



Donaukommission – Commission du Danube – Дунайская Комиссия – Danube Commission

Austria Bulgaria Croatia Germany Hungary Moldova Romania Serbia Slovakia Ukraine



DANUBE COMMISSION

Expert Meeting on Development of Ports and Port Operations

Topic 2.2 – Progress regarding the implementation of the DC Danube Ports database

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Port infrastructure development & impact of climate change - main goals of EM Ports

Note: Discussion paper on this topic prepared by Secretariat

- Monitor the development of port infrastructure on the Danube waterway;
- Identify gaps in infrastructure, superstructure as well as in hinterland connections in order to enable optimal integration of IWT into managed logistics chains;
- Promote and support projects which increase the port infrastructure (physical, digital and environmental) for EU funded programs;
- Raise awareness on information deficits on impact of climate change in the entire course of the Danube;
- Support the development of a Danube-wide climate change adaption strategy for inland navigation and ports;
- Feed into work of Rhine-Danube Core Network/Working Group Ports & Inland Waterways
- Support implementation of NAIADES III through information collection, dissemination, awareness raising, know-how exchange, project facilitation, etc.
 - *Study on Enabling Sustainable Management and Development of inland ports*



Building an interactive Danube ports infrastructure database

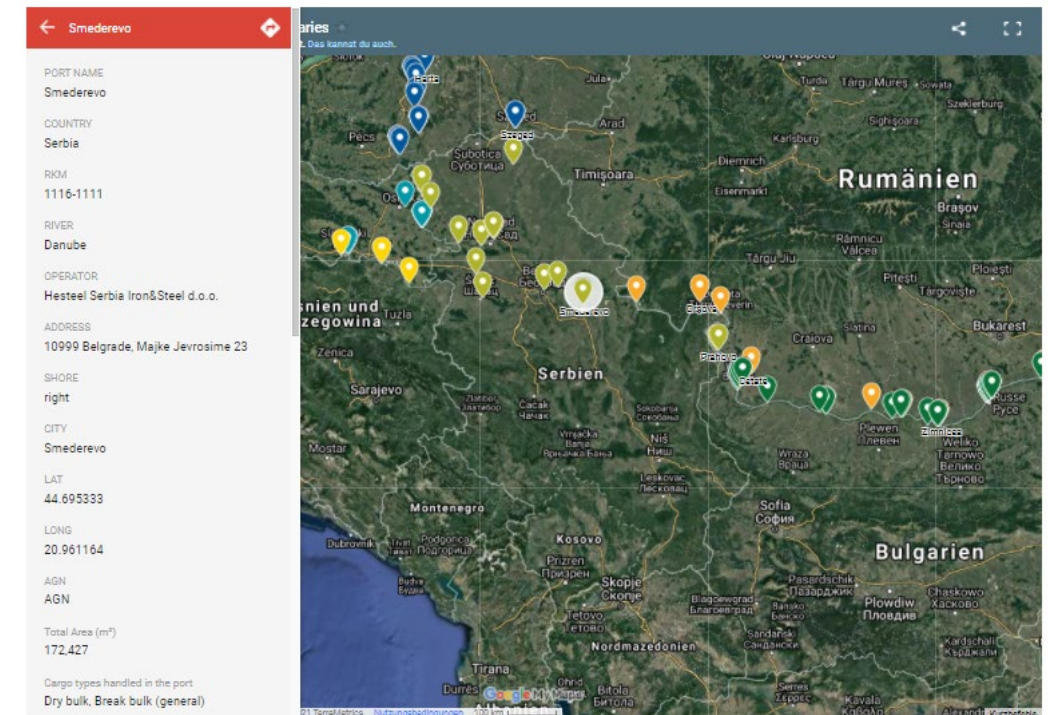
- DC has established a database on Danube ports with map visualization:
 - <http://www.danubecommission.org/dc/en/danube-navigation/danube-ports-map/>
 - 75 ports and 198 terminals covered by the dataset, regularly updated, more than **293.000 visits in 8 years**;
- Proposal to further develop the existing information into a full GIS based database on port infrastructure;
 - Adding additional port infrastructure parameters (physical, digital and environmental);
 - Upgrading web interface service;
 - Cooperating with stakeholders;
 - Assessing cooperation with TEN Tec database;
- **DC SEC prepared a detailed concept for EM PORTS (March 2022)/confirmation in June 2022/implementation in 2023/2024/2025;**

The main goal:

Danube ports infrastructure database could become valuable instrument for promoting & monitoring port development



Interactive port map





Final list of parameters (1)

Final list of parameters related to Danube ports (physical, digital and environmental) using the GIS system, adopted in 2022:

- I. **General port information (physical infrastructure)**
 1. Country of the port
 2. Regions/Cities
 3. Port name
 4. River name
 5. River Km (rkm)
 6. Shore side of the port location
 7. Coordinate of the port: Latitude (Numeric)/Longitude (Numeric)
 8. AGN¹: Ports of international importance
 9. TEN-T Port Relevance (Core/Comprehensive)

¹. European Agreement on Main Inland Waterways of International Importance (AGN)



Final list of parameters (2)

Continuation of the proposed parameters:

10. ISRS Location Code of Port (The ISRS Location Code is a unique identifier for each unique part of the infrastructure, which is of importance for RIS. This ISRS Location Code is defined in the “Commission Regulation 2018/2032 concerning the technical specifications for Notices to Skippers)
11. Port area (m²) (Each port will present the land surface-business area including water area and industrial zones (in m²) of the entire port area
12. Details of the port structure (water-side area, port area, hinterland) (Please attach a link of the small-scale map or orthophoto)
13. Owner of the port (Please indicate the state, region/province, municipality, private or of other entities. Provide a link of the port website on this issue)
14. Port management model²
15. Port administration/authority
16. Port operator(s) (Provide a link of the port website on this issue)
17. Port harbor master (contacts)
18. Basic general contact of the port and basic data (phone, fax, e-mail, web)
19. Managing director(s) of the port

² According to the WB port management governance model: Service port model/Tool port model/Landlord port model/Private service port



Final list of parameters (3)

Continuation of the proposed parameters:

II. Port performance (physical infrastructure)

20. Minimum guaranteed draught (in cm)
21. Port opening hours (Monday-Sunday) (ship access to the port /port services)
22. Type of cargo terminals (A terminal is a specific physical, technological, organisational and/or operational area where a certain cargo is handled)
 - a) Number of bulk cargo terminals
 - b) Number of petrochemical/gas terminals
 - c) Number of Ro-Ro terminals, number of Ro-Ro ramps
 - d) Number of trimodal container terminals (with water, rail and road access)
 - e) Number of rail/road container terminals in the port area
 - f) Number of onshore container terminals without rail access
 - g) Number of other (specialized/dedicated) terminals (e.g., high and heavy goods)
23. Berth total length (separated in vertical and inclined) (m)
24. Connection to waterways (CEMT class³)

³ Inland waterway classification according to CEMT (European Conference of Ministers of Transport)



Final list of parameters (4)

Continuation of the proposed parameters:

II. Port performance (physical infrastructure)

25. Gantry crane-number

Gantry crane max. lifting loads capacity (in tonnes)

26. Mobile crane-number

Mobile crane max. lifting loads capacity (in tonnes)

27. Floating crane-number

Floating crane max. lifting capacity (in tonnes)

28. Storage facilities (open/covered storage area and technical capacity)

29. Logistics service providers (number of entities including transhippers, shipper agencies, custom agency. Please provide a link to the port website on this issue)

30. Bunkering facilities for vessel fuel (yes/no)

31. Type of alternative fuels for vessels (according to the AFIR)

32. Onshore power supply for vessels-OPS (yes/no; number of boxes for electricity; level of amperage)

III. Environmental infrastructure of port (coordinates if available)

33. Waste reception facilities (yes/no; type of waste)

34. Renewable energy production in port (yes/no; type renewable energy production)

IV. Digital infrastructure of port

35. Port Community System (in operation/planned)

36. Use of the RIS services (basic and additional services, specify) - under further discussion

Data collection by web interface where each port administration will receive access data and a password and edit and save new parameter information/role of the national contact point



Building an interactive Danube ports infrastructure database

- Proposal to expand the “Album of ports” database using the GIS system with additional port infrastructure parameters (physical, digital and environmental) was agreed by EM PORTS held on 9 March 2022, verified by WG TECH and confirmed by the 97th session of the Danube Commission (15 June 2022).
- DC Secretariat provided a concept for data collection by a web interface.
- **Each DC member state appointed a representative to act as the main point of contact for that country - April 2023.**
- Pilot phase has completed by the end of August 2023, activities continued until the end of 2023 and in 2024, and progress reviewed at regular EM PORTS on 12 March 2024. Continuation of application in 2025.
- New development - Danube port statistics and Electronic Navigational Charts (ENC) for Danube ports
- In order to integrate the Danube ports into logistic chains, shortcomings in port infrastructure and in connecting rail and road infrastructure need to be targeted. The DC infrastructure database will be a monitoring tool and can help identify gaps in port infrastructure development on the Danube.



