24

Annual Report on Danube Navigation in Austria | viadonau

Key data on Danube navigation 2024[1]

Transport volumes

6.6 million tons (+8.8%)

- Import: 3.0 million tons (+10.2%)
- Export: 1.9 million tons (-3.8%)
- Transit: 1.2 million tons (+33.0%)
- Domestic: 0.4 million tons (+6.1%)

Transport performance

5.5 billion tkm (+17.4%)
5,619 transportations (–4.5%)

- Within Austria: 1.3 billion tkm (+9.7%)
- Outside Austria: 5.2 billion tkm (+19.5%)

Waterside transhipment at Austrian ports and transhipment sites

5.7 million tons (+4.5%)

- Ores and metal waste: 1.6 million tons (+0.3%)
- Petroleum products: 1.2 million tons (–8.5%)
- Agricultural and forestry products: 0.9 million tons (+43.5%)
- Metal products: 0.8 million tons (+7.6%)
- Crude and manufactured minerals, building materials: 0.5 million tons (+7.6%)
- Fertilisers: 0.5 million tons (–6.9%)
- Other goods: 0.3 million tons (–13.8%)

Vessel units locked through Austrian Danube locks

76,067 vessel units[2] (+4.3%)

- Freight transport: 33,433 units (+4.5%)
- Passenger transport: 42,634 units (+4.1%)

Passenger transport (including estimation)

1.10 million passengers (–8.0%)

- Liner services: 540,000 passengers (–18.2%)
- River cruises: 470,000 passengers (+6.8%)
- Non-scheduled services: 85,000 passengers (–5.6%)

Accidents

18 traffic accidents with damage

- Personal injuries: 0 deaths, 19 injured indeterminate degree
- Damage to property: 16 incidents with damage to riverbanks and facilities, 2 groundings, 2 ship to ship, 0 ships sunk

Availability of the waterway

346 days
15 year average: 359 days

- Closures due to high water: 20 days
- Closures due to ice: 0 days

[1] Changes from 2023 are given as percentages in brackets
[2] Convoys and individual vessels

Source: Statistics Austria; Supreme Navigation Authority at the Federal Ministry of Innovation, Mobility and Infrastructure; miscellaneous passenger transport operating companies; viadonau

Contents

Cover: On August 27, the pilot project "flexible infrastructure" began at the "Rote Werd" ford, a traditionally critical shallow area for Danube navigation.

Editorial note: Minor variations of the figures within this annual report to Statistics Austria's figures may arise due to rounding differences.

Rethinking mobility
The Danube as a source of innovation

PETER HANKE
Federal Minister of Innovation, Mobility and Infrastructure

Mobility is the engine that drives a modern society. It facilitates economic growth, secures jobs and connects people and markets. We are also faced with the prospect of ensuring that our transport systems are fit for the future – efficient, high-performing and environmentally friendly at the same time. The challenges associated with climate change and the dynamics of technological developments call for new solutions to the problem of how we will travel and obtain supplies in Europe in the future.

The Danube plays a central role in this. It is an international waterway connecting ten countries over a distance of around 2,800 kilometres – from the industrial zones of Central Europe to the Black Sea. This is a connection that has not only developed over time, but also holds promise for the future. That's because inland waterway transport offers us a mode of transport capable of combining high transport capacities with comparatively low energy consumption – a genuine advantage when it comes to the overall structure of a sustainable logistics system.

The Danube 2030 Action Programme lays the foundation for targeted investments and international collaboration. We are not just dreaming about the future, but are taking real steps to make the Danube a competitive, efficient and environmentally friendly transport route. This includes upgrading the waterway infrastructure, modern lock technology, digital traffic control and shore power for ships.

Austria has a lot to gain here: we are a logistics hub in the heart of Europe focusing on smart solutions that combine economic power and climate responsibility. The Danube shows us how this can be achieved – by combining innovation with pragmatism and making consistent use of existing potential.

As versatile as the river itself
Developing the Danube flexibly

HANS-PETER HASENBICHLER
Managing Director
of viadonau

The river is much more than just a place of work for us as the leading waterway operator in the Danube region. The Danube teaches and inspires us, while its essence – dynamism and continuity, but also its adaptability – shapes our own self-image as a purposeful and responsible company. We are closely connected to the Danube in many ways in our daily work for the integrative reconciliation of environmental, safety and economic interests. For us, the river represents our identity, while innovation is the currency we use to invest in its sustainable future.

We understand that rivers are systems that are constantly changing, meaning that solutions for carefully influencing them must also be flexible. viadonau has been conducting a five-year pilot project with 'flexible infrastructure' to the east of Vienna during low water periods since autumn 2024, combining an old idea with modern waterway management. This involves barges loaded with gravel narrowing the river cross-section and increasing the depth of the navigable channel at specific points in shallow areas. As a result, complex river engineering measures can be avoided and the "flexible infrastructure" can be repositioned as required. In a sense, the pilot project is an example of a key development approach adopted by viadonau: Reducing human intervention and taking targeted local measures instead that protect the natural habitat and benefit the environment, economy and safety along the river in equal measure. This is our idea of what constitutes the most ecologically and economically developed waterway.

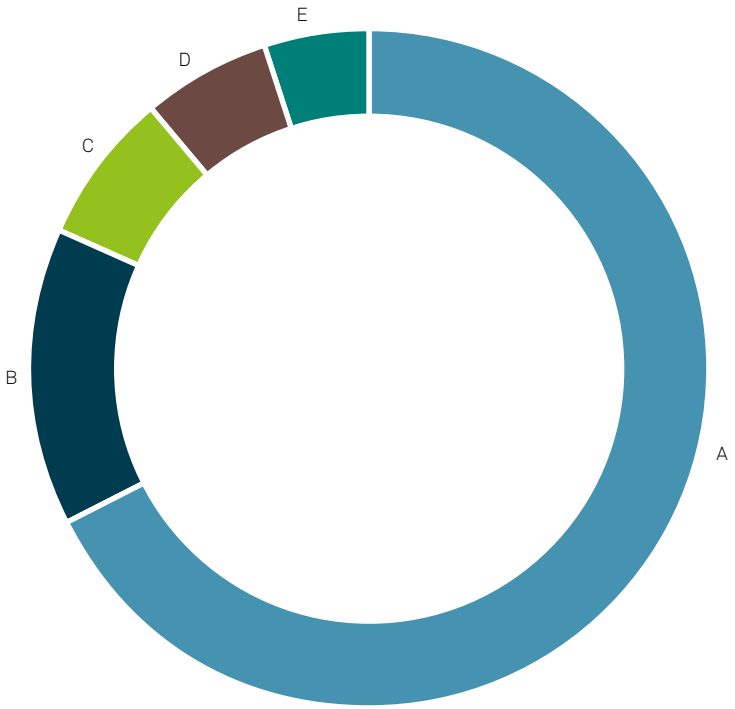
FIGURES DATA FACTS

Costs per core tasks and impact scope viadonau 2024

Costs of core tasks

E
Strategy & International Affairs
5.0%
2,781,018 EUR

D
Other
6.0%
3,305,374 EUR

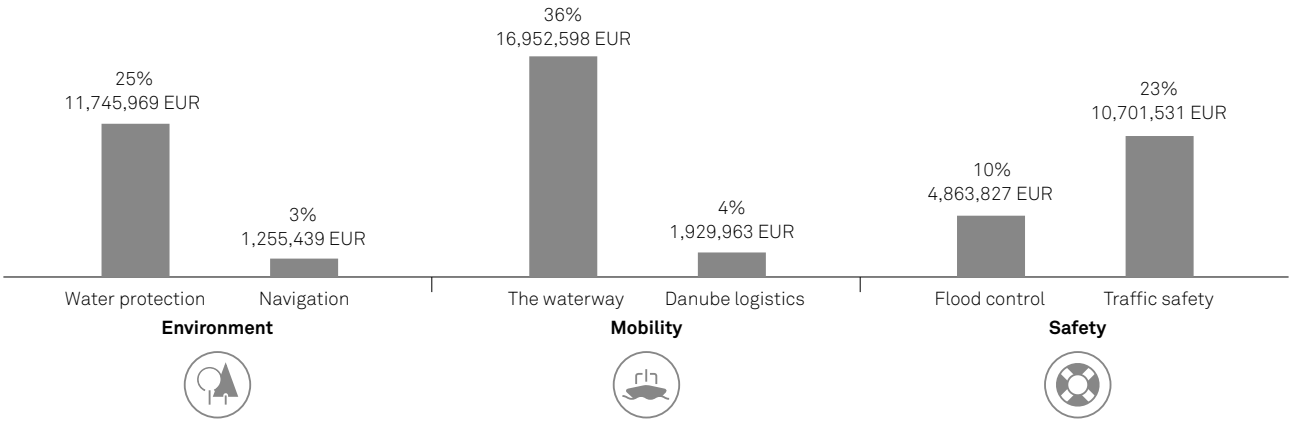


A
Integrated River Basin Management (incl. Flood Management)
67.7%
37,812,866 EUR

B
Mobility & Digitalization
14.1%
7,881,049 EUR

C
Property Management
7.2%
4,028,140 EUR

Costs per impact scope



BALANCE SHEET VIADONAU

2024: a year of renewal
Top infrastructure – stable and flexible

The focus of waterway development on the Danube in 2024 was once again on the continued modernisation of infrastructure. The opening of the Pier Brigittenau II in Vienna – a highlight of the year as far as pier upgrades are concerned – coincided with the launch of the "Flexible Infrastructure" pilot project east of Vienna, which aims to selectively influence navigation conditions for shipping.

Renovation of the administration building in Nussdorf, designed by Otto Wagner in Jugendstil style at the end of the 19th century, completed: The former Otto Wagner building on Brigittenauer Sporn – the headquarters of the Vienna Waterways Department (MA45) – has been enjoying a new lease of life since the beginning of 2024. The former lock building of the historic Nussdorf weir and lock system has been restored to its original condition since the beginning of 2023, a process in which viadonau was also involved.

Construction and shipping meeting in Krems: viadonau invited guests to its annual construction and shipping meeting in Krems on April 11. Key topics on the agenda of the well-represented panel of experts from the fields of business, shipping, energy supply and waterway management included extensive conservation dredging on the Danube, the FAIRway Danube II large-scale modernisation project, the upgrading of public land and the overhaul and repair of locks.

Danube Business Talks in Vienna: Now in its sixth instalment, the viadonau Danube Business Talks, supported by the Port of Vienna, took place on May 15, 2024, focusing on the Danube as a waterway of opportunity. The event, held at viadonau's headquarters in Vienna's TechGate, gave an audience of around 120 industry professionals and leading experts an outstanding forum to discuss the future of the Danube.

Opening of Pier Brigittenau II in Vienna: The completion of the Pier Brigittenau II in Vienna marks another important modernisation success for freight shipping on the Danube as part of the EU co-financed "FAIRway works! in the Rhine-Danube Corridor" project, following the dry goods pier in Linz in 2021 and the Wildungsmauer small vessel pier in 2023.

"Flexible infrastructure" pilot project launched: Where challenges are "agile", solutions must be too. This is the clear motto under which viadonau combines a long-standing concept with modern, targeted waterway management through its so-called "flexible infrastructure" for the purpose of specifically influencing shipping conditions on the Danube. The pilot project was launched on August 27 at the "Rote Werd" ford, a traditionally critical shallow area for navigation on the Danube.

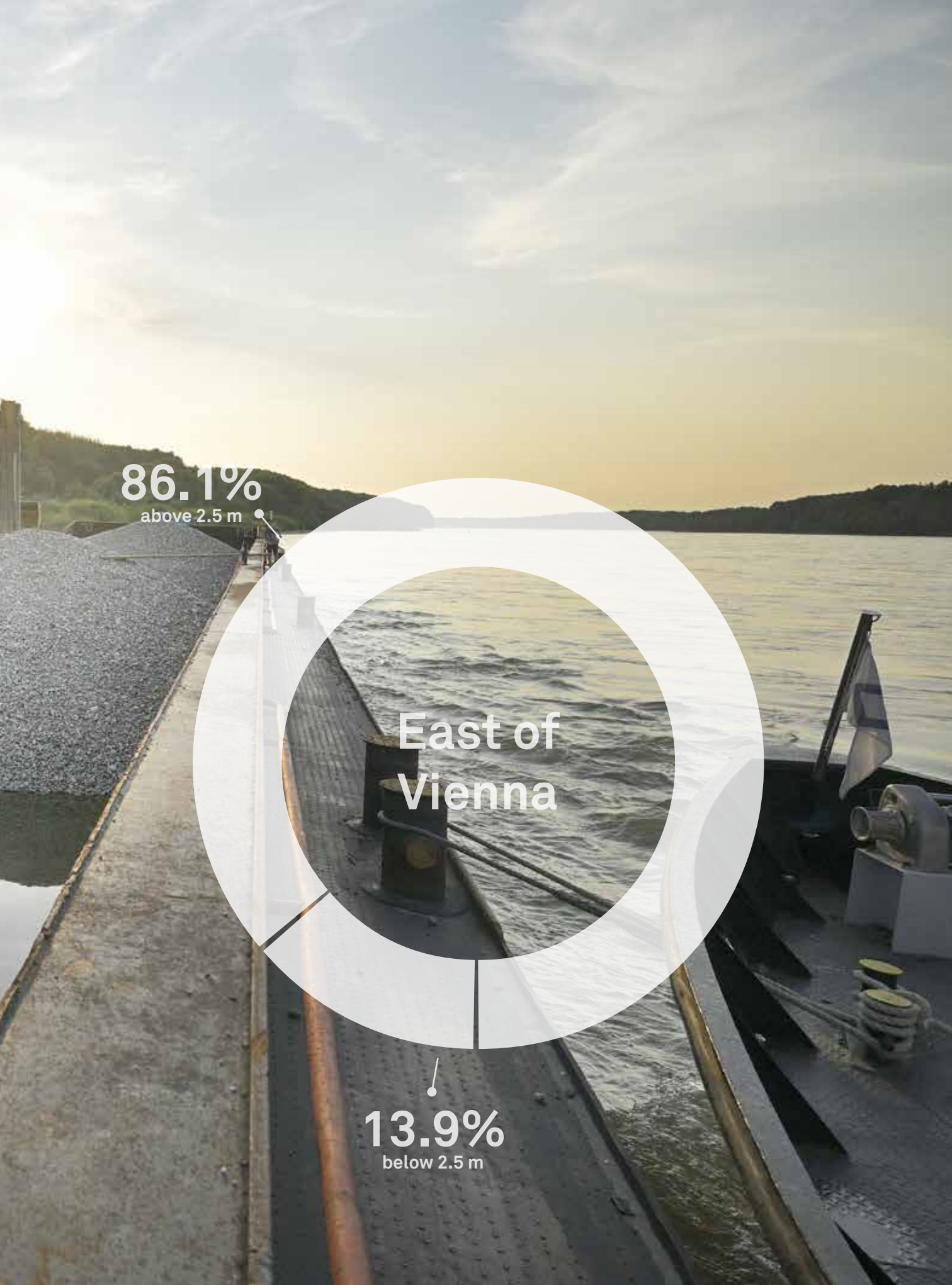
"When it comes to innovative progress, it's sometimes necessary to reflect on the past and rethink old ideas. The "Flexible Infrastructure" pilot project, which has been in progress since 2024, brings a historic approach to dynamic low water regulation into the present day and puts its potential for the future to the test in the face of current challenges."

