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The infrastructure of multimodal transportation in Ukraine - EU cross-border area : obstacles and prospects for development

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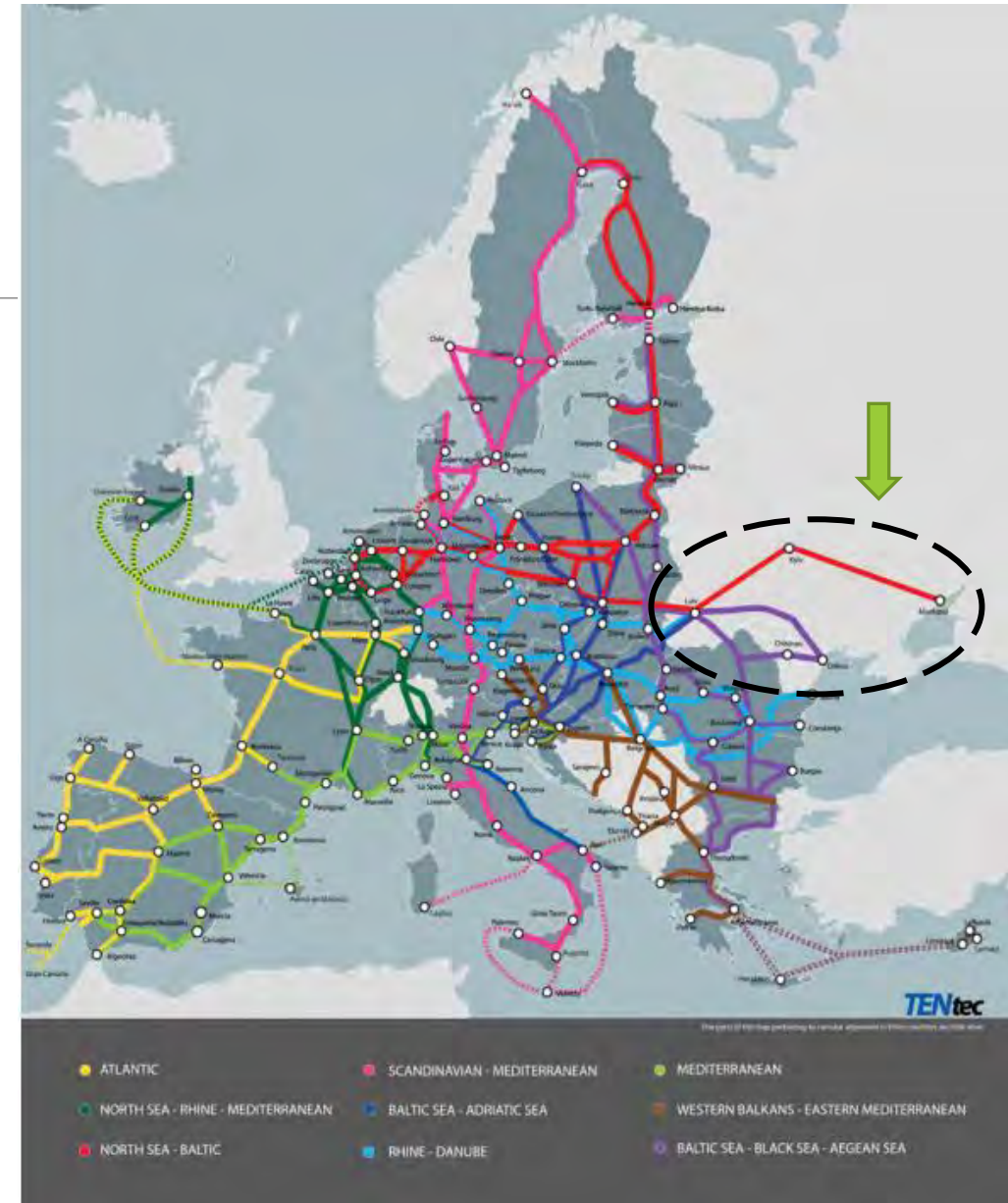
Indicative map of the Trans-European Transport Network (TEN-T)

