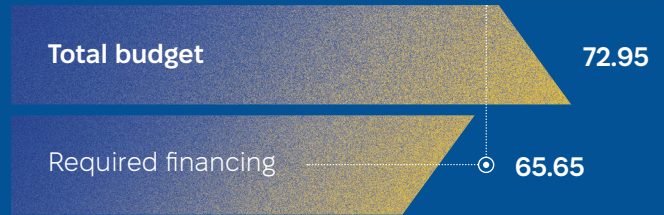
## ROLLING STOCK

- **Brief Description:** Modernization of the existing locomotive fleet with the use of new, modern technologies. It is planned to modernize 36 units.
- **Target Market:** Railcar/railroad transportation.
- **Products/Services:** There is no possibility of replacing Russian-made spare parts, thus an overall replacement with European-made components is required.
- **Unique Selling Proposition:** The project will enable freight transportation, that is crucial in terms of company's integrated business model. The project will help to improve production efficiency and bring it in line with the European standards.

### Project Status:

- Concept. A tender is being held for the selection of a contractor for the modernization of the first pilot diesel locomotive of the ChME-3 series.

### Projects Highlights<sup>1</sup> (\$, mln)



**Type of financing** - debt, project finance  
**Financing structure:** CAPEX – 100%

### Expected Financial Indicators:

- NPV<sup>2</sup>– \$55m (20 years)
- DPP (years) – 7.6
- EBITDA – \$27m (2031 year)
- IRR – 32%
- Project launch period – 6 years

## BUSINESS MODEL

- Ferrexpo is weighing the modernization of the existing locomotive fleet at 6 units/year (3 locos of ChME-3 series & 3 locos of OPE-1AM series), 36 units in total. Planning to replace the diesel-generator set and main

electrical components, enabling to avoid using russia-made spare parts. This will reduce fuel and power consumption (up to 45kUSD per unit/year) as well as maintenance costs (up to 500kUSD per unit/year).

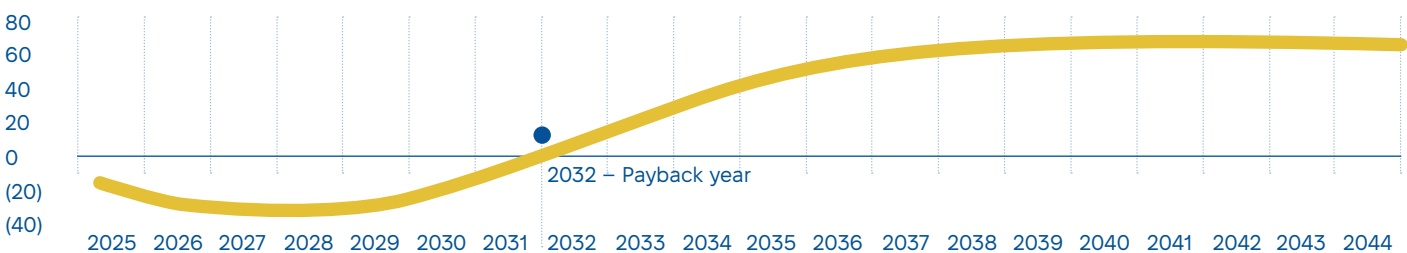
### Key partners

Ferrexpo is currently exploring possible options with global producers. The key partner has not yet been determined. The study is underway. Various technologies of power-sourcing are (diesel, gas, hydrogen, electricity).

### Estimated modernization schedule:

	2025	2026	2027	2028	2029	2030	Total
ChME-3	3	3	3	3	3	3	18
OPE-1AM	3	3	3	3	3	3	18

### Project DCF



# LLC “LEVADA CARGO” CONTAINER TERMINAL FASTIV

## FASTIV (KYIV REGION)

- **Brief Description:** Creation of the terminal for 55,000 TEUs as the initial point of origin for the export container flow from the central region of Ukraine and for the import container flow from China, in compliance with the European Green Deal, ensuring efficient, safe and environmentally friendly transportation.
  - **Target Market:** Container market operator, intermodal and multimodal transportation.
  - **Products/Services:**
    - Container terminal for 55,000 TEUs on the territory of 12,5 ha next to the Fastiv-II railway station.
    - container yard (1000 TEU of simultaneous storage);
    - covered warehouse of 4800 m<sup>2</sup>;
    - railway infrastructure with a length of 1.8 km of 1520 gauge;
    - cargo fronts with an effective length of 450 meters.
  - **Unique Selling Proposition:** huge region’s potential for cargo containerization; attractive geographical location with developed both railway and automobile infrastructure both with strong cargo base.
- Project Status:**
- Ready for implementation

### Projects Highlights<sup>1</sup> (\$, mln)



**Type of financing** - 1.63 debt, 3.26 equity, 3.26 project finance etc

**Financing structure:** CAPEX – 80% / OPEX – 20%

### Expected Financial Indicators:

- NPV – 20.2 (20 years)
- DPP (years) – 8.10
- Revenue – 6.2 (2028 year)\*
- IRR – 22.2%
- Project launch period – 2 years
- EBITDA – 3.8 (2028 year)\*

## BUSINESS MODEL

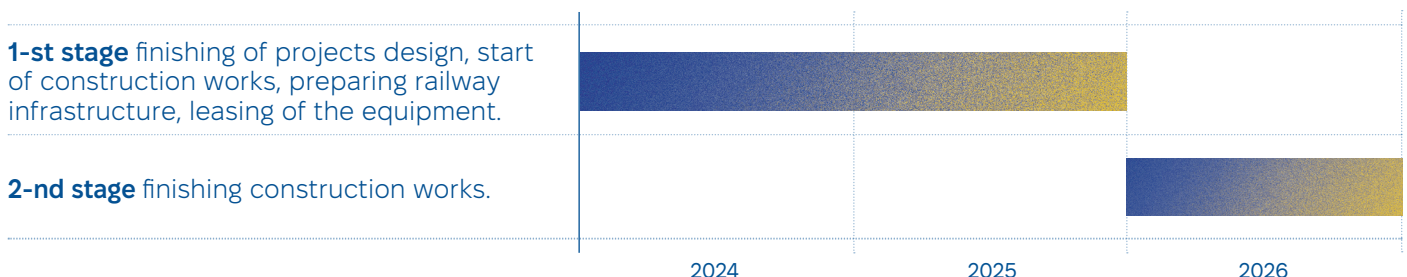
- Container terminal as a key terminal of Kyiv and Zhitomir regions, hub for import from China and a consolidation point for export from Kharkov, Dnepr, Zaporozhe. This region has strong potential for cargo containerization,

which allows to organize 5-7 railway trains per week and reach maximum terminal’s capacity of 55 000 TEU by 2028.

### Key partners

Consumers: Maersk, CMA, MSC, ZIM etc. Suppliers: Ferrari, Kalmar, Award, JCB, Kobzarenko factory.  
 Financing: OTP bank, Raiffeisen bank, Vostok bank.

### Key Points Of Project Implementation



<sup>1</sup>The project information and financial indicators are provided by company-initiator of the project.  
 \* 2028 – 3-rd year after project launch in 2026

# LLC “LEMTRANS”

## PURCHASE OF 2000 NEW GONDOLA CARS

### ROLLING STOCK

- **Brief Description:** The project aimed at purchasing 2,000 Ukrainian-made railcars to meet the rapid growth in demand for transportation.
- **Target Market:** Railcar/railroad transportation market of Ukraine
- **Products/Services:** Organization of railway transportation of goods in own gondola cars for the need of key Ukrainian industrial and energy companies.
- **Unique Selling Proposition:** The project will help to increase cargo flows for Ukrainian industries, cargo flows between Ukraine and other countries of the world, enabling heavy industry production, and ensure the transportation of construction materials to rebuild the country’s infrastructure after the war.