List of layers:

- Port operators
- Ports (Statistical data)
- Ports (Basic information)
- Waste reception points
- Port area
- Radio stations
- Distance marks
- ENC map coverages
- Maritime Chart Service, Inland ENC (IENC) WMS layer

Interactive port map (Beta version)

The screenshot displays the interactive port map interface. The top navigation bar includes a search bar with the text "Ports on the Danube and its tributaries" and "Danube Commission's interactive port map". Below the search bar are icons for Legend, Layers, Basemap gallery, Overview map, Measure, Print, and Share. The main map area shows a satellite view of a port area with various layers overlaid, including port operators, ports, waste reception points, port area, radio stations, distance marks, ENC map coverages, and the Danube river basin. The layers panel on the right lists these layers with checkboxes and expandable arrows. The bottom of the map shows the Esri logo and the text "POWERED BY esri Maxar, Microsoft | Esri, TomTom, Garmin, Foursquare, GeoTechnologies, Inc, METI/...".



New features on the map: Port area

The screenshot displays an interactive map of Belgrade, Serbia, focusing on the Danube river and its tributaries. The map shows various port areas highlighted in blue and red. A layers panel on the right side of the map is open, listing several layers that are currently checked:

- Port operators
- Ports (Statistical data)
- Ports
- Waste reception points
- Port area
- Radio stations

The legend section of the layers panel includes the following items:

- Harbor basin (represented by a red square)
- Harbor area (represented by a blue square)
- Port area (represented by a green square)

The map interface includes a top navigation bar with the title "Ports on the Danube and its tributaries" and a search icon. Below the title, there are icons for "Legend", "Layers", "Basemap gallery", "Overview map", "Measure", "Print", and "Share". The map itself shows the Danube river, the city of Belgrade, and various streets and landmarks. A hand cursor is visible over the "Port area" layer in the layers panel, indicating it is being interacted with.



New features on the map: Inland ENC (WMS layer)

