

Development of Inland Waterways in Ukraine – an effective measure towards sustainable growth of the region

**Virginia Oganessian – Senior engineer,
SE «Ukrainian sea ports authority»**



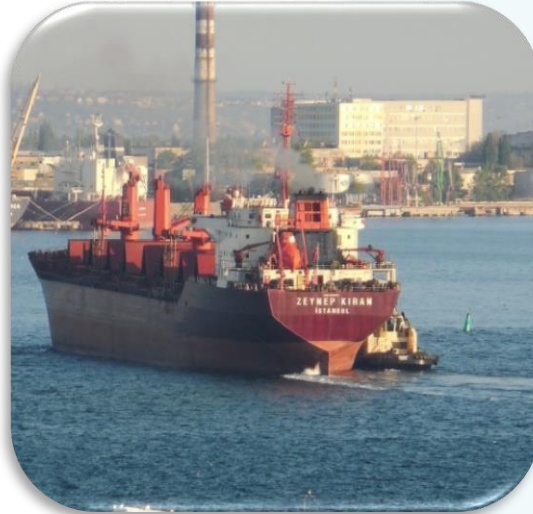
UNITED NATIONS
ECONOMIC COMMISSION
FOR EUROPE

USPA: facts & figures

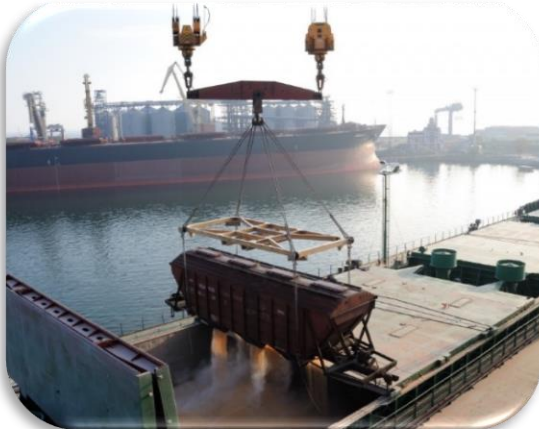
13

Maritime ports

3 Ports on
Danube



263
terminals
of total length
40 km



Established in
2013



2714 km
Total length of
navigable Inland
Waterways

USPA: organizational structure and main functions



USPA



Main office
Kyiv



Headquarter
Odessa



13 branches
(seaports)



Delta-pilot



Dredging
Fleet Branch

Main functions of USPA

- Maintenance and effective use of strategic assets of infrastructure located on the territory and harbor waters of the seaports;
- Provision of safety of navigation and environmental protection in seaports;
- Preparation and monitoring of the implementation of seaports development plans, elaboration of proposals for its improvement.
- Provision of guaranteed parameters on river inland waterways, access channels to river ports, terminals, quays and piers;
- Increase of Inland Waterways Freight Turnover.



Amongst TOP-5 largest European rivers:



Dnieper



Danube



The Southern Buh



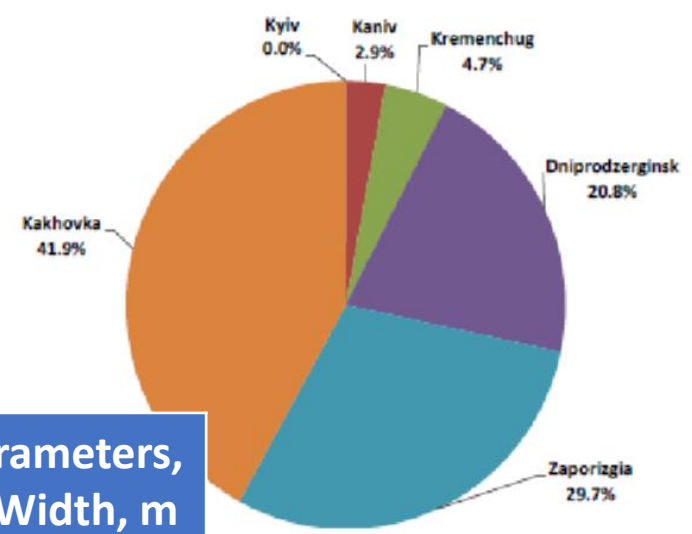
Ukrainian Inland Waterways: facts & figures



Characteristics of Locks and Storage Reservoirs on Dnieper



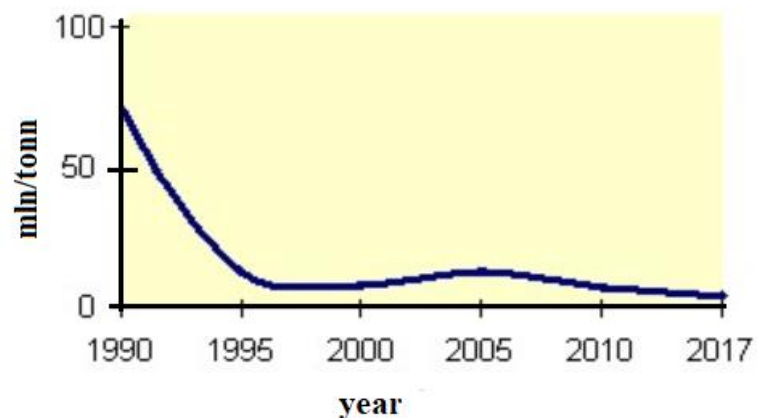
% of cargo ships per lock



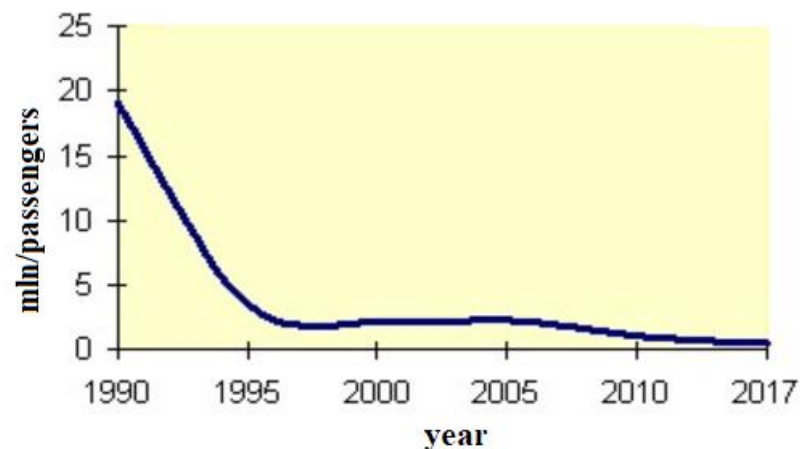
Name	Length, km	Depth, cm	Width, m	Lock`s parameters, Length x Width, m
1. Kyivs`ke Reservoir	162	125-250	50	150x18
2. Kaniv`ske Reservoir	123	365	80	270x18
3. Kremenchuts`ke Reservoir	185	365	80	270x18
4. Dniprodzerzhyns`ke Reservoir	114	365	80	275x18
5. Dnieper Reservoir	129	365	80	290x18
6. Kakhovka Reservoir	212	400	80	270x18

