

MARKET INSIGHT

INLAND NAVIGATION IN EUROPE

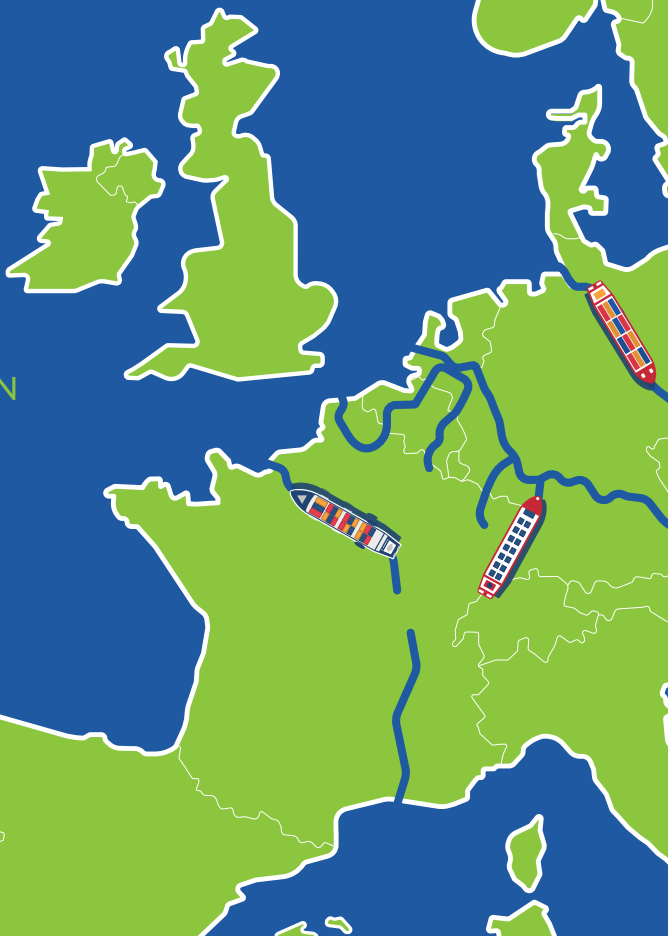


CCNR

CENTRAL COMMISSION
FOR THE NAVIGATION OF THE RHINE



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2022



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INLAND NAVIGATION IN EUROPE

Published in

April 2022

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01

FREIGHT AND PASSENGER TRANSPORT ON INLAND WATERWAYS

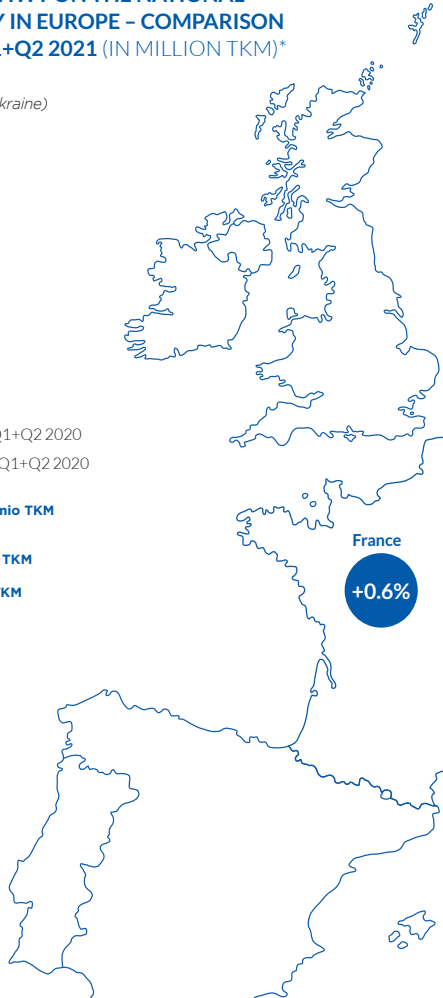
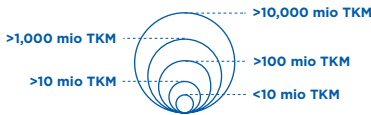
- Transport performance on inland waterways in the EU increased by 4.3% in the first half year of 2021, compared to the same period one year earlier. The recovery was mainly driven by the dry cargo sector.
- Passenger transport started to recover only in the second half of 2021. However, the number of passengers and therefore the capacity utilisation of the cruise vessels remained rather low.

FREIGHT TRANSPORT PERFORMANCE IN EUROPE

TRANSPORT PERFORMANCE IN IWT ON THE NATIONAL TERRITORY OF EACH COUNTRY IN EUROPE - COMPARISON BETWEEN Q1+Q2 2020 AND Q1+Q2 2021 (IN MILLION TKM)*

Sources: Eurostat [iww_go_qnave],
OECD (Republic of Moldova, Switzerland, Ukraine)
* For the UK, data were not available.

- Positive rate of change in Q1+Q2 2021 vs Q1+Q2 2020
- Negative rate of change in Q1+Q2 2021 vs Q1+Q2 2020



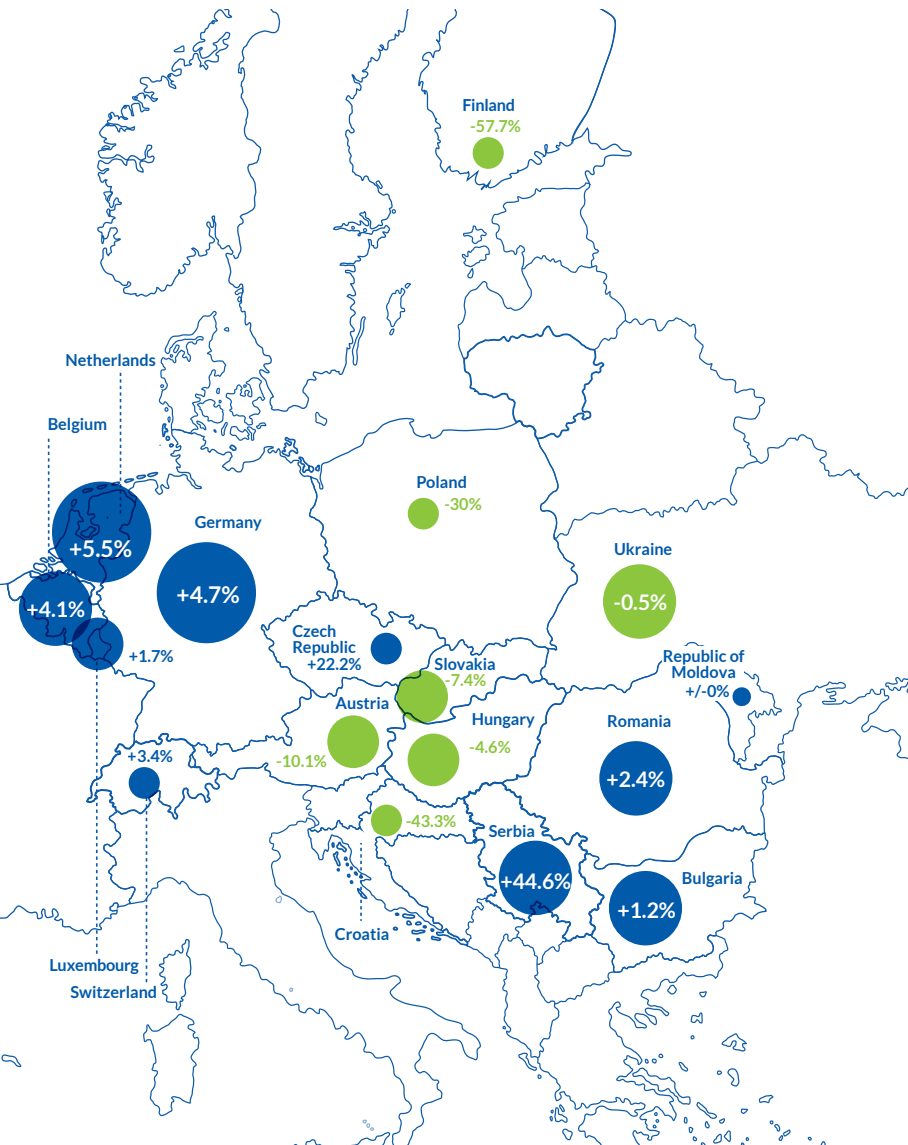
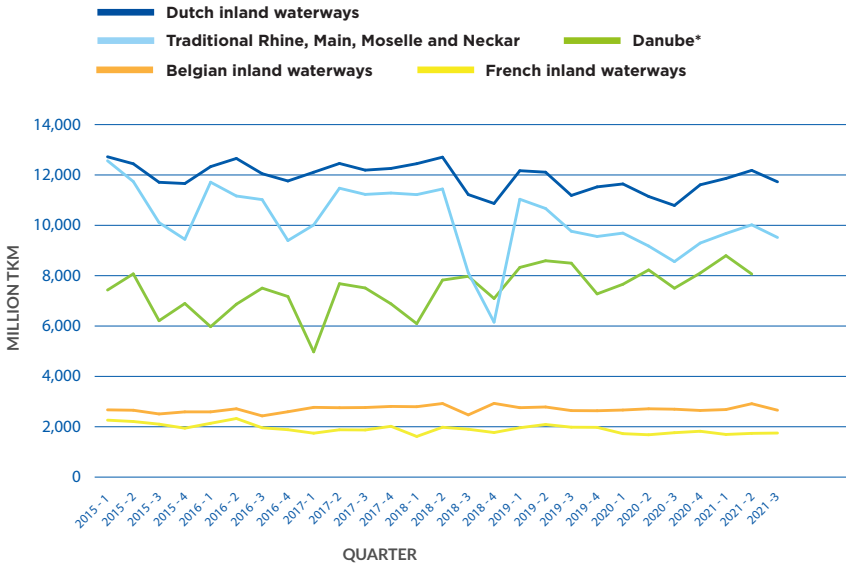


