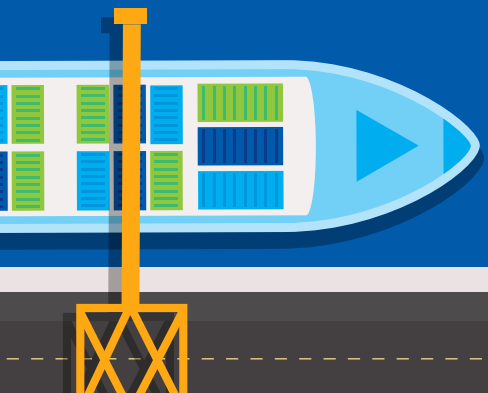
MARKET INSIGHT

INLAND NAVIGATION IN EUROPE

PUBLISHED IN

APRIL 2019



CCNR
CENTRAL COMMISSION
FOR THE NAVIGATION OF THE RHINE

Market Insight

INLAND NAVIGATION IN EUROPE

Published in

April 2019

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01

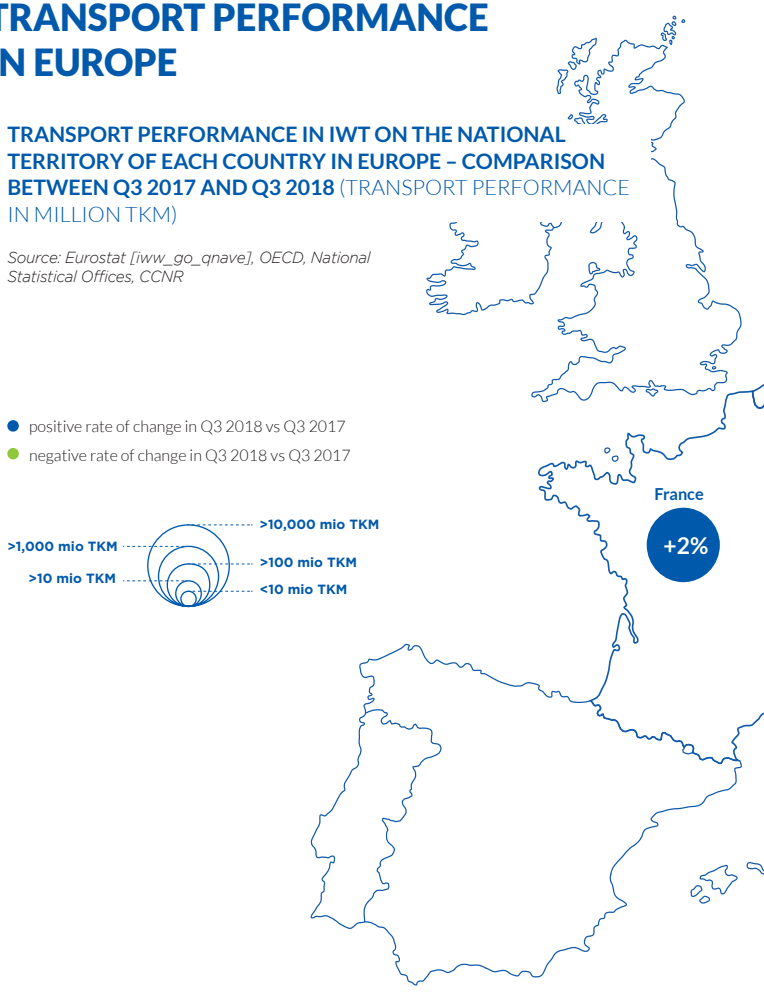
FREIGHT TRAFFIC ON INLAND WATERWAYS AND IN PORTS

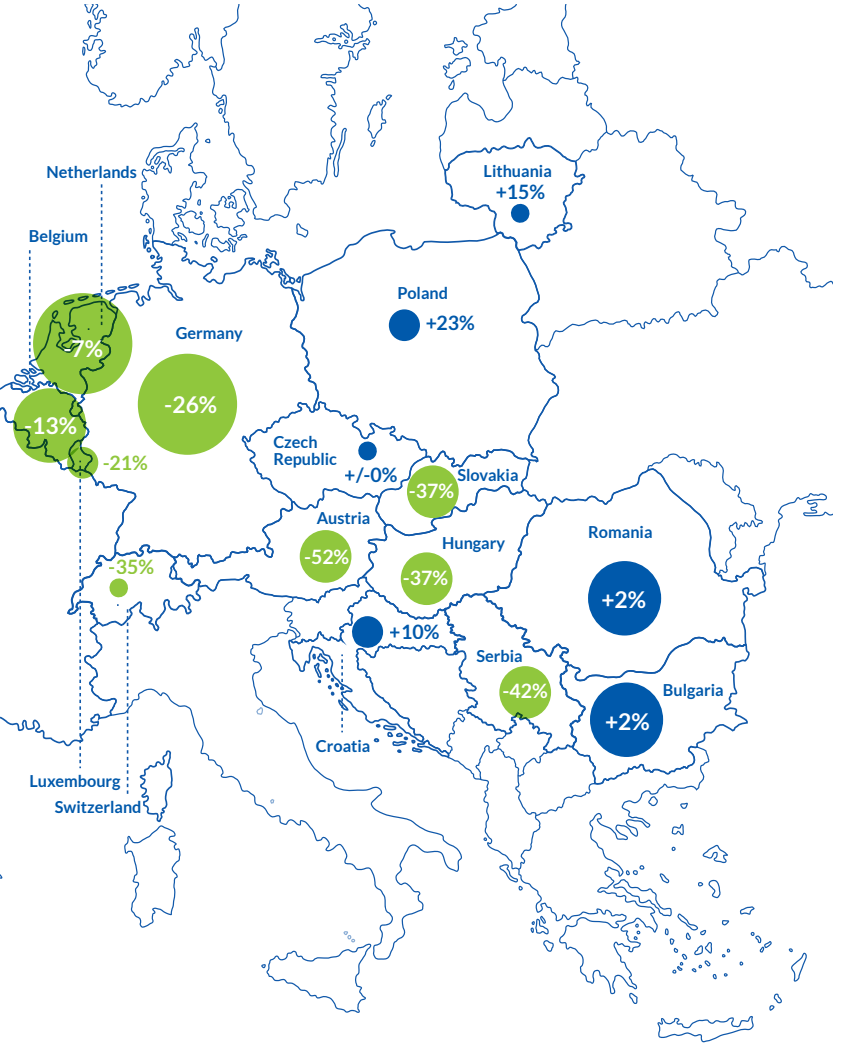
- **The overall development of IWT in Europe in the third quarter of 2018 was affected by the low water period which occurred in the second half of the year.**
- **In the third quarter of 2018, transport performance on European inland waterways reached 32.1 billion TKM.**
- **This transport performance represented a decrease of 14.9 % compared to the third quarter of 2017, including -27% for the traditional Rhine, -36% for its affluents and -10% for the Danube.**

TRANSPORT PERFORMANCE IN EUROPE

TRANSPORT PERFORMANCE IN IWT ON THE NATIONAL TERRITORY OF EACH COUNTRY IN EUROPE – COMPARISON BETWEEN Q3 2017 AND Q3 2018 (TRANSPORT PERFORMANCE IN MILLION TKM)

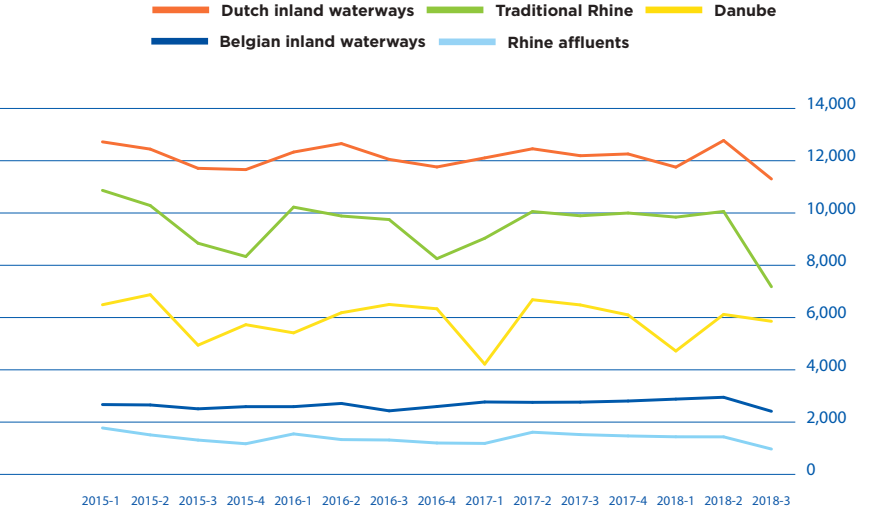
Source: Eurostat [iww_go_qnave], OECD, National Statistical Offices, CCNR




Netherlands
Belgium
-7%
Germany
-26%
-13%