Ukrainian Inland Waterways: Statistics

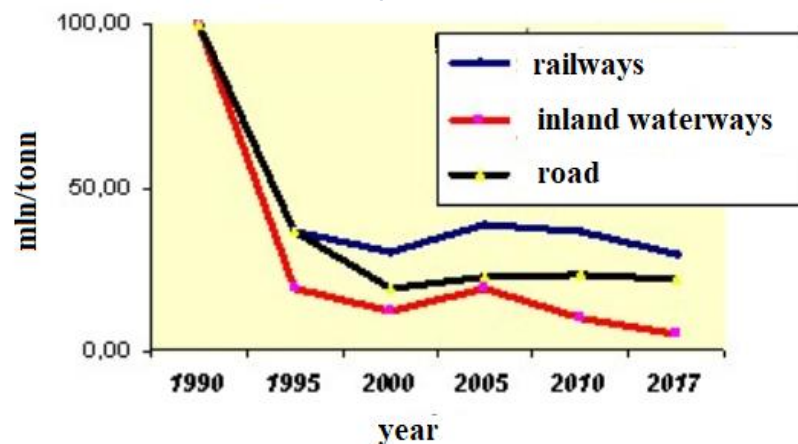
Cargo transportations on inland waterways



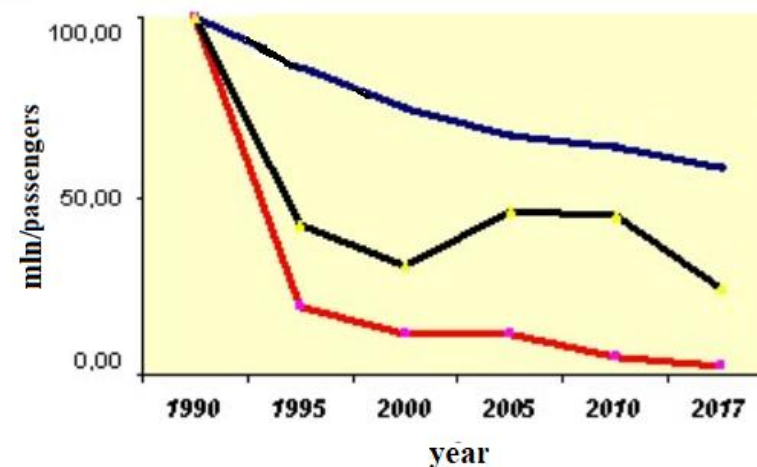
Passenger transportations on inland waterways



Cargo transportations by different transport modes



Passenger transportations by different transport modes



Netherlands

359
MDH.T.



USA

630
MDH.T.



Romania

30
MDH.T.

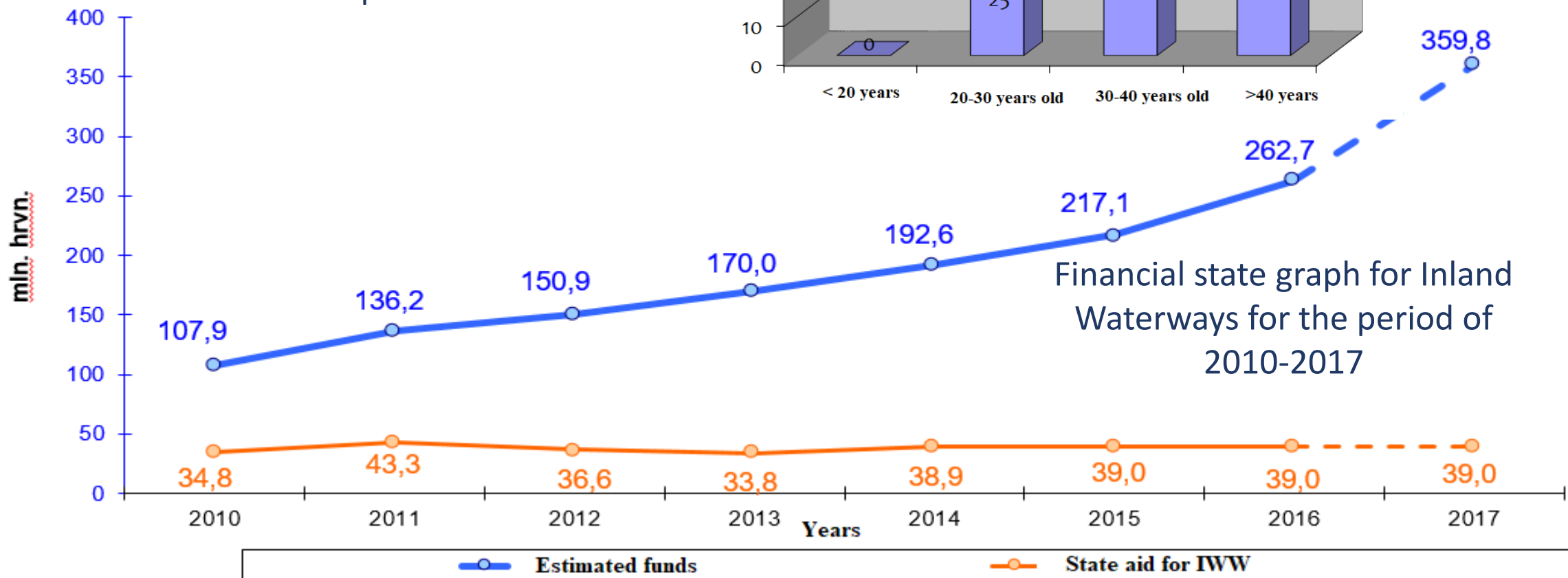
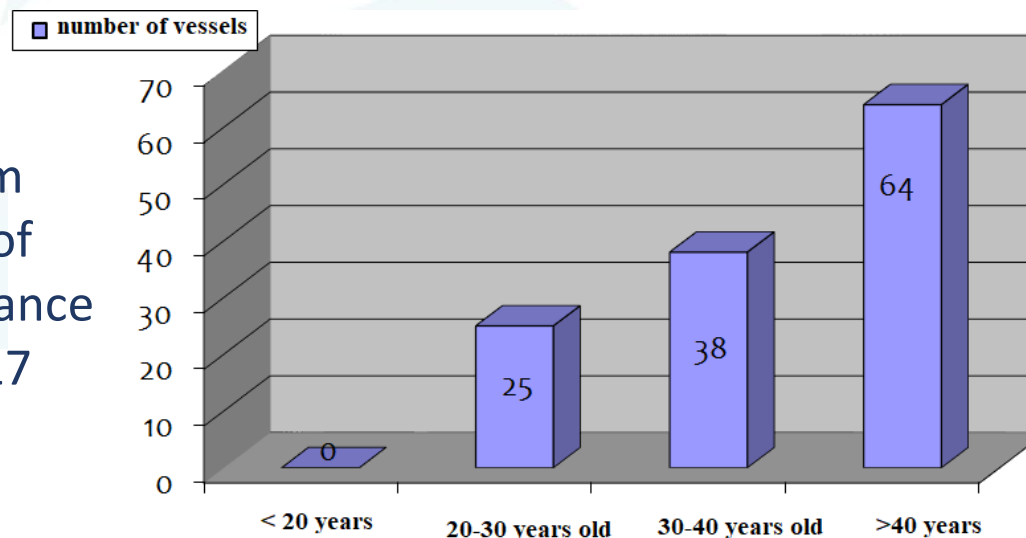