**Project Status:**

- Ready for implementation

**Projects Highlights<sup>1</sup> (\$, mln)**



**Type of financing** - 20% equity, 40% debt, 40% grant funding

**Financing structure:** CAPEX – 100%

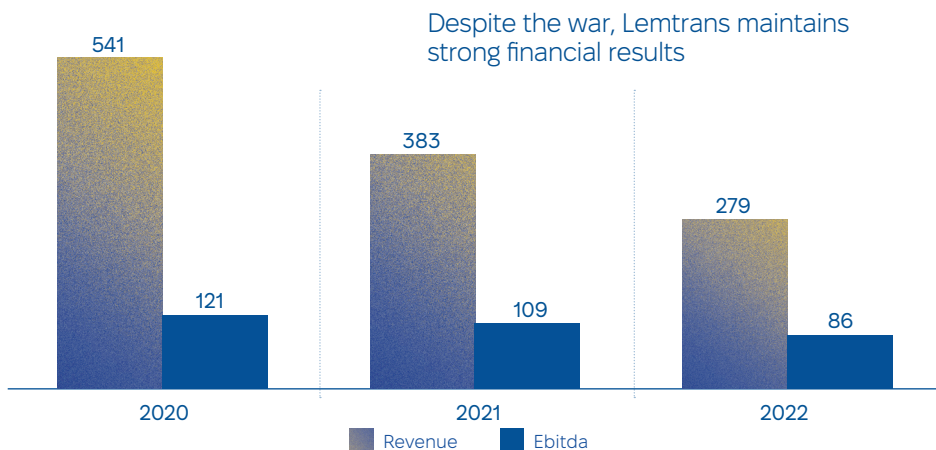
**Expected Financial Indicators:**

- NPV – 7.8 (22 years)
- DPP (months) – 95
- Revenue (net) – 18.0 (2 year)
- IRR – 30.7%
- Project launch period – 1 year
- EBITDA – 17.8 (2 year)

**Key partners**

Lemtrans – the largest private rail operator in Ukraine since 1999  
 Core service – organization of rail transportations in gondola cars  
 Wagon fleet owned – more than 9,000 gondola cars<sup>1</sup>  
 Transportation volume – 17 mln tons or 246,000 wagons (2023)  
 Market share in gondola cars transportations – 20%  
 Wagon repair facilities – Depot in Kamianske, Facility in Pavlograd  
 Major clients – DTEK, Metinvest, Technobud  
 Key goods shipped – coal, construction materials, iron ore

**Lemtrans key financial indicators: (\$ min)**



<sup>1</sup>The project information and financial indicators are provided by company-initiator of the project. The data is preliminary and may be adjusted based on changes in project parameters and other factors.

# ZAMMLER UKRAINE LLC

## KYIV REGION

## CONSTRUCTION A WAREHOUSE COMPLEX

- **Brief Description:** Construction of an A-Class warehouse complex in 3 stages. The total area is about 60,0 k sq m.
- **Target Market:** The Project could increase ZAMMLER's share of the 3PL services market in Ukraine from 11.3% to 13.5%.
- **Products/Services:** Facility is assigned to provide logistic services: warehousing, a full range of operations for cargo handling within the warehouse, stickering, co-packing, fulfillment, cross – docking.
- **Unique Selling Proposition for Investor:**
  - Quick launch of the project – transfer of existing business from rented premises to own (existing customers will occupy 80% of the new warehouse);
  - Business expansion – increasing the existing warehouse space due to the construction of the third stage will provide an opportunity to additionally attract new customers.

### Projects Highlights<sup>1</sup> (\$, mln)



Type of financing – debt, equity, project finance etc

### Expected Financial Indicators<sup>2</sup>:

- NPV – 7.2 (20 years)
- DPP (years) – 12.6
- Revenue – 11.6 (average per year for 20 years)
- IRR – 15.5%
- Project launch period – 1.6 – 2 years
- EBITDA – 5.7 (average per year for 20 years)

### Project Status:

- The preliminary feasibility study has been completed. Land plot is available, project documentation is under development, equipment for the second and third stages of construction is available.

## BUSINESS MODEL

- The facility is designed to serve existing B2B customers and attract new ones in order to provide logistics services with special fulfillment and cross-docking areas.

### Key partners

AVON, Mondelez, Huawei; Delonghi; EGDMONT Ukraine; Siemens; Samsung, Adidas; Philip Morris International; British American Tobacco; B/S/H; Lifecell; Schneider electric; Glo; UsupSo; OTIS, LG Electronics; Makita; Hilti; Mars; Karcher; JUSK; etc

### Key Points Of Project Implementation

#### The estimated construction area includes:

warehouse (floor space) –	offices – 1,8 k sq.m, mezzanine space –	The total useful area of the object:
<b>59,3 k sq.m</b>	<b>9,0 k sq.m</b>	<b>70,2 k sq.m</b>

The facility will be located on ZAMMLER's own land plot of 10.25 ha with access to the M-01 Kyiv-Chernihiv highway – distance from the center of Kyiv to the location of the complex is

**28.6 km**

Total construction period –  
**18 - 24 months**

<sup>1</sup>The project information and financial indicators are provided by company-initiator of the project.

<sup>2</sup>All indicators are subject to change after the development of the final budget for the project and the conditions for the participation of partners. Project calculations are based on pre-war indicators. After the stabilization of the situation, all indicators will be updated

# EURO LOGISTICS AND EUROCAR

## TRANSKARPATHIAN REGION

(GROUP OF COMPANIES ATOLL HOLDING)

- **Brief Description:** Multimodal transshipment terminal developing as a part of logistics hub in Transcarpathian region in close proximity to the EU borders.
- **Target Market:** Industrial manufacturers and exporters, importers and distributors, retailers, e-commerce platforms etc. for providing them logistics services. Logistics companies for strategic partnership.
- **Products/Services:** transshipment, cross-docking, warehouse services, expedition and multimodal logistics services.
- **Project Status:**
  - First stage – launch in May 2022 at a logistics site of over 5 ha.
- **Unique Selling Proposition:**
  - Location in Transcarpathian region, close vicinity to the Ukrainian border with Hungary and Slovakia;
  - Multimodal and transshipment services with the advantages of private railway terminal, three EU-type railway tracks and one Europe/CIS-type railway track, customs-licensed warehouse, crane for container transshipment etc.;

### Projects Highlights<sup>1</sup> (\$, mln)



**Type of financing** - equity, private investments  
**Financing structure:** CAPEX – 25% equity / 75% required investments  
**Project realization period** – 5-8 years

- Project implementation with advantage of the Eurocar plant capacities (car manufacturer with 20+ years of experience in producing Volkswagen Group cars in Ukraine) and in close proximity to the Solomonovo Industrial Park at a territory of 66,2 ha, that gives great opportunity for expansion and scale-up.

## BUSINESS MODEL

- WAREHOUSING – TRANSSHIPMENT TERMINAL – 3PL – SCALE-UP

### Services and revenue streams (current and planned):

- Warehousing services (storing and handling, cross-docking, order consolidating).
- Transshipment and storage (containers and oversized cargos).

- Integrated logistic solutions “door to door” (including formation and consolidation of full-loaded trains, loaded in both directions UA ↔ EU).
- Value-Added services (packaging, labeling, special treatment of oversized cargos, quality control).
- Technology solutions (technology systems and equipment for efficient cargo handling and tracking).

### Key partners

Porsche Ukraine, GOL, Group SEB, Eurocar Service, Express Group, Ukrzaliznytsia and others (subject to NDA), potential – manufacturers and exporters interested in long lasting partnership.

