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CRIMEA
PLATFORM

Ukraine's Maritime Cluster Creation

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INTRODUCTION

When Ukraine became independent in 1991, every fifth passenger on Earth was using the steamers of the Black Sea Shipping Company. At that time, the shipping enterprise was among the biggest international maritime companies (ranked third in the world). Unfortunately, the water transport as we have it today requires a comprehensive approach in support of its restoration. Despite having over 2,800 kilometers of Black Sea-Azov coastline and 23 seaports, as much as 95% of Ukrainian freight is transported by foreign ships and 30,000 Ukrainian sailors are sailing under foreign flags.

The water transport industry in Ukraine could be divided into two developed and self-sustained subindustries: maritime transport and river transport systems.

The maritime transport system is a multifunctional entity. It is capable of providing all necessary transport services to the national economy. The maritime transport of Ukraine covers up to 25% of the freight traffic volume in the country.

The seaports of Ukraine are part of the national transport and production infrastructure. Most of them are located along the international transport corridors and became part of the international transport system.

The efficiency of Ukrainian seaports, the level of their technical and technological equipment, compliance of the control

system, and development of the port infrastructure with modern international requirements directly impact the competitiveness of the Ukrainian transport system on the international transport market.

Some of the competitive advantages of the seaport industry in Ukraine include:

- high export potential of ferrous metals, railway products, and grain crops;
- availability of cargo handling facilities;
- favorable geographical location of seaports that facilitates the transit flow of cargo;
- access to highly experienced port industry personnel.

The industry includes the following components:

- 38 state-owned enterprises with an annual turnover of around 10 billion UAH;
- over 5000 economic entities;
- over 100,000 sailors (citizens of Ukraine);
- 23 seaports (including 10 ports in the occupied Crimea);
- single job in this industry equals 4-5 jobs in other related economic industries.

The river transport system operates within seven navigable water areas (river waterways). The list of waterways approved by the Cabinet of Ministers of Ukraine includes the following:

- the Pripyat River – from the border with Belarus to the mouth;
- the Dnieper River – from the mouth of the Pripyat River to Kyiv HPP;
- the Dnieper River – from Kyiv HPP to the city of Kherson;
- the Dnieper River – from the city of

Nyzhni Zhary to the mouth of the Pripyat River;

- the Desna River – from the city of Chernihiv to the mouth;
- the Southern Buh River – until the city of Mykolaiv;
- the Danube River – in the vicinity of the Orlivka settlement.

The river transport system of Ukraine is connected to the Republic of Belarus and Poland via a system of canals as well as to the Baltic Sea via the Vistula River basin and the Dnieper-Buh canal.

Some of the competitive advantages of the river industry in Ukraine include:

- five fully or partially navigable rivers (two of the top-5 longest rivers in Europe);
- around 6000 kilometers of inland navigable rivers;
- 16 river ports and terminals;
- around 60,000,000 tons of freight handling capacity per year.

CHAPTER 1.

CHALLENGES OF THE UKRAINIAN WATER INDUSTRY

The balance between the level of national transport infrastructure (water transport infrastructure) and the level of requirements available. The water transport infrastructure of Ukraine needs modernization. Its current capacities are limited due to an obsolete fleet of ships, a lack of state-of-the-art ships and port terminals as well as underdeveloped technological and information support systems. Some of the factors that affect the competitiveness of Ukrainian water transport include:

- obsolete transport technologies in the field of intermodal transport;
- low level of containerization;
- inefficient logistic approaches to cargo flow management;
- underexploitation of advantageous geographical location and transit potential;
- incomprehensive legal framework (on standardization of water transport activities and attraction of investments);

- deficient port registration procedure for ships, cargo, and vehicles (not aligned with EU practices) and inadequate tariffs setting system;
- lack of ships capable of sea transportation under the Ukrainian flag. At the end of 2018, there were more than 118,000 ships in the world capable of transporting around 1.3 billion gross registered tons. Among them were slightly more than 60,000 cargo ships with a total deadweight of 1.9 billion tons. Most ships in the world sail under the flag of Panama (approx. 8,000 vessels with a total tonnage of 215 million registered tons), followed by Liberia (3,500 vessels with a total tonnage of 155 million registered tons) and the Marshall Islands (3,500 vessels with a total tonnage of 151 million registered tons).