Ukraine

6,7
MDH.T.

Ukrainian Inland Waterways: Main problems

Dredging fleet age diagram demonstrates an analysis of equipment for IWW maintenance for the period of 2010-2017



USPA: main targets and tasks for IWT development



1. Creation of conditions for the redistribution of cargo flows from land transport to inland water transport to ensure well-balanced transport system

2. Ensuring the growth of competitiveness of inland waterway transport in relation to other modes of transport

3. Improvement of the availability and quality of inland waterway transport services for shippers

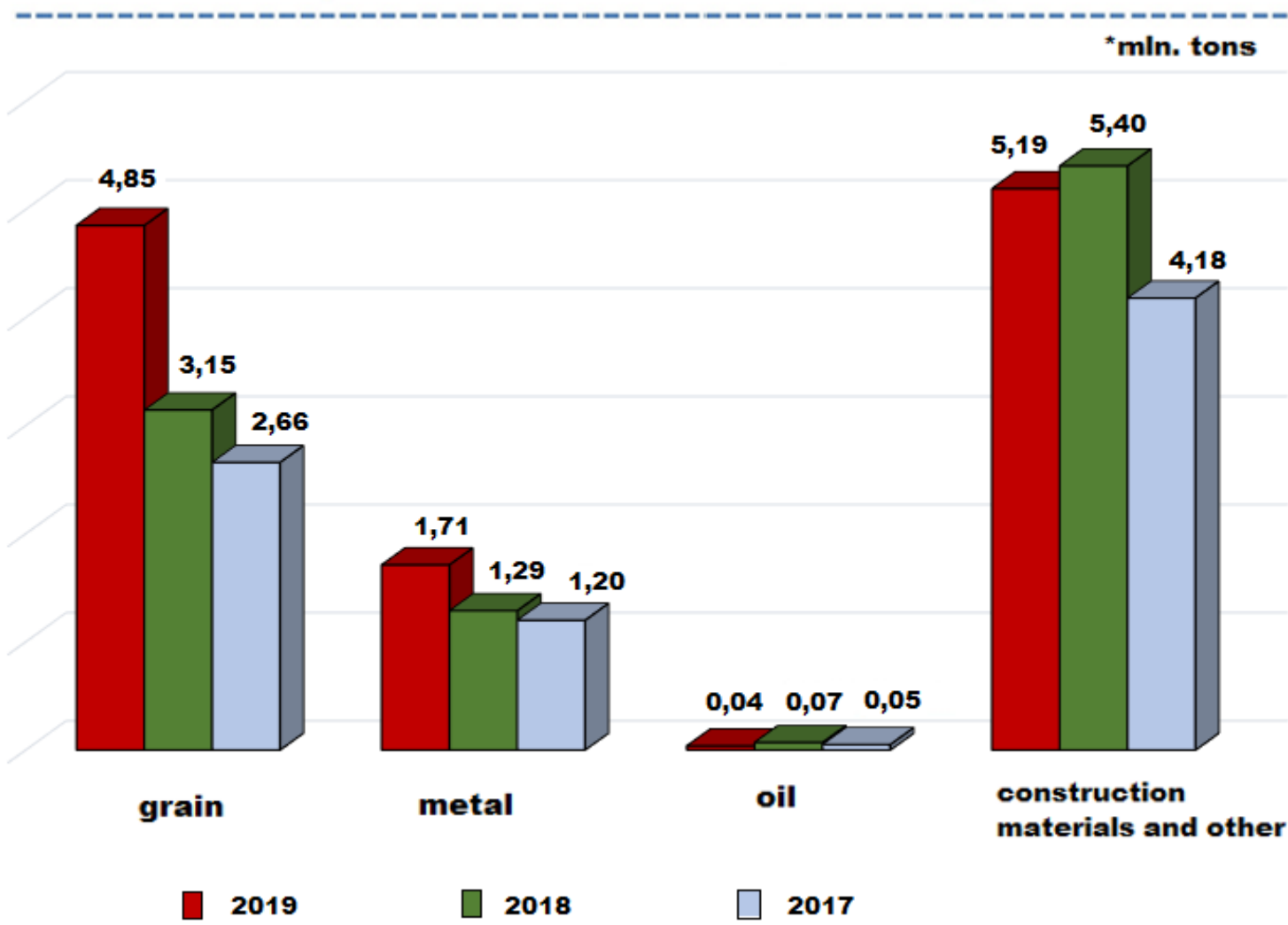
4. Improvement of Inland Waterways Security

Main challenges for inland navigation in Ukraine:

- provision of guaranteed waterway depths;
- solution for the dredging fleet deficiency;
- measures directed on increasing of cargo flow on inland waterways.