### Key Points Of Project Implementation

Provision of comprehensive warehouse services on existing capacities.	2022					
Launching the transshipment terminal “Eurocar industrial terminal”.			2024			
Offering container freight forwarding services for current customers.			2024			
Organization of integrated door-to-door multimodal services.				2025		
Scaling-up facilities according to the market demands in collaboration with strategic investment partners.				2025-2027		
	2022	2023	2024	2025	2026	2027

<sup>1</sup>The project information and financial indicators are provided by company-initiator of the project.

### ZAKARPATTIA REGION

- **Brief Description:** construction of a intermodal logistic center on the area of 13 hectares with 4 unloading/ reloading tracks, that will have 1,5 mln t/year (including 13 000 TEU) transshipment capacity in close proximity to the EU borders.
- **Target Market:** intermodal logistics, delivering cargoes to the end user in EU countries. Also connection with European ports for further shipment to other countries
- **Products/Services:** transshipment of grain, vegetable oils, containers, semi-trailers, and general cargo
- **Unique Selling Proposition:** diversification of traffic flows through 3 border countries, providing full logistics services from the Ukrainian terminal to the end user in EU.
- The next stage will be the development of an industrial park with a total area of 35 hectares, the presence of which will mutually enhance the efficiency of the terminal

#### Projects Highlights<sup>1</sup> (\$, mln)



**Type of financing** - debt and project finance  
**Financing structure:** CAPEX – 100%

#### Expected Financial Indicators:

- NPV – 17.9 (15 years)
- DPP (years) – 13.8
- Revenue – 18 (2039 year)\*
- IRR – 18.8%
- Project launch period – 1 year
- EBITDA – 12.7 (2039 year)\*

#### Project Status:

- Ready for implementation

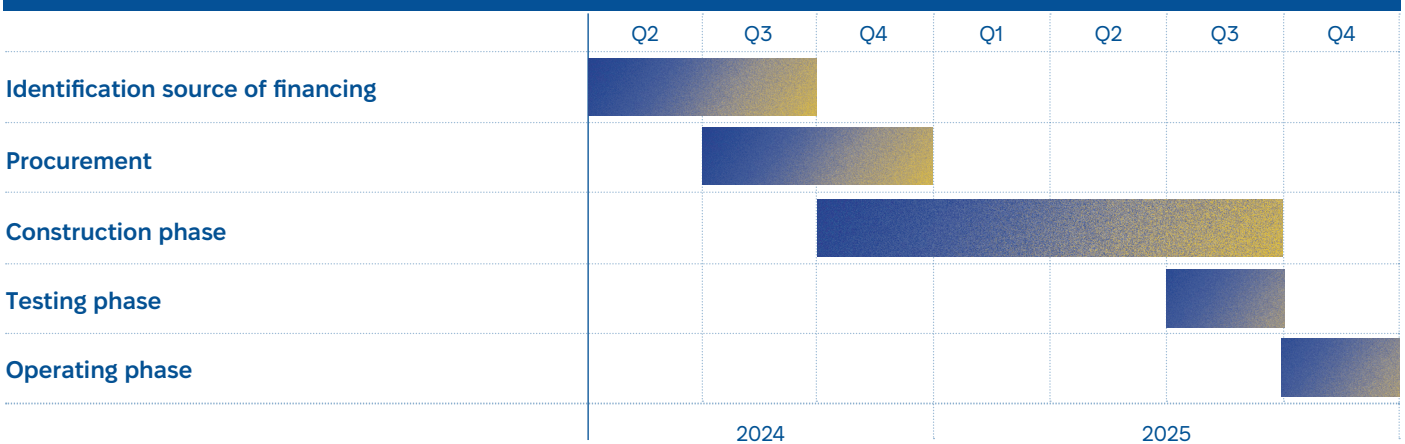
### BUSINESS MODEL

- Gateway for direct import and export between Europe and Ukraine with a focus on container cargo and exports of agricultural products by rail/auto to European ports and final consumers, as well as potential import of products from Europe for Ukraine's economic recovery.
- Focus on container logistics
- Multimodal terminal with general goods warehouses and agro facilities. Possibility to use our infrastructure and legacy for European businesses while rebuilding Ukraine after the war.

#### Key partners

FS Group (State Italian Railways).Agricon (engineering production and construction group).  
 AVELLUM (a leading Ukrainian full service law firm)

#### Key Points Of Project Implementation



<sup>1</sup>The project information and financial indicators are provided by company-initiator of the project.  
 \* 2039 – \* - 15th year after project launch in 2024



# TEHAHRO LLC

## ODESA REGION

## CONSTRUCTION OF A FOOD AND GENERAL CARGO SEA TERMINAL AS PART OF THE INDUSTRIAL PARK

- **Brief Description:** construction of a deep-water sea terminal for food, oil and general cargo as a part of the Industrial Park, located in the Small Adzalyk estuary near Odessa.
- **Target Market:** sea freight transshipment services for food, cargo, bioethanol and vegetable oils.
- **Products/Services:** The project envisages rail and road access, warehouse services and transshipment services with a total volume of annual transshipment in the amount of 6 mln t of grain cargo, 1 mln t of liquid cargo, 500 thousand t of mineral fertilizers and general cargo Shipment to be available in ship lots of 10-80k tons
- **Unique Selling Proposition:** The project enjoys preferential tax regime being a part of Industrial park taxation. The potential throughput capacity may reach 7 mln t per year of cargo in total.

### Projects Highlights<sup>1</sup> (\$, mln)



**Type of financing** - debt, equity, project finance  
**Financing structure:** CAPEX – 85% / OPEX – 15%

### Expected Financial Indicators:

- NPV – 31.5 (16 years)
- DPP (years) – 10.5
- Revenue – 60.8 (2033)
- IRR – 18.1%
- Project launch period – 1 year
- EBITDA – 37.1 (2033)

### Project Status:

- Ready to build

## BUSINESS MODEL

- Business model and analytics are available upon request and subject to signed NDA.
- As of May 2024, over 20 million euros invested in the project.

### Key partners

This is a unique project with simultaneous handling of grain, liquids (oil), general cargo and fertilizers.

The project benefits from recently voted bills by the Parliament of Ukraine, with a special tax regime (no import VAT, no corporate tax) and guaranteed State Support.

The Project Sponsor is a financially strong company with ability to co-invest, local Ukrainian team and expertise in place.

<sup>1</sup>The project information and financial indicators are provided by company-initiator of the project.

# LLC TERWIN GROUP

WINHUB FROM  
TERWIN

KYIV, ODESA, LVIV, DNIPRO REGIONS

- **Brief Description:** Construction of a Class A and B warehouse complex in 4 regions with the area of 1,000,000 sq m with anchor tenants – EVA and VARUS (food and non-food retail)
- **Target Market:** warehouse & area for rent, creating an environment for SME development
- **Products/Services:** Lease of warehouses and premises for shops, hotels, hostels, petrol and repair stations.
- **Unique Selling Proposition:** energy-efficient infrastructure with integrated proposition of area for rent.
- **Basic principles:**
  - Ergonomics
  - Energy efficiency
  - Environmental friendliness

Projects Highlights<sup>1</sup> (\$, mln)



Type of financing - debt & equity  
Financing structure: CAPEX – 100%

Expected Financial Indicators:

- NPV – \$61M (12 years)
- DPP (months) – 84
- Revenue – \$142M (2037 year)
- IRR – 7%
- Project launch period – 5 years
- EBITDA – \$92M (2037 year)

Project Status:

- 1<sup>st</sup> 2024-2025 Design & Structuring (ongoing)
- 2<sup>nd</sup> 2026-2027 Funding & Construction - ready for implementation
- 3<sup>rd</sup> 2028-2029 Funding & Construction

## BUSINESS MODEL

Expected tenant occupancy plan:

- Up to 50% of general GLA will be consumed by own businesses (EVA, VARUS)\* as first anchor tenant
- Large FMCG, retailers, 3PL operators, e-commerce, building companies will become potential consumer of remaining GLA
- EVA – №1 drogerie retailer in Ukraine, VARUS - №7 largest FMCG-retailer in Ukraine.
- Revenue - Y2021 \$2bln, Y2022 \$1.3bln, Y2023 \$1.7bln

Project implementation plan		
1 STAGE 2024-2024	2 STAGE 2026-2027	3 STAGE 2028-2029
OWN INVESTMENT	OWN INVESTMENT LOAN FUNDING PUBLIC FUNDING (GRANTS)	LOAN FUNDING
214.000 sq.m. "A" and "B" class Warehouses	386.000 sq.m. "A" class Warehouses	400.000 sq.m. "A" class warehouses
KYIV – 38.000 sq.m. LVIV – 45.000 sq.m. ODESA – 26.000 sq.m. DNIPRO – 105.000 sq.m.	KYIV – 162.000 sq.m. LVIV – 100.000 sq.m. ODESA – 74.000 sq.m. DNIPRO – 50.000 sq.m.	KYIV – 200.000 sq.m. LVIV – 100.000 sq.m. ODESA – 100.000 sq.m.
<b>\$98mln</b>	<b>\$297mln</b>	<b>\$308mln</b>

<sup>1</sup>The project information and financial indicators are provided by company-initiator of the project.

- **Brief Description:** Construction of a modern, high-tech, deep-water sea terminal with capacity of up to 5 million tones annual handling of agricultural products
- **Target Market:** grain export.
- **Products/Services:** The terminal will have a throughput capacity of up to 5 million tones and its own railway station, which will provide competitive advantages
- **Technologies and Innovations:** demand for the construction of new high-tech transshipment facilities has increased due to damages to some existent port terminals.
- **Unique Selling Proposition:**
  - land plot is adjacent to the water's edge in the deepest water port in Ukraine
  - own railway station under construction
  - permits required for the construction work are received
  - income nominated in USD!

**Project Status:**

- Project is underway since January 2024

**In progress:**

- Installation of 1 MW from Ukrzaliznytsia and 4 MW from Oblenergo.

**Projects Highlights<sup>1</sup> (\$, mln)**



Type of financing - equity and/or debt (project finance)

**Expected Financial Indicators\*:**

- IRR – 17%
- Revenue – 33.6 (full capacity)
- Payback (months) – 89
- EBITDA – 18.5 (full capacity)

- Land works for railway station construction, planned to finish in December 2024.
- Ground development for main terminal, with a new technological road.

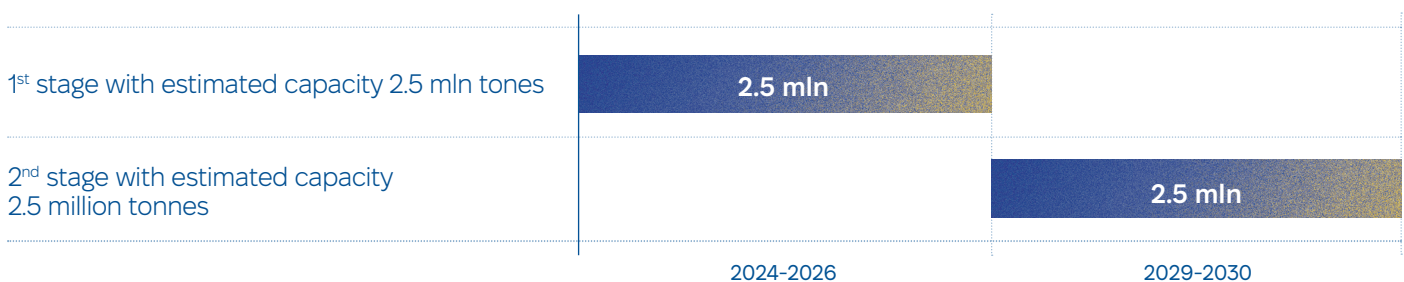
### OPERATIONAL PARAMETERS

- 1st stage construction: 24 months
- Own railway station handles up to 5 trains/day (54 wagons each)
- Railcar unloading: 2000 tons/hour (6 bins, 2 wagons discharge each)
- Truck unloading: 1000 tons/hour (4 bins, 60 m3 each)
- Temporary storage: 7 silos x 860 tons = 6020 tons
- Conveyor gallery: 1600m, 1200 tons/hour (2 lines)
- Main storage: 48 silos, up to 250,000 tons
- Dolphin-type berth: 346m length, 16m depth
- 2 ship-loaders: 1500 tons/hour each

**Key partners**

Discussions are in progress with major agricultural enterprises to secure the terminal's operations. There's notable enthusiasm from small and medium-sized agricultural producers lacking their own transshipment facilities.

#### Key Points Of Project Implementation



<sup>1</sup>The project information and financial indicators are provided by company-initiator of the project. Preliminary rough estimation before applying to state support program

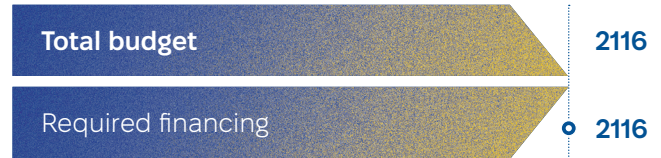
# WESTERN ROUTE STATE ROADS PROJECT

**PUBLIC SECTOR SPONSOR:  
MINISTRY FOR  
COMMUNITIES, TERRITORIES  
AND INFRASTRUCTURE  
DEVELOPMENT OF UKRAINE**

## ZHYTOMYR, RIVNE, LVIV

- **Brief Description:** Renovation of 498km of state roads M06, M10, M11 known as “the Western Route,” enhancing EU-Ukraine road connectivity as part of the Solidarity Lanes Initiative
- **Impacted Populations:** Targets automobile transportation sector (particularly heavy vehicles), facilitating Ukrainian exports, military/ humanitarian aid import, and passenger transit
- **Impact:** 20-35% increased roadway capacity (up to 9.3k vehicles, including 2.7k cargo vehicles per day), improved road conditions for 50k+ daily users, 15-25% travel time reduction, increased road safety
- **Value Proposition:** Strengthens EU connectivity, in particular with Poland, leading to growth of foreign economic relations and international trade, improved export routes, better support of critical import needs. Project also expected to create new jobs, support business development, and improve road safety
- **Project Status:** Design documentation to be completed in 2024. Ready for implementation

### Projects Highlights (\$, mln)



**Implementation Period:** 2-3 years

- **Additional Details:** Includes M-06 Kyiv – Chop (including a bypass around the city of Zhytomyr) in Zhytomyr and Rivne regions, and M-10 Lviv – Krakowiec, and M-11 Lviv – Shehyni in Lviv region. Works include: preparation of design documentation, reinforcement of existing road surface, repair of critical bridge structures, improvement of traffic interchanges, creation of bus stops, replacement of culverts, construction of water drainage, installation of traffic control devices, road markings, and arranging of bicycle paths, among other works
- **Trigger Event:** Disruptions to traditional transportation routes have increased dependency and utilisation of road transportation, particularly along Western border. Average traffic flow speeds have reduced to 34-45 km/h, limiting the efficient transit

## BUSINESS MODEL

Possible business models may include Build-only models for road sections with design documentation already prepared and Design-Build (DB) or Design-Bid-Build (DBB) models for the remaining road segments

## LINK TO REFORMS

Contributes to Ukraine Plan reforms: National Transport Strategy through 2030 and Strategy for the Development and Construction of the Border Infrastructure with EU Member States and the Republic of Moldova through 2030. Also contributes to Sustainable Development Strategy for Ukraine through 2030

### Key partners

Implemented by Agency for Restoration and thus subject to USAID ERA, which conducts comprehensive audits and post-project examinations