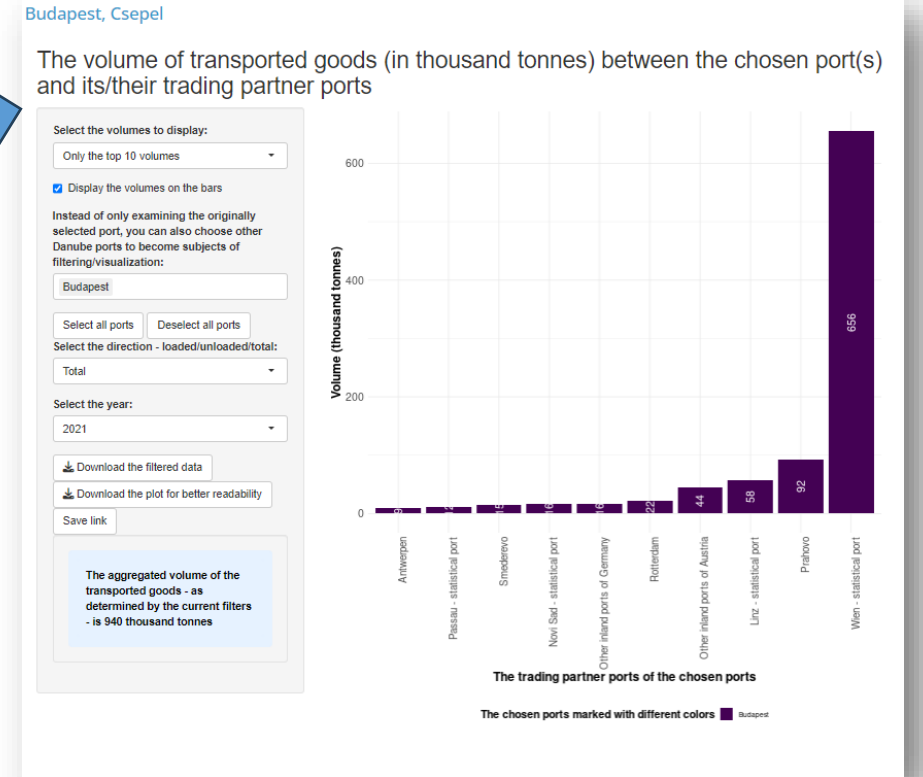
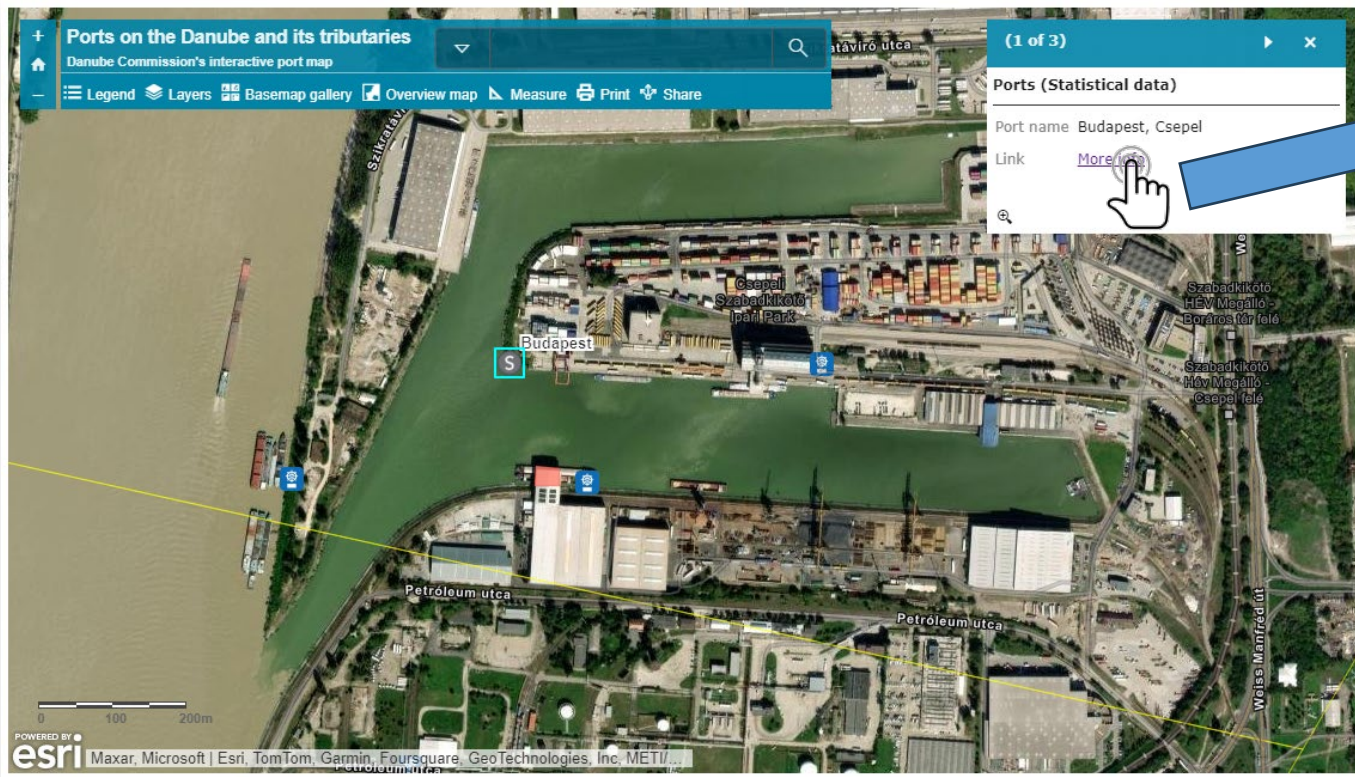
The screenshot shows a web map interface for the Danube Commission's interactive port map. The map displays the Danube river basin in Budapest, Hungary, with various layers overlaid. The 'Layers' panel on the right shows the following layers:

- Ports (Statistical data)
- Ports
- Waste reception points
- Port area
- Radio stations
- Distance marks
- ENC map coverages
- Danube river basin
- UA Navigational Charts of Danube River
- Maritime Chart Service, Inland ENC (IENC)

The map also shows a search bar at the top left with the text 'Ports on the Danube and its tributaries' and 'Danube Commission's interactive port map'. The map is powered by Esri, Maxar, Microsoft, Esri, TomTom, Garmin, Foursquare, GeoTechnologies, Inc., and METI.