Dnieper turnover and cargo flow 2017-2019



11,9 ships
- 27,4%



11,8 mln. tons of cargo
+ 16,1%

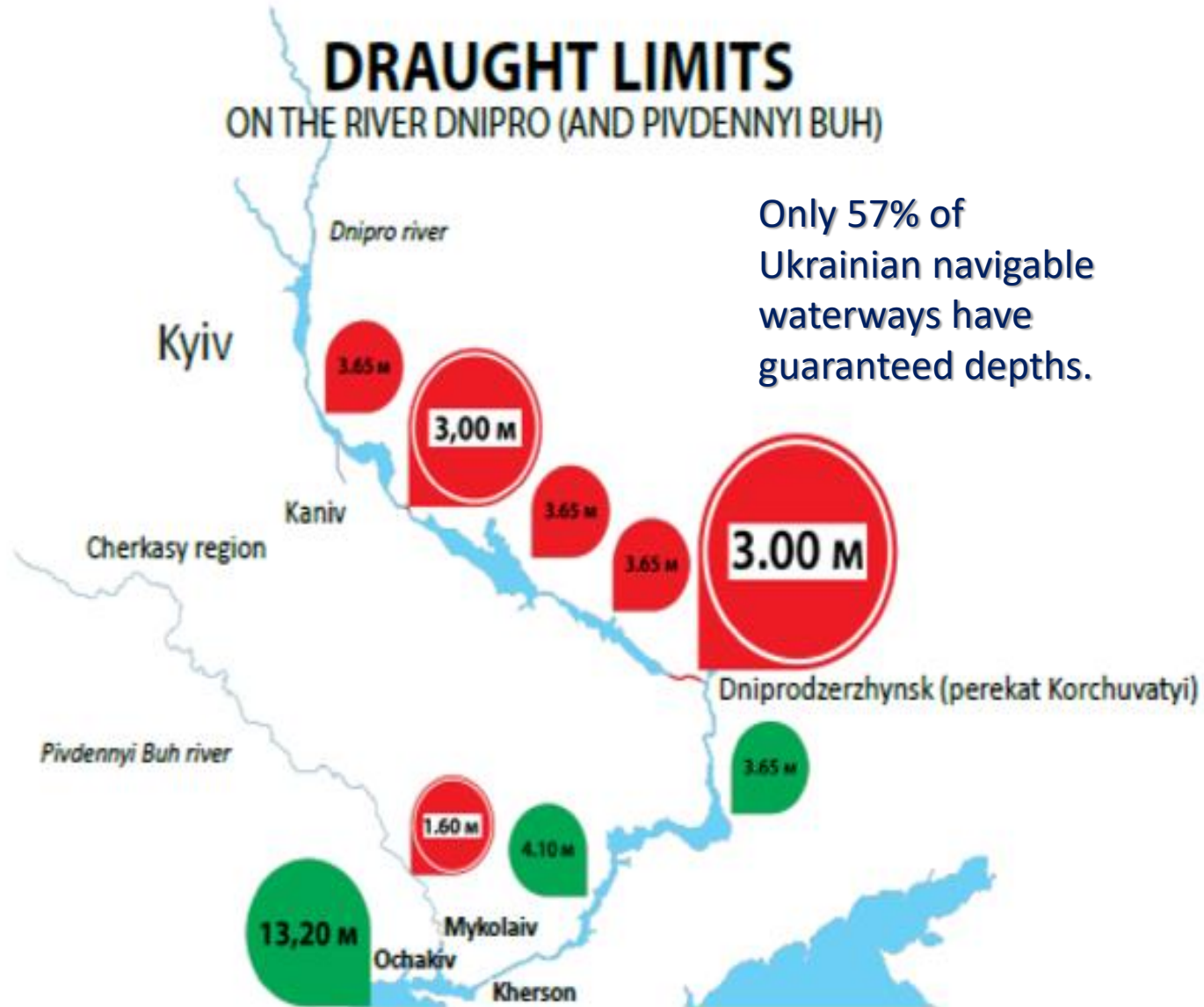


акціонерна судноплавна компанія
УКРРІЧФЛОТ
UKRRICHFLOT
joint-stock shipping company



Action Plan for the Restoration of Navigation on the Dnieper and Pivdennyi Buh Rivers based on the project “Inland Waterways Rehabilitation”

DRAUGHT LIMITS ON THE RIVER DNIPRO (AND PIVDENNYI BUH)



Only 57% of Ukrainian navigable waterways have guaranteed depths.

Main goals of “Inland Waterways Rehabilitation Project” – with the support of European Bank of Reconstruction and Development:

- Renovation of locks` system on Dnieper river;
- Dredging works;
- Renovation of aids to navigations and signs;
- Renovation of infrastructure, as well as maintenance works and inland waterways depth provision.

Dnieper River Market Study by European Investment Bank



Measures to increase the Dnipro river cargo flows

Public Infrastructure

Improvement of the Dnipro river infrastructure:

- Repair of locks
- New ATONs
- New service fleet
- Dredging

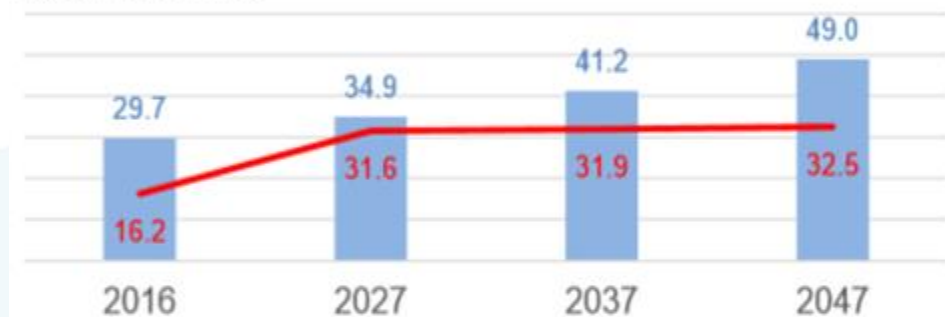
Soft and Accompanying Measures

- Fleet Development Programme
- Capacity development
- Balanced package of incentives
- Promotion Agency
- Planning of economic zones along the waterways
- Set up IWT Taskforce
- Market observation system