### Key Points of Project Implementation

- **Project design documentation** (public tenders<sup>1</sup>, development and approval)
- **Construction works** (tender documentation development, public tenders<sup>1</sup>)
- **Independent technical supervision** (public tenders<sup>1</sup>)
- **Construction works** (execution)

<sup>1</sup> - These tender processes will take place via the Prozorro platform

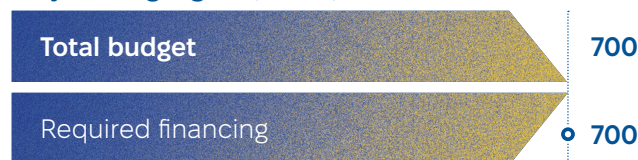
# IMPROVEMENT OF ODESA PORTS ROAD ACCESS

**PUBLIC SECTOR SPONSOR:  
MINISTRY FOR  
COMMUNITIES, TERRITORIES  
AND INFRASTRUCTURE  
DEVELOPMENT OF UKRAINE**

## ODESA REGION

- **Brief Description:** Reconstruction of two state roads (M27 Odesa-Chornomorsk and M28 Odesa-Yuzhne- M-14) to ensure sustainable and reliable road connectivity to and between three major functioning ports – Odesa, Pivdennyi, and Chornomorsk (Big Odesa ports)
- **Impacted Populations:** Seaport freight transportation providers, enhancing Ukraine's export capabilities via port infrastructure
- **Impact:** ~10% increase in freight volumes; ~20% reduction to travel time; ~40% increase in traffic projected; Daily user increase to ~130-150k users; Creation of 4,850 new jobs during construction; Improved drainage and wastewater treatment; Improved road safety and speed of emergency services
- **Value Proposition:** SWill enhance transport infrastructure and align logistical transport of Odesa region with EU standards, increasing Ukraine's export potential and facilitating future EU accession. Odesa ports have become more important as other ports have been under attack
- **Project Status:** Ready for implementation

### Projects Highlights (\$, mln)



**Implementation Period:** 1-3 years

### Additional Details:

#### M27 Odesa – Chornomorsk:

- Engineering surveys, partial design work completed
- Capital repair, reconstruction of M27 road segments and bridge over Adjalytsky estuary

#### M28 Odesa - Yuzhne - M-14

- Design work, capital repair and reconstruction of M28 road segments, new construction of M28 road segments and transport interchanges at various levels, new construction of the road bypassing the village of Sukhy Lyman and completion of construction of the bridge over the Sukhy estuary
- **Trigger Event:** Heavily utilization by cargo transport accessing Big Odesa ports, which have become the key route for Black sea exports via the Ukrainian Corridor

## BUSINESS MODEL

Possible business models may include Build-only models for road sections with design documentation already prepared and Design-Build (DB) or Design-Bid-Build (DBB) models for the remaining road segments

## LINK TO REFORMS

Contributes to Ukraine Plan reforms: National Transport Strategy through 2030 and Strategy for the Development and Construction of the Border Infrastructure with EU Member States and the Republic of Moldova through 2030. Also contributes to Sustainable Development Strategy for Ukraine through 2030

### Key partners

Agency for Restoration as implementor

### Key Points of Project Implementation

- **Project design documentation** (public tenders<sup>1</sup>, development & approval)
- **Construction works** (tender documentation development, public tender processes<sup>1</sup>)
- **Independent technical supervision** (public tenders<sup>1</sup>)
- **Construction works** (execution)

<sup>1</sup> - These tender processes will take place via the Prozorro platform

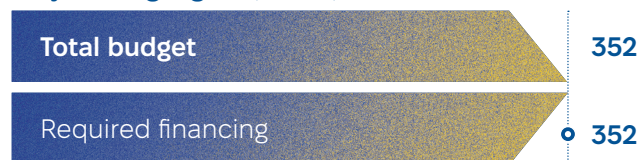
# IMPROVEMENT OF WESTERN BORDER CROSSING POINTS

**PUBLIC SECTOR SPONSOR:**  
**MINISTRY FOR**  
**COMMUNITIES, TERRITORIES**  
**AND INFRASTRUCTURE**  
**DEVELOPMENT OF UKRAINE**

## ZAKARPATTIA, VINNYTSIA, VOLYN, ODESA, CHERNIVTSI

- **Brief Description:** Improvement of 15 border crossings points (BCPs) between Ukraine and neighboring countries on Western border, allowing higher traffic volume and streamlined processing
- **Impacted Populations:** Targets automobile and pedestrian border crossings to enhance trade logistics, passenger transit (including refugees), and anti-smuggling operations at Ukraine’s western borders
- **Impact:** 50% increased cargo transit capacity, improved cross-border trade facilitation, improved passenger transit capacity; reduced waiting/processing time to cross border; ~5k jobs created, more efficient transit of military and humanitarian goods into Ukraine
- **Value Proposition:** Improves cross border transportation and passenger transit efficiency, stimulating economic growth through increased exports. It will also secure import of essential goods and increase control and monitoring of goods and people crossing Ukraine’s western borders
- **Project Status:** Ready for implementation

### Projects Highlights (\$, mln)



**Implementation Period:** 1-4 years

- **Additional Details: BCP improvements will include:**
  - Finishing partially complete construction works that are rendering lanes inoperable
  - Constructing new checkpoints including service areas, warehouses and access roads
  - Improving existing BCPs including installing video surveillance systems, automating BCP vehicle traffic control systems, building public toilets/canopies and establishing emergency response and civil protection systems
- **Trigger Event:** Continuous disruptions to traditional transportation routes have severely restricted Ukraine’s ability to import and export goods. Greater reliance on road transportation has revealed inadequacies at BCPs, particularly for facilitating the return of Ukrainian refugees

## BUSINESS MODEL

Possible business models may include build-only models for partially complete BCPs and Design-Build (DB) models for new checkpoints and assets along

## LINK TO REFORMS

Will help achieve Ukraine Plan reform: Strategy for the Development and Construction of the Border Infrastructure with EU Member States and the Republic of Moldova until 2030, and enable EU accession with EU-compliant border crossings

### Key partners

Will be implemented by Agency for Restoration and is thus subject to USAID ERA, which conducts comprehensive audits and post-project examinations

### Key Points of Project Implementation

- Each of the 15 components has a different implementation timeline
- Estimated completion periods range from 2025 to 2028

<sup>1</sup> - These tender processes will take place via the Prozorro platform

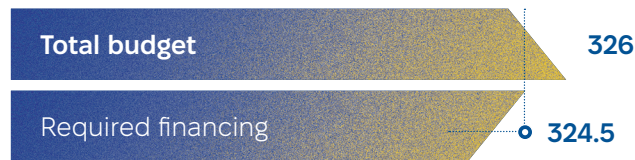
# CONSTRUCTION OF NEW BRIDGE IN KREMENCHUK

**PUBLIC SECTOR SPONSOR:  
MINISTRY FOR  
COMMUNITIES, TERRITORIES  
AND INFRASTRUCTURE  
DEVELOPMENT OF UKRAINE**

## KREMENCHUK

- **Brief Description:** Construction of new bridge across Dnipro River in Kremenchuk (Poltava oblast) with reconstruction of section of state road H-08, which links Boryspil, Dnipro, Zaporizhzhia, and Mariupol, including a bypass of city of Kremenchuk
- **Impacted Populations:** Targets automobile transport, including bike and pedestrian lanes with infrastructure for people with limited mobility
- **Impact:** Up to 60% increased traffic capacity (up to ~27k vehicles per day), up to 300 temporary construction jobs, enhanced connectivity for ~224k Kremenchuk residents, including ~7k IDPs who relocated
- **Value Proposition:** Will reduce delivery times, enhance passenger transportation, cut total transit times within Kremenchuk, ease traffic congestion, and improve the city's environmental condition. Project will establish transportation links between two banks of Dnipro river, providing enhanced connectivity between central and northern regions. Project includes infrastructure modernization to comply with EU standards and pave the way for future EU accession
- **Project Status:** Implementation stage