New features on the map: Statistical data





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Austria Bulgaria Croatia Germany Hungary Moldova Romania Serbia Slovakia Ukraine

COUNTRY:

RKM:

RIVER:

SHORE:

COUNTRY

RKM

RIVER

SHORE

Excel CSV

Show 25 entries

Search: _____

COUNTRY ▲	PORT NAME ▲	RKM ▲	RIVER ▲	OPERATOR ▲	ADDRESS ▲
Austria	Linz Handelshafen	2.130.700	Danube	Linz Service GmbH	4021 Linz, Wiener Straße 151
Austria	Linz Tankhafen	2.128.100	Danube	Linz Service GmbH	4021 Linz, Wiener Straße 151
Austria	Linz Voestalpine	2.127.160	Danube	Voestalpine Stahl Linz GmbH	4020 Linz, Voestalpine-Straße 3
Austria	Linz Felbermayr	2.124.730	Danube	Felbermayr Transport & Hebetchnik GmbH & Co KG	4031 Linz, Lunzerstraße 97
Austria	Ennshafen	2.112.000	Danube	EHG Ennshafen GmbH	4470 Enns, Donaustraße 3
Austria	Ybbs	2.057.670	Danube	Schaufler GmbH	3370 Ybbs, Am Donauspitz 4
Austria	Krems	1.998.000	Danube	Mierka Donauhafen Krems GmbH & Co. KG	3500 Krems, Karl Mierka Straße 7-9
Austria	Wien Freudenu	1.920.100	Danube	Hafen Wien	1023 Wien, Seitenhafenstraße 15
Austria	Wien Albern	1.918.300	Danube	Hafen Wien	1023 Wien, Seitenhafenstraße 15
Austria	Wien Lobau	1.916.400	Danube	Hafen Wien	1023 Wien, Seitenhafenstraße 15
Bosnia and Herzegovina	Port Brčko	228.400	Sava	Public Company "Luka"	Ul. Lučka bb, 76100 Brčko, Brčko Distrikt, BiH
Bosnia and Herzegovina	Port Šamac	313.000	Sava	AD RTC "Luka" Šamac	Ul. Cara Dušana 2, 76230 Šamac, BiH
Bosnia and Herzegovina	Brod-Oil Refinery	374.500	Sava	Optima Group d.o.o.	Ul. Svetog Save bb, 74450 Brod, BiH
Bulgaria	Port Terminal Lom	742	Danube	"Port Invest" LTD	7000 Ruse, pl.Otets Paisij No 2
Bulgaria	Port Terminal Oriahovo	678	Danube	"Slunchev Dar" JSK	9000 Varna, region Odesos, Maria Luiza blvd.



The latest update

My files > Port_data

Name	Modified	Modified By	File size	Sharing	Activity
rs_danube_ports.xlsx	5 days ago	srdja.ljesevic@aul.gov.	21.7 KB	Shared	You shared this file · Jun 13, 2023
hu_danube_ports.xlsx	January 18	bede.csaba@ovf.hu	63.8 KB	Shared	You shared this file · Jun 13, 2023
sk_danube_ports.xlsx	December 8, 2023	Donaukommission - C	19.1 KB	Shared	You shared this file · Jun 14, 2023
md_danube_ports.xlsx	October 10, 2023	Donaukommission - C	16.6 KB	Shared	You shared this file · Jun 16, 2023
bg_danube_ports.xlsx	August 31, 2023	nikola.kirilov@marad.t	37.3 KB	Shared	You shared this file · Jun 14, 2023
at_danube_ports.xlsx	August 3, 2023	c.eckmayr@ennshafen	21.6 KB	Shared	You shared this file · Jun 13, 2023
hr_danube_ports.xlsx	June 19, 2023	ana.juric@port-osijek.t	19.5 KB	Shared	You shared this file · Jun 14, 2023
ua_danube_ports.xlsx	June 19, 2023	Guest Contributor	26.7 KB	Shared	You shared this file · Jun 16, 2023
de_danube_ports.xlsx	June 13, 2023	Donaukommission - C	19.7 KB	Shared	You shared this file · Jun 13, 2023
ro_danube_ports.xlsx	June 13, 2023	Donaukommission - C	26.5 KB	Shared	You shared this file · Jun 13, 2023



Questions & Answers / Discussion

- Additional topics of interest
- Priority should be given to
- Next EM PORTS meeting should focus / present / investigate ...
- Any other comments



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Thank you for
your attention!

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