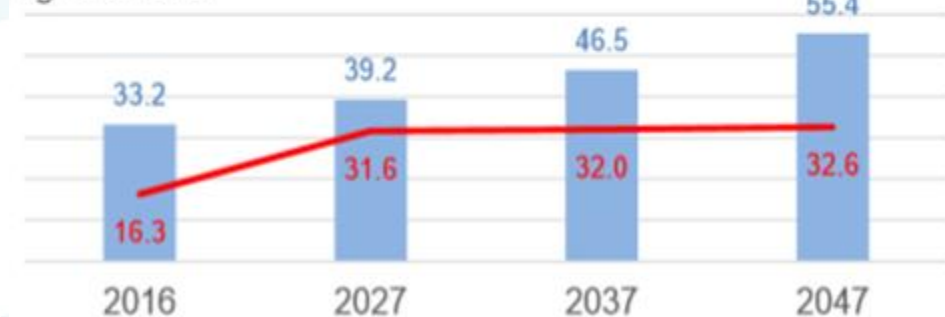
Low scenario



Medium scenario



High scenario



potential cargo base
forecasted cargo flow

EU project in Ukraine - "Assistance for Dnipro transport development"

Project has following aims

1



Adaptation of Ukrainian legislation in the field of Inland Waterways to EU legislation

2



Assistance in growth of potential of Ministry of Infrastructure of Ukraine in the field of IWW management

3



Elaboration of Action Plan for Dnieper river complex development

The overall objective is to promote water transport in accordance with the provisions of the Association Agreement, in particular the promotion of efficient, effective and safe transport operations (Article 367) and the gradual approximation of Ukrainian legislation to EU law, as provided for in Annex XXXII to Chapter 7 of the Association Agreement.

- Project's start – December 2018
- Project's duration – 36 months
- Project cost – 1 970 000,00 Euros

From the Black to the Baltic Sea: E-40 restoration project

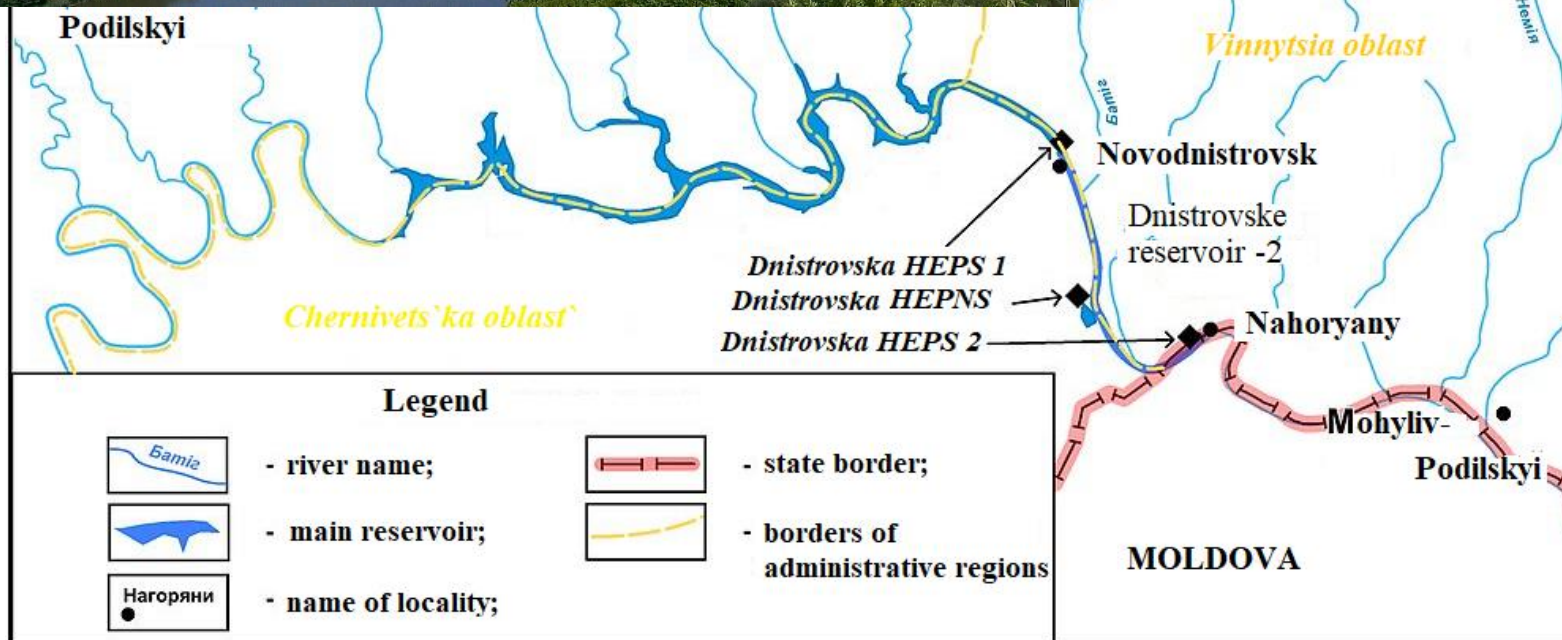


E-40 waterway is an important part of Ukrainian transport system on Inland Waterways connecting Baltic and Black seas

Key characteristics of E-40 project:

- Total length of E-40 waterway is more than 2000 km;
- Estimated volume of cargo transportations is 6 mln/tons of cargo per year;
- Amount of estimated investments:
 - Ukraine - 32 mln. Euro;
 - Belarus - 99.74-176.26 mln. Euro;
 - Poland – 12 322.19-12 511.19 mln. Euro.