-21%
Lithuania
+15%
Poland
+23%
Czech Republic
+/-0%
Slovakia
-37%
Austria
-52%
-35%
Hungary
-37%
Romania
+2%
+10%
Serbia
-42%
Bulgaria
+2%
Croatia
Luxembourg
Switzerland

INLAND WATERWAY TRANSPORT PERFORMANCE ON THE RHINE, RHINE AFFLUENTS*, DANUBE**, BELGIAN AND DUTCH WATERWAYS (TRANSPORT PERFORMANCE IN MILLION TKM)

Source: Destatis, StatBel, Eurostat [iww_go_qnave], OECD, calculation CCNR
**Rhine affluents: Main, Mosel, Neckar, Saar*
***Danube: Transport performance in Austria, Slovakia, Hungary, Croatia, Serbia, Romania, Bulgaria*



- Due to the long-lasting and extreme low water situation in Europe in summer and autumn 2018, transport fell in many parts of Europe in Q3 2018, but there were some exceptions. On the lower Danube, which has a share of 75 % of total Danube transport performance, the result was higher (+2 %). On the Middle (-38 %) and Upper Danube (-48 %), however, the decline was considerable. The lower Danube (Romania, Bulgaria) was able to perform well because the draught of inland vessels was not restricted by the available water depth due to the river-sea-character of the fairway between the port of Braila and the Black Sea. The port of Galati is located in this river-sea-stretch (see section on ports and chapter 3).