— routes of Russia and Belarus

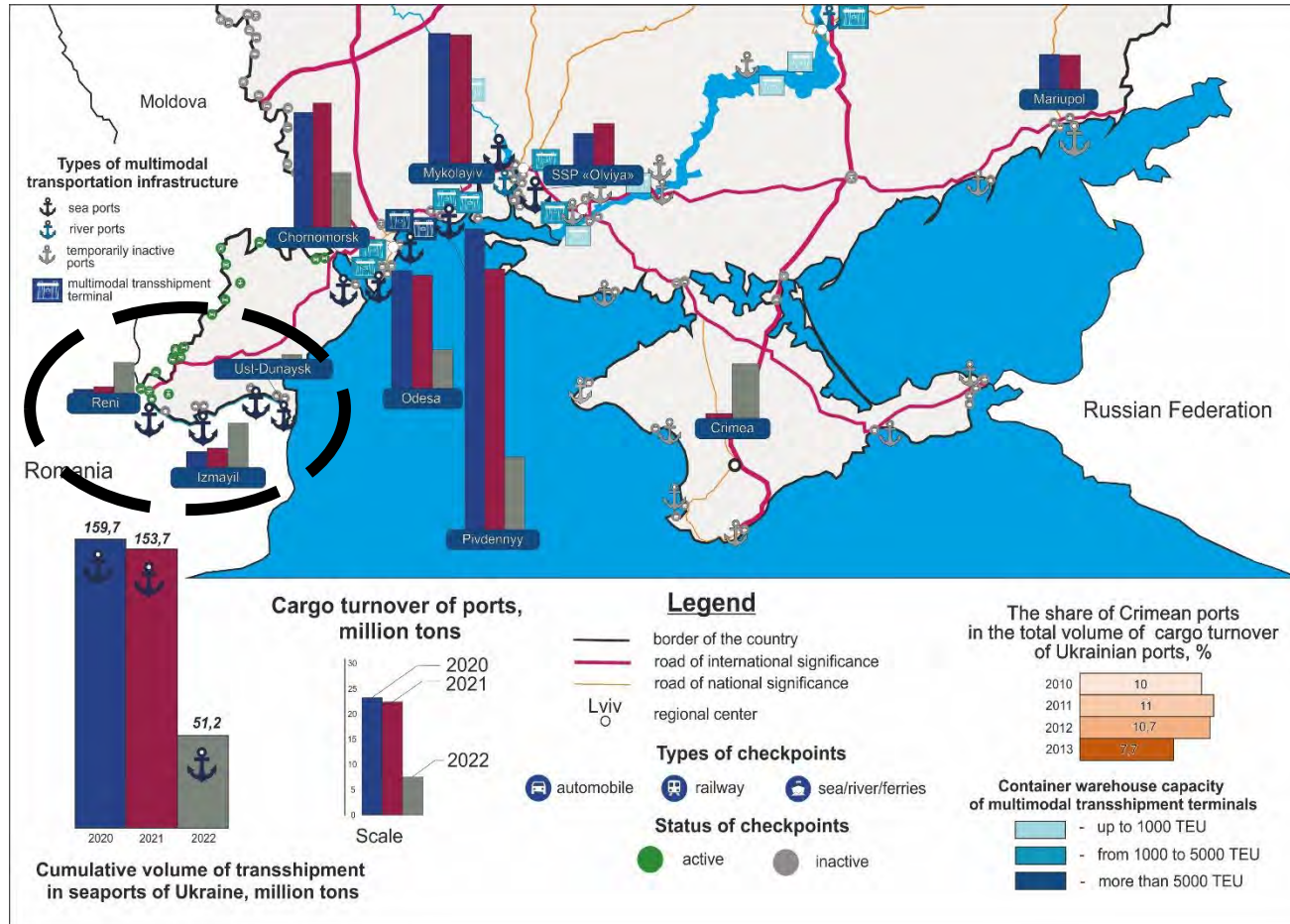
+ Ukrainian logistics routes



- The North Sea – Baltic Corridor has been extended to the territory of Ukraine through the cities of Lviv and Kyiv to Mariupol;
- The Baltic Sea-Black Sea-Aegean Sea Corridor has been extended through the cities of Lviv and Chernivtsi to Odesa;
- Baltic Sea - Adriatic Sea and Rhine – Danube Corridors will pass to Lviv