MICHAEL KALB
Waterway management

Freight transport on the Austrian Danube 2020–2024

2024	6,579,401 t
2023	6,047,133 t
2022	6,374,092 t
2021	8,270,869 t
2020	8,246,781 t

Minimum continuously available fairway depths on the free-flowing stretches of the Danube 2024


86.1%
above 2.5 m
East of Vienna
13.9%
below 2.5 m

Locked-through vessel units 2020–2024


2024
76,067
2023
72,964
2022
76,058
2021
56,956
2020
52,076

CUSTOMER SATISFACTION: INFRASTRUCTURE

Another excellent rating for fairway quality

"Waterways offer a natural transport solution and represent an environmentally friendly and climate-conscious option as part of the European transport transition. We are closely networked with a wide range of players in the business community and aim to raise awareness of the Danube as a transport route and a great opportunity for the logistics professionals of tomorrow."

INES POPPINGER
Transport Development

The satisfaction of the commercial users of the waterway, i.e. freight and passenger shipping, is a key driver for viadonau in providing effective services. This is why a customer survey is conducted every year, so that further improvements to the waterway infrastructure services operated by viadonau can be initiated and implemented in a way that meets users' needs. The customer survey conducted in 2024 received a total of 66 responses from the shipping sector. 64% of responses were provided by ship captains, 17% by ship operators and 19% by others.

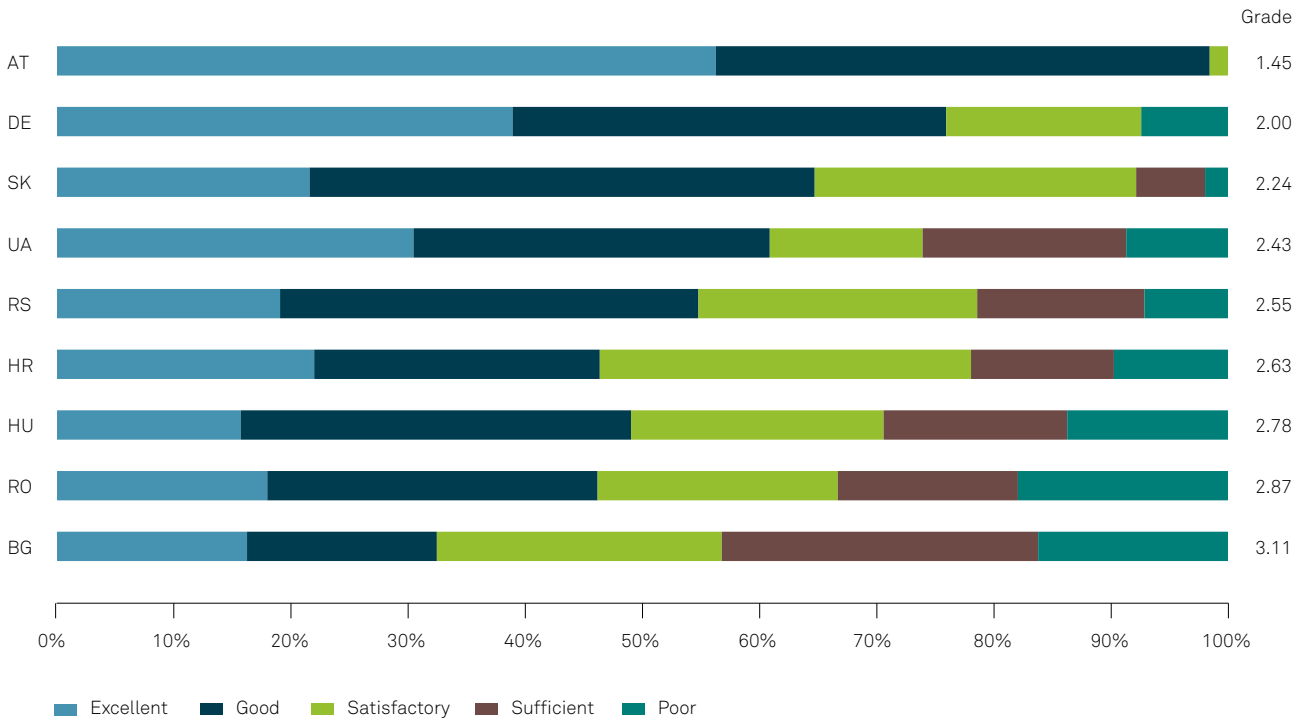
The survey covers, among other things, the level of maintenance quality in the Austrian stretch of the Danube fairway, i.e. an assessment of the conservation dredging performed by viadonau. This was assessed for 2024 with an average rating of 1.45 (2023: 1.39) on a school grading scale from 1 to 5, with 98.4% receiving the ratings "Very Good" and "Good". This means that, as in previous years, viadonau is the waterway infrastructure operator rated the highest by water users in all countries along the Danube. The chart on the opposite page illustrates the detailed results of the latest customer survey.

The support provided to shipping by the lock supervision personnel at the ten Danube locks in Austria was also rated as very good: The customer survey gave an average rating of 1.59 (2023: 1.68) for friendliness, competence, conduct in critical situations, handling of locking events and conduct in the event of complaints or grievances. The best rating of 1.48 was given for conduct in critical situations.

The assessment of the facilities at public moorings owned by the federal government also forms part of viadonau's customer survey. The survey conducted in 2024 asked respondents to rate the quality of the public mooring facilities in Linz and Wildungsmauer, which were recently enhanced by viadonau with dolphins and access jetties as well as a car drop-off and shore power facility. Shore power facilities were installed in 2023 at the Linz-Mitte dry goods pier (river kilometre 2,129.0 R) and at the Wildungsmauer pier (river kilometre 1,895.0 R), which has been newly adapted for large-scale shipping. Shore power facilities are implemented by viadonau in conjunction with additional structural improvement projects in which safer mooring and access structures such as dolphins and bridges are installed. Commercial users of the waterway gave the upgrade of the mooring facilities in Linz and Wildungsmauer an average rating of 1.76.

FIGURES DATA FACTS

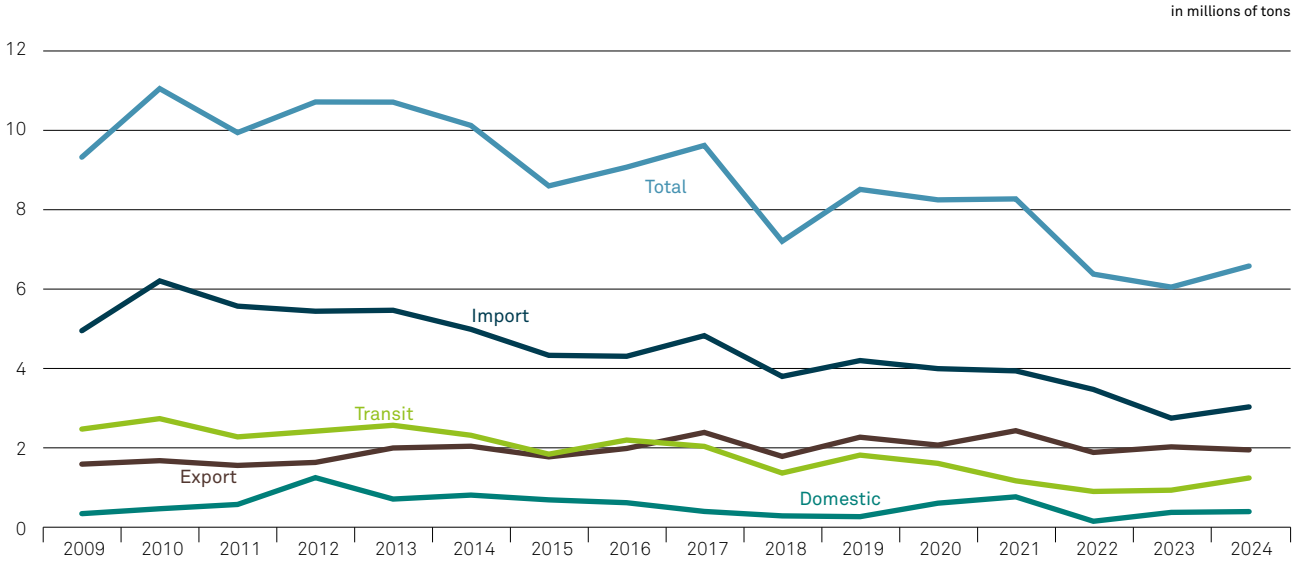
Waterway infrastructure quality in the Danube countries 2024



Source: viadonau

FIGURES DATA FACTS

Freight traffic on the Austrian Danube 2009–2024



Transport volumes in tons	Import	Export	Transit	Domestic	Total
2024	3,022,735	1,941,610	1,229,972	385,083	6,579,401
2023	2,742,020	2,017,661	924,548	362,904	6,047,133
2022	3,465,637	1,876,953	890,888	140,614	6,374,092
2021	3,930,863	2,424,784	1,159,264	755,958	8,270,869
2020	3,989,282	2,060,982	1,601,604	594,913	8,246,781

Source: Statistics Austria, adapted by viadonau

TRANSPORT VOLUMES

Recovery in freight volume by 8.8% 6.6 mill. t on the Austrian Danube

The volume of goods shipped via the Austrian Danube in 2024 was boosted by largely very favourable navigational conditions. As a result, the total volume of goods rose by 8.8% to 6.6 mill. t in comparison with the previous year, exceeding the respective total volumes of the two preceding years.

The volumes of transit and import traffic have significantly increased compared to 2023, by 33% and 10.2% respectively. Domestic transport volumes also recovered by 6.1%, while export volumes declined slightly by 3.8%.

Imports continue to be the dominant transport sector, representing 3 mill. t or 45.9% of the total volume of goods in 2024. The two following transport sectors, export with 1.9 mill. t and transit with 1.2 mill. t, accounted for 29.5% and 18.7% of the total transport volume.

Cross-border traffic accounts for an overwhelming 94.1% of the total transport volume on the Austrian Danube. Shipments within Austria account for only 5.9%.

The high significance of international transport along the 351 km long Austrian section of the Danube is also reflected in the transport capacity. Of the 17.4% increase in transport capacity to 6.5 bill. tonne-kilometres compared to 2023, 5.2 billion tonne-kilometres, or 80%, were generated outside Austria.

The average transport distance for a tonne shipped amounted to 946 km in 2024. This corresponds to an increase of 58 km or 6.5% in comparison with the previous year.

"Inland waterway vessels in particular offer extensive opportunities for improving environmental performance, in addition to their particularly favourable capacity/emission ratio. We are leading by example and are involved in specific projects – such as the use of HVO100 – to make the operation of our company fleet more environmentally friendly."

MILICA NIKOLIC
Transport Development

PORT TRANSHIPMENT

Increase in port transhipment
Ports and piers on the up

- Transshipment by water increased overall compared to the previous year, with only minor declines
- No change in the ranking of ports compared to 2023

A total of around 5.7 mill. t of goods were transshipped by water in Austria's Danube ports and piers in 2024. Port transshipment recorded an increase of 4.5% or around 250,000 t compared to the previous year.
There were no changes in the ranking of individual ports and piers with respect to proportional port transshipment compared to the previous year.

The voestalpine works harbour in Linz once again recorded the highest transshipment volume in 2024 compared to other harbours along the Austrian Danube. In terms of total volume, 41.8% was transshipped by water at the voestalpine works harbour. This corresponds to a transshipment volume of around 2.4 mill. t and a slight decrease of 2.2%.

The Port of Vienna, which includes the ports of Freudenau, Lobau and Albern, recorded an increase of 11.1% this year. This means that the port association continues to hold second place with around 1.1 mill. t, followed by the group of other ports, which were overtaken in the previous year.

The other ports and piers comprise the water-based transshipment volumes from Aschach, Bad Deutsch Altenburg, the heavy-duty port of Linz, Pöchlarn, Pischelsdorf, Korneuburg and two bunker piers in Vienna. Around 0.9 mill. t were transshipped in this port group in 2024, corresponding to an increase of around 14.1% in comparison with the previous year. Following the sharpest absolute decline in the previous year, the port group is reversing the trend with the strongest absolute increase in 2024, at around 110,000 tonnes. The group takes third place in the ranking with a share of 15.6%.

Ennshafen also registered a relative increase of 21.5% (around 90,000 tonnes in absolute terms) in 2024, counteracting the significant slump of the previous year.

The ports of Linz AG (commercial and oil port) recorded the sharpest decline in percentage terms in comparison with 2023, at 8.5%.

The port of Krems achieved a transshipment volume by water of around 0.25 mill. t and, at 24.1%, recorded the strongest relative increase in 2024.

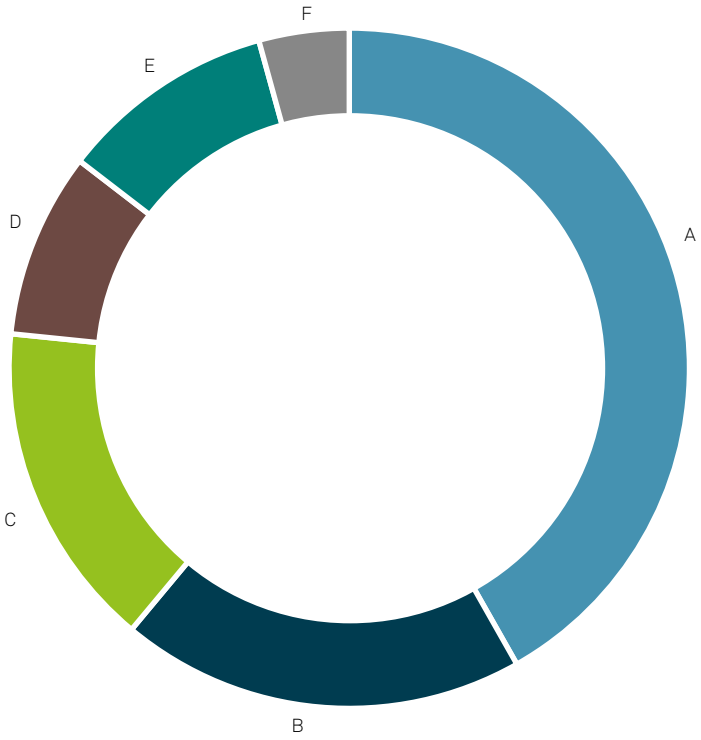
FIGURES DATA FACTS

Waterside transhipment at Austrian Danube ports and transhipment sites 2024

F
Krems
4%
245,682 tons
(24.1%)

E
Linz AG[4]
10%
589,392 tons
(–8.5%)

D
Enns
9%
505,473 tons
(21.5%)



A
Linz voestalpine[1]
42%
2,396,572 tons
(–2.2%)

B
Port of Vienna[3]
19%
1,103,971 tons
(11.1%)

C
Other[2]
16%
892,358 tons
(14.1%)

[1] Including waterside transhipment at the facilities of Industrie Logistik Linz GmbH.
[2] Other ports and transhipment sites include: Aschach, Schwerlasthafen Linz, Pöchlarn, Pischelsdorf and Korneuburg as well as two bunker berths in Vienna.
[3] The three ports of Freudenau, Albern and Lobau (oil port) have been grouped to compile the total turnover figures for the Port of Vienna.
[4] Data from both the commercial port and the oil port in Linz have been grouped to compile the total turnover figures for the Port of Linz.