### Projects Highlights (\$, mln)



**Implementation Period:** 4 years

- **Additional Details:** includes development of documentation and feasibility (~\$1.5m of funding from State Budget), construction of a bridge with four lanes of traffic and bike and pedestrian paths, including all entrances and exits to the bridge, and reconstruction of a section of State Road H-08
- **Trigger Event:** Kremenchuk sits at the intersection of M-22 Poltava, which connects the two longest international highways, and N-08, which connects Kyiv to Southeastern Ukraine. Currently, there is a single bridge connecting the banks of the Dnipro, accommodating 17k daily drivers in addition to railways. This bridge was constructed in 1949, underwent major repairs in 1988, but still requires modernization and is regularly closed for repairs. Without the bridge, Ukrainians would need to travel over 270km (northern route) or 290km (southern route)

## BUSINESS MODEL

Will be implemented via the Design-Build (DB) model (contract signed and design documentation prepared)

## LINK TO REFORMS

Contributes to Ukraine Plan reforms: National Transport Strategy through 2030 and Strategy for the Development and Construction of the Border Infrastructure with EU Member States and the Republic of Moldova through 2030. Also contributes to Sustainable Development Strategy for Ukraine through 2030

### Key partners

Will be implemented by the Agency for Restoration and partly funded from the State Budget

### Key Points of Project Implementation

Project implementation is expected to take ~48 months

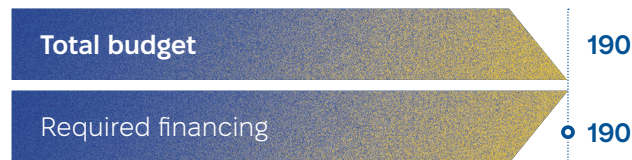
# NEW UKRAINE-MOLDOVA BRIDGE CONSTRUCTION

**PUBLIC SECTOR SPONSOR:  
MINISTRY FOR  
COMMUNITIES, TERRITORIES  
AND INFRASTRUCTURE  
DEVELOPMENT OF UKRAINE**

## VINNYTSIA REGION

- **Brief Description:** Construction of new border bridge across Dniester River to connect with Moldova. Bridge entrances, exits and connection to nearby road sections on the Ukrainian-Moldovan state border in Yampil – Koseuts. Project also includes creation of an additional international border crossing point (BCP) with Moldova
- **Impacted Populations:** Targets improving transportation for automobiles and people to support trade and economic cooperation between Ukraine and Moldova
- **Impact:** 100% increase in border crossing capacity (up to ~12k vehicles per day) to better meet projected ~200% increase in traffic between Ukraine and Moldova due to further EU integration; ~4 hour reduction in travel time between Kyiv and Chisinau from ~9 to ~5 hours; creation of up to 250-300 temporary jobs
- **Value Proposition:** Bridge will be crucial element of road network connecting Ukraine with Moldova, providing shortest route between Kyiv and Chisinau (capitals), which are both part of TEN-T network. Infrastructure modernization facilitates future EU accession
- **Project Status:** Implementation stage. Commenced in 2021. Completed: design works, land allocation, preliminary works, construction site preparation, vegetation clearance, and land reclamation, construction of the building site, installation of utilities. Ongoing: production of support structures, reinforced concrete and steel structures

### Projects Highlights (\$, mln)



**Implementation Period:** 2 years

- **Additional Details:** Primary access route to proposed bridge is via P-08 Nemyriv–Yampil highway and a segment of T-02-02 Mohyliv–Podilskyi–Yampil–Bershad–Uman highway. Both routes have undergone comprehensive repairs in recent years
- **Trigger Event:** Passage over Dniester River requires ferry service, which as of today is not functioning. The closest border checkpoint, Mogyliv-Podilskyi-Otach is overburdened as it handles almost all border crossings between Ukraine and Moldova. Ukraine and Moldova signed an agreement in June 2023 recognizing the need to construct this additional bridge

## BUSINESS MODEL

Project will be implemented via the Design-Build (DB) model (contract signed and design documentation prepared).

## LINK TO REFORMS

Includes modernization and improvement of transport infrastructure and road safety in accordance with requirements for EU accession. Project also contributes to Revised National Transport Strategy of Ukraine through 2030 (Ukraine Plan) and Sustainable Development Strategy for Ukraine through 2030

### Key partners

Will be implemented by the Agency for Restoration

### Key Points of Project Implement

- Design work, land allocation, construction site preparation, vegetation clearance, and land reclamation (completed)
- Preparatory activities and work on abutment supports (completed)
- Production of support structures, reinforced concrete and steel structures (ongoing)
- Complete construction of exits and entrances (ongoing)



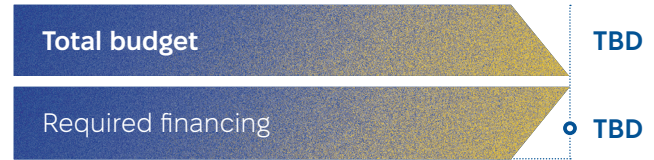
# CHORNOMORSK FERRY TERMINAL (CFT) CONCESSION OPPORTUNITY

## ODESA REGION

**PUBLIC SECTOR SPONSOR:  
MINISTRY FOR  
COMMUNITIES, TERRITORIES  
AND INFRASTRUCTURE  
DEVELOPMENT OF UKRAINE**

- **Brief Description:** Concession of Railway and Ferry Complex (CFT) for ~30 years to unlock operational potential of underutilized terminals and assets through private management and investment
- **Impacted Populations:** Potential concessionaires include operators of sea freight transshipment, transportation, ferry lines, roads and railway transshipments. Better logistics impacts all Ukrainians
- **Impact:** Optimized cargo transportation logistics; enhanced port service quality; protection of existing jobs during term of concession contract; higher environmental standards, modernized port infrastructure
- **Value Proposition:** Will increase efficiency of use and further CFT development, the only multimodal complex in Ukraine. Project also includes servicing railway, road ferry lines, and RoRo vessels<sup>1</sup>. As CFT is one of the largest terminals of this type in Black Sea region, its modernization will increase regional logistics capacity
- **Project Status:** Feasibility Study expected in June 2024

### Projects Highlights (\$, mln)



### Implementation Period: 1-2 years

- **Additional Details:** Project will proceed through an open and competitive tender, with concessionaire responsible for design, construction, equipment, and cargo handling services. Transaction would include transfer of property and port infrastructure facilities and additional construction on land owned by Chornomorsk Sea Commercial Port (CSCP). EBITDA margin was 46% from 2014-2018. Concession assets provided 1.7m tons of annual cargo from 2014-2018 (38% of capacity)
- **Trigger Event:** Recent utilization has been restricted due to: russian restrictions on transshipments to Central Asia, reduction in demand for passenger vehicles, lack of investment in physical assets, deterioration, inability to attract credit due to CSCP obligation to allocate 80% of net profit to state, private competition June 2023 recognizing the need to construct this additional bridge

## BUSINESS MODEL

### Concession as a Form of PPP

- Full operation delegated to concessionaire or SPV: SPV responsible for design, construction, equipment, and cargo handling. Facilities transferred to SPV by CSCP<sup>2</sup> and USPA<sup>3</sup>.
- SPV will improve asset usage efficiency and make to MoR (i) annual fixed payments, (ii) variable payments (percentage of net revenue from concession activities)

## LINK TO REFORMS

Includes modernization and improvement of TEN-T transit corridors, in accordance with EU standards

### Key partners

- MoR<sup>1</sup> – Grantor of the concession
- CSCP<sup>2</sup> – Holder of most assets
- USPA<sup>3</sup> – Holder of strategic infrastructure assets
- IFC, EBRD – Support for feasibility study preparation
- Project preparation and structuring performed by MoR in cooperation with EBRD and IFC.