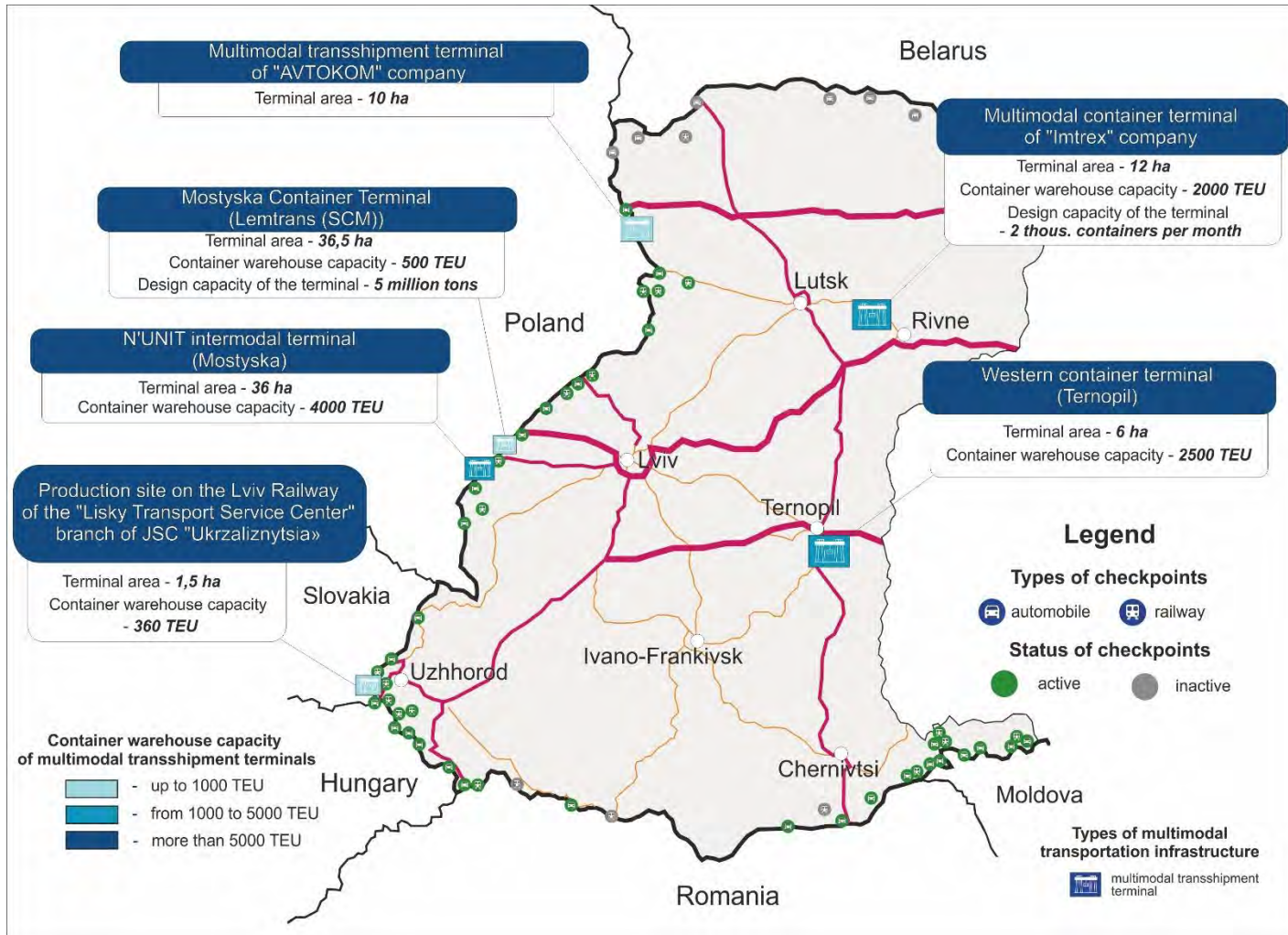


Why is it important to develop multimodal transport infrastructure in Danube ports?