Source: Statistics Austria, adapted by viadonau

FIGURES DATA FACTS

Transport volumes by commodity groups on the Austrian Danube 2024

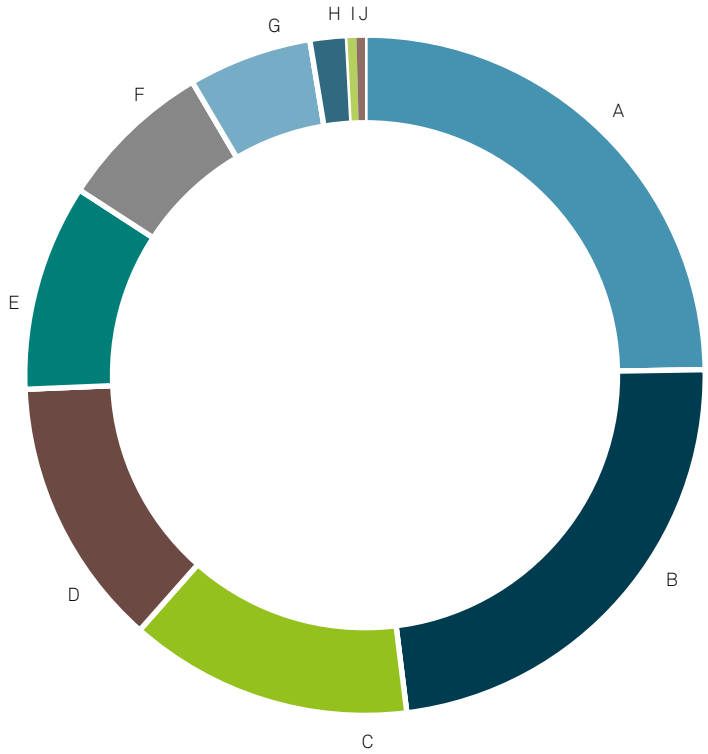
J
Chemical products
0.4%

I
Solid fuels
0.4%

H
Machinery, vehicles, and other articles
1.8%

G
Foodstuffs and animal fodder
5.9%

F
Fertilisers
7.4%



A
Ores and metal waste
24.7%

B
Agricultural and forestry products
23.3%

C
Petroleum products
13.5%

D
Metal products
12.8%

E
Crude and manufactured minerals, building materials
9.8%

in tons

Goods classification according to NST/R*	Domestic	Import	Export	Transit	Total 2024	Change
Agricultural and forestry products	22,672	757,271	55,730	697,588	1,533,261	47.9%
Foodstuffs and animal fodder	5,749	179,354	106,658	94,782	386,544	25.4%
Solid fuels	0	8,626	0	19,476	28,102	7.8%
Petroleum products	316,510	50,966	516,689	3,082	887,247	–7.8%
Ores and metal waste	0	1,618,986	7,322	0	1,626,308	–1.6%
Metal products	0	160,029	608,423	75,531	843,983	7.3%
Crude and manufactured minerals, building materials	39,307	207,070	205,835	194,201	646,412	13.2%
Fertilisers	239	35,212	423,873	25,383	484,707	–17.5%
Chemical products	0	660	0	25,861	26,521	1,157.3%
Machinery, vehicles and other articles	607	4,560	17,080	94,069	116,316	2.7%
Total	**385,083**	**3,022,735**	**1,941,610**	**1,229,972**	6,579,400	8.8%

* NNST/R = Standard Goods Classification for Transport Statistics/revised.

Source: Statistics Austria, adapted by viadonau

COMMODITY GROUPS

Slight increase overall
Ores and metal waste retain first place

- Ores and metal waste traditionally occupy first place
- Increase in transport volume in 2/3 of commodity groups
- Mineral raw materials and fertilisers swap places

The total transport volume on the Austrian section of the Danube amounted to around 6.6 mil. t in 2024. This corresponds to an increase of 8.8% or around 530,000 t compared with the total volume in 2023.

The commodity group of ores and metal waste ranked first with 1.6 mil. t, as in previous years. The situation can still be described as "stable" with a minimal decline of 1.6%, accounting for 24.7% of the total volume.

The transport volume of agricultural and forestry products totalled approx. 1.5 mill. t. This commodity group saw the most significant increase, with growth of almost 50% or just under 500,000 t. Just like last year, it retained its second place in the ranking, but with a share of 23.3%, it was only just behind the top spot.

Petroleum products recorded a volume of 887,247 t, corresponding to 13.5% of the total volume. The 7.8% decline can be attributed to lower imports in comparison with the previous year. The group retains the 3rd place it achieved in 2023.

Metal products made up around 850,000 t, or 12.8% of the total transport volume. This group registered an increase of 7.3%, or around 60,000 t, compared with 2023.

The mineral raw materials product group was able to record positive growth of 13.2% and a total tonnage of around 650,000 t. It is worth noting the 70% increase in transit traffic, accounting for 9.8% of the group's total volume, putting it in 5th place and relegating fertilisers to 6th place.

Around 480,000 tonnes of fertiliser were transported in 2024 – a decline of 17.5%, primarily attributable to a 42,000 t drop in exports. This commodity group accounted for 7.4% of total transport volume.

Food and feed transports posted an increase of 25.4% in 2024, reaching 390,000 t, and were able to expand their share of the total volume to 5.9%.
This product group takes seventh place in the ranking.

The shares of the machinery, vehicles and other goods (1.8%), solid fuels (0.4%) and chemical products (0.4%) commodity groups were less than 5%. The transport volumes of machinery, vehicles and other goods and solid fuels saw only slight increases (2.7% and 7.8% respectively).
Chemical products saw a twelvefold increase in volume and took everyone by surprise with the strongest relative growth.

PASSENGER TRANSPORT

Fewer passengers overall
River cruises continue to rise

- 6.8% increase in river cruise passengers
- Declines of 18.2% in scheduled services and 5.6% in non-scheduled services
- Two new cruise ships in service on the Danube

Passenger shipping recorded a decline in passenger numbers in 2024. Around 1,095,000 passengers were transported on the Austrian section of the Danube, corresponding to a decrease of 8.0% compared to 2023. This decline can be attributed to the discontinuation of shipping operations by Brandner Schifffahrt GmbH and the flooding that occurred in September 2024.

The number of river cruises also increased in 2024, recording around 470,000 passengers carried (+6.8% compared to 2023). The number of cabin ships sailing on the Austrian section rose sharply, totalling 170 ships (+7.6%) in 2024, two of which were new vessels. They completed a total of 5,057 journeys (+6.6%). The transport capacity of river cruises stood at 29,112 passenger spaces – an average equivalent of 171 passenger spaces per ship.

Around 540,000 passengers (-18.2%) were transported on scheduled services in 2024. DDSG Blue Danube Schiffahrt GmbH reported a total of 261,000 passengers (+10.6%) for its scheduled services in the Wachau region and Vienna. The Twin City Liner carried 165,000 passengers (-6.3%) between Vienna and Bratislava, while Fähre Dürnstein GmbH & Co KG reported 17,492 passengers (-3.0%) on its Danube taxis in the Wachau region.

Around 85,000 passengers were transported on non-scheduled services in 2024, representing a decline of 5.6% compared with the previous year. DDSG Blue Danube Schiffahrt GmbH transported 56,000 passengers (+9.8%) on themed, special and charter services, while the ships of Fähre Dürnstein GmbH & Co KG transported 3,837 passengers (+23.9%) on non-scheduled services. Nostalgie Tours, Video & Consulting GmbH reported 2,814 passengers (+18.5%) on the MS Mariandl on non-scheduled services, and 2,604 passengers travelled on the Walross operated by Leinen Los GmbH.

Passenger volumes for companies that transported fewer than 2,000 passengers on scheduled or non-scheduled services in 2024 are not shown separately here. There are no figures available for other companies operating scheduled and non-scheduled services on the Austrian section of the Danube for the reporting period.

The passenger port of Vienna (Handelskai, Danube Canal and Nussdorf) operated by Wiener Donauraum Länden und Ufer Betriebs- und Entwicklungsgesellschaft m.b.H. recorded 6,534 ship moorings and 726,374 passengers in 2024.

FIGURES DATA FACTS

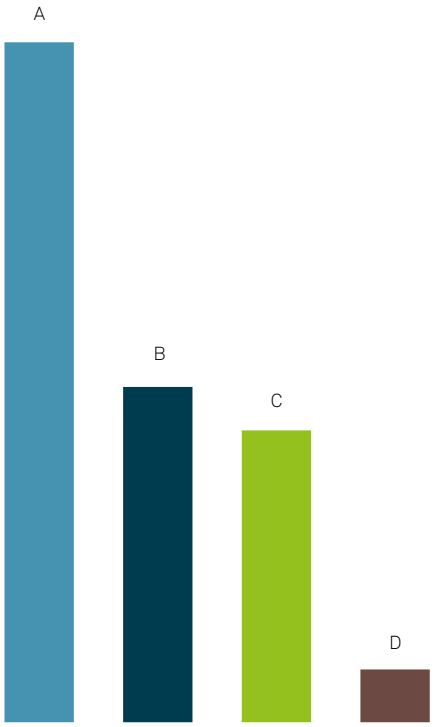
Passengers on the Austrian Danube 2024*

A
Total
1,095,000

B
Liner services
540,000

C
River cruises
470,000

D
Non-scheduled services
85,000

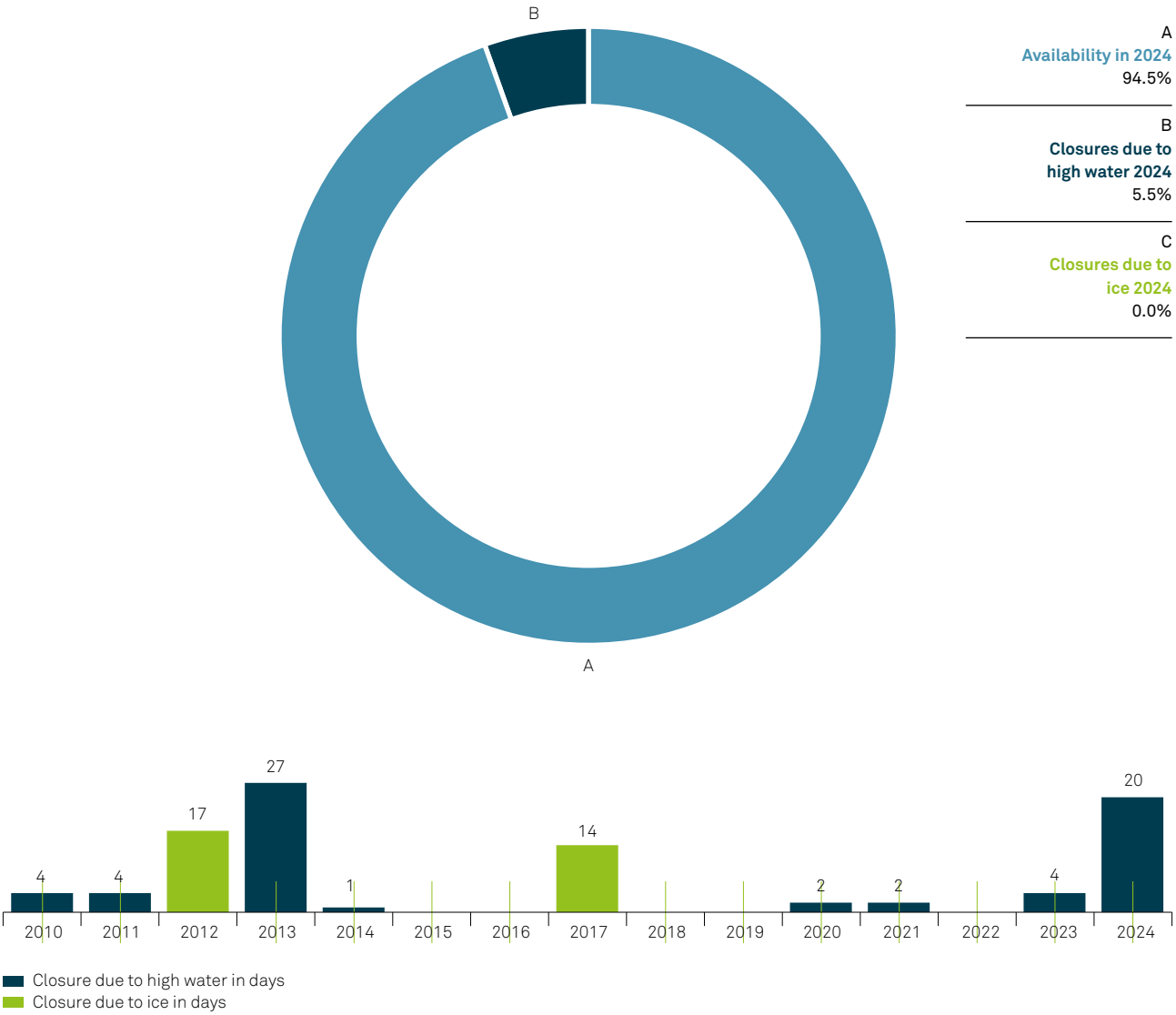


* Since passenger traffic on the Danube in Austria has not been statistically recorded since 2003 due to a change in the legal basis, the passenger figures for scheduled and non-scheduled occasional transport also include esti-mates based on the assumption of an average capacity utilisation rate of 40% for day excursion vessels. The calculation of the total number of passengers on cabin vessels is based on the number of trips made by these vessels through the Aschach and Freudenau locks. Usually, an average capacity utilisation of 75% is assumed, with a 30% deduction for double counting.