Ukraine on the international maritime transport market

There are 408 ships sailing under the flag of Ukraine (0.34% of the world fleet) with a tonnage of 219,000 registered tons (0.02% of world tonnage) and a deadweight of

350,000 tons (0.02% of world deadweight). It is safe to say that the Ukrainian fleet is not represented on the world map of maritime transport players for a number of reasons:

- inefficient use and poor condition of inland waterways;
- unsafe navigation due to the occupation of the Crimean Peninsula, the Sea of Azov, and parts of the Black Sea by the Russian Federation;
- violation of the integrity of the Ukrainian water transport system due to the occupation of the Crimean Peninsula by the Russian Federation, which prevents free navigation in the Sea of Azov and parts of the Black Sea.

The analysis of the water transport system in Ukraine indicates gradual obsolescence of its major assets, which are becoming inconsistent with modern requirements to technical and technological conditions. The wear condition of the river fleet in Ukraine exceeds 80%. There are practically no ships commissioned over the past 5 years except for dry cargo barges (1.2% of the total

number). Many ships were commissioned 10 to 20 years ago. This includes dry cargo barges (31.6%), bulk carriers (15.4%), as well as passenger and cargo ships (7.6%). It should be noted that 92.4% of ships were commissioned over 20 years ago, which clearly illustrates the critical condition and the need for refurbishment.

It, therefore, results in the insufficient use of the water transport potential in Ukraine. The Ukrainian companies are lacking the funds required to support the refurbishment process of their transport fleet. According to official statistics, 58% of water transport enterprises are unprofitable with no funds to cover the depreciation. The procurement of new ships requires major investments. Therefore, the technological procedure behind the fleet renewal takes longer than a similar process in other sectors of transport. In 2015, Ukraine attracted a total of 41,495,700 USD as investments in its transport industry. This is not enough to cover the depreciation and re-equipment of enterprises.

CHAPTER 2.

DEVELOPMENT OF THE WATER TRANSPORT IN UKRAINE

A "Cluster" is a group of interconnected companies within a certain area (according to economic theory). Therefore, the analysis of the situation with water transport in Ukraine would involve the definition of four clusters (Sea of Azov, Crimean, Odesa, North Black Sea) within the maritime sub-industry and seven clusters within the river transport industry (based on the list of navigable rivers approved by the Cabinet of Ministers of Ukraine).

The current and possible level of interconnection between economic entities of the water transport industry of Ukraine could be described as "agglomeration" or "regional agglomeration"/ "regional and industrial agglomeration", to be more precise. At the same time, the "regional and industrial agglomeration" should be considered as a "combination of transport, industrial, scientific, educational and other infrastructure institutions in support of the water transport industry in Ukraine". In this respect, the term "locational and industrial cluster" could be used as well.

The development of water transport in Ukraine (within the context of the

Development of water transport as part of the overall economic development of Ukraine

The challenges in the water transport of Ukraine (and other industries) could be settled by running an economic and legal experiment on the development of water

development of the "locational and industrial cluster") could be considered in terms of several aspects while taking into account the current situation in Ukraine.

Aspect I. Development of the water transport as part of the overall economic development of Ukraine.

Aspect II. Development of water transport as a precondition for the revival of the locational and industrial cluster and restoration of the territorial integrity of Ukraine.

Aspect III. Development of water transport as an incentive to reinforce Ukraine's national security level.

transport in Ukraine as well as the socio-economic development of the related territories.

It should be mentioned that the development of water transport in Ukraine would increase the freight and passenger turnover for river transport and facilitate the development of Ukrainian railways by reducing the freight and passenger (to a lesser extent) volume over a certain period of time to be compensated by the water transport capacities. Such a reduction would allow to initiate the replacement of the car fleet (a temporary decrease in the demand for railway cars) and a major overhaul of railway tracks. This would increase the efficiency of both water and rail transport in Ukraine.

This is another reason in support of the development of water transport in Ukraine. River transport remains the most cost-effective way of transporting cargo. Should we try and compare the fuel expenses per 1 km of transport services in Ukraine, we would obtain the following results. The same transportation resources would allow transporting 50 tons of cargo by road or 97 tons of cargo by rail or 127 tons of cargo by river. According to European experts, the efficiency of river freight in Europe is twice as higher as the efficiency of rail freight.

The river freight in the EU is estimated at a level of 5-7% of total European freight. At the same time, Ukraine with the largest number of rivers on the continent has a river freight of 0.19 to 2.2%.