- overall volume of export from Ukraine only by rail or road transport mode is impossible;
- integration of inland waterways, inclusion of the Ukrainian part of the Danube in the TEN-T network is one of the priority of the National Transport Strategy of Ukraine for the period up to 2030. So, this determines the prospects for the Ukrainian Danube Shipping Company to participate in projects aimed at implementing the EU Strategy for the Danube Region;
- establishment in 2023 EU-Ukraine Solidarity Lanes to facilitate Ukraine's agricultural export and provide the humanitarian goods will only increase the demand for the services of domestic multimodal transport operators on the Danube;
- the Danube ports are located farther from the battlefield line compared to the ports of the Azov and Black Seas, which, is important under conditions of spatial and temporal uncertainty of hostilities;
- transshipment of goods by sea is three times cheaper compared to the transshipment cost by road (344 USD/t vs 1 088 USD/t, respectively);
- for our country it is important to take into account EU strategic priorities, in particular, what attention the EU pays to the development of inland waterways transport as environmentally friendly, safe and more efficient.

Why is it necessary to develop the infrastructure of multimodal transportation of Ukraine's dry ports?

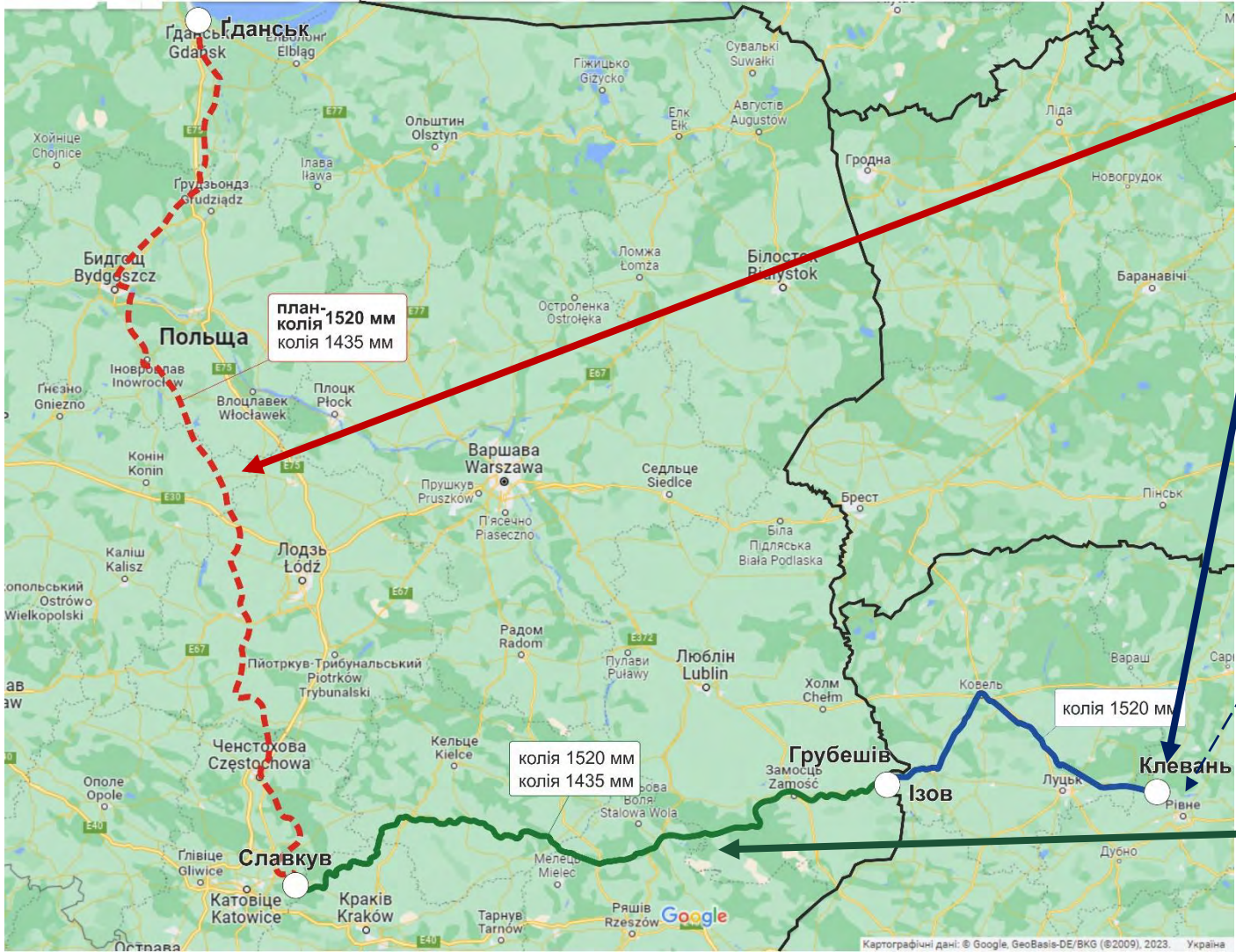


Institutional aspects:

- a number of agreements have been signed between Ukraine and the EU, which will facilitate the establishment of alternative routes (both rail and road) for the export of Ukrainian agricultural goods as well as imports under the blockade of seaports, accelerate the passage of Ukrainian goods through the border, simplify the procedures at checkpoints, simplify the procedure for recognizing driver's license, etc.;
- Ukraine and some EU countries signed a number of bilateral agreements on strengthening cooperation in the railway sector;

Infrastructure aspects:

Today, a number of infrastructure projects have already been implemented (or planned to implement in the near future) in Ukraine and EU countries



Poland is considering the possibility to extend the wide railway track from Slawków to Gdansk, where Poland's largest seaport is located

Ukrainian multimodal container terminal of the **Imtrex** company (Rivne region) has its own track (2 km long) adjacent to the station "Klevan"

The station "Klevan" has a railway connection with "Izov" (191 km) on the Ukrainian-Polish border, from which broad-gauge railway line (1520 mm) runs into Poland for 395 km to the station "Slawków"