Sources: 1. Wiener Bootstaxi, Ankerplatz Ausflugs KG, Central Danube Region Marketing & Development GmbH, DDSG Blue Danube Schiffahrt GmbH, Donauschiffahrt Ardagger GmbH, Donauschiffahrt Wurm & Noé GmbH & Co. OHG, Donau-Taxi Wachau – Fähre Dürnstein GmbH & Co KG, Event Schifffahrt Haider e.U., Genuss-Schiffahrt GmbH, Leinen Los GmbH, Motoryacht Wachau, Naufahrt Wolfgang Speckner, Nostalgie Tours, Video & Consulting GesmbH, ÖGEG Österreichische Gesellschaft für Eisenbahngeschichte GmbH, Slovak Shipping and Ports – Passenger Shipping Inc., viadonau, Wachau Zille, WGD Donau Oberösterreich Tourismus GmbH, Wiener Donauraum Länden und Ufer Betriebs- und EntwicklungsgesmbH

FIGURES DATA FACTS

Navigational closures due to high water and ice 2010–2024



Sources: Supreme Navigation Authority within the Federal Ministry of Innovation, Mobility and Infrastructure, viadonau.

AVAILABILITY OF WATERWAY

20 days of closure due to high water Availability remained at 94.5%

- Availability of the Danube in 2024 at 94.5%
- Two closures due to flooding at the beginning of June and mid-September, each lasting around 10 days

The availability of the Austrian section of the Danube waterway averaged 98.3% over the 15-year period from 2010 to 2024, or around 359 days per year. There were two ice closures during this period, each with an average duration of around fifteen days, while in eight years the waterway had to be closed due to floods with an average duration of around eight days each.

Two significant flood surges were recorded on the Danube in 2024, occurring in early June and mid-September. Water levels above the highest navigable water level (HSW 2020) were observed at the Wildungsmauer gauge (reference gauge for the section east of Vienna) over three days in June and five days in September, and at the Kienstock gauge (reference gauge for the Wachau region) over ten days in June and six days in September. The authorities imposed a total of twenty days of shipping restrictions on the Austrian section of the Danube in 2024 owing to high water levels, although there were no ice restrictions, as had been the case in the six years prior. This means that the waterway was accessible for 346 days that year, or 94.5% of the year. This is 3.8% or thirteen days less than the 15-year average for the years 2010 to 2024.

The Austrian section of the Danube waterway may be closed by the shipping authorities due to extreme weather conditions such as ice formation or flooding. While closures resulting from considerable ice formation are mainly limited to the winter months, usually January and February, flood surges typically occur in the spring or summer months.

Official closures of the Danube waterway may be ordered not only due to flooding and ice blockages, but also due to traffic accidents, lock failures, water contamination, construction work or events. These shipping closures lasted a total of just over sixteen hours in 2024. Total closures of lock systems, i.e. the parallel closure of both lock chambers, lasted only slightly more than two hours in total in 2024 and only affected the Greifenstein lock system. Local closures of the waterway caused by events accounted for a total of thirteen hours in 2024. The waterway in the Aggsbach (Wachau) area had to be closed for an hour due to blasting work.

LOAD FACTOR

Highest water flow since 2013
Always above regulated low water level

- Above-average ship utilisation
- 0.5 mill. t per month

The average daily mean value for the Wildungsmauer gauge amounted to 308 cm – 37 cm more than in 2023 and the highest value since 2013. The value of the regulatory low water level (RNW 2020: 155 cm) was not reached or exceeded on any day in 2024, marking the first time in eleven years that this has been recorded.

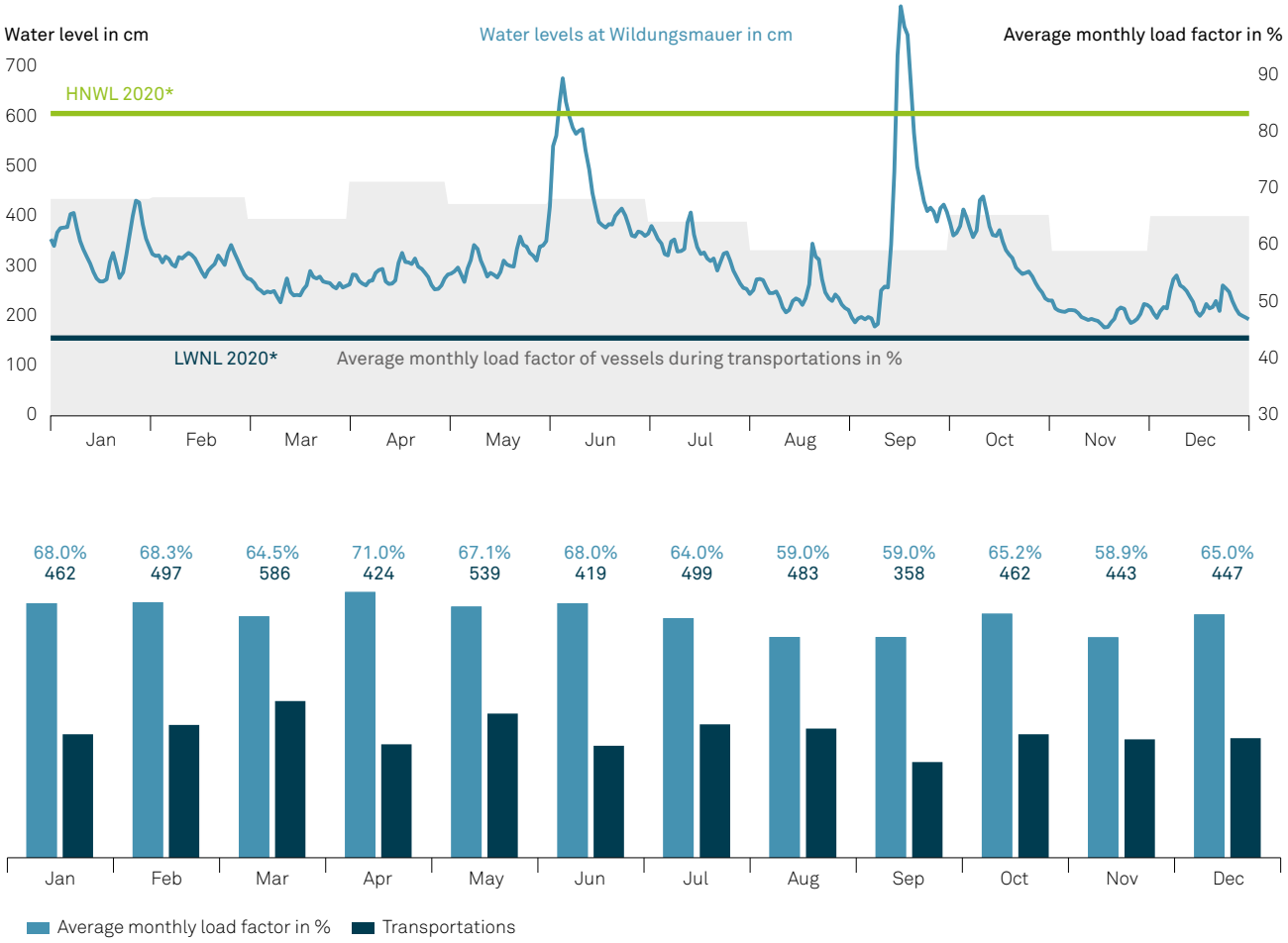
What were for the most part very favourable navigational conditions in 2024 resulted in above-average ship utilisation rates. Average ship utilisation achieved an annual figure of 64.8% – 5.8 percentage points more than in 2023 and also the highest figure since 2013 (2013: 65.3%).
The average ship utilisation rate reached more than 60% in nine months and even peaked at 71% in April. November saw the lowest figure at 58.9%.

An average of 0.5 mill. t were shipped across the Austrian Danube on a monthly basis in 2024, with an average of 468 shipments. An average of 1,172 t of cargo was transported per shipment.

The highest transport volume was recorded in March with 0.7 mill. t, necessitating 586 shipments with an average utilisation rate of 64.5%. In spite of very high water levels in September, the closure of shipping lanes over several days caused by flooding led to the lowest transport volume of less than 0.4 mill. t and the lowest number of shipments at 358.

FIGURES DATA FACTS

Water levels and resulting load factors of cargo vessels in 2024 using the Wildungsmauer gauge of reference

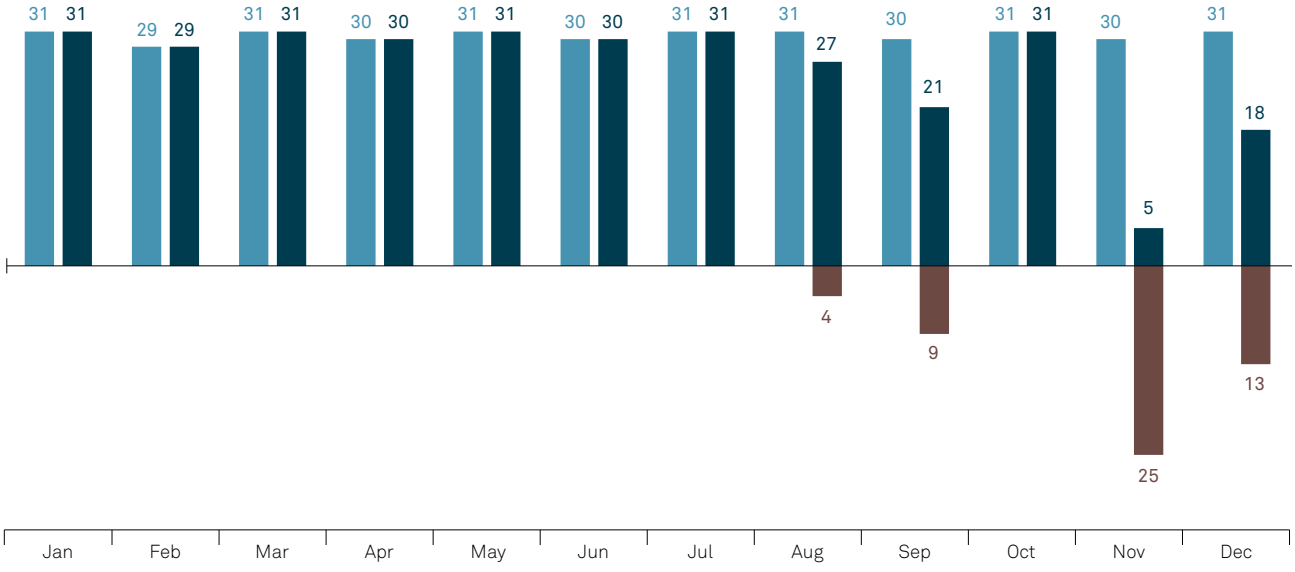


* LNWL 2020 (low navigable water level): This water level exceeded on 94.0% of days in a year during ice-free periods with reference to a 30-year observation period (1991–2020). The current LNWL value for the water gauge Wildungsmauer is 155 cm.
HNWL 2020 (highest navigable water level): This value represents the water level corresponding to the discharge exceeded on 1.0% of days in a year with reference to a 30-year observation period (1991–2020). At Wildungsmauer, the highest navigable water level is currently 605 cm.

Source: Statistics Austria, adapted by viadonau

FIGURES DATA FACTS

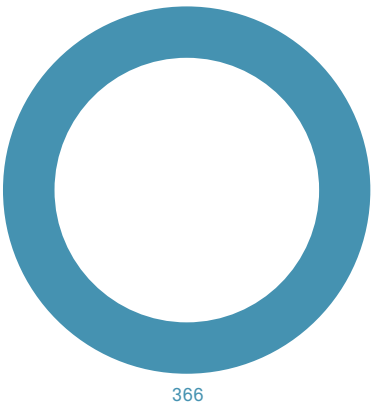
Minimum continuously* available fairway depths in days on the free-flowing stretches of the Danube 2024



Wachau
Kienstock gauge of reference; Minimum fairway depths in days

Above 2,5 m
Below 2,5 m

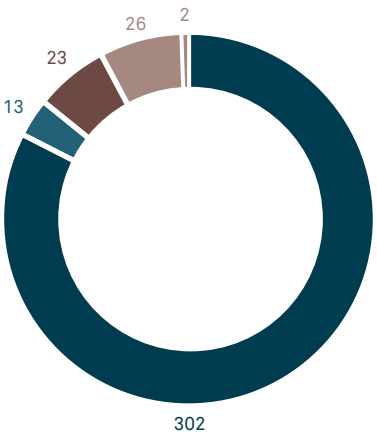
≥ 27 dm
26 + 25 dm
24 + 23 dm
22 + 21 dm
≤ 20 dm



East of Vienna
Wildungsmauer gauge of reference; Minimum fairway depths in days

Above 2,5 m
Below 2,5 m

≥ 27 dm
26 + 25 dm
24 + 23 dm
22 + 21 dm
≤ 20 dm



* Based on the fairway width required for a four-unit pushed convoy travelling downstream without encountering other vessels. Fairway width depends on the river bend radii involved.

Source: viadonau

FAIRWAY DEPTHS

2.5 m year-round in the Wachau region
Exceptionally good water flow

- 315 days or around 86% availability of 2.5 m navigable depth in the deep channel east of Vienna
- 366 days or 100% availability of 2.5 m in the Wachau region

The Danube recorded exceptionally high water levels in 2024. The daily average water level at the Wildungsmauer gauge (reference gauge for the section of the Danube between Vienna and Bratislava) actually exceeded the mean water level (MW 2020; +53.8% compared to 2023) on 200 days in 2024. There was not a single day of the year when the water level on the Austrian Danube fell below the regulatory low water level. Two flooding events were recorded at the beginning of June and in mid-September, resulting in official route closures lasting a total of almost 20 days. The highest navigable water level (HSW 2020) was exceeded on 8 days of the year.

This meant that in 2024, the entire length of the free-flowing section of the Danube in the Wachau region recorded navigable depths of more than 2.5 m in the deep channel throughout the year. In total, a minimum navigable depth of 2.5 m was maintained in the deep channel in the Wachau region on 366 days, or 100% of the year (+7.6% compared to 2023).

The massive amounts of alluvial deposits, caused primarily by the September floods, meant that it was not possible to maintain a minimum navigable depth of 2.5 m at the regulatory low water level 2020 on 51 days, despite the generally good water flow in the free-flowing section east of Vienna. Shallow areas in the approach channels to the locks at the Danube power stations and in the entrance areas to government and cargo ports had to be rectified as a matter of priority in order to ensure the continuous and safe usability of the Danube waterway for shipping. All available excavator equipment was used here in parallel. This meant that once the flood waters had receded, it was not immediately possible to clear the deposits in the fords east of Vienna. Consequently, navigable depths of over 2.5 m were recorded in this free-flowing section over 315 days, or 86.1% of the year (–5.4% compared to 2023).

Navigable depths of less than 2.3 m were recorded on 28 days throughout 2024 in the key shallow areas of the Wachau and east of Vienna sections. By contrast, navigable depths of at least 2.7 m were possible for shipping on 302 days.

The minimum available navigable depths for the two free-flowing sections of the Austrian Danube (Wachau and east of Vienna) were calculated from all hydrographic surveys of the riverbed published by viadonau in 2024. The values were assessed in combination with water level hydrographs relevant to shipping (average daily water levels at the two reference gauges: Kienstock and Wildungsmauer). The reference here was a depth channel within the fairway maintained as consistently as possible, which constitutes the required lane width for a 4-boat pushed barge train travelling downstream without oncoming traffic.

TRANSPORT DENSITY

Less than 3 mill. t in the West
Larger transport volume from Linz

- 4.8 mill. t between Vienna and Slovakia
- Larger quantities upstream than downstream

It is striking to note that, when comparing the individual sections of the Austrian Danube, the volume of transport in the two western sections between the German-Austrian border and Linz is significantly lower than in the other sections of the Danube below Linz. While the sections east of Linz each handled over 4 mill. t of goods in 2024, the two sections west of Linz each shipped less than 3 mill. t by inland waterway transport.

We can clearly see how important the port city of Linz is with its four cargo hubs, where a total of 3 mill. t of goods were handled by water in 2024. 79.8% of this was transshipped at the voestalpine port.

The section with the highest cargo volume in 2024 was once again the section between Vienna and the Austrian-Slovakian border with 4.8 mill. t, equivalent to more than 192,000 HGVs with a payload of 25 tons each. In contrast to this, the section between the German-Austrian border and Aschach was the section with the lowest transport volume, at 2.6 mill. t.

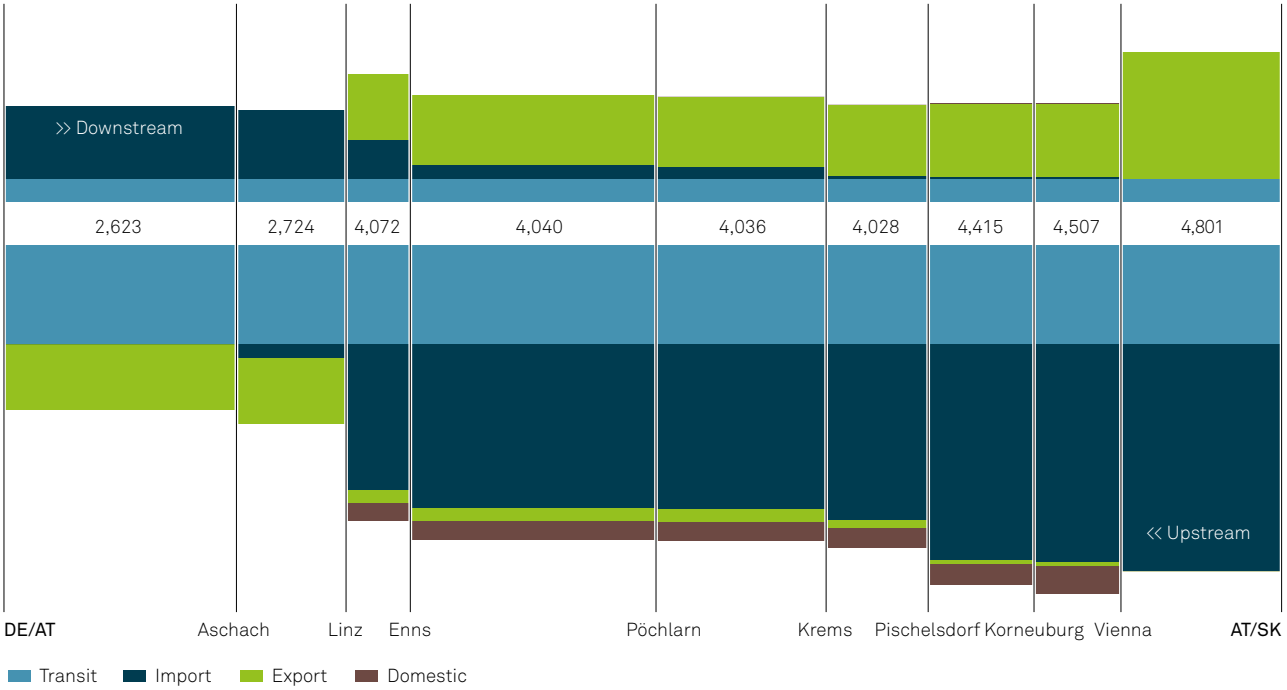
When considering the individual transport sectors of import, export, transit and domestic transport, it becomes apparent that, with the exception of exports, the volumes of cargo transported upstream are greater than those transported downstream. A total of 4.3 mill. t were sent upstream and 2.3 mill. t downstream in 2024.

The average volume transported by inland waterway in 2024 was 18,768 tons per kilometre of the 351-kilometre section of the Austrian Danube. Calculated on a daily basis, the average value was 17,974 tons.

* Excluding transports within a port location.

FIGURES DATA FACTS

Density of freight traffic on the Austrian Danube 2024



Section	Length	Import	Import	Export	Export	Domestic	Domestic	Transit	Transit	Total	Total	In sum
in 1,000 tons	in km	upstr.	d'str.	upstr.	d'str.	upstr.	d'str.	upstr.	d'str.	upstr.	d'str.	
Border DE/AT–Aschach	63.21	0	733	660	0	0	0	998	232	1,658	965	**2,623**
Aschach–Linz	31.30	139	695	660	0	0	0	998	232	1,797	927	**2,724**
Linz–Enns	16.87	1,466	391	138	667	180	0	998	232	2,782	1,290	**4,072**
Enns–Pöchlarn	67.63	1,652	138	122	706	192	0	998	232	2,964	1,076	**4,040**
Pöchlarn–Krems	46.20	1,664	122	122	706	192	0	998	232	2,976	1,060	**4,036**
Krems–Pischelsdorf	26.30	1,767	28	89	722	192	0	998	232	3,046	982	**4,028**
Pischelsdorf–Korneuburg	29.60	2,178	14	39	745	208	1	998	232	3,423	992	**4,415**
Korneuburg–Vienna	23.64	2,197	14	39	745	281	1	998	232	3,515	992	**4,507**
Vienna–Border AT/SK	45.76	2,290	0	0	1,281	0	0	998	232	3,288	1,513	**4,801**

Source: Statistics Austria, adapted by viadonau

FIGURES DATA FACTS

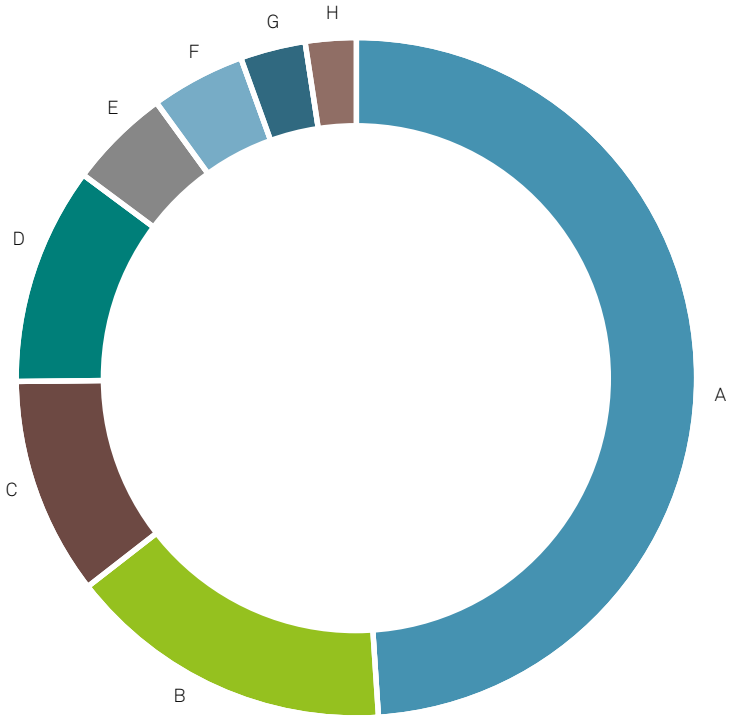
Overview of the Austrian Danube fleet* according to vehicle type 2024

H
Motor tankers and bunker boats
7 vehicles
2.4%

G
Other vehicles
9 vehicles
3.1%

F
Tank barges
13 vehicles
4.5%

E
Motor cargo vessels
14 vehicles
4.8%



A
Freight barges
142 vehicles
49.0%

B
Work vehicles
45 vehicles
15.5%

C
Passenger ships
30 vehicles
10.3%

D
Push boats
30 vehicles
10.3%

* The Austrian Danube fleet encompasses vehicles of category 1 according to Section 3 of the Vessel Technology Regulation (Schiffstechnikverordnung), which are defined as follows: a vehicle whose length (L) is 20 m or more or whose product of length (L), breadth (B) and draught (D) is 100 m³ or more, or which is intended to carry more than 12 passengers (passenger vessels), a floating device or a tug or push boat intended to tow, push or carry such vessels coupled to it.

Sources: Register of inland vessels, Vienna; Supreme Navigation Authority within the Federal Ministry of Innovation, Mobility and Infrastructure; viadonau

AUSTRIAN DANUBE FLEET

Size of Danube fleet remains unchanged
Largest group: Cargo barges and lighters

The Austrian Danube fleet comprised 290 vessels in 2024 (an increase of 3 over the previous year) with an average age of 46 years. This fleet includes approved Category 1 vessels in accordance with §3 of the Ship Engineering Ordinance (Schiffstechnikverordnung) that are registered in Austria. Vessels are categorised based on the vessel types specified in UNECE Recommendation 28.

Just under half of the vessels can be assigned to the category of non-motorised cargo barges and lighters (142 vessels or 49.0%). They are on average 43 years old, 68.9 metres long, 10.1 metres wide, have a draught of 2.5 metres and a load capacity of 1,453.3 tonnes.
The second largest category in 2024 was work vessels, such as construction site vessels and floating equipment, with 45 units or 15.5%, and an average age of 47 years.

Third place went to passenger ships with 30 vessels, or 10.3% of the Austrian Danube fleet. These vessels are predominantly excursion boats. Only one cruise ship with 164 passenger beds is registered in Austria. The passenger ships are on average 50 years old with a capacity of 264 passengers.
Push boats also came in third place. Thirty of these vessels were registered in Austria in 2024 (10.3%). They are on average 49 years old, 30.4 metres long, 8.9 metres wide, have a draught of 1.6 metres and a motor capacity of 1,362 kW.

The Austrian Danube fleet also included 14 motor cargo vessels (4.5%).
They are on average 45 years old, 92.1 metres long, 10.9 metres wide, have a draught of 2.5 metres, a load capacity of 1,706.6 tonnes and a motor capacity of 1,062 kW.
Thirteen tanker barges and lighters were registered in Austria (4.5%). They are on average 38 years old, 77.6 metres long, 10.4 metres wide, have a draught of 2.8 metres and a load capacity of 1,615.2 tonnes.

A further nine vessels (3.1%) are categorised as “Other vessels”. These include, for example, recreational boats over 20 metres in length and ferries.
Lastly, seven tanker motor ships or bunker boats were also registered in Austria. They are on average 64 years old, have a load capacity of 414.7 tonnes and an motor capacity of 341 kW.

- The Austrian Danube fleet comprised 290 vessels with an average age of 46 years in 2024.
- Cargo barges and lighters are the most common type of vessel, representing 49.0% of the total.
- Work vessels take second place with 15.5%

LOCKED-THROUGH VESSEL UNITS

76,000 units locked through
Growth in cargo & passenger transport

- Year-on-year increase of 4.5% in the number of locked-through cargo ships
- Increase of 4.1% in passenger traffic compared to the previous year

A total of 76,067 vessels carrying passengers and cargo passed through the nine Austrian locks (excluding the Jochenstein power station on the Austrian-German border) upstream and downstream in 2024. These included 20,949 motor cargo and motor tanker vessels (+4.3% compared to 2023), 12,484 push boats (+4.7%) and 42,634 passenger vessels (+4.1%).

A total of 23,520 cargo and tanker barges and lighters (–2.6%) were transported as part of convoy formations. This means an increase of +4.3% in the number of ships passing through locks for all types of ships and convoys in cargo and passenger transport in comparison to 2023.

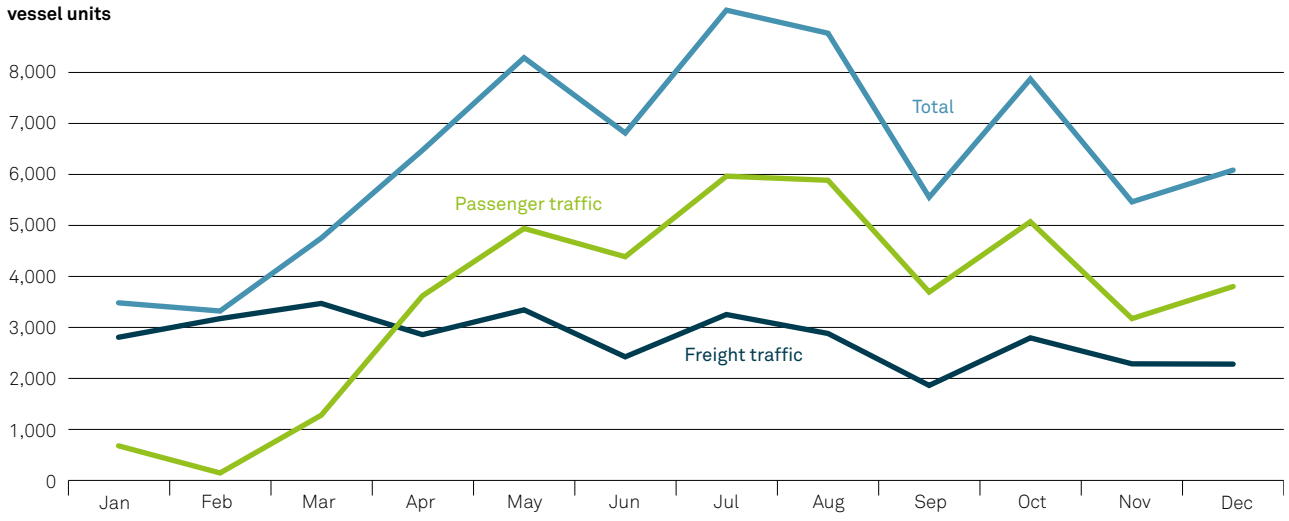
The year 2024 witnessed an increase in traffic volume in both freight and passenger transport, as reflected in the number of lock crossings. There was an increase in the number of ship units passing through locks on the Austrian Danube in cargo transport (by 4.5% or 1,432 units more than in 2023). Passenger transport also posted an increase in volume compared with the previous year (up 4.1% or 1,671 more ship units than in 2023). Cargo transport accounted for 44% of total shipping volume in 2024 (+0.2 percentage points on 2023), while passenger transport accounted for 56% (–0.2 percentage points).

Looking at 2024 as a whole, the average number of ships passing through an Austrian Danube lock was 8,451 convoys or individual vessels (an increase of 344 ships compared to 2023) – equivalent to 704 (+28) ship movements per month and 23 units per day and lock. The Freudenau lock (Vienna) recorded the highest volume of ships, just like in previous years, with 10,183 ships (+4.6% compared to 2023), followed by the Greifenstein lock with 9,079 ships. The Aschach lock handled the lowest number of ships, with 7,103 units passing through.

Apart from the commercial shipping units passing through the Austrian Danube locks in cargo and passenger transport, 8,570 small recreational vessels (–6.8% compared to 2023) and 1,635 other vessels – such as official and emergency vehicles – were also transported through the locks in 2024.

FIGURES DATA FACTS

Vessel units* in freight and passenger transport locked through Austrian Danube locks in 2024



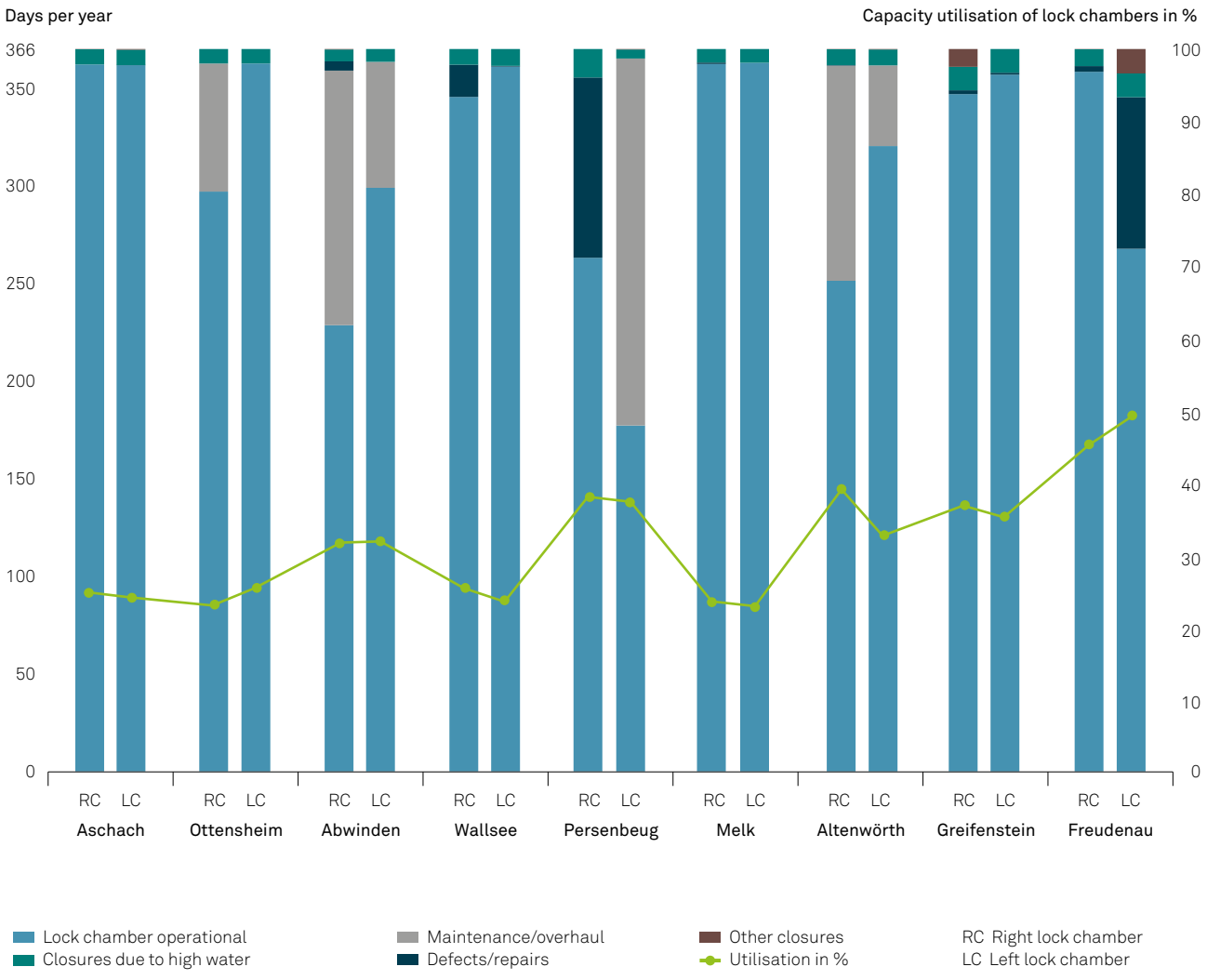
	Freight traffic	% to previous year	Passenger traffic	% to previous year	Total	% to previous year
2024	33,433	+4.5	42,634	+4.1	76,067	+4.3
2023	32,001	−9.4	40,963	+0.5	**72,964**	−4.07
2022	35,302	−14.8	40,756	+162.5	**76,058**	+33.5
2021	41,432	−7.1	15,524	+107.0	**56,956**	+9.4
2020	44,575	−2.9	7,501	−85.7	**52,076**	−47.0

* Vessel units in freight transport include convoys (pushers, motor cargo vessels and motor tankers with cargo and tank lighters or barges) and individual vessels (motor cargo vessels and motor tankers or individual pushers and tugs). The passenger vessels are day-trip vessels and cabin vessels.

Source: viadonau

FIGURES DATA FACTS

Availability of Austrian Danube locks 2024



Source: viadonau

AVAILABILITY OF LOCK CHAMBERS

95.7% continuous availability
Average chamber utilisation around 32%

- 95.7% continuous availability of Austrian lock systems in 2024
- Lock inspections are performed during the off-peak period from November to March to avoid waiting times.

In their capacity as large-scale technical installations, the nine Austrian Danube locks require periodic maintenance to ensure their functionality, operational safety and consequently the smooth flow of shipping traffic. These so-called lock inspections and necessary major repairs were responsible for around 73.4% of all closure days in 2024 for the total of 18 lock chambers. The average duration of the inspections in the winter half-year 2023/24, concluded in spring 2024, was 161 days per chamber.

Other causes of lock closures included repairs undertaken during the year due to technical failures. These accounted for a total of around 8.4% of all closure days. Approximately 2.4% of the closure days were also due to planned renovation and maintenance work, excavation in the lock area, surveys, water contamination and accidents. There were also two prolonged periods of closure due to flooding in 2024 – one at the beginning of June and another in mid-September. All lock systems were completely closed for several days in both cases. These closures accounted for a total of around 15.8% of the closure days. No weather-related closures due to ice were recorded in 2024.

Continuous availability of the 18 chambers of the Austrian Danube locks was achieved for a good 350 days (95.7%) in 2024. All nine locks were completely closed during the busiest months for passenger, leisure and recreational boating, from April to October, on account of the two flood events at the beginning of June and in mid-September. The flooding in June spanned ten days, whereby a continuous closure was imposed for three days during this period. The second flood event in September went on for 11 days, during 9 of which at least one lock was completely closed.

Only one lock was completely out of service for a short period during the quieter months from November to March. The main reason behind the short-term closure of around 2.2 hours was the urgent need for repairs to both chambers of the Greifenstein lock.

The statistical utilisation rate of the individual lock chambers amounted to an average of around 32% in 2024. Capacity utilisation varies considerably from a geographical perspective. The Freudenau lock reported the highest average utilisation rate, as in previous years, at around 47%. This is followed by the Persenbeug lock with a utilisation rate of just under 38%. The Melk lock recorded the lowest utilisation rate at around 23%. The utilisation rate of a lock chamber equates to its ‘occupancy time’, i.e. the total period from when the first ship enters the lock to when the last ship leaves overall, under the assumption of 24/7 availability of the lock chambers and taking into account lock closures.

WAITING TIMES AT LOCKS

Only 6.8% of ships had to wait
Average waiting time was 37 minutes

- No waiting times at locks for 93.2% of all vessels involved in large-scale shipping in 2024
- 37 minutes average waiting time for 6.8% of ships.

The average waiting time for 6.8% of all vessels (cargo and passenger ships involved in large-scale shipping) on the Austrian section of the Danube in front of the nine Danube locks in 2024 totalled 37 minutes over the entire year.

Major factors influencing waiting times include lock availability as well as traffic volume. Around 73% of waiting times can be attributed to the unavailability of lock chambers as a result of inspections, repairs/malfunctions or necessary repairs following accidents. The remaining 27% can be largely attributed to traffic-related causes, special events as well as regular operations.

Once you take into account the impact of lock inspections, unplanned repairs and increased traffic, only 1% of ships had to endure an average wait of around 16 minutes for operational reasons.

The following picture can be drawn when analysing the evaluation in detail.
55% of the waiting times occurred due to the inspections of the lock chambers in Altenwörth, Persenbeug and Abwinden, as well as the inspections of the chambers in Ottensheim, Abwinden and Altenwörth, which began in autumn.

Around 14% of waiting times were due to repairs/malfunctions during the year and closures as a result of dredging or surveying work. A smaller proportion of 4% was mainly down to two accidents in the lock area and the resulting repair measures at the lock facilities in Freudenau and Greifenstein.

A further quarter (25%) of waiting times were caused by increased traffic volumes. This includes situations involving more vessels waiting in front of a lock than can fit in one chamber. Several rescue operations and a statistical survey on transit volumes affected shipping, accounting for 1% of waiting times, and only a further one per cent of waiting times were directly attributable to the operational activities of the lock supervisory personnel.

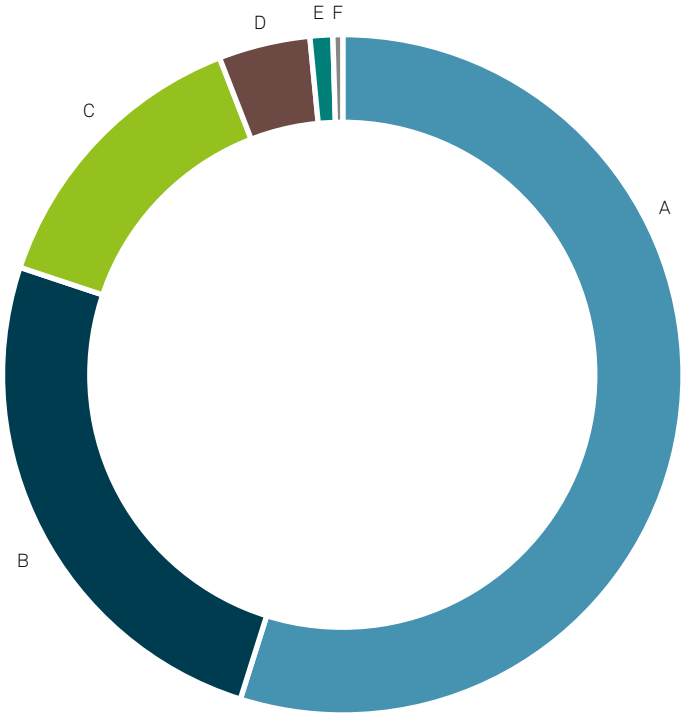
FIGURES DATA FACTS

Causes of waiting times at Austrian Danube locks 2024

F
Unusual events
1%

E
Regular waiting times
1%

D
Accidents
4%



A
Overhauls
55%

B
Increased traffic volume
25%

C
Repairs/ disruptions
14%

Source: viadonau

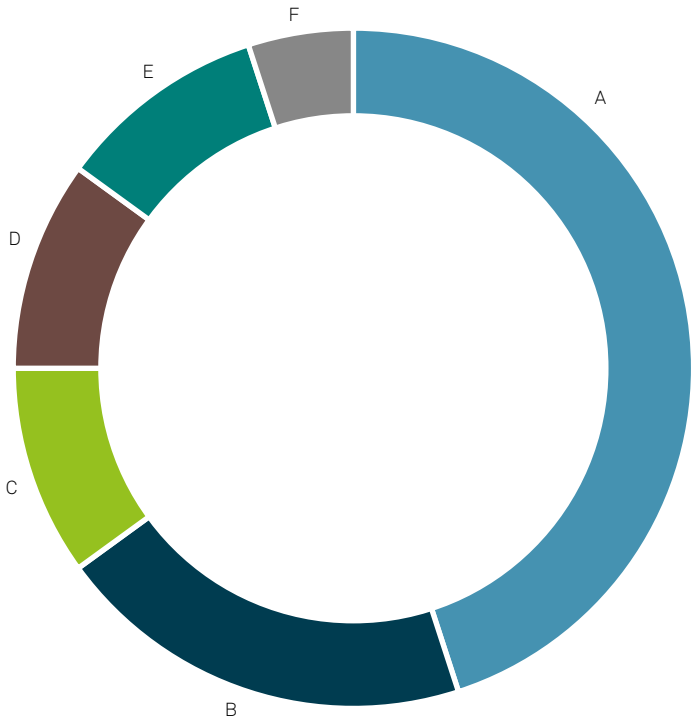
FIGURES DATA FACTS

Traffic accidents according to type of damage on the Austrian Danube 2024

F
1 riverbank collisions
5%

E
2 collisions of ships in service
10%

D
2 collisions with structures (excluding lock facilities)
10%



A
9 collisions with lock facilities
45%

B
4 bridge strikes
20%

C
2 groundings
10%

Source: Supreme Navigation Authority within the Federal Ministry of Innovation, Mobility and Infrastructure, adapted by viadonau

ACCIDENTS

Number of accidents remains low
Lock collisions most common type

The Danube shipping industry has an unrivalled accident record in comparison to rail and road transport. A total of 18 accidents occurred on the Austrian section of the Danube waterway in 2024, which resulted in damages (property damage and/or personal injury) and involved large vessels (passenger and cargo ships or convoys). Passenger ships were involved in 12 accidents, while cargo ships suffered damage in a further six cases.

There were nine collisions with lock systems and four collisions with bridges, split up by accident type. Two accidents each involved groundings (running aground), strikes against other structures and collisions between ships in motion. There was also one collision with the river bank. One accident involved running aground and striking the river bank, while another accident resulted in damage to the vessel while running aground.

Two accidents involving personal injury occurred in 2024 as a result of cargo and passenger shipping traffic on the Austrian section of the Danube, in which a total of 19 people were injured to an undetermined degree. No fatalities were reported. There were also no cases of water contamination or cargo spillages in 2024.

Most accidents in 2024 happened in the vicinity of lock systems (during locking or in the upper and lower waters of the lock). A total of nine accidents were registered here, all of which involved collisions with the lock system itself. Two accidents were reported on the free-flowing section of the Danube east of Vienna. One of these involved a vessel colliding with the river bank and striking the surface, while the other involved damage to other equipment and striking the surface. There was a bridge collision, a collision between ships in motion and a collision with other equipment on the free-flowing section of the Danube between Melk and Krems (Wachau). A total of four accidents were recorded on congested sections of the waterway in 2024, three of which involved collisions with bridges and one involving a collision between moving vessels.

One accident with damage occurred in 2024 on the Austrian section of the Danube involving leisure and recreational boating, which is not included in the accident figures outlined above (except for collisions with large vessels). This involved the collision of a leisure craft with a ferry.

- Collisions with locks and bridges in 2024: the most common types of accidents
- Personal injury: 19 injured, no fatalities
- Passenger ships were involved in 12 accidents, cargo ships in 6 accidents.

MODAL SPLIT

Total transport volume of 86.9 mill. t
Transport on the Danube increases

- Road cargo transport accounted for 65% of the modal split.
- Highest proportion of the Danube in imports across the eastern border
- 62.5 mill. t across the western border

A total of 86.9 mill t. of goods were transported within the Austrian Danube corridor in 2024. This equates to only an extremely minor decrease of 0.1 mill. t or 0.2% compared to 2023.

This marginal decline can be attributed to the decrease in transport volumes handled by road, which fell by 3.2% to 56.4 mill. t, whereas transport volumes handled by rail increased by 5.3% to 24.3 mill. t and those handled by the Danube increased by as much as 9% to 6.2 mill. t.

This meant that road transport accounted for 65% of the modal split in the Austrian Danube corridor in 2024, a decrease of two percentage points in comparison with the previous year. Rail and Danube transport accounted for 28% and 7% respectively in 2024.

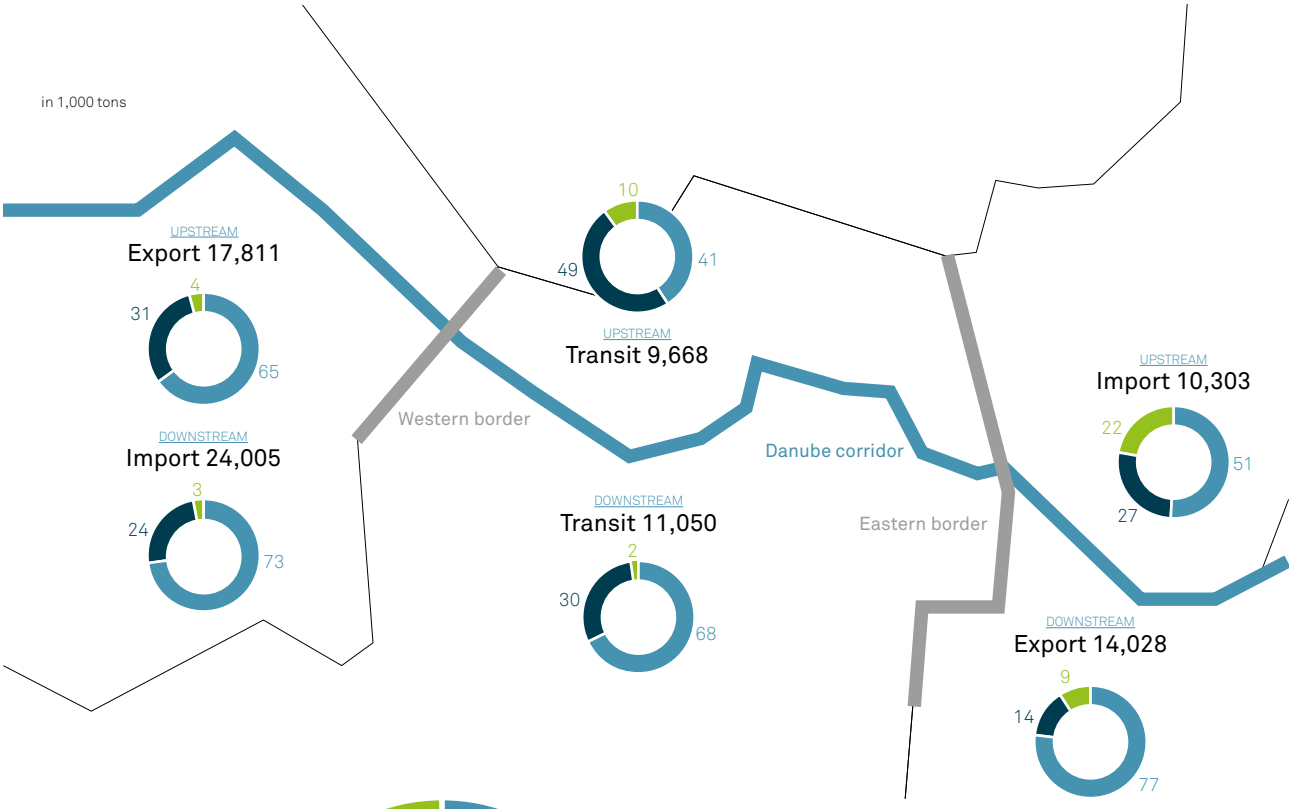
The import volume transported across the western border of the Austrian Danube corridor contributed most to the modal split, accounting for 27.6% or 24 mill. t of the modal split broken down by transport sector and transport direction. The Danube's share here was only 3%, however, while road transport accounted for 73% and rail transport for 24%.
In contrast, the Danube was of greatest importance in terms of the proportion of imports transported across the eastern border of the Austrian Danube corridor, accounting for 22%. Roads accounted for 51% of this share, while rail accounted for 27%.

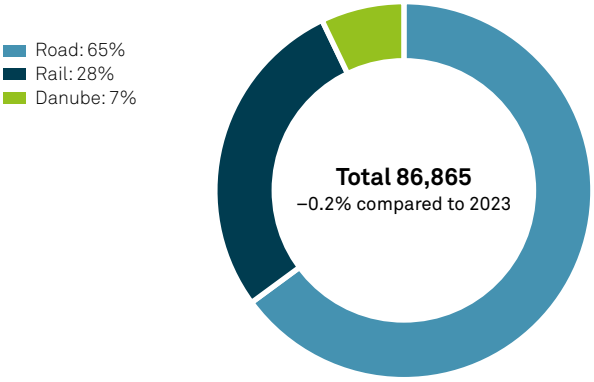
The Danube also accounted for a relatively large share of transit traffic upstream in 2024, at 10%. It is also worth noting that this is the only segment in which rail transport accounted for a higher share of transport volume (49%) than road transport (41%).

A total of 62.5 mill. t were transported across the western border of the Austrian Danube corridor in 2024, and 45.1 mill. t across the eastern border. This means that the volume of goods transported across the western border exceeded that across the eastern border by 38.8%.

FIGURES DATA FACTS

Cross-border freight traffic in the Austrian Danube corridor 2024





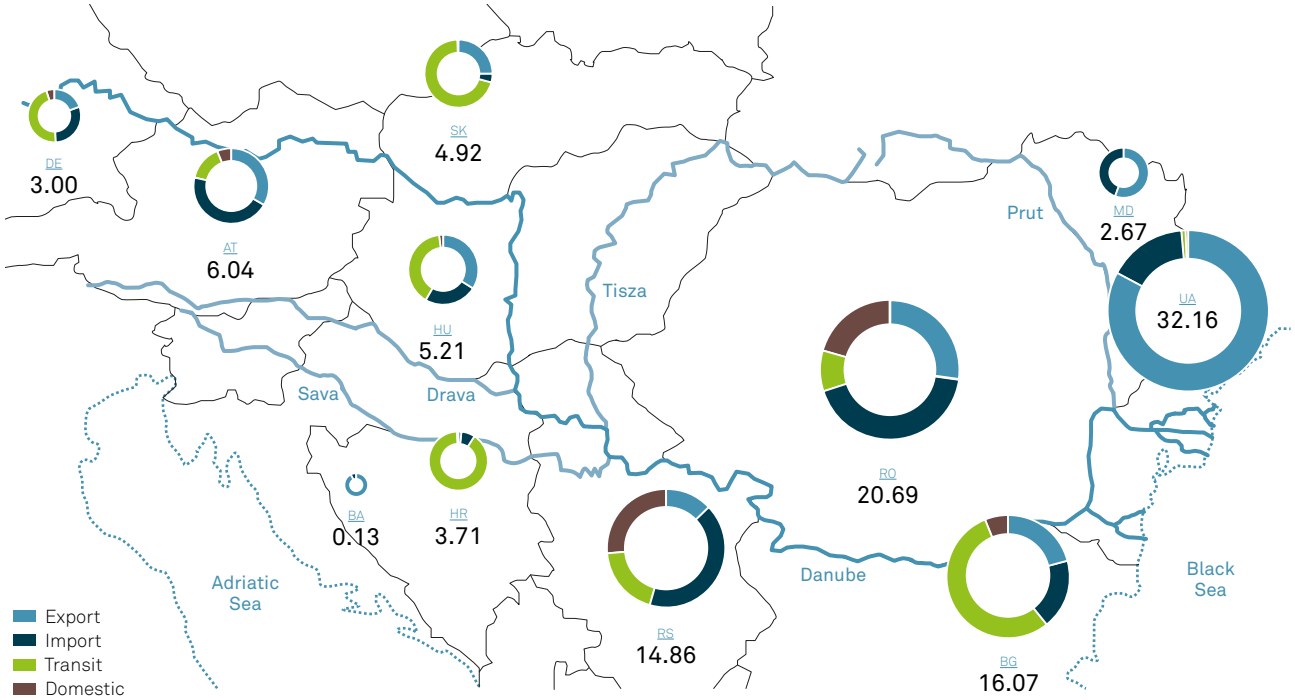
Western border
Danube: Passau
Road: Suben, Neuhaus, Simbach
Rail: Passau

Eastern border
Danube: Hainburg
Road: Berg, Kittsee, Nickelsdorf, Klingenbach, Deutschkreutz
Rail: Marchegg, Kittsee, Hegyeshalom, Sopron, Deutschkreutz

Source: Austrian Institute for Spatial Planning (ÖIR), adapted by viadonau

FIGURES DATA FACTS

Freight transport on the entire Danube 2023



In millions of tons	DE	AT	SK	HU	HR	BA	RS	RO	BG	MD	UA
Export	0.59	2.02	1.24	1.78	0.07	0.12	1.93	5.64	3.35	1.49	26.67
Import	0.89	2.74	0.20	1.26	0.28	0.01	6.19	8.90	2.98	1.18	5.07
Transit	1.37	0.92	3.46	2.08	3.33	0.00	2.83	1.95	8.77	0.00	0.28
Domestic	0.15	0.36	0.02	0.09	0.03	0.00	3.91	4.20	0.97	0.00	0.14
Total	**3.00**	**6.04**	**4.92**	**5.21**	**3.71**	**0.13**	**14.86**	**20.69**	**16.07**	**2.67**	**32.16**

Sources: Eurostat, national traffic statistics, Statistics of the Jochenstein and Iron Gate I locks, Danube Commission: Donaukommission: "Market observation for Danube Navigation, results in 2022", adapted by viadonau

FREIGHT TRANSPORT ON THE ENTIRE DANUBE 2023

55.2 mill. t over the Danube & tributaries
Significant increase over 2022

- 32.2 mill. t in Ukraine
- Significant differences in volume between the upper and lower Danube
- Increase in Ukraine by 89.6%

The total transport volume generated over the Danube and its tributaries amounted to 55.2 mill. t in 2023. This equates to an increase of 36.1% compared to 2022.

Ukraine is by far the leader among the eleven countries in the Danube region when it comes to transport volumes at national level, with a total of 32.2 mill. t. Of this amount, 26.7 mill. t were shipped via Ukrainian Danube ports for export alone, including maritime shipments via the Black Sea to countries outside the Danube region.

Romania also posted high transport volumes with 20.7 mill. t, as did Bulgaria with 16.1 mill. t and Serbia with 14.9 mill. t. Significantly lower volumes were achieved in Austria (6 mill. t), Hungary (5.2 mill. t), Slovakia (4.9 mill. t), Croatia (3.7 mill. t), Germany [1] (3 mill. t), Moldova (2.7 mill. t) and, finally, Bosnia and Herzegovina (only 0.1 mill. t).

The significant differences in volume between the countries downstream of Hungary and Croatia (with the exception of Bosnia-Herzegovina and Moldova) and the countries upstream of Serbia also become apparent when comparing the volumes passing through the German Jochenstein lock and the Romanian-Serbian Iron Gate I lock: Whereas a total of 2.1 mill. t passed through the Jochenstein lock in 2023, more than three times that amount, 7.7 mill. t, passed through the Iron Gate I lock.

There was a significant increase of 89.6% in national transport volumes in Ukraine compared with the previous year. Ukraine achieved significant growth in all areas of transport, with exports in particular showing exceptionally strong growth of 149.5%.

Moldova and Bulgaria also recorded significant growth of 24.4% and 10.2% respectively. There were, however, significant declines of 17.2% in Bosnia and Herzegovina, 14% in Croatia and 10.7% in Slovakia.

A total of 23.4 mill. t were shipped through the Danube-Black Sea Canal, the link between the Danube and the Romanian Black Sea port of Constanţa, in 2023. Only 0.6% of goods were transported by seagoing vessels on the canal, which such ships are also able to navigate.

[1] local government districts of the Upper Palatinate and Lower Bavaria

FAIRWAY CONDITIONS ALONG THE ENTIRE DANUBE

Promising start to the year
Challenges in late summer

"Anyone working with the river on a daily basis is well aware that movement creates change. It is only through the continuous development of our operations that we can actively shape the future of the Danube. We are maintaining the flexibility in our thinking and actions that is needed for sustainable solutions on the Danube, despite the ongoing digitalisation process in all areas of the company."

JÜRGEN TRÖGL
Mobility and Digitalization

The first half of 2024 was very favourable for shipping from a hydrological point of view, featuring water levels above the regulatory low water level (RNW) along the entire length of the Danube. Strong fluctuations were observed in the second half of the year: Two flood events and a distinct low-water period temporarily impaired fairway conditions. The second flood in September presented a particular challenge for the upper and middle Danube, while the subsiding flood waters brought an end to the low water levels on the lower Danube.

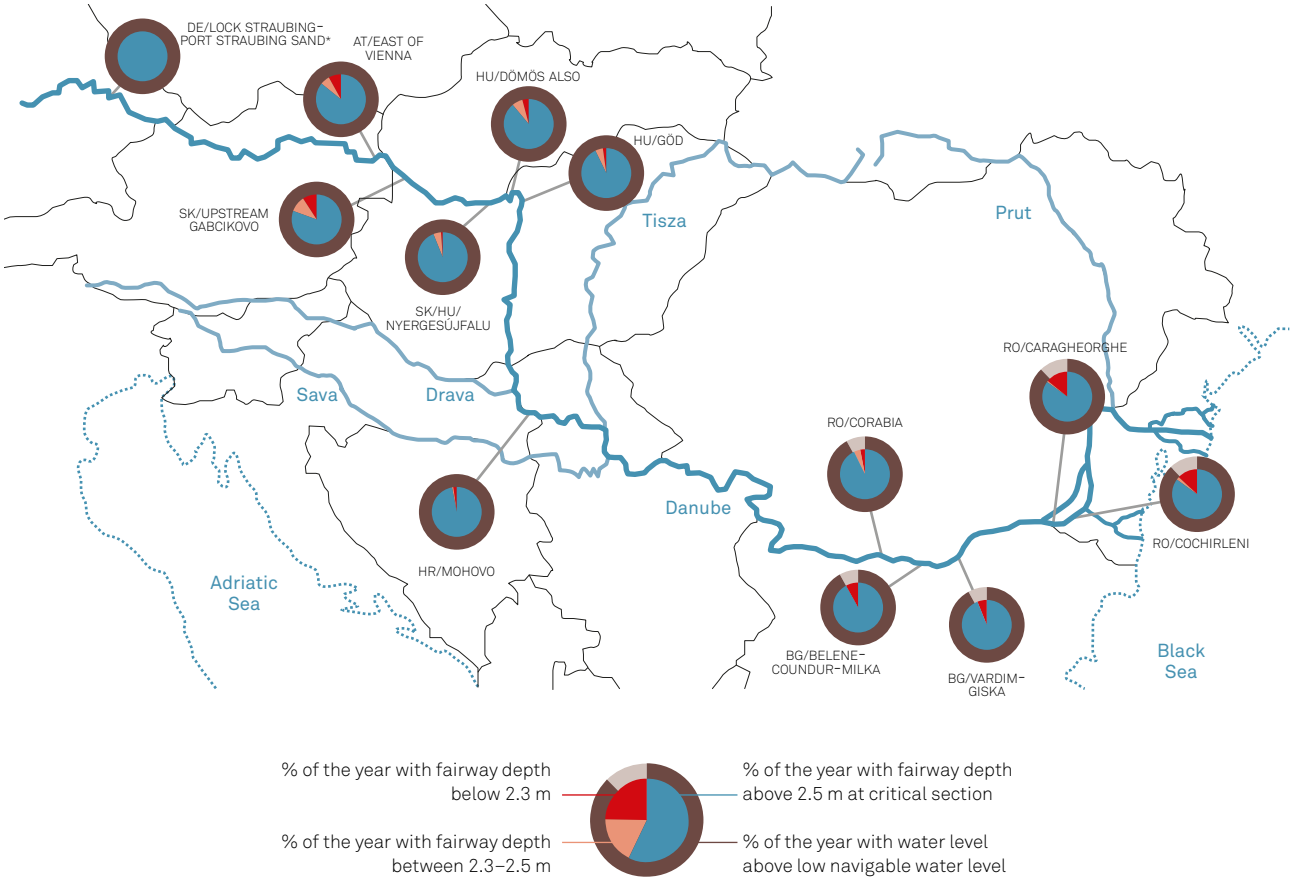
Conditions on the lower Danube were restricted in summer due to low water levels. Increased investment (co-financed primarily by the EU), forward-looking traffic management (such as width restrictions) as well as timely maintenance dredging in Romania and Bulgaria made it possible to minimise the number of days on which the preservation target of a 2.5 m navigable depth was not achieved. The most critical shallow sections were found in Slovakia (72 days) and, as in previous years, Hungary (40 days), where the lack of maintenance continued to severely limit availability.

The graphic provides an overview of the most important critical shallow sections along the Danube in 2024. The availability of the navigation channel (inner circle) is shown in relation to the hydrological framework conditions (outer circle) for each critical shallow section. The conservation objective aims to ensure a navigable depth of 2.5 metres on at least as many days as the daily average of the actual water level exceeds the regulatory low water level (RNW). The diagram shows that in such a case, the circumference of the blue circle segment (inner) would coincide with the dark brown outer ring. This target was not achieved in 2024 at some critical shallow sections along the Danube. It is also just as important to include depth classes just below 2.5 m in the interpretation of the status of critical sections. They provide slightly restricted navigability, even if the 2.5 m mark has not been attained. Some sections had navigable depths of 2.4 m or 2.3 m on several days (light red sector of the inner circle).

Since the "Fairway Rehabilitation and Maintenance Master Plan for the Danube and its navigable tributaries" was adopted in 2014, important steps have been made towards its implementation. Many countries along the Danube have made considerable investments through projects co-financed by the EU, procuring specialised equipment and concluding framework agreements for dredging. The targeted use of this equipment and the framework agreements, however, is primarily dependent on the annual maintenance budgets and human resources of the individual waterway administrations.

FIGURES DATA FACTS

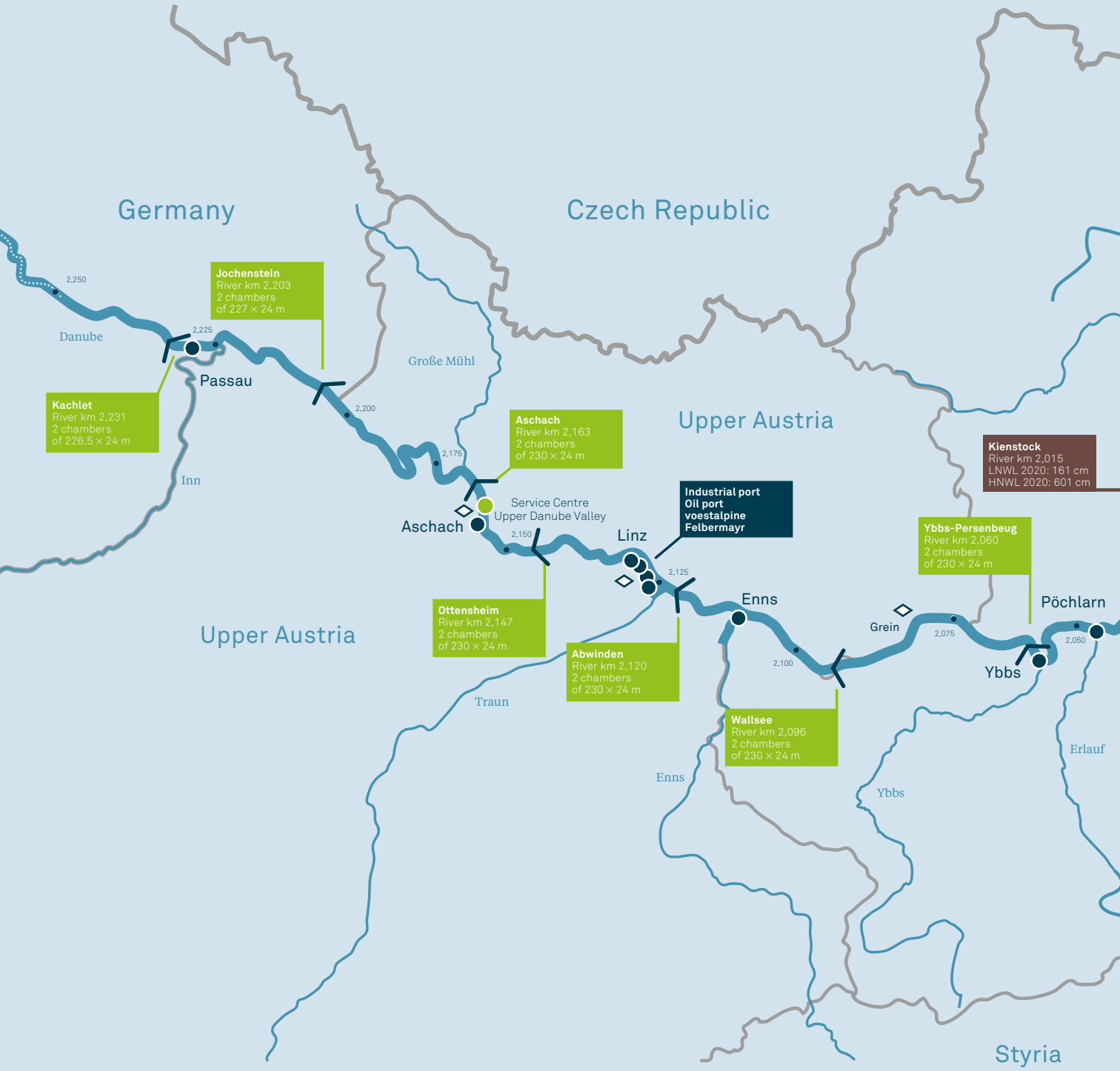
Fairway conditions at critical locations along the Danube 2024



In the free-flowing section between Straubing and Vilshofen, the maintenance target is 2 m fairway depth at RNW.

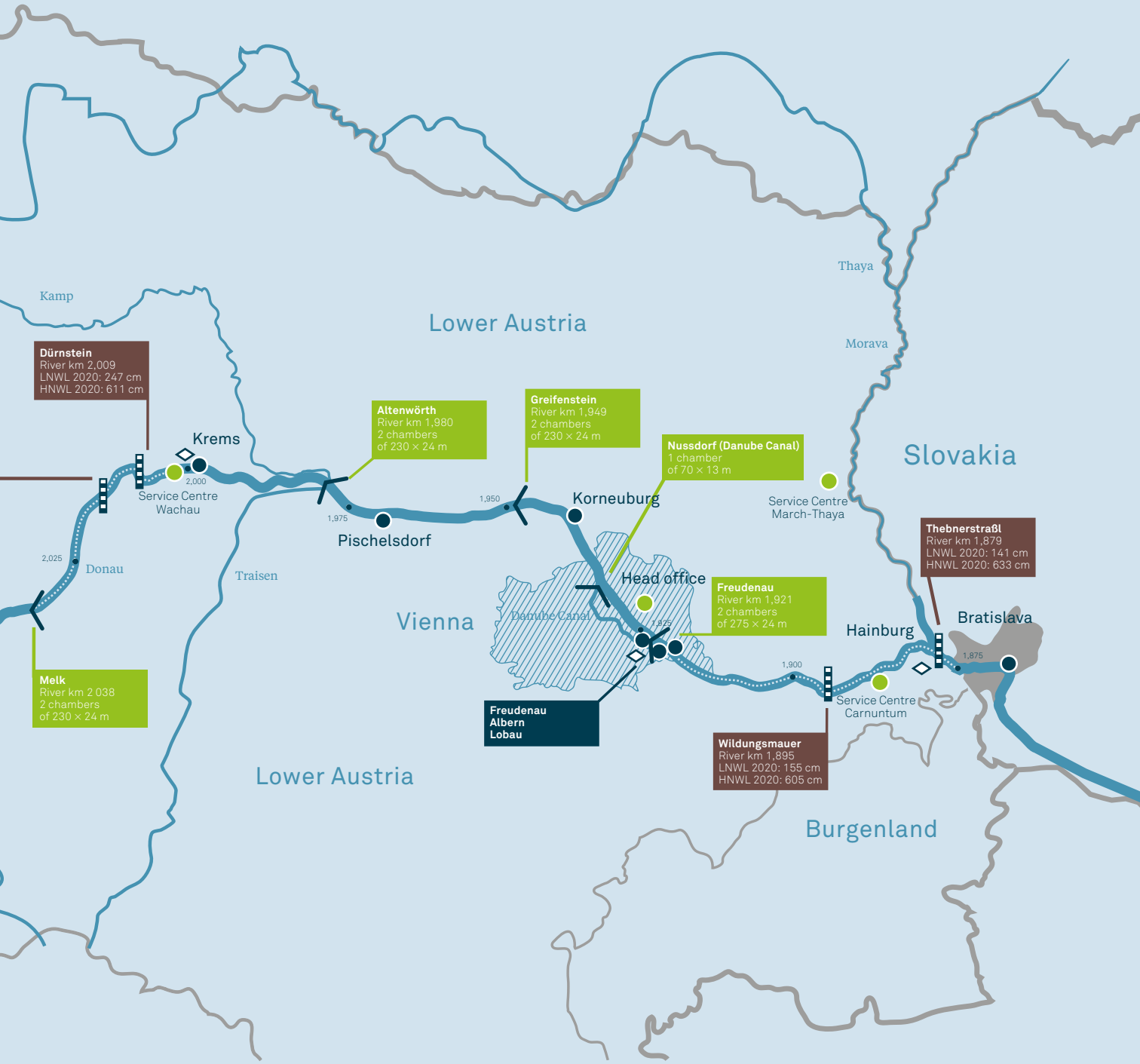
For a detailed interpretation of the chart, reference is made to the "Fairway Rehabilitation and Maintenance Master Plan for the Danube and its Navigable Tributaries" and the "Reports on Good Navigation Status – National Action Plans" – Updated July 2024. The individual framework conditions at critical sections need to be taken into account. The severity of the critical sections, along with reasons for failing to meet the maintenance targets, vary and may change over the course of time.

Source: "Fairway Rehabilitation and Maintenance Master Plan for the Danube and its Navigable Tributaries" and the "Reports on Good Navigation Status – National Action Plans" – Updated July 2024, which were prepared as part of the framework of the EU Danube Region Strategy (https://navigation.danube-region.eu/). Chart adapted by viadonau.



The Austrian section of the Danube

- Waterway
- Free-flowing stretch
- Lock
- Important water gauge
- Port/transhipment site
- Navigation surveillance
- viadonau Service Centre
- **LNWL** Low navigable water level
- **HNWL** Highest navigable water level


Kamp
Lower Austria
Thaya
Morava
Dürnstein
River km 2,009
LNWL 2020: 247 cm
HNWL 2020: 611 cm
Krems
Altenwörth
River km 1,980
2 chambers
of 230 × 24 m
Greifenstein
River km 1,949
2 chambers
of 230 × 24 m
Nussdorf (Danube Canal)
1 chamber
of 70 × 13 m
Slovakia
Service Centre
Wachau
2,000
1,975
1,950
Pischelsdorf
Korneuburg
Service Centre
March-Thaya
Thebnerstraßl
River km 1,879
LNWL 2020: 141 cm
HNWL 2020: 633 cm
2,025
Donau
Traisen
Head office
Freudenau
River km 1,921
2 chambers
of 275 × 24 m
Vienna
Danube Canal
1,925
Hainburg
Bratislava
1,900
1,875
Service Centre
Carnuntum
Melk
River km 2 038
2 chambers
of 230 × 24 m
Freudenau
Albern
Lobau
Wildungsmauer
River km 1,895
LNWL 2020: 155 cm
HNWL 2020: 605 cm
Lower Austria
Burgenland

Imprint

A project within the scope of the BMIMI Action Programme 2030

Publisher
via donau – Österreichische Wasserstraßen-Gesellschaft mbH
Donau-City-Strasse 1, 1220 Vienna, Austria
Tel.: +43 50 4321-1000
www.viadonau.org

Project management
Uta Hauft

Editorial staff
Andreas Bäck, Sabine Gansterer, Thomas Hartl, Uta Hauft, Andreas Herkel, Michael Kalb, Iris Marstaller, Bettina Matzner, Gert-Jan Muilerman, Milica Nikolic, Ines Poppinger, Stefan Schwarzmayr, Jürgen Trögl, Thomas Zwicklhuber

Design
Jana Hadam

Photos
Johannes Zinner, viadonau/Thomas Bierbaumer, BKA/Andy Wenzel

Translation
DIALECTA, Zentrum für Internationale Sprachdienstleistungen GmbH

viadonau