The issue of energy consumption by the national economy. Ukraine is one of the "leaders" in the amount of fuel (1.212 million tons of conventional fuel) it requires to accumulate 1 billion of GDP. France is spending only 110,000 tons of conventional fuel. The development of water transport in Ukraine would reduce the energy consumption of the national economy. In

other words, the development of water transport reduces the consumption of fossil fuels, which conforms to the international efforts to curb global warming.

The development of water transport in Ukraine produces a positive response to the respective EU resolutions. According to the European Parliament resolution of 14 September, 2021 (2021/2015(INI)):

"...whereas inland waterway transport is an essential pillar in the shift towards multimodal sustainable transport... whereas the current modal share of inland waterway transport is far too small and a sharp increase is needed to reduce road congestion, enhance safety, reduce emissions and ensure a more sustainable transport system as a whole... whereas the further development of the inland waterway sector is a cornerstone for building a smart, sustainable and competitive European transport network..."

In September 2021, the Ministry of Infrastructure of Ukraine published the Strategy for the Development of Inland Waterways of Ukraine for the period until 2031 in an attempt to overcome the following challenges: the incomprehensive legal framework (on standardization of water transport activities and attraction of investments); deficient port registration procedure for ships, cargo, and vehicles (not aligned with EU practices) and inadequate tariffs setting system; lack of ships capable of sea transportation under the Ukrainian flag. This document has a number of weaknesses, namely: lack of clearly specified tasks and expected outcomes; use of state and local budgets as the only source of funding; significant share of the state involvement in the

implementation of the Strategy. These will have a negative impact on the fulfillment of the Strategy.

The previously suggested economic and legal experiment on the development of water transport in Ukraine as well as the socio-economic development of the related territories could be an effective tool in support of the implementation of the Strategy. There is a number of criteria that should be complied with, namely:

1. less state and more private involvement;
2. dedicated bank to cover the development of water transport in Ukraine with a limited share of the state-owned authorized capital (5 to 0%). The authorized capital of the bank is based on the contributions of the citizens of Ukraine (primarily those residing on the territory of the respective locational and industrial cluster), local authorities from within the cluster, commercial organizations, and foreign investors;
3. dedicated leasing company;
4. branch office of the dedicated insurance company;
5. legislation (new and amended) to ensure the monitoring and facilitation of development. More specifically, the changes in the registration procedure of flags for seagoing vessels under the Merchant Shipping Code of Ukraine offering some favorable registration terms and conditions. The establishment of a ship register, which allows for any ship commissioned within 15 years or less to be exempt from import taxes and

duties. The establishment of a new registration procedure for ships with the introduction of online registration mechanisms and a deadline of 2-3 days to complete the registration. The revision of the operating procedures for the Maritime Administration of Ukraine.

The technical and technological refurbishment of Ukrainian sea and river port terminals should provide for the installation of the container handling capacities in order to increase the level of containerization for the port terminals. This would increase the freight traffic by water transport and facilitate the import/export with the EU (via the Danube River).

In terms of training and research projects on water transport, there is a need to introduce a different approach to their implementation, which involves a smaller share of state funding replaced with the attraction of funds from commercial customers subject to long-term direct contracts.

The technical and technological re-equipment of the shipbuilding and ship repair enterprises. In 1991 Ukraine ranked 5th among 24 European shipbuilding countries (currently 16th). The country is using only 10% of the available shipbuilding and ship repair capacities. Ukraine has 20 large and medium shipbuilding and ship repair enterprises without taking into account the companies from occupied Crimea. There is also a great number of small enterprises capable of producing boats and yachts up to 24 meters long. These enterprises have over 6,000 employees. There are 15 design bureaus and research organizations that additionally employ around 2,000 employees.

The Ukrainian shipbuilding and ship repair enterprises are capable of building barges (self-propelled and non-self-propelled), warships, river-and-sea-going vessels, tugs, and cruise ships. This is almost a complete range of vessels required to support the

Development of water transport as a precondition for the revival of the locational and industrial cluster and restoration of the territorial integrity of Ukraine

Russia has occupied the territory of the Crimean Peninsula, which is an integral part of the locational and industrial cluster of Ukraine. As the result of the occupation, Ukraine was deprived of the opportunity to operate ten multipurpose seaports as well as several dozens of industrial as well as scientific industrial enterprises that could be well used to support the needs of water transport, including the defense and industrial complex.

The occupation of the Crimean Peninsula significantly affected the commercial navigation through the Kerch-Yenikale canal.