Infrastructure aspects:

Today, a number of infrastructure projects have already been implemented (or planned to start in the near future) in Ukraine and EU countries



Ukraine can become part of the so-called Middle Corridor (or Trans-Caspian route) – part of the New Silk Road, which passes through the countries of Central Asia, the Caucasus, the Caspian and Black Seas. Russia's war against Ukraine and sanctions imposed against aggressor states have given the impetus for the development of this corridor, which previously played a minor role in the transit of goods from China to Europe (3-5% of total traffic)

Infrastructure aspects:

Today, a number of infrastructure projects have already been implemented (or planned to implement in the near future) in Ukraine and EU countries

- **repair of the railway section on the Ukrainian-Romanian border by JSC Ukrzaliznytsia (the track has not been used since 2003).** The commissioning of this section will create new opportunities for increasing transit traffic volumes and improving the connectivity of the Carpathian region;
- **restoration of the European track length of 20 km on the section Chop – Uzhhorod.** It eliminates the time spent on changing wheelsets and will allow connecting the regional center of the Zakarpattia region by fast railway communication with a number of European cities - *Vienna, Bratislava, Belgrade, Budapest, Prague, Dresden* (in close proximity to the checkpoint "Chop (Druzhba)" on the Ukrainian-Hungarian border there is a production site of the branch "Center for Transport Service "Liski" of JSC "Ukrainian Railways" (*cooperates with DHL Global Forwarding and MAERSK LINE, as well as sea carriers "Ukrferry" and "FerriPlus"*). The companies will jointly organize container transportation, attract additional cargo and expand the geography and routes of transportation);
- **laying of European (narrow gauge) track on the route Vadul - Siret - Chernivtsi with a length of 42 km,** which will contribute to the development of rail transportation with Romania, Bulgaria and Turkey;
- **extension of 1435 mm railway track from Kovel to Lutsk** (will ensure railway connection with Poland and the Baltic countries), as well as from Mostyska station to Lviv;
- restoration and commissioning of existing sections of narrow railway tracks in Zakarpattia and the section from Poland through Yahodyn (in particular, near 2 km from the checkpoint "Yahodyn" there is a multimodal transshipment terminal of the company "Avtokom").