Action Plan for the Restoration of Navigation on the Dniester River from the Border of Ukraine and the Republic of Moldova to Bilhorod-Dnistrovskyi



- Conclusion of the Agreement between the Governments of Ukraine and the Republic of Moldova on inland navigation
- Determination of the possibility of carrying out economic activities, in particular navigation on the Dniester River
- Implementation of new infrastructural and dredging projects by Ukraine and Moldova on Dniester River

Inland waterways in Ukraine: international perspectives

Implementation of EU directives

- more efficient use of Ukrainian transport potential and capacities;
- increasing of competitiveness of inland waterways transportation;
- adaption to free market conditions and system of “free chartering”.

Donor financial support

- EBRD/EIB financing for Ukrainian IWT;
- provision of investments for repair of shipping locks, dredging, upgrade of aids of navigation and service fleet;
- elaboration of technical and market studies, financial models and management systems.

International collaboration in the field of inland navigation

- membership at international organizations (Danube Commission, UNECE);
- participation in the development of harmonized standards and unified requirements in the field of inland navigation, waste management, environmental protection etc.

Participation in EU-funded projects

- new trends and implementation of new inland waterway projects (related to the inland waterway network of Ukraine);
- integration of Ukrainian waterways into the Trans-European Transport Network (TEN-T).

Growth of IWT cargo flows

- boost and development of international trade through inland waterways transportation (Ukraine & Belarus, Ukraine & Poland);
- industrial growth, new hubs and hinterland clusters.

Ports of Danube region

Izmail



Reni



Ust – Dunaisk (p/p Vilkove)



General specialization of Ukrainian ports on Danube river by types of cargo

Port name	General cargo	Bulk cargo	Liquid cargo	RO-RO
Izmail port	+	+	+	-
Reni port	+	+	+	+
Ust Dunaisk port	+	+	+	-


Ports of Danube region

Izmail

Ust-Dunaisk

Reni



 Ports` project capacity
24 mln. tons/per year

Terminal operators

6

2

9

Types of cargo

17

3

8

Terminals

24 (2,5 km)

1 (0,15 km)

32 (3,5 km)

Cargo turnover of 2019

4,3 mln. tons

0,07 mln. tons

1,3 mln. tons

Passenger turnover of 2019

—

5 910 passengers

—

Total capacity, mln. tons/per year

8

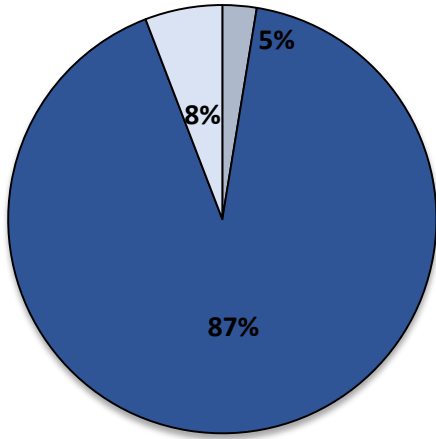
1

15

Ports of Danube region

Cargo flow distribution in Danube ports by types of cargo:

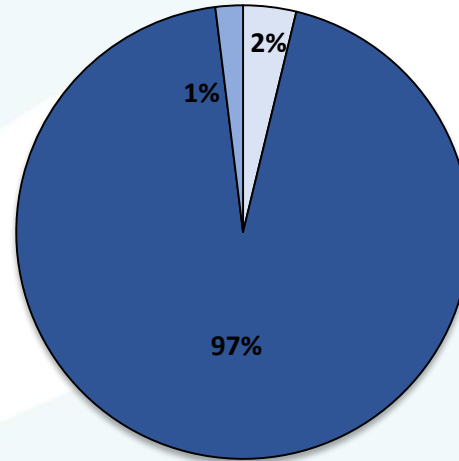
Izmail sea port



Total turnover of 2019 – 4,3 mln. ton

- Liquid bulk (oil, chemical, petroleum products etc.) – 5%
- General cargoes (black metal and steel) – 8%
- Bulk cargoes (coal, ore, construction materials etc.) – **87%**

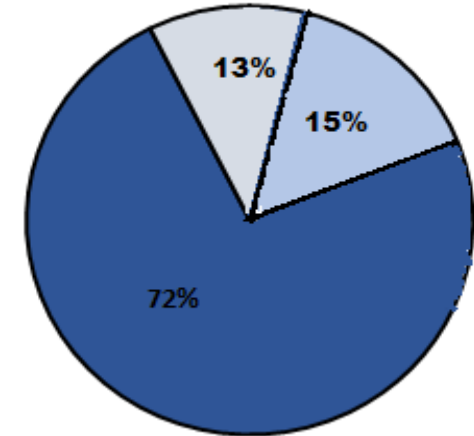
Reni sea port



Total turnover of 2019 – 1,3 mln. ton

- Liquid bulk (oil, chemical, petroleum products etc.) – 2%
- General cargoes (black metal and steel) – 1%
- Bulk cargoes (ore, grain etc.) – **97%**