Kerch-Yenikale canal – is a navigable canal and a part of the Kerch Strait. The canal was built at the end of the XIX century in order to improve commercial navigation. It was further expanded in 1970 to have a width of 120 meters and a depth of 9-9.75 meters. The canal requires time-consuming dredging operations to prevent silting and shallowing, although no such operations have been conducted for many years.

Several years before the occupation, the Ministry of Transport of Ukraine in control over the Kerch-Yenikale canal ensured a depth of 9.35 meters. The sea depth at all ports and berths is measured and recorded on the annual basis subject to a special

comprehensive development of water transport in Ukraine and ensure its safe operation. The only question is about the technical and technological re-equipment of enterprises and supporting their stable operation.

instruction of the port captain (“On the announcement of depth and maximum permissible drafts of vessels at the berths”). In 2015, the maximum permissible draft to navigate the Kerch-Yenikale canal reached the level of eight meters. The same was announced by the captain of the occupied port of Kerch.

Any ship to reach the berths of Kerch would need to take the Kerch approach canal, which connects the Kerch-Yenikale canal and the Kerch merchant port. At that point, the ship may return to the Kerch Fishing Port. The canal is rapidly shallowing. The depth reduced from 8.3 meters in 2004 to 6.0 meters in 2017 and all the way to 4.9 meters in 2019 when bridge construction was initiated. The fishing port that was once capable of accepting ships with a draft of 8 meters has reached a depth limit of 4.9 meters. The same depth is registered for the Kamysh-Burunsky Canal. The same reports on the depth decrease by the berths are coming from the captains of other seaports in the occupied Crimea.

Considering the approach taken by the Russian occupation authorities in Crimea, the commercial navigation in the Azov and Black Seas could only be restored to the level of 2013 after the de-occupation of the Crimean Peninsula.

Apart from the Crimean Peninsula, the locational and industrial cluster of water transport in Ukraine involves Donetsk (port of Mariupol, which is partially occupied by the Russian Federation), Zaporizhia (port of Berdyansk), Kherson, Odesa, and Mykolaiv Oblasts. All of them are bordering the occupied territory of Crimea by land or sea.

Development of water transport as an incentive to reinforce Ukraine's national security level

The strategic idea behind using sanctions as an instrument of economic war against the aggressor state would involve a significant increase in the sustainment cost of the Crimean Peninsula urging the aggressor state to abandon its occupation as soon as possible. It is therefore required to further expand and reinforce the impact of sanctions, including those related to the operation of Crimean ports. Ukraine should play a leading role in this respect.

Unfortunately, there were no consistent measures in terms of the development of the legal framework and additional restrictive instruments (sanctions) to reinforce the “negative environment” for a wide range of issues covering the port activity in the occupied territory of Crimea. There should be an account of existing instruments used to circumvent the valid sanctions. Ukraine has all the necessary preconditions for doing so, which are provided under the international norms and agreements. Example. Anyone visiting the ports in the occupied territory of Crimea could be prosecuted for violating Art. 276 (Violation of the rules of traffic safety and operation of the railway, water or air transport) and Art. 332-1 of the Criminal Code of Ukraine (Violation of the procedure for entering and leaving the temporarily

This situation allows to proceed with the project on the development of attractive socio-economic conditions in areas bordering the occupied territories of Ukraine. The development of the locational and industrial cluster of water transport in Ukraine would support the implementation of the project.

occupied territory of Ukraine). The current international conventions require the mandatory use of AIS systems by all ships, although it offers no responsibility for their temporary shutdown. There was no need to prescribe such details until the occupation of the territory of the Crimean Peninsula by the Russian Federation and the further transformation of the Azov and Black Seas into Russian inland waters.

According to the United Nations Convention on the Law of the Sea, Ukraine is authorized to introduce additional provisions under its national legislation to ensure the safety of navigation within the exclusive maritime economic zone of Ukraine, the territorial waters of Ukraine as well as the littoral zone of Ukraine. For example, Ukraine may introduce the mandatory use of AIS systems by all ships entering the exclusive maritime economic zone of Ukraine, the territorial waters of Ukraine as well as the littoral zone of Ukraine (at least during the occupation of the Crimean Peninsula) and impose a ban on its temporary shutdown. Any violation would result in economic, administrative, criminal, or other liability. Crimea is the territory of Ukraine. The same is for the maritime space around the Crimean Peninsula. Therefore, the introduction of

amendments to the national legislation would significantly restrict the ability to circumvent sanctions by shutting down the AIS system. This would apply to anchored ships, ships moored for loading/unloading operations as well as those crossing the maritime zone of Ukraine. Such an approach would impact the willingness to attend the sanctioned Crimean ports.