### Key Points of Project Implementation

- **Feasibility study** (In progress, expected in July 2024)
- **Open and competitive tender, winner selection** (2024-2025)
- **Commissioning, provision of operations** (target Q1 2026)

<sup>1</sup> MoR - Ministry of Restoration; <sup>2</sup> CSCP - Chornomorsk Sea Commercial Port; <sup>3</sup> USPA - Ukraine Sea Port Authority

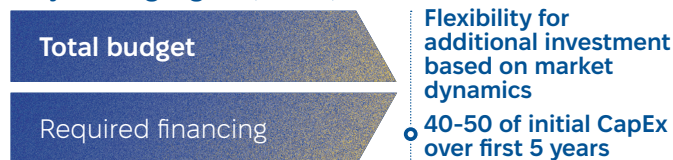
# CHORNOMORSK CONTAINER TERMINAL (CCT)

**PUBLIC SECTOR SPONSOR:**  
**MINISTRY FOR**  
**COMMUNITIES, TERRITORIES**  
**AND INFRASTRUCTURE**  
**DEVELOPMENT OF UKRAINE**

## ODESA REGION

- **Brief Description:** Concession of two terminals (Universal Terminal and Container Terminal) for ~40 years to unlock operational potential of underutilized assets through private management and investment
- **Impacted Populations:** Potential concessionaires include operators of container transshipment and other cargo handling services. Improved logistics capacity impacts all Ukrainians
- **Impact:** Will enable increase in market share of container transshipment market. The CCT has a potential handling capacity of 750k. Target required capacity is 250k TEU per year for containers, and 3m tons per year for other cargos, while in 2008 it handled up to 540k TEUs and held a 50% market share
- **Value Proposition:** Concession is strategically positioned to reestablish competitiveness in the regional container business and to transform the CCT into a main container terminals in Ukraine. Modernized infrastructure would be compliance with EU standards, paving the way for future EU accession
- **Project Status:** Ready for implementation

### Projects Highlights (\$, mln)



**Implementation Period:** 1 year

- **Additional Details:** Will proceed through open and competitive tender, with concessionaire responsible for design, construction, equipment, and cargo handling services. Concession includes 6 berths, backyards, buildings, transport and engineering infrastructure, crane equipment, cargo equipment, staff, and other assets. Concession to span ~40 years
- **Trigger Event:** Overall decline in container volume post 2015 and cessation post invasion creates an opportunity to modernize facilities and regain regional market share

## BUSINESS MODEL

- Full operation delegated to concessionaire or SPV: SPV responsible for design, construction, equipment, and cargo handling. Facilities transferred to SPV by CSCP2 and USPA3.
- SPV will improve asset usage efficiency and make to MoR (i) annual fixed payments, (ii) variable payments (percentage of net revenue from concession activities)

## LINK TO REFORMS

- Contributes to 3 Ukraine Plan reforms
- Includes modernization and improvement of TEN-T transit corridors, in accordance with EU standards

### Key partners

MoR <sup>1</sup> – Grantor of the concession	IFC, EBRD – support for feasibility study preparation
CSCP <sup>2</sup> – Holder of most assets	
USPA <sup>3</sup> – Holder of strategic infrastructure assets	

### Key Points of Project Implementation

- Feasibility study (completed, April 2024)
- Government approval (target June 2024)
- Open and competitive tender, winner selection (target Jan 2025)
- Commissioning, provision of operations (target Q2 2025)

TEU = Twenty-foot equivalent unit

All project information is provided by sponsor-initiator of the project and all monetary values are denominated in USD.

<sup>1</sup> MoR - Ministry of Restoration; <sup>2</sup> CSCP - Chornomorsk Sea Commercial Port; <sup>3</sup> USPA - Ukraine Sea Port Authority

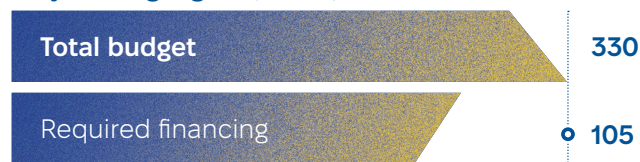
# UZ LOCOMOTIVE MODERNIZATION

**PUBLIC SECTOR SPONSOR:  
JSC «UKRAINIAN RAILWAYS»**

## UKRAINE

- **Brief Description:** To address needs in maintaining existing fleet while reducing maintenance and operating costs, UZ requires additional financing for modernization of 25 existing freight diesel locomotives, which includes the replacement of diesel engines with more energy efficient engines, wheel sets, and control systems
- **Impacted Populations:** Project targets railway freight transportation, enhancing goods movement and supporting Ukraine’s export capacities via an upgraded rail network
- **Impact:** Expected 23% increase in average productivity of each locomotive (from 0.875 to 1.073 million tkm1 brutto of cargo per day), 50% reduction in greenhouse gas emissions, ~35 years of extended life of locomotives
- **Value Proposition:** Promotes Ukraine’s economic growth by enhancing export capacities and railway efficiency, while ensuring sustainable fleet development
- **Project Status:** Ready for implementation

### Projects Highlights (\$, mln)



### Implementation Period: 2 year

- **Additional Details:** The total budget for diesel fleet upgrades (including acquisition and modernization) totals \$330m, and includes the following components:
  - Modernization of 25 existing 2T116 model freight diesel locomotives: \$105m in total, for which no commitments have been made
  - Purchase of new locomotives: \$225m project budget which the US Export-Import Bank will co-finance
- **Trigger Event:** Disruptions to traditional transportation routes have increased dependency on railway transportation routes, which provide a crucial route for exports. Freight diesel locomotive fleet of UZ has an average age of 39 years and are 98.4% depreciated leading to high operational cost and frequent failures causing disruption

## BUSINESS MODEL

- Possibly include financing for the procurement of equipment, components and works required for the modernization of 25 locomotives

## LINK TO REFORMS

- Project includes modernization and improvement in accordance with EU norms and standards per EU accession; it also aligns with the Ukraine Plan, the National Transport Strategy through 2030, and the Sustainable Development Strategy through 2030

### Key partners

Possible financing from World Bank and EBRD

### Key Points of Project Implementation

- Development of project design and modernization of pilot
- Material procurement (tender documentation development and public tenders through Prozorro)
- Construction of production and locomotive maintenance facilities of UZ through in-house contracts. New engines, control systems etc. sourced from international market

<sup>1</sup> Tonne-kilometer, a unit of measurement for the transportation of one tonne over a kilometer

<sup>2</sup> Refers to modernization of 25 freight diesel locomotives

All project information is provided by sponsor-initiator of the project and all monetary values are denominated in USD.