Ust-Dunaisk sea port

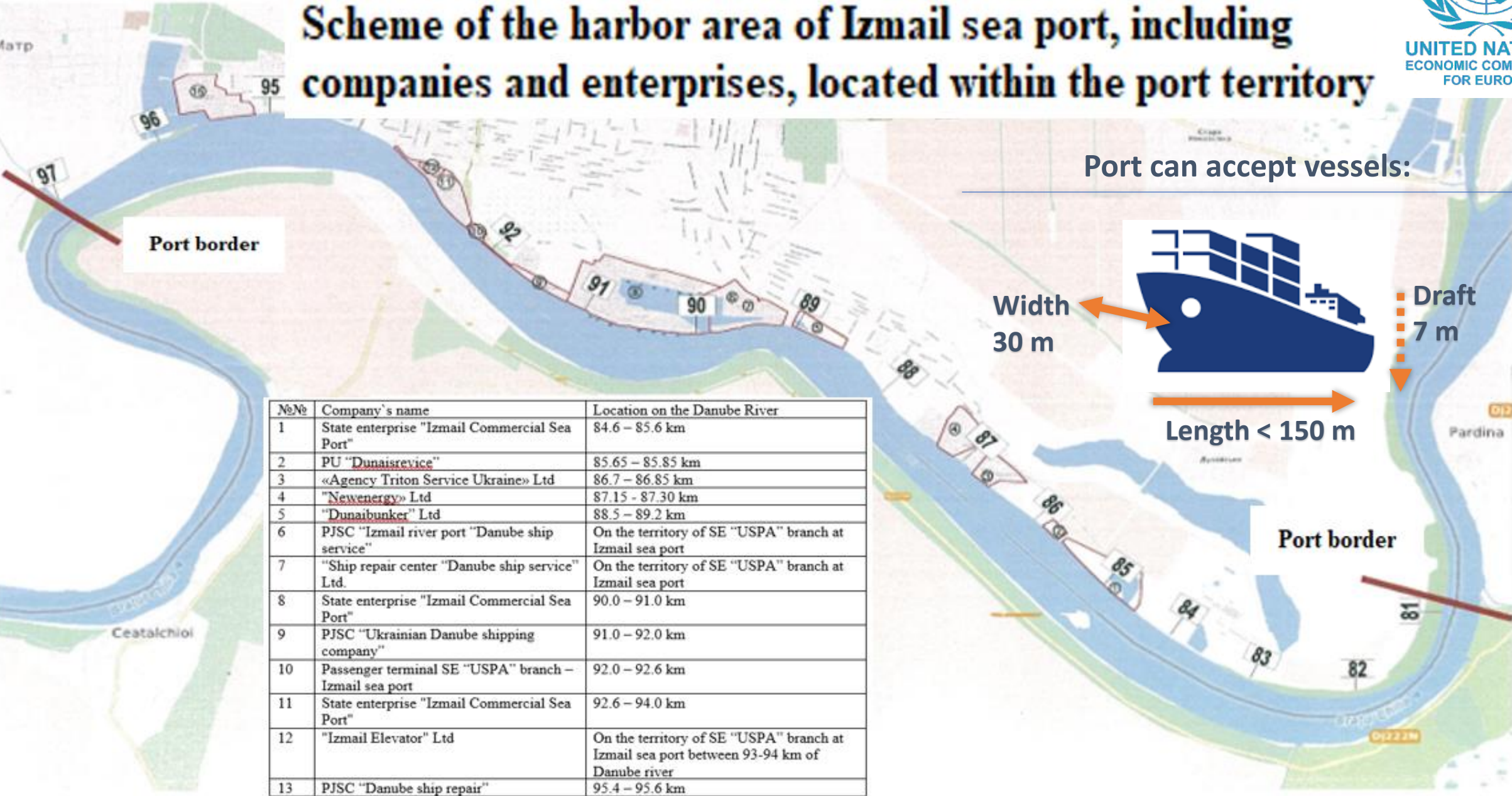


Total turnover of 2019 – 0,07 mln. ton

- Liquid bulk (oil) – 13%
- General cargoes (chemical) – 15%
- Bulk cargoes (grain) – **72%**

Ports of Danube region: Izmail port

Scheme of the harbor area of Izmail sea port, including companies and enterprises, located within the port territory



Port can accept vessels:

Width
30 m



Draft
7 m

Length < 150 m

No№	Company's name	Location on the Danube River
1	State enterprise "Izmail Commercial Sea Port"	84.6 – 85.6 km
2	PU "Dunaiservice"	85.65 – 85.85 km
3	«Agency Triton Service Ukraine» Ltd	86.7 – 86.85 km
4	"Newenergy" Ltd	87.15 - 87.30 km
5	"Dunaibunker" Ltd	88.5 – 89.2 km
6	PJSC "Izmail river port "Danube ship service"	On the territory of SE "USPA" branch at Izmail sea port
7	"Ship repair center "Danube ship service" Ltd.	On the territory of SE "USPA" branch at Izmail sea port
8	State enterprise "Izmail Commercial Sea Port"	90.0 – 91.0 km
9	PJSC "Ukrainian Danube shipping company"	91.0 – 92.0 km
10	Passenger terminal SE "USPA" branch – Izmail sea port	92.0 – 92.6 km
11	State enterprise "Izmail Commercial Sea Port"	92.6 – 94.0 km
12	"Izmail Elevator" Ltd	On the territory of SE "USPA" branch at Izmail sea port between 93-94 km of Danube river
13	PJSC "Danube ship repair"	95.4 – 95.6 km

Ports of Danube region: Export of ore at Izmail sea port

The traditional cargo for the Izmail port is the ore produced by the Poltava Mining and Processing Plant, the Kryvyi Rih Iron Ore Plant, the Zaporizhzhya Iron Ore Plant, whose exports in 2018 amounted to 3,056 thousand tons in the following countries:

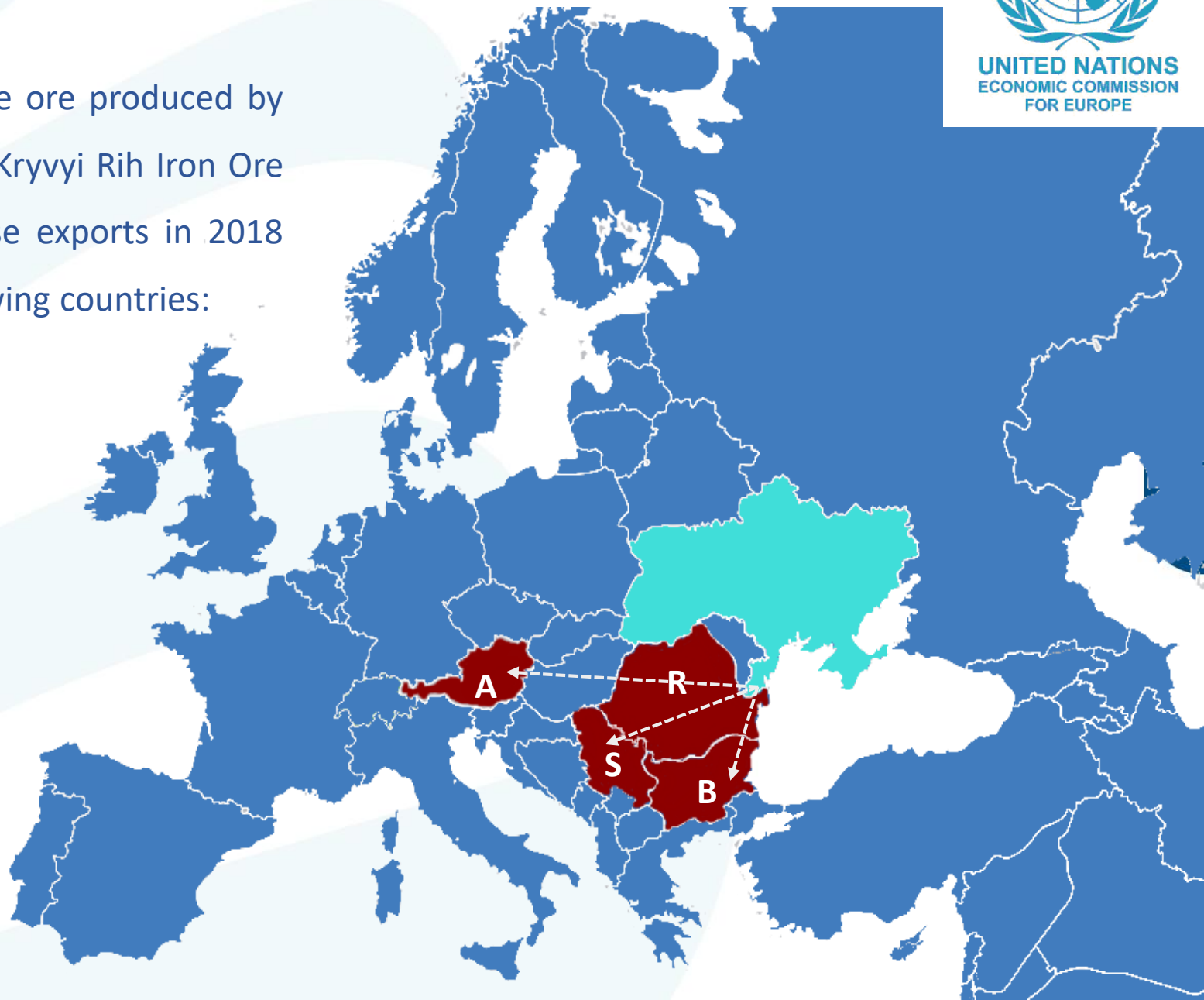
Serbia – 1 868,5 ths. tons

Austria – 797,27 ths. tons

Romania – 149,4 ths. tons

Hungary – 238,75 ths. tons

Bulgaria – 2,61 ths. tons



Ports of Danube region: Reni port

The area of the territory is 94.36 hectares.

The length of the berthing line is 3 927 m.

Areas of Priority Development

- 1. Territory of the sea section of the ferry complex
- 2. Territory of the river section of the ferry complex
- 3. Territory of the repair and construction site (RCS)
- 4. Territory of port workshops
- 5. Territory 3 of the cargo area
- 6. Territory of the fleet maintenance base (FMB)

Port can accept vessels:



Ports of Danube region: Concession / privatization of ports

Taking into account the availability of iron ore handling facilities at the Izmil seaport and the sufficient volumes of iron ore production in Ukraine, we offer to consider the possibility of **concession** or **privatization** of a stevedoring company “Izmil Commercial Sea Port”, which will provide:

► Supply chain security

► Reduced costs of logistics

► Provision of uninterrupted supply of raw materials to the HBIS plants in Europe



Perspectives of future development of ports and state enterprises of Danube region



Development of port capacities and attraction of new types of cargo

- Reconstruction of Deep-Water Navigation Channel «Danube-Black sea» - passage of seagoing vessels at Ukrainian part of Danube delta (through Bystre, Starostambuls`ke, Chilia arms), realization of Espo Convention requirements.
- Increment of warehouses capacity for grain cargo at special economic zone of Reni sea port
- Inclusion of Ukrainian ports on Danube into logistics chain of New Silk Road

Development of passenger traffic

- Inclusion of Reni and Izmail sea ports into routes of river international cruise lines Austria – Romania - Ukraine according to TEN-T network
- Rehabilitation of national routes Dnieper - Danube
- Development of ferry connection between Romania and Ukraine



Deepwater navigation route Danube – Black sea

on Ukrainian part of Danube delta (through Chilia, Starostambulske and Bystre arms)



- Natural channel
- Artificially created parts of channel
- Protective dam
- Sandbars on the Danube river
- River dumping area
- Maritime dumping area
- RIS
- Ports

Main preconditions for construction of deep-water navigation route “Danube – Black sea”:

- Active implementation of transport programs will create conditions for attraction of significant investments in transport branch.
- Integration of the Ukrainian transport system into the international system according to Ukraine's strategic goals and corresponds to EU strategy for IWT development.
- Traditional trade and economic ties between European countries in the Danube basin.
- The presence of one of the largest river fleets for cargo transportation on the VII International transport corridor (Ukrainian Danube Shipping Company)
- Availability of capable Ukrainian seaports for cargo handling (total capacity of around 20 million tons) in river-sea connection
- Creation of alternative (free competition) route in the Danube region to optimize throughput, reduce costs and improve service quality cargo transportation in Danube delta

Main technical characteristics:



1. Total length - 172,2 km.
2. Natural part of the channel through:
 - Reni port – Izmail Chatal – length 44,1 km;
 - Izmail Chatal – Vilkovye port – length 98 km;
 - Vilkovye port – Black Sea (through Starostambulske and Bystre Arms) – total length of 17 km.
3. Artificial part of navigation route:
Artificial maritime approaching channel dredged through maritime sand bar at Bystre arm – length 3.4 km.
4. Traffic mode:
Day-and-night, bilateral and equipped with RIS.
5. Only Phase 1 of the project was implemented.

Location at the crossroads of international transport corridors:

Prospect directions of development of Asia-Europe flows



UNITED NATIONS
ECONOMIC COMMISSION
FOR EUROPE



Corridors

- Pan-European corridor №3
- Pan-European corridor №5
- Pan-European corridor №7
- Pan-European corridor №9
- TRACECA
- Economic Belt of Silk Road



THANK YOU FOR ATTENTION!



General information:

<http://www.uspa.gov.ua>

E-mail: info@uspa.gov.ua

Phone: +38(044) 324 0041

**Department of canals and harbor
areas:**

Virginia.oganesian@uspa.gov.ua

тел. 048-775-94-58