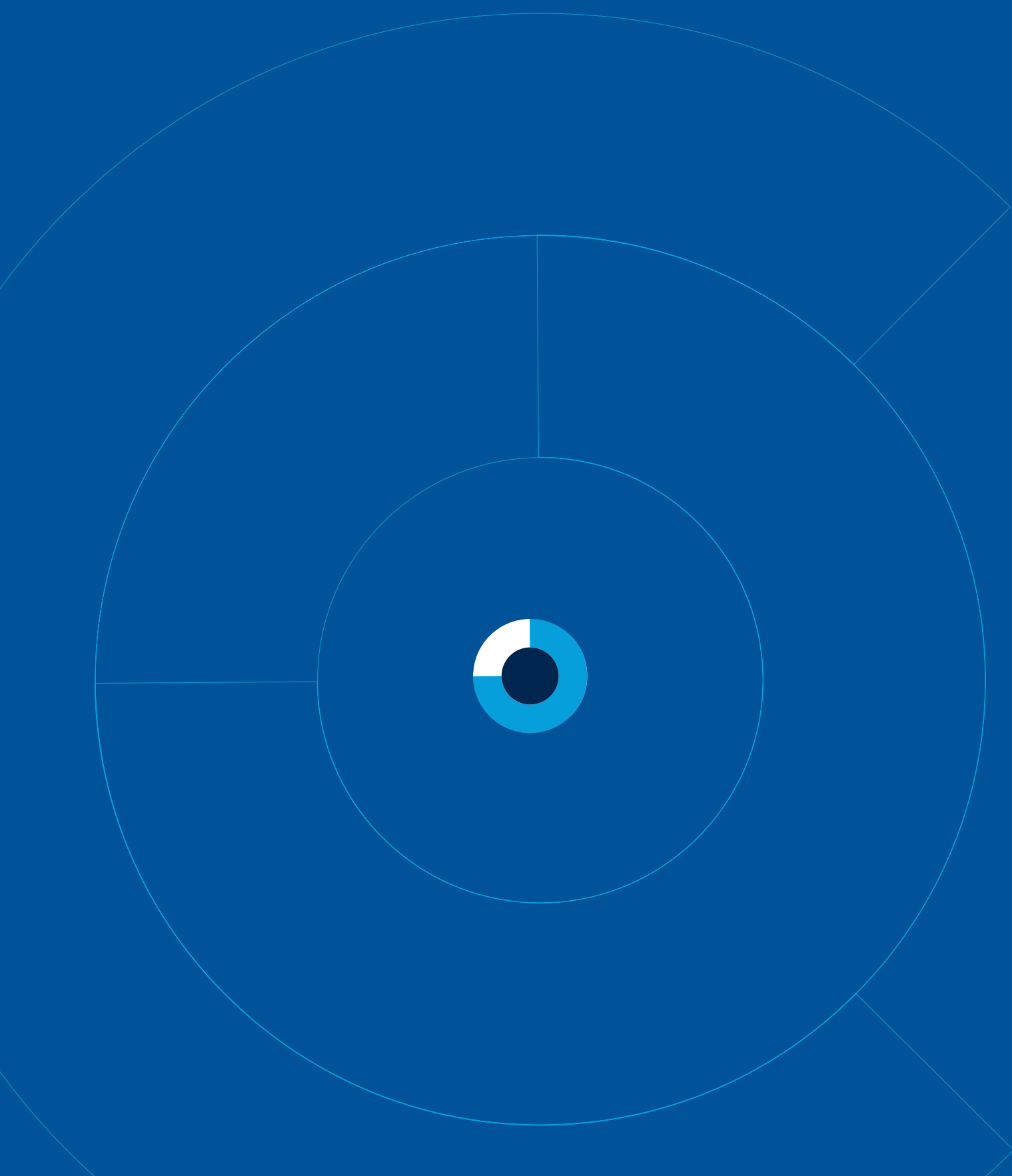
Ukraine could refer to the occupation of its sovereign territory, including the maritime zone, as the result of Russia's

armed aggression that poses a threat to navigation and a source of piracy in the gray zone around Crimea. Some of the Ukrainian sailors have already been taken as hostages.

The introduction of such (temporary) restrictions would contribute to the safety of water transportation by “river-sea-river”. This security is important both for national and export-import freight. Besides, it would also facilitate the development of water transport itself.



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