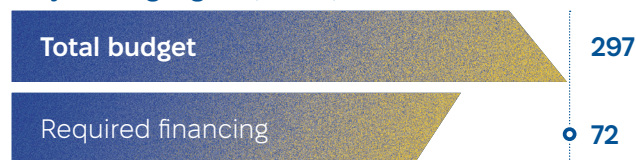
# LVIV – POLAND RAIL GAUGE CONSTRUCTION

**PUBLIC SECTOR SPONSOR:**  
JSC «UKRAINIAN RAILWAYS»

## LVIV REGION

- **Brief Description:** Construction of 81km of 1435-gauge rail-track from the Ukraine/Poland state border to Mostyska II section and further onto station Sknyliv (Lviv) as a part of the two EU TEN-T corridors. Includes reconstruction and replacement of tracks, construction of a passenger station and an intermodal terminal
- **Impacted Populations:** Benefits railway freight and passenger transportation, positively impacting Ukrainian business by increasing export capabilities
- **Impact:** ~2.6m tons of increased cargo capacity; capacity for ~1m-1.2m additional people to cross border; up to 565 temporary construction jobs; 111 permanent UZ jobs; additional private sector job creation from export capacity gains
- **Value Proposition:** Project will allow equal access of European railway operators to the Ukraine's railway network and promote Ukraine's economic growth and cross-border trade by enhancing export capacities and connectivity with the EU
- **Project Status:** Ready for implementation

### Projects Highlights (\$, mln)



**Implementation Period:** 4 years

- **Additional Details:** Includes reconstruction of 1520-gauge tracks and replacement of 2nd line with 1435-gauge tracks according to TEN-T requirements. Upgrade of signaling and communication systems, electrical catenary system and artificial structure. New passenger stations and intermodal terminals in Sknyliv. To date, ~\$225m has been committed by USAID for design and construction of track-related projects.
- **Trigger Event:** Disruptions to traditional transportation routes, along with persistent aerial attacks on port infrastructure, have increased dependency on railway transportation routes, which provide a crucial route for refugees, goods, and humanitarian and military aid. As a result, total tons of rail transit at this route increased 98% from 2019 to 2022, for a total of ~3,557 tons of cargo

## BUSINESS MODEL

- Possible business models include: Build-only models for sections with design documentation already prepared, and Design-Build (DB) or Design-Bid-Build (DBB) models for remaining segments. Once completed, UZ will oversee maintenance and operations

## LINK TO REFORMS

- Contributes to Ukraine Plan reform: National Transport Strategy through 2030. Is a priority of Strategy for the EU integration of the Ukrainian and Moldovan rail systems.

### Key partners

Project will be implemented by UZ in cooperation with USAID, who will define procurement processes

### Key Points of Project Implementation

- Reconstruction of existing 1,520 mm track, reorienting traffic from double to single-track; new automatic blocking and signaling
- Replacement of second 1,520 mm track with 1,435 mm track
- Construction of passenger station and intermodal terminal in Sknyliv

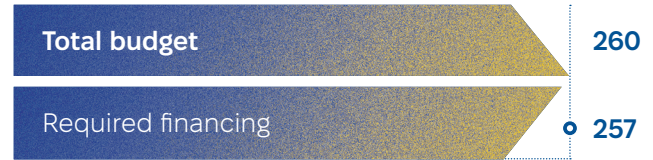
# RECONSTRUCTION OF KOVEL – POLAND RAILWAY SECTION

**PUBLIC SECTOR SPONSOR:  
JSC «UKRAINIAN RAILWAYS»**

## VOLYN REGION

- **Brief Description:** Reconstruction of railway structures (traction substation and tracks) of railway section running from Kovel – Yahodyn – State Border with the Republic of Poland, and electrification of this railway section in line with TEN-T regulation to increase throughput capacity and speed
- **Impacted Populations:** Benefits railway freight and passenger transportation, supporting Ukraine’s export capabilities by enhancing Ukraine’s railway export capacity and EU connectivity
- **Impact:** 1.5m tons of increased export capacity, 1-1.2m greater capacity for people to cross border annually, up to \$2.5m in fuel cost savings due to electrification and ability to use trains weighing up to ~6k tons, ~\$2.5m annual reduction in OpEx for UZ, ~250 temporary and ~120 permanent jobs across UZ
- **Value Proposition:** Reconstruction will promote Ukraine’s economic growth and trade in key industries (i.e., grain and metallurgy) by enhancing export capacities and connectivity with the EU, while increasing the volume of passenger and freight transport and enhancing the safety and reliability of trains
- **Project Status:** Ready for implementation

### Projects Highlights (\$, mln)



**Implementation Period:** 4 years

- **Additional Details:** To date, the development of a feasibility study for the Project was funded by the EIB. Project also received grant for 50% of design documentation from CEF Call 2022. Total design documentation costs estimated at ~\$3.4m
- **Trigger Event:** Disruptions to traditional transportation routes have increased dependency on railway transportation routes. Cross-border traffic with Poland is heavily congested. ~2.4m tons of cargo moved along this border crossing last year. Integration with EU standard gauge (1435mm) would enable more efficient transportation

## BUSINESS MODEL

- Possible business models include Build-only models for sections with design documentation already prepared and Design-Build (DB) or Design-Bid-Build (DBB) models for remaining segments. Once completed, UZ will oversee maintenance and operations; works can also be executed by UZ in-house contracting

## LINK TO REFORMS

- Project includes modernization and improvement in accordance with EU norms and standards per EU accession. Project also fits into Ukraine’s National Transport Strategy

### Key partners

Project will be implemented by UZ; feasibility study funded by EIB (NIP grant); design documentation 50% funded by CEF Call 2022. Implementation partners are TBD

### Key Points of Project Implementation

- Reconstruction of Kovel station & traction substation
- Construction of the Lyuboml traction substation
- Reconstruction of the Kovel-Yahodyn section with electrification
- Construction of the DPOL at Lyuboml station

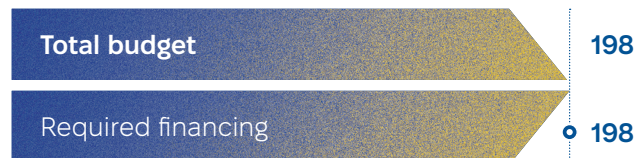
# CHERNIVTSI – ROMANIA RAIL GAUGE CONSTRUCTION

**PUBLIC SECTOR SPONSOR:**  
JSC«UKRAINIAN RAILWAYS»

## CHERNIVTSI REGION

- **Brief Description:** Construction and electrification of 47 km of 1435-gauge rail-track from Ukraine-Romania state border to Vadul-Siret (Romania) and further to Chernivtsi (Ukraine), as a part of the new TEN-T corridor running from Baltic Sea – Black Sea – Aegean Sea
- **Impacted Populations:** Benefits railway freight and passenger transportation, supporting Ukraine’s export capabilities by enhancing Ukraine’s railway export capacities and EU connectivity
- **Impact:** 1.5m addition tons of cargo capacity, capacity for 250k additional passengers, ~250 direct implementation jobs, indirect private sector job creation in long-term due to increased exports
- **Value Proposition:** Project will standardize railway gauge at strategic location and thus ensure sustainable growth of exports through Romania, serve Ukrainian national security interests, and facilitate more efficient movement of people and goods
- **Project Status:** Ready for documentation development

### Projects Highlights (\$, mln)



**Implementation Period:** 4 years

- **Additional Details:**
  - Stage 1:**
    - Development of documentation in 2025 (~\$12m)
    - Construction of 47km of 1,435-gauge track running parallel to existing 1,520-gauge track (~\$50.3m)
  - Stage 2:** Track electrification and TEN-T system requirement upgrades (\$135.7m)
- **Trigger Event:** Disruptions to traditional transportation routes have increased dependency on railway transportation routes which are essential for refugees, goods, and humanitarian and military assistance. As a result, border crossing points in Lviv, Volyn and Chernivtsi regions are heavily congested

## BUSINESS MODEL

- Possible business models include Build-only models for sections with design documentation already prepared and Design-Build (DB) or Design-Bid-Build (DBB) models for remaining segments. Once completed, UZ will oversee maintenance and operations

## LINK TO REFORMS

- Contributes to Ukraine Plan reform: National Transport Strategy through 2030. Is a priority of Strategy for the EU integration of the Ukrainian and Moldovan rail systems.

### Key partners

Project will be implemented by UZ

### Key Points of Project Implementation

- **Project documentation: Feasibility study, general & detailed design for construction and electrification of track (2025)**
- **Construction: New 47 km of 1,435-gauge track parallel to existing 1,520 mm track (2026-2027)**
- **Electrification: Electrification to enable electric locomotives to operate on this section of railway (2027-2028)**

All project information is provided by sponsor-initiator of the project and all monetary values are denominated in USD.