The main obstacles to the development of multimodal transport infrastructure...

on the Danube River in Ukraine:

- ❑ the necessity for dredging the Danube ports. This will allow to accept cargo from large-sized sea vessels, improve the safety of navigation on the Danube, maintain the declared depths;
- ❑ the need to upgrade the Danube fleet and port transshipment infrastructure.

«Dry ports»:

- ❑ difficulties with crossing the border by rail due to different track width in Ukraine (1520 mm) and EU countries (1435 mm);
- ❑ uneven distribution of cargo transportation through the western border crossing points of Ukraine;
- ❑ different Ukrainian wagons widths which are usually wider compared to the EU

The main measures envisaged by the Recovery Plan of Ukraine, the implementation of which will contribute to the development of multimodal transshipment terminals in Ukraine

Main activities	Expected result
Development of a network of domestic container terminals (2023–2025)	Enhanced availability and interoperability of freight transportation by using high-quality transshipment infrastructure of an extensive network of logistics terminals will ensure flexibility and high capacity of the Ukrainian transport system in all directions and on competitive terms
Increasing competitiveness and reliability of multimodal transportation	Increasing the competitiveness of multimodal transportation through control measures and legal regulation will stimulate the development of this transportation market and improve the quality of transportation services in the context of open competition. Improving safety and security of rail transportation; Increasing the maximum permitted weight for container trucks on the initial and final transportation sections, Ensuring weight control of multi-ton vehicles on the roads to increase the competitiveness of intermodal transportation; Full implementation of single window system for multimodal transportation
Modernization of the existing and opening new border checkpoints	Construction and arrangement of multimodal transport terminals at the border with the EU countries that provide possibility for cargo reloading to other means of transport, in particular on railway platforms for transportation on 1,520 mm and 1,435 mm tracks
Construction of a new cargo terminal at Boryspil International Airport	Development of air cargo transportation via Boryspil Airport; increasing the cargo turnover (not less than 120 thousand tons per year); The existing cargo terminal is overloaded and is equipped with relatively obsolete technologies and equipment.
Development of the road and rail infrastructure of Izmil Seaport	Increasing the operational capacity of Izmil Seaport; reconstruction the operational rail track, with the construction of horizontal platform for installation of tensometric static railway scales with a capacity of 150 tons
Development of the marine terminal infrastructure of Izmil Seaport	Construction of the specialised complex for bulk cargoes with a wagon tippler; reconstruction of the storage area located in the rear of berths No. 12 and 13 of Production Transshipment Complex No. 2 for the storage of containers
Construction of a river port (terminal) and/or multimodal terminal in the Danube Region	Increasing the capacity of the ports of the Danube region as well as cargo turnover
Development and extension of the operational capacity of Ust-Dunaisk Commercial Sea Port SoE and the Port of Kiliia in partnership with the port operator, Grain Terminal Kiliia LLC	Increasing the loading rate up to 5,000 tons per day; commissioning of the second berth; expanding the grain storage facility by 40,000 tons
Creation of a multimodal hub on the basis of one of the Danube ports (Reni or Izmil) and construction of river ports (terminals) to intensify cargo communication with EU countries as well as other countries, in particular transportation in containers	
Organize a multimodal terminal on the Dnipro River (Middle Dnipro)	

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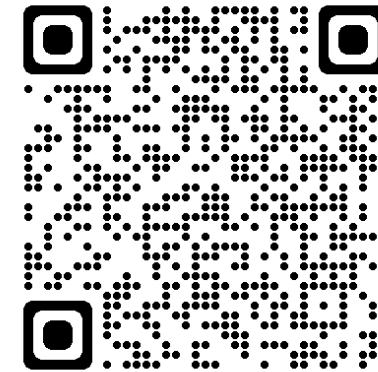
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