- The total transport performance on the Dutch waterways is largely affected by the Rhine performance (due to hinterland traffic from the Dutch and Belgium seaports to Germany and further upstream). The impact of low waters on the national transport performance was less severe than for the Rhine and its IJssel branch, as the water depth on waterways such as in the ARA region (between Antwerp, Rotterdam and Amsterdam) acted as a stabilizer.

- On the traditional Rhine, 38.2 million tonnes were transported in Q3 2018, representing 18 % less cargo transport compared to Q3 2017. Container transport fell by 20 %, liquid cargo by 16 % and dry cargo by 14 %. It must be taken into account that the Middle and Upper Rhine, which were much more affected by low water levels than the Lower Rhine (see also chapter 2), have a share of 42 % of the total liquid cargo transport performance[1] on the traditional Rhine and its affluents.

- Similarly, the Middle and Upper Rhine's share within total container transport performance on the traditional Rhine and its affluents is 49 %, a much higher deal than for dry cargo, which therefore explains the rather strong decrease of container transport by 20 % on the whole traditional Rhine.

- On the Main, 3.5 million tonnes were transported in Q3 2018, which signifies 1 million tonnes less IWT (-23 %). For the year 2018 in total, figures from the Directorate General for Waterways and Shipping (GDWS) point to a reduction of around 20 %.

- On the Moselle, 1.73 million tonnes in Q3 2018 were registered (1/3 less than in Q3 2017). Figures from the GDWS indicate -16.4 % for the total year 2018.

- The Saar witnessed the strongest decrease of all Rhine tributaries. Its traffic was cut almost by half: 0.58 million tonnes in Q3 2018 compared to 1 million tonnes in Q3 2017. GDWS figures indicate -28 % for the total year 2018.

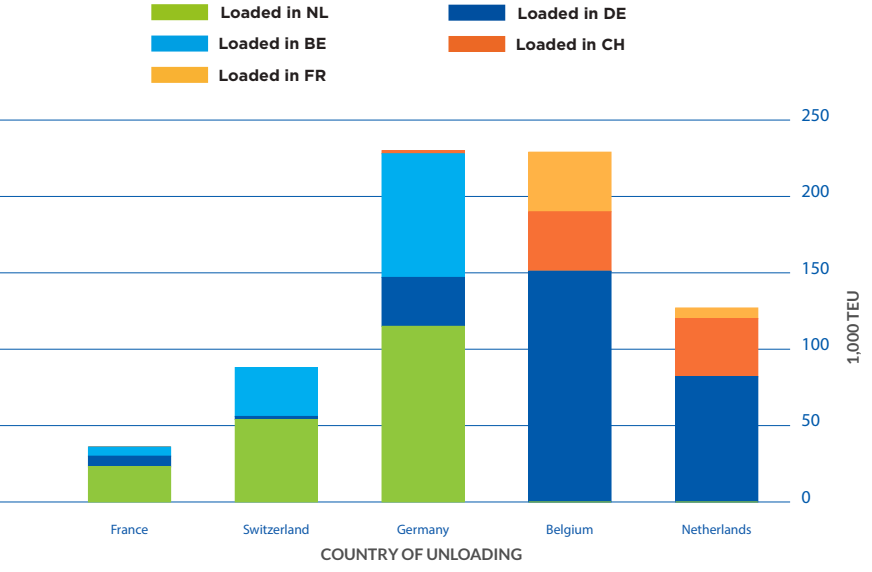
[1] *Along the Middle Rhine, large chemical industrial complexes are present.*

CONTAINER TRANSPORT ON THE RHINE – AN ORIGIN-DESTINATION ANALYSIS

- On the traditional Rhine, 1.76 million TEU were transported in the first three quarters of 2018. The intensity of container transport hereby differs according to the stretches of the Rhine. The highest intensity is on the Lower Rhine section, with 1.73 million TEU. On the Upper Rhine, 0.67 million TEU were transported[2]. Where do these containers come from and where do they go? The following figures shed light on this topic.

CONTAINER TRANSPORT ON THE UPPER RHINE ACCORDING TO COUNTRY OF LOADING AND UNLOADING

Source: calculation CCNR based on data from Destatis and from Port of Strasbourg, Port of