FIGURE 1: INLAND WATERWAY TRANSPORT (IWT) PERFORMANCE IN EUROPE BY REGION AND QUARTER (IN MILLION TKM)

Sources: Eurostat [iww_go_qnave], OECD (Ukraine), Destatis (Rhine and affluents)
* Danube = TKM in all Danube countries including Ukraine

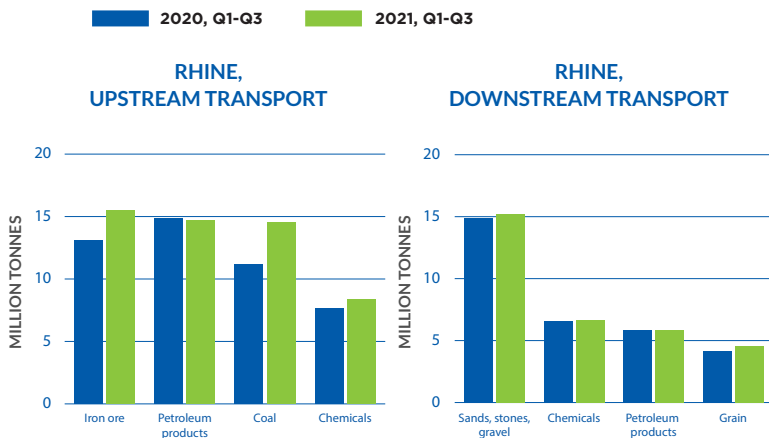


- The transport performance illustrated in Figure 1 shows a steady recovery trend for inland waterway freight transport in Europe, starting in Q3 2020. A weakening in this upward trend occurred in Q3 2021, which can be attributed to floodings in the Rhine region. This period of high water was followed by a period of low water in Q4 2021.

RHINE AND DANUBE NAVIGATION PER CARGO SEGMENT

FIGURES 2 AND 3: **RHINE TRANSPORT VOLUME UPSTREAM AND DOWNSTREAM FOR MAJOR CARGO SEGMENTS** (IN MILLION TONNES, FOR Q1-Q3 OF 2020 AND 2021)

Source: CCNR analysis based on Destatis



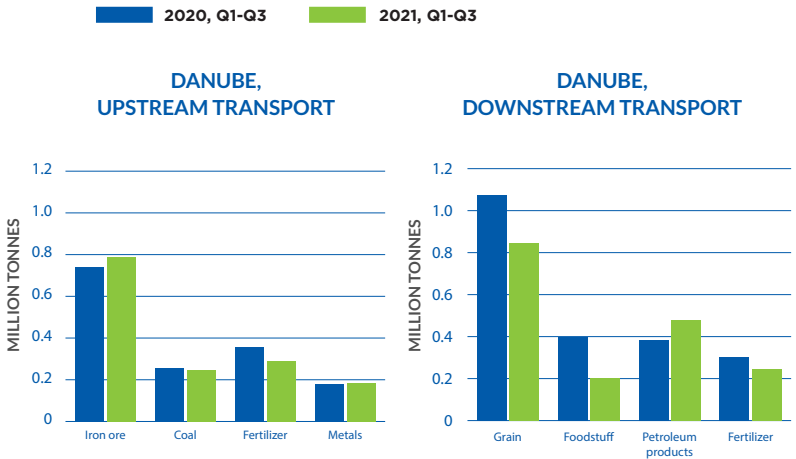
- Cargo transport on the traditional Rhine amounted to 126.4 million tonnes in the first nine months of 2021, compared to 118.1 million tonnes in the same period in the previous year. This implies an increase of 7.0%. Dry cargo and container transport recorded higher volumes (+10.4% and +3.7% respectively) while liquid cargo remained rather stable. Coal transport benefited from high gas prices throughout the year 2021. Overall, the demand for dry cargo ship capacity was rather high in the second half of 2021.

- For the lock of Iffezheim on the Upper Rhine, data were already available for the entire year 2021. They also indicate an uptake in the first nine months (by 6.0%), but a 'melting down' of the latter due to low waters in Q4 2021. For the entire year 2021, cargo volumes remained stable at this lock, which can be regarded as a likely indication also for the entire traditional Rhine for 2021.

FIGURES 4 AND 5: MIDDLE DANUBE TRANSPORT VOLUME UPSTREAM AND DOWNSTREAM FOR THE MAJOR CARGO SEGMENTS (IN MILLION TONNES, FOR Q1-Q3 OF 2020 AND 2021)*

Source: Danube Commission market observation report

* Detailed data according to goods segment and quarters are only available for the Middle Danube at Mohács.



- On the Danube, iron ore transport also benefited from higher steel production. The increase in the first three quarters of 2021, compared to the same period in 2020, amounts to 6.8%. However, looking at monthly figures for iron ore, it is seen that this commodity lost about 18-20% of transport volume in August and September 2021 due to a lower available draught of pushed convoys.
- The agricultural segment of grain follows a rather volatile transport demand on the Danube in general. Whereas grain transport was boosted by good harvests in 2020, it decreased in 2021. There are two main reasons for this. The primary reason lies in developments on the European grain export market. A secondary reason is the start of the above-mentioned low water period.

