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KEY MESSAGES

- The Danube is a vital link in the European transport network:
  - a resilient transport partner during the Covid-19 pandemic,
  - the cornerstone of the EU-Ukraine Solidarity Lanes since 2022, with Danube shipping and ports handling the majority of Ukraine's grain exports, ahead of all other modes.
- Without investment in the Elbe region, there will be insufficient capacity to transport large volumes of raw materials by sustainable modes at an acceptable cost, jeopardising industrial growth in the wider region.
- Good infrastructure is required to ensure the reliability of navigation. Both regions host a rich biodiversity. The multiple functions of the waterways are combined in sustainable way projects to anticipate climate change.

Corridor background

The Danube is the EU's longest river, flowing through 10 countries. The Danube Region stretches from the Black Forest in Germany to the Black Sea and is home to 115 million inhabitants. It is a dynamic region with industrial areas and dense agglomerations along the Danube and its tributaries. Over 25 billion tonne-kilometers are carried over the Danube corridor. The Danube is also of particular importance to river tourism, attracting many visitors to the natural sceneries and landmark cities along the river.

The river Elbe connects the port of Hamburg with Prague and the German canal network. Via the Mittellandkanal it reaches the Ruhr area and finally the Rhine, Main, Mosel and Neckar rivers. The land transport network in this industrial hinterland is at saturation point. At present, 4.2 billion tonne-kilometres of goods are transported on the Elbe alone. Without investing in inland waterway infrastructure, the capacity to transport large volumes of raw materials will be insufficient, also hampering clean industrial growth in the wider region.

Waterway infrastructure

90% of the Danube navigable waterway network is classified on paper as a class Vb waterway or higher, but meeting the targeted fairway depth remains a challenge at a number of shallow locations during certain periods of the year. Since the endorsement of the Fairway Rehabilitation and Maintenance Master Plan in 2014 and its implementation through the CEF-funded FAIRway Danube projects and other national projects, significant progress has been made to maintain a good navigation status for the Danube. Crucial bottlenecks remain and continued political support for cross-border coordination and reliable financing are foundational to prevent any blockages.

In Germany, there are plans to improve the fairway depth on the non-tidal Elbe to at least 1.40m below the 2010 Equivalent Water Level on a long-term average of 345 days and for a new lock at Lüneburg-Scharnebeck on the Elbe Side Canal. The strategic task in the Czech Republic is to improve and stabilise the navigation conditions between Ústí nad Labem and the state border in Děčín. Another objective is the extension of navigability to Pardubice. In 2021, the Government of the Federal Republic of Germany and the Government of the Czech Republic signed an agreement on the Maintenance and Development of the cross-border Inland Elbe, entering into force in August 2024 in line with the Overall Strategy for the Elbe (Gesamtkonzept Elbe).

Climate change also requires a changing approach to waterway investment. Next to classical infrastructure interventions, dynamic river management helps to ensure reliable navigation. Waterways require rolling work programmes to effectively address changing patterns, implementing adaptive, integrative and nature-based solutions where possible and falling back on grey infrastructure where needed.

Inland ports

Ports have the potential to act as engines of growth for the cities and regions in which they are located. As hubs with varying degrees of multimodality, they are key interfaces between different modes of transport. However, with few exceptions, ports along the Danube and Elbe rivers have suffered from years of underinvestment. As a result, not only are many port facilities no longer commercially viable, but multimodal connections have also deteriorated. Although progress has been made in some areas along this corridor in recent years, it is still not enough. Outdated port infrastructure and equipment in several ports are major constraints.

€5 billion
are required to make the inland waterway network of the Rhine-Danube corridor bottleneck-free and to increase climate resilience

40 million tonnes

The Danube ensured global food supply and is strategic for Ukraine´s economy

- Nearly 40 million tonnes of grain and edible oils have been exported via the Ukrainian Danube ports and the port of Constanta since Russia invaded Ukraine.
- With a share of almost 25% of total Ukrainian grain export, it is the most important EU-UA Solidarity Lane.
- The Danube became indispensable for Ukrainian imports and export of non-agricultural goods.
- It is the main contingency route for large transport volumes in case of disruption of the Black Sea route.
- The Danube and its ports will be of crucial importance for the reconstruction of Ukraine's destroyed infrastructure due to its mass capacity and cost advantages.