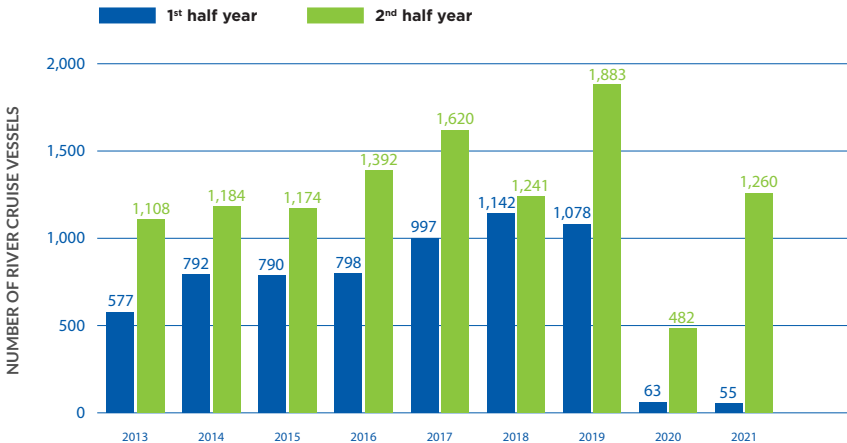


■ PASSENGER TRANSPORT IN EUROPE

- The Danube, as well as the Rhine and its Moselle, Main, Neckar and Saar affluents, are important operating areas for river cruises in Europe, next to the Seine, Rhône and Douro. The Danube alone accounted for around 40% of the European market in terms of the number of cruise passengers (without rivers in Russia and Ukraine) in 2009. Together with the Rhine and Moselle, Main, Neckar, Saar, this share amounted to around 80-85%.¹
- A statistical measurement point for cruise vessels on the Rhine is the lock of Iffezheim on the Upper Rhine.

FIGURE 6: NUMBER OF RIVER CRUISE VESSELS PASSING THE LOCK OF IFFEZHEIM ON THE UPPER RHINE PER HALF YEAR

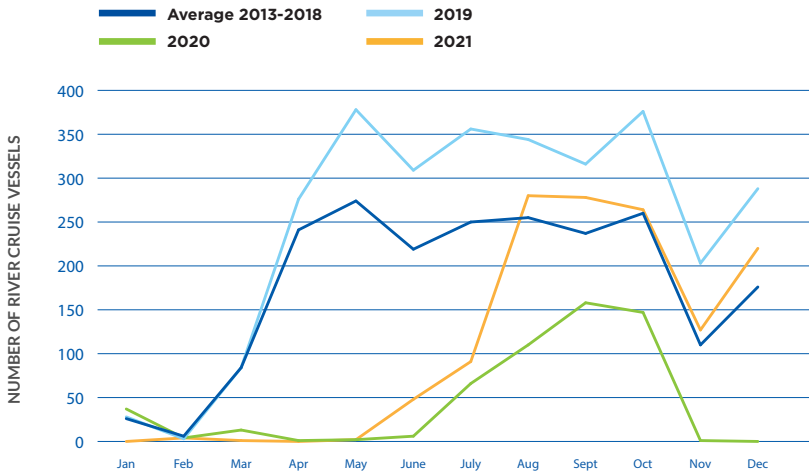
Source: German Waterway and Shipping Administration



¹ The total number of cruise passengers before the Covid crisis was 1.79 million in 2019 (without Russia and Ukraine). The share of Danube, Rhine and affluents is calculated based on vessel and passenger statistics at locks. Data sources are the waterway administrations.

FIGURE 7: NUMBER OF RIVER CRUISE VESSELS PASSING THE LOCK OF IFFEZHEIM ON THE UPPER RHINE PER MONTH

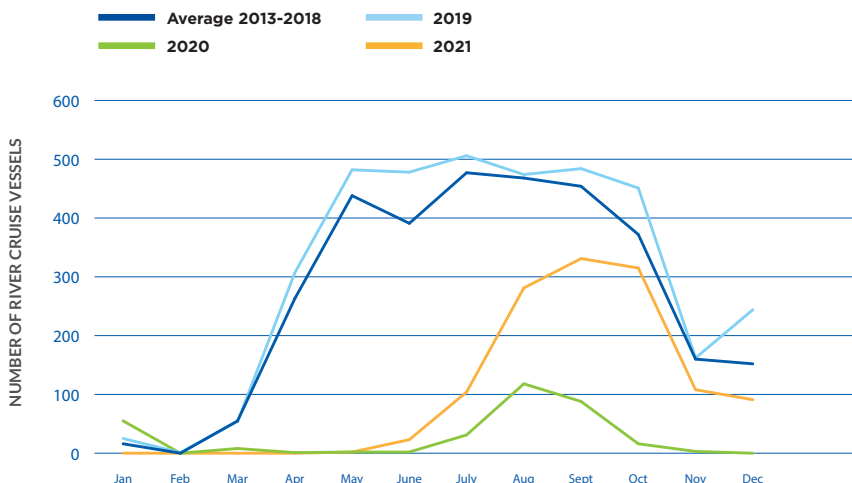
Source: German Waterway and Shipping Administration



- When analysing monthly and half-year figures for 2020 and 2021, it is seen that the ongoing recovery in the cruise sector is concentrated entirely during the period between July and October. The important spring season could not unfold any activity in 2020 and 2021.
- For the Danube, data are available for the lock of Jochenstein near Passau and the lock of Gabčíkovo near Bratislava. The latter is located on the border between Slovakia and Hungary. It is also situated between Vienna and Budapest. Therefore, the passing cruise vessels reflect the cruising activity between two important destinations within the European river cruise sector. Next to Vienna and Budapest, Passau is also an important place where cruise vessels both start and finish their journey.

FIGURE 8: NUMBER OF RIVER CRUISE VESSELS PASSING THROUGH THE LOCK OF JOCHENSTEIN NEAR PASSAU ON THE UPPER DANUBE PER MONTH

Source: German Waterway and Shipping Administration



- In 2019, 3,668 cruise vessels passed through the lock of Jochenstein, with a total of 512,458 passengers on board. In 2020, the respective numbers were 324 vessel transits and 25,160 passengers.
- In 2021, a recovery was seen, with 1,255 cruise vessels and 107,727 passengers.
- Data for the lock of Gabčíkovo show a recovery in the number of passengers for the first three quarters of 2021 compared to 2020, of 77.4%. However, the activity in 2021 still lies at 63.9% below pre-pandemic levels. In total numbers, 98,000 passengers on cruise vessels were counted at this border point in (Q1+Q2+Q3) 2021, compared to 55,000 in (Q1+Q2+Q3) 2020, and 568,000 passengers in (Q1+Q2+Q3) 2019. In the whole year of 2019, 720,800 passengers were counted at Gabčíkovo.

DRY BULK, LIQUID BULK AND CONTAINER TRANSPORT IN MAIN IWT COUNTRIES AND REGIONS

Sources: Eurostat [IWW_GO_QCNAVE], Destatis, Centraal Bureau voor de Statistiek, De Vlaamse Waterweg, SPW Service Public de Wallonie, Voies Navigables de France, Romanian Institute of Statistics

Note: For Belgium-Wallonia, infra-annual container statistics in tonnes are not available. The product group "machines/other goods" was assumed to consist mainly of container transport. The data contain total IWT on the territory of the country/region.

FIGURE 10: DRY CARGO TRANSPORT (IN MILLION TONNES)

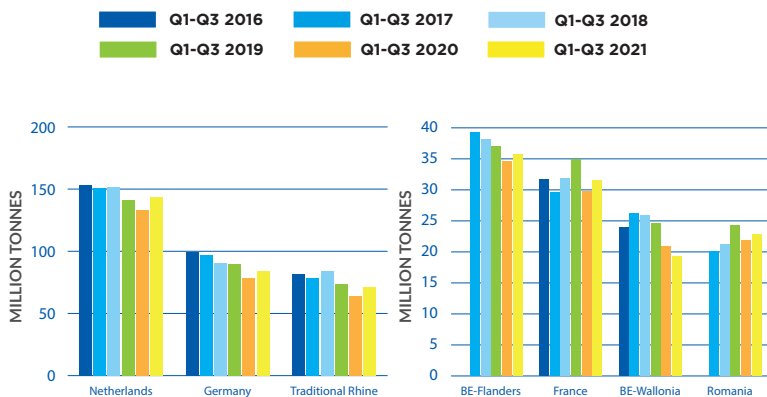


FIGURE 11: LIQUID CARGO TRANSPORT (IN MILLION TONNES)

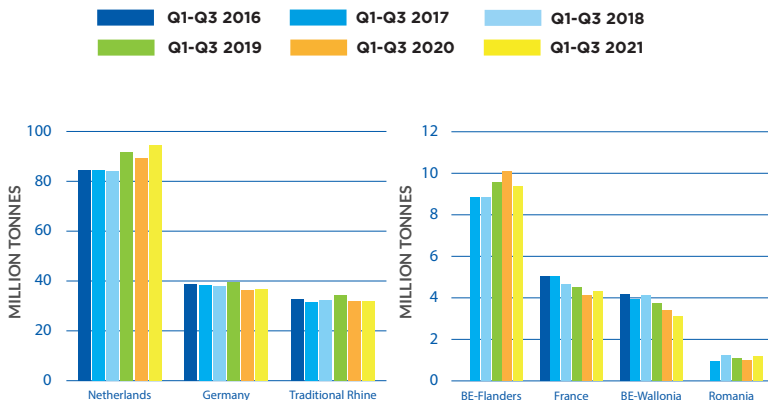
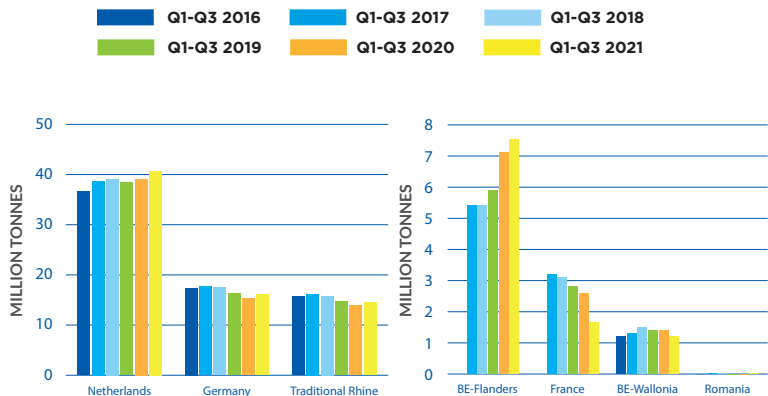


FIGURE 12: CONTAINER TRANSPORT (IN MILLION TONNES)





02

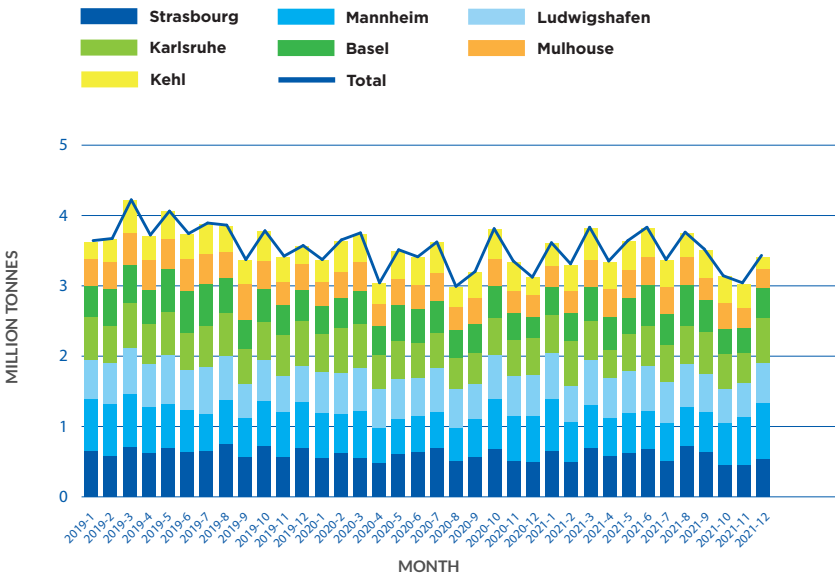
OPERATING CONDITIONS

- Navigating conditions were rather normal in the first six months of 2021. In July 2021, the Rhine was subject to floodings. In October and November 2021, both Rhine and Danube experienced low waters.
- Fuel prices were pushed upwards by the steep increase in oil prices. Freight Rates increased as well, but the trend was more positive in the dry cargo and container transport, compared to liquid bulk transport.

- With regard to port operations, monthly data for waterside goods handling in the largest Upper Rhine ports indicate a small recovery trend that began in the second half of 2020 and continued throughout the year 2021. However, severe low waters in October and November 2021 rather interrupted this recovery.

FIGURE 1: **WATERSIDE GOODS HANDLING IN MAIN UPPER RHINE PORTS** (IN MILLION TONNES)

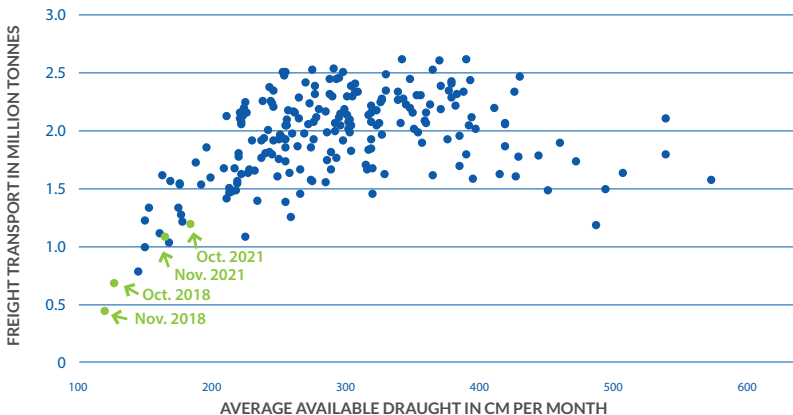
Source: CCNR analysis based on ports data



- Regarding the hydraulicity aspect, figure 2 shows a scatter plot with data for the available draught at Kaub (x-axis) as well as freight volumes in million tonnes recorded at the lock of Iffezheim (y-axis). The values of available draught were calculated from water levels.²
- When available draughts fall below a certain threshold, navigation conditions become a bottleneck for freight transport. Examples are the low water period in October and November 2018, but also the more recent period in late 2021 (see left part of figure 2). For draught values above a certain threshold, the scatter plot does not show any relationship, except for the right-hand part of the diagramme, where high water levels tend to decrease freight transport.

FIGURE 2: AVAILABLE DRAUGHT AT KAUB AND FREIGHT TRANSPORT PASSING THROUGH THE LOCK OF IFFEZHEIM ON THE UPPER RHINE (MONTHLY DATA M1/2004-M12/2021)

Source: CCNR calculation based on data from German Federal Waterways and Shipping Administration (WSV), provided by the Federal Institute of Hydrology (BfG)

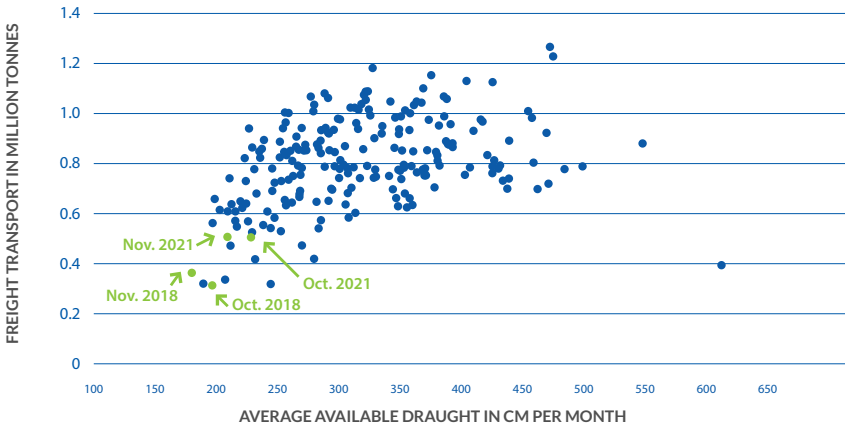


² Available draught = Minimum navigation channel depth + (actual water level - Equivalent water level) - Under keel clearance. See: EU/CCNR (2021), Annual Report 2021, Market Observation in Europe, page 44

- For the Danube, monthly data are available for the lock of Wildungsmauer near Vienna (January 2004- November 2021). This lock is located in the eastern part of Austria where the country's highest inland waterway freight transport is observed. A certain relationship between hydraulicity and freight transport can be observed in the scatter plot. Indeed, when the available draught is low, it seems that transport volumes are also reduced.

FIGURE 3: **AVAILABLE DRAUGHT AT WILDUNGSMAUER AND FREIGHT TRANSPORT ON THE DANUBE IN AUSTRIA** (MONTHLY DATA M1/2004-M11/2021)

Source: CCNR analysis based on data from viadonau and Statistics Austria



- For the Danube, the last quarter of 2021 was characterised by very low water levels and available draught values. The cargo losses in late 2021 can be explained by this. This confirms the information given in chapter 1.

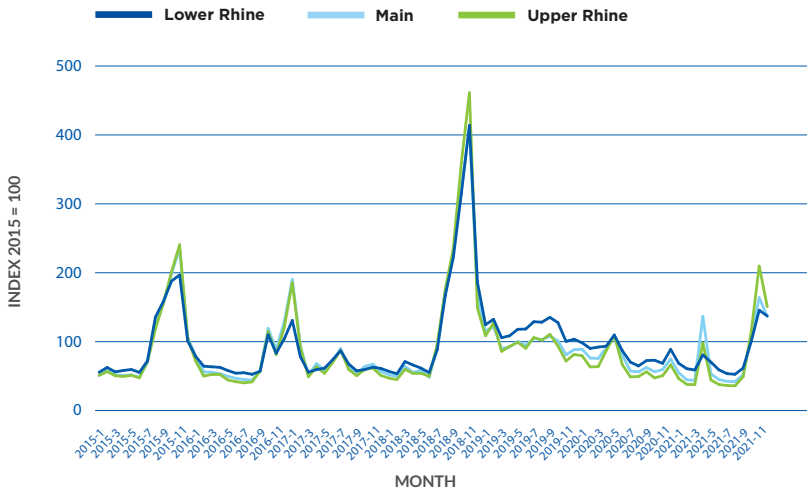
■ FREIGHT RATES IN THE RHINE REGION³

- Within ARA-Rhine trade, spot market freight rates for transporting gasoil followed an increasing trend starting in the third quarter of 2021 and reaching a peak in November 2021. This is mainly due to the low water periods in October and November 2021.

FIGURE 4: FREIGHT RATE EVOLUTION FOR GASOIL FROM THE ARA REGION TO RHINE DESTINATIONS (INDEX 2015 = 100)*

Source: CCNR calculation based on PJK International

* PJK collects freight rates (in Euro per tonne) for ARA-Rhine trade of liquid bulk. The CCNR transforms these values into an index with base year 2015. Lower Rhine: Duisburg, Cologne. Upper Rhine: Karlsruhe, Basel. Main: Frankfurt/M.

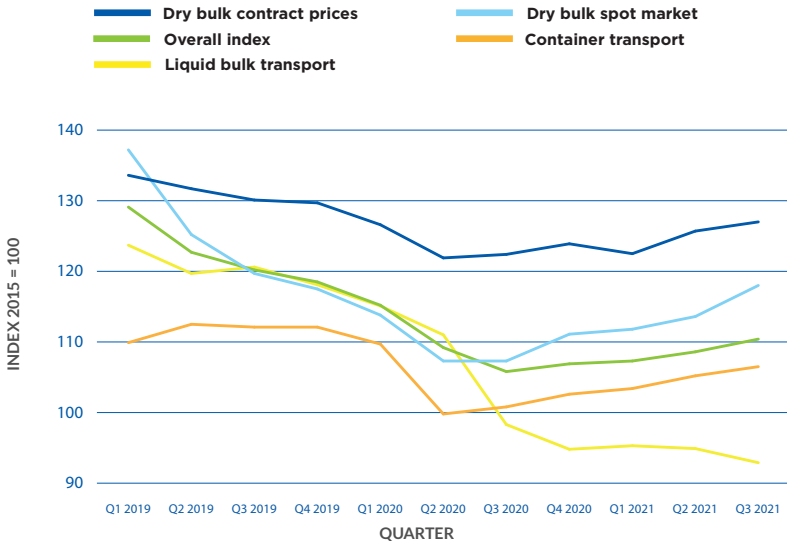


³ For the Danube region, freight rate data for 2021 were not available.

- Statistics Netherlands (CBS) collects freight rate data from a panel of Dutch IWT companies. These data are observed twice quarterly and include fuel and low water surcharges.

FIGURE 5: FREIGHT RATE EVOLUTION PER QUARTER FOR DUTCH IWT COMPANIES ACCORDING TO MARKET SEGMENT
(INDEX 2015 = 100, QUARTERLY DATA)

Source: Centraal Bureau voor de Statistiek (Binnenvaartdiensten; prijsindex)



- Transport prices for dry bulk followed an upward trend starting after the third quarter 2020. Container transport freight rates remained on a positive string from the second quarter of 2020 onwards. For liquid cargo, transport prices remained at a low level with a further decline in the third quarter 2021.
- Transport demand for liquid products increased in the Netherlands, but not in neighbouring countries. This explains the situation for liquid cargo freight rates for Dutch barging companies, as their operational areas also include other countries.



■ FUEL COST EVOLUTION

- Fuel costs are analysed on the basis of gasoil/diesel prices published by the energy price monitoring system of the Belgian Ministry of Economic Affairs.⁴ A comparison with oil prices reveals a very close correlation which serves as a basis for an outlook on fuel prices.
- In the second half of 2021, oil prices – and therefore also fuel prices – continued to follow an increasing trend. In the fourth quarter of 2021 they stood at US\$79,6 (approximately 69.8 Euro as the exchange rate was USD/EUR 1.17).

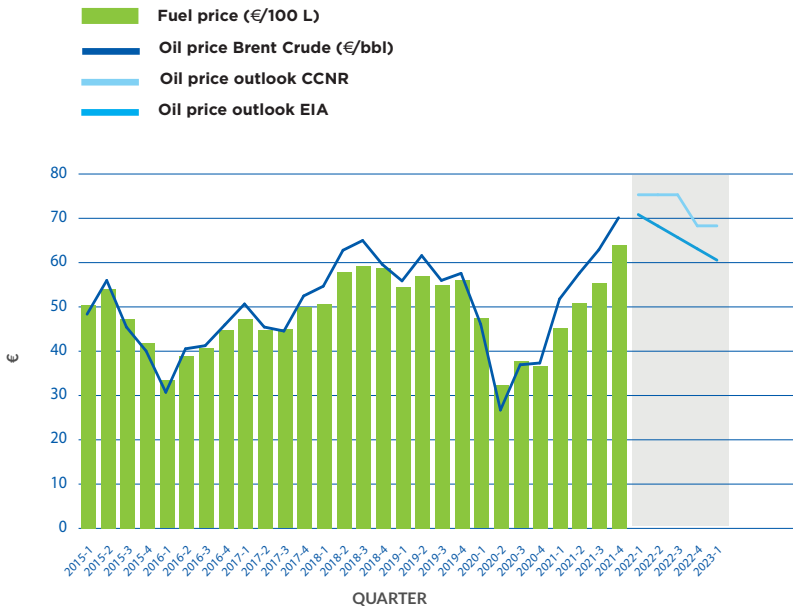
⁴ The prices are maximum prices and valid for a purchase volume of at least 2.000 litres of gasoil.



FIGURE 6: AVERAGE FUEL PRICES ACCORDING TO THE BELGIAN MINISTRY OF ECONOMIC AFFAIRS AND BRENT CRUDE OIL PRICES INCLUDING FORECAST*

Sources: ITB and SPF Economie (fuel price). US Energy Information Administration (oil price). Federal Reserve Economic Data (historical exchange rate US-dollar/Euro). 1 barrel (bbl) = 159 litres

* EIA = US Energy Information Administration. The forecast assumes a nominal exchange rate of 1.12 US dollars per Euro throughout 2022 and 2023. The forecast does not consider the impact of the war in Ukraine.



- In its latest short-term outlook of January 2022, the US Energy Information Administration (EIA) forecasts Brent crude oil spot prices to average around 75 US dollars per barrel in 2022, and around 67.5 US dollars per barrel in 2023. This originates in assumptions of the pandemic and economic uptake as well as on OPEC agreements to curb supply caps up to September 2022.⁵ Due to political circumstances, they passed the mark of US\$100 by the beginning of March 2022. In case of a prolongation of the conflict in Ukraine, oil and energy prices are expected to rise further on a steep path.
- Fuel prices in European IWT are impacted by both oil prices and the exchange rate between US dollar and the Euro. The very steep escalation of the US national debt limits any appreciation potential of the US dollar towards the Euro throughout 2022.⁷ The depreciation of the Euro in relation to the US dollar, starting in May 2021 from 1.22 to 1.13 by December 2021, increased fuel prices in European IWT.⁸
- Based on this reasoning, fuel prices in IWT are expected to peak in 2022 and afterwards decline in 2023.

⁵ Source: US Energy Information Administration, Short-Term Energy Outlook, January 2022. Available at: <https://www.eia.gov/outlooks/steo/> (last consulted 19.01.2022)

⁶ IMF, WEO October 2021. Available at: <https://www.imf.org/en/Publications/WEO/Issues/2021/10/12/world-economic-outlook-october-2021> (last consulted 19.01.2022)

⁷ Raiffeisen Währungsupdate Dezember 2021. Available at: <https://www.raiffeisen.ch/content/dam/www/rch/pdf/publikationen/waehrungsupdate/de/2021/waehrungsupdate-12-2021.pdf> (last consulted 19.01.2022)

⁸ OECD, Nominal exchange rates against US dollar, average of daily rates, 2022. Available at: <https://stats.oecd.org/Index.aspx?QueryId=51653#> (last consulted 19.01.2022)



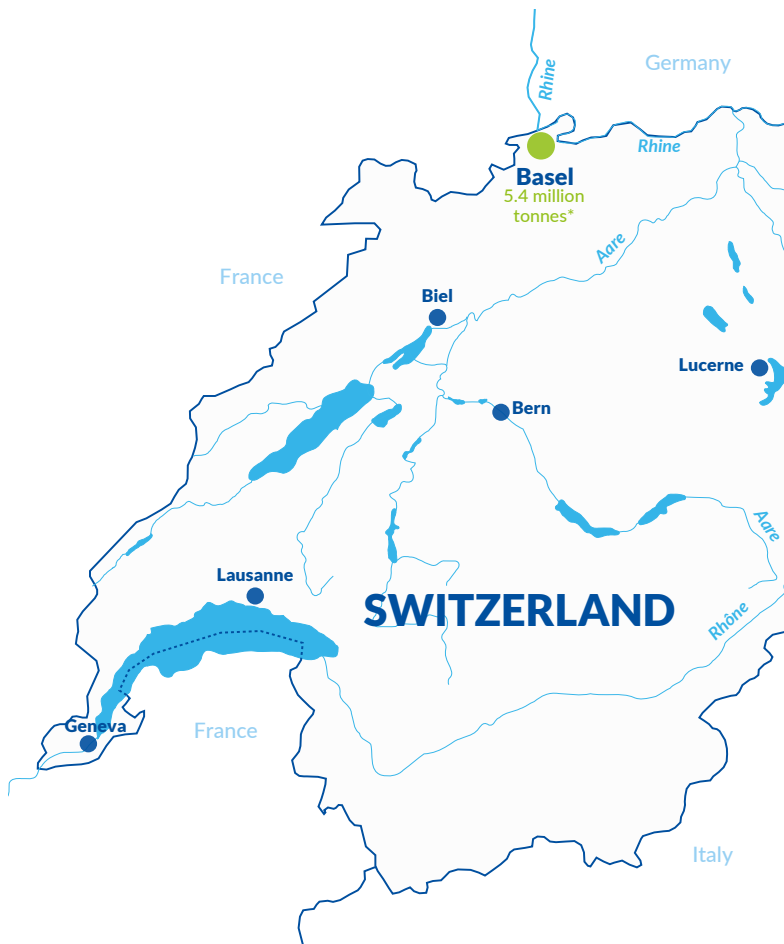


03

FOCUS ON SWITZERLAND

- Goods transport on the Rhine plays an important role for Switzerland. Around 25% of all mineral oil products imported by Switzerland are delivered on the Rhine.
- Passenger transport on European inland waterways is a sector where Switzerland plays a large role in Europe. This is reflected by high figures for employment and turnover, and by a high number of Swiss river cruise and day trip vessels.

INLAND WATERWAY FREIGHT TRANSPORT IN SWITZERLAND



Source : Swiss Rhine ports

* IWT in 2021 (in million tonnes)

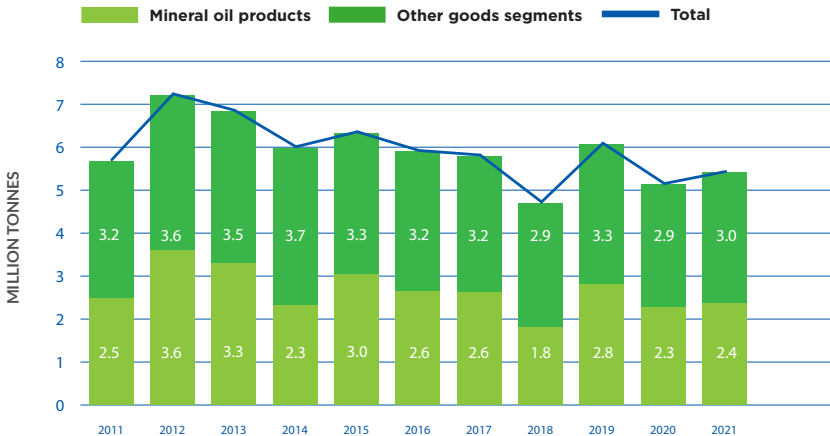


DEVELOPMENT OF INLAND WATERWAY TRANSPORT IN THE SWISS RHINE PORTS IN BASEL

- The largest goods segment within waterside freight transport in the Swiss Rhine ports are mineral oil products, with an average share of 45% in the last ten years. Almost all mineral oil products handled in Basel are imports to Switzerland. The import direction accounted for 98.5% in 2021, 99.0% in 2020 and similarly high shares in previous years.

FIGURE 1: YEARLY INLAND WATERWAY TRANSPORT IN SWISS RHINE PORTS (IN MILLION TONNES)

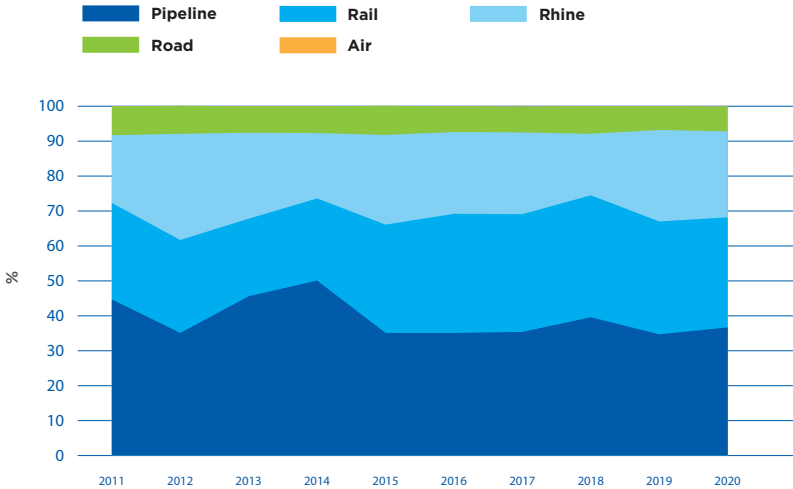
Source : Swiss Rhine ports



- Switzerland relies on several transport modes for importing crude oil and mineral oil products. The Rhine's modal share within these imports was 24.6% in 2020 and 23.4% within the whole time-period from 2011 to 2020. Pipelines have the highest share with 36.7% in 2020. The reason is that crude oil is entirely imported by pipeline.

FIGURE 2: IMPORTS OF CRUDE OIL AND OIL PRODUCTS TO SWITZERLAND BY MODE OF TRANSPORT (IN %)

Source : CCNR analysis based on Avenegy Suisse

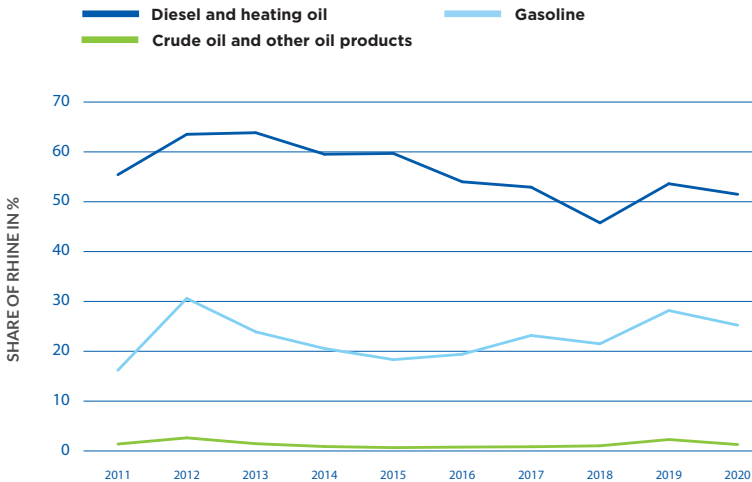


- In differentiating oil products further, it is seen that the Rhine reaches high modal shares for imports of diesel and heating oil.

FIGURE 3: MODAL SHARE OF THE RHINE FOR IMPORTS OF CRUDE OIL AND OIL PRODUCTS TO SWITZERLAND BY TYPE OF PRODUCT (IN %)*

Source : CCNR analysis based on Avenergy Suisse

* Modal share of Rhine within all modes of transport (Pipeline, Rail, Rhine, Road, Air)

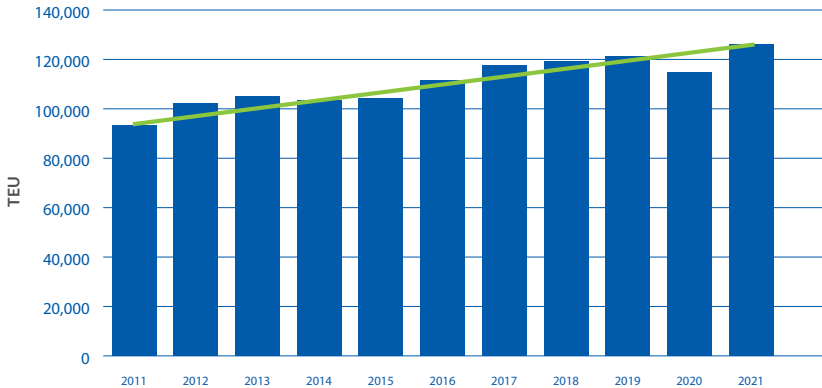


- Around one out of two tonnes of diesel and heating oil that are imported by Switzerland cross the country's borders on the Rhine.
- For gasoline, this ratio is one out of four tonnes (Rhine transport/ total imports).
- For crude oil and other oil products, the modal share of the Rhine is low.

FIGURE 4: WATERSIDE CONTAINER TRANSPORT IN THE SWISS RHINE PORTS (IN TEU)*

Source: CCNR analysis based on Swiss Rhine ports

* Note: for the years 2014-2017, figures were corrected in order to take into account 20,000 TEU transhipped from trucks to railways.



- The port of Basel is also an important place for waterside container handling. Container transport had reached a first peak in 2019, when more than 120,000 TEU were recorded as waterside container transport. The Covid crisis inflicted only a minor loss of 5% for container transport (level in 2020 compared to the level in 2019). In the year 2021, container transport recovered and attained a new record level with 121,046 TEU (+9.8% compared to 2020). The Swiss Rhine ports are investing in further container handling capacities to be able to handle the growing TEU volumes that are foreseen in the future.

FACT SHEET IWT IN SWITZERLAND - ANNUAL FIGURES

Notes on the factsheet - See page 44

ABSOLUTE VALUE⁹ FOR SWITZERLAND VS SHARE IN EU TOTAL

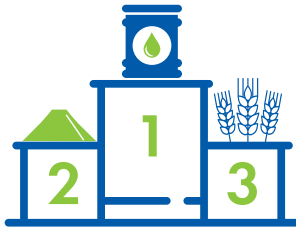
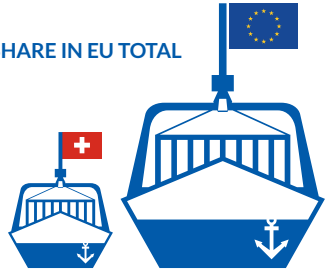
TRANSPORT PERFORMANCE TOTAL

37.9 million TKM

0.03% - SHARE IN EU TOTAL

Volume of total goods transport:

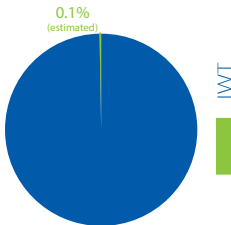
5.4 million tonnes



MAIN GOODS SEGMENTS IN IWT¹⁰

1. Mineral oil products: 18.94 million TKM
2. Sand, stones, gravel: 8.00 million TKM
3. Agribulk and food products: 5.72 million TKM

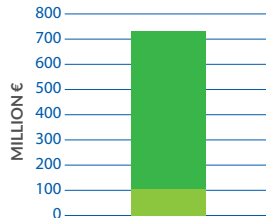
MODAL SPLIT SHARE OF IWT WITHIN TOTAL LAND-BASED TRANSPORT PERFORMANCE



LEVEL OF IWT TURNOVER

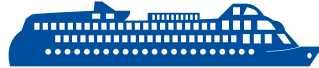
729.3 million € 9.8% - SHARE IN EU TOTAL

- Goods transport: 104.9 million € 1.76%
- Passenger transport: 624.4 million € 25.1%



⁹ Data on transport demand overall are for 2020, transport per goods segments for 2021 and fleet data for 2020, the modal split, data on companies and on employment are for 2019, and turnover data for 2020.

¹⁰ TKM values are based on an estimation of transport distance on the Swiss stretch of the Rhine combined with volumes handled in the Swiss Rhine ports, according to goods segment.



PERSONS EMPLOYED IN IWT

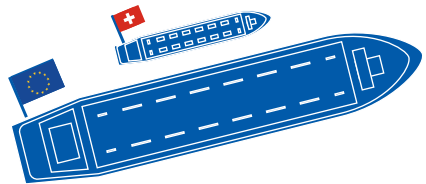
3,266 **7.43%**
 Goods transport: 562 **2.50%**
 Passenger transport: 2,704 **11.70%**

NUMBER OF IWT COMPANIES

0.78% 75
0.50% Goods transport: 29
1.12% Passenger transport: 46

NUMBER OF ACTIVE CARGO VESSELS

61 **0.39% - SHARE IN EU TOTAL**
 Dry cargo: 8 **0.07%**
 Liquid cargo: 42 **2.5%**
 Push and tug: 11 **0.4%**



LOADING CAPACITY OF ACTIVE CARGO VESSELS

0.14 million tonnes
0.83% - SHARE IN EU TOTAL
 Dry cargo: 0.014 million tonnes
0.10% - SHARE IN EU TOTAL
 Liquid cargo: 0.126 million tonnes
3.85% - SHARE IN EU TOTAL

■ GLOSSARY

ARA REGION: Amsterdam-Rotterdam-Antwerp

AVAILABLE DRAUGHT: Minimum navigation channel depth + (actual water level – Equivalent water level) – Under keel clearance

BN: billion

DANUBE COUNTRIES: Austria, Bulgaria, Croatia, Hungary, Romania, Serbia, Slovakia, Ukraine

EQUIVALENT WATER LEVEL: refers to a low water level under which, on a 30-year average, the water levels do not fall below more than 20 ice free days per year.

EU: European Union

EUROPE: European inland navigation in this report includes four countries that do not belong to the European Union, Moldova, Serbia, Switzerland and Ukraine.

FREIGHT RATE: price at which a cargo is delivered from one point to another.

IWT: Inland Waterways Transport

IWW: Inland Waterways

LOWER RHINE: section of the Rhine which flows from Bonn, Germany, to the North Sea at Hoek van Holland, the Netherlands.

MIDDLE DANUBE: stretch of the Danube from Devín Gate, at the border between Austria and Slovakia, to the Iron Gates

MINIMUM NAVIGATION CHANNEL DEPTH: corresponds to the minimum depth that should be present in the area of the fairway (depth of the fairway box below the equivalent water level).

MIO: million

MODAL SPLIT SHARE: the percentage of inland waterway freight transport performance (in TKM) within total land-based transport performance. Land-based freight transport modes include road, rail and inland waterways, if not specified otherwise.

OPEC: Organisation of the Petroleum Exporting Countries

TEU: Twenty-foot Equivalent Unit

TKM: Tonne-Kilometre (unit for transport performance which represents volume of goods transported multiplied by transport distance)

TRADITIONAL RHINE: section of the Rhine from Basel to the border between Germany and the Netherlands

TURNOVER: sales volume net of sales taxes

UNDER-KEEL CLEARANCE: the distance between the lowest point on the ship's keel (or hull) and the highest point on the channel bottom beneath the ship. This is so to say the "security margin" under the keel.

UPPER RHINE: section of the navigable Rhine in the Upper Rhine Plain between Basel in Switzerland and Bingen in Germany

NATIONAL STATISTICS OFFICES

Acronym	Original Name	English Name	Country
CBS	Centraal Bureau voor de Statistiek	Central Statistical Office	Netherlands
Destatis	Statistisches Bundesamt	Federal Statistical Office of Germany	Germany
INSSE	Institutul Național de Statistică	National Institute of Statistics	Romania
Statistik Austria	Statistik Austria	Statistics Austria	Austria

BOOKS, JOURNAL ARTICLES AND STUDIES

Original Name	Country
EU/CCNR (2021), Annual Report 2021, Market Observation in Europe, page 44	Europe
US Energy Information Administration, Short-Term Energy Outlook, January 2022. Available at: https://www.eia.gov/outlooks/steo/ (last consulted 19.01.2022)	USA
IMF, WEO October 2021. Available at: https://www.imf.org/en/Publications/WEO/Issues/2021/10/12/world-economic-outlook-october-2021 (last consulted 19.01.2022)	World
Raiffeisen Währungsupdate Dezember 2021. Available at: https://www.raiffeisen.ch/content/dam/www/rch/pdf/publikationen/waehrungsupdate/de/2021/waehrungsupdate-12-2021.pdf (last consulted 19.01.2022)	Switzerland
OECD, Nominal exchange rates against US dollar, average of daily rates, 2022. Available at: https://stats.oecd.org/Index.aspx?QueryId=51653# (last consulted 19.01.2022)	World

■ OTHER SOURCES

Original Name	English Name	Country
Avenergy Suisse	Avenergy Suisse	Switzerland
Bundesanstalt für Gewässerkunde (BfG)	Federal Institute of Hydrology (BfG)	Germany
CCNR/ZKR/CCR	Central Commission for the Navigation of the Rhine (CCNR)	Europe
De Vlaamse Waterweg	Waterways in Flanders	Belgium
Donaukommission	Danube Commission	Europe
EUROSTAT	EUROSTAT	EU
Federal Reserve Economic Data	Federal Reserve Economic Data	USA
International Monetary Fund (IMF)	International Monetary Fund (IMF)	World
ITB - Institut pour le Transport par Batellerie/Instituut voor het Transport langs de Binnenwateren	Institute for transport by skippers	Belgium
Organisation for Economic Co-operation and Development (OECD)	Organisation for Economic Co-operation and Development (OECD)	World
PJK International	PJK International	Netherlands
Ports mentioned in the report	Ports mentioned in the report	Europe
SPF Economie	Federal Public Service Economy	Belgium
SPW Service Public de Wallonie	Public Service of Wallonia	Belgium
US Energy Information Administration	US Energy Information Administration	USA
viadonau	viadonau	Austria
Voies Navigables de France (VNF)	Navigable Waterways of France	France
Wasserstraßen-und Schifffahrtsverwaltung des Bundes (WSV)	German Waterway and Shipping Administration	Germany

■ NOTES ON THE FACTSHEET

'Share in EU total' contains figures for the EU plus Switzerland and Serbia.

#) *In contrast with transport performance, for transport volume, a country-specific share cannot be calculated.*

The modal split share is defined as the percentage of inland waterway freight transport performance (in TKM) within total land-based transport performance. Land-based freight transport modes include road, rail and inland waterways. The road freight activity is reported according to the territoriality principle, where international road freight transport data are redistributed according to the national territories of where the transport actually takes place. These principles are implemented in the Eurostat series [tran_hv_frmod].

■ METHODOLOGY

Freight traffic on inland waterways and in ports

Europe as defined in chapter 1 is taking into account all European countries providing quarterly data on inland waterway transport. All these countries are listed on the Transport Performance in Europe map (page with map in chapter 1).

When discrepancies on total transport performance are observed between Eurostat and National Statistics data, the information is notified to Eurostat and to the National Statistics Office, and Eurostat data is taken into account.

When available, NST product classification is used in order to split transport performance on following transport segments: dry cargo, liquid cargo, containers.

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The facts presented in the study and opinions expressed are those of the authors and do not necessarily also represent the position of the CCNR or the European Commission and its agencies on the subject in question.

This notice does not constitute a formal commitment on the part of those organisations referred to in the report.

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CONTRIBUTORS

CCNR

Norbert KRIEDEL (Economist)

Laure ROUX (Project coordination)

Athanasia ZARKOU (Junior economist)

Lucie FAHRNER (Communication officer)

Sarah MEISSNER (Project assistant)

Contact: ccnr@ccr-zkr.org

IN PARTNERSHIP WITH

Danube Commission

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Sava Commission

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TRANSLATION

Laurence WAGNER (French)

Barbara VOLLATH-SOMMER (German)

Pauline de ZINGER (Dutch)

Veronica SCHAUINGER-HORNE (Proofreading English)

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