25%

"Through transnational cooperation along the Danube, we improve fairway conditions to make inland navigation more climate resilient. We use sensors and drones for measuring water levels, navigation channel depths and bridge clearance heights. We create a transnational waterway monitoring system (WAMOS 2.0) and improve information to users. Finally, we are testing flexible infrastructure elements to provide a non-invasive, near natural solution for low water periods to flexibly influence navigation channel depth and maintain the reliability of navigation."

Andreas BAECK, Senior Project Manager FAIRway Danube, viadonau

"River cruises are the perfect way to experience Europe's cultural treasures and breathtaking landscapes up close. However, this is only possible with an intact and sustainable infrastructure on Europe's waterways. We can only master this task together with all stakeholders."

Guido LAUKAMP, CEO Nicko Cruises

Rhine Danube corridor

Rhine Danube corridor

Critical waterway locations

PROJECT STATUS

- Not committed
- Committed
- Ongoing
- Core port

"Building materials represent the largest flow of goods in cities, while construction and demolition account for a third of the waste generated in the EU. Aware that 1 barge can carry the same amount of raw materials as 40 lorries, TBG Metrostav has located 2 of its largest plants on the water near Prague city centre. We aim to minimise truck loads both in the communities surrounding the quarries and at the final destinations in urban agglomerations. Our objective is also to shift our long-distance road imports to waterways, in line with EU Green Deal targets, but this makes long-overdue investment in reliable waterway infrastructure all the more urgent."

Jakub ŠIMÁČEK, CEO TBG METROSTAV
Subsidiary of Metrostav Group & Heidelberg Materials

"The Steel Division is the voestalpine Group's largest division in terms of revenue and is a global market leader for high-quality flat steel products. Headquartered in the heart of Europe in Linz/Austria, the Division operates one of the largest Danube ports for handling raw materials and finished products. Our success highly depends on the Danube as a continuously available, efficient, and competitive waterway along its entire length. Therefore, the reliability and development of the Danube infrastructure are key to maintaining our global competitiveness."

DI Hubert ZAJICEK
Member of the Board voestalpine AG & CEO voestalpine Stahl GmbH

"Since 1906, Siemens Energy has been at the forefront of developing and manufacturing industrial steam turbines in Görlitz, with an impressive export rate exceeding 90%. In response to the rising global energy demand and the increasingly complex requirements of our industrial clientele, the dimensions of our turbines have seen significant growth in recent years. Consequently, each turbine transport to customer sites has become a major logistical challenge, entailing substantial efforts and numerous uncertainties. Therefore, a reliable and stable water transport network in Europe is urgently required to alleviate congestion on overcrowded highways and to provide companies like Siemens Energy with the necessary planning security for large-scale transports."

Lisa KAMIN, Head of Operations Siemens Energy Görlitz

1 - Elbe-Seiten-Kanal (ESK) Lüneburg-Scharnebeck lock
2 - DE non-tidal Elbe 1.4 m < 2010 Equivalent Water Level on long-term average of 345 days/year
3 - CZ Elbe navigability
a - Elbe all year navigability Ústí n. L until border by the lock Děčín
b - Extension of navigability from Chvaletice to Pardubice
4 - Fairway upgrade Vltava towards Prague
5 - Main rail bridge <5.25m (Auheim)
6 - Main-Danube Canal replacement of over-age locks (Erlangen & Kriegenbrunn)
7 - Straubing - Vilshofen, bridge clearance <2.5m (Bogen) & fairway depth
8 - Danube complete renovation Kachlet lock
9 - East of Vienna
10 - Lower Vah navigability
11 - Slovak/Hungarian border section
12 - Hungarian Danube
13 - Tisza lock
14 - Common Danube section Croatia & Serbia navigation channel depth <2.5m
15 - Sava navigation channel depth <2.4m
16 - RO-BG cross-border section (Milke/Belene/Coundur/Cochirleni)
17 - Danube-Bucharest Canal: Arrangement of the Arges and Dambovita rivers for navigation & other purpose
18 - Modernisation of navigable canals: Danube -Black Sea Canal & Poarta Alba-Midia Navodari Canal to increase navigation safety
19 - Modernisation of Navodari lock to increase navigation safety
20 - FAIRway Danube II cross-border corridor project (AT, SK, HU, HR, RO, BG)
21 - FAIRway Danube III cross-border corridor project (AT, SK, HU, RS, HR, RO, BG)
22 - Feasibility study: Proposal for measures to ensure the full navigability of the Danube waterway km 1880.26 - r. km 1853.10

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POLAND
BELGIUM
LUXEMBOURG
CZECH REPUBLIC
SLOVAKIA
AUSTRIA
HUNGARY
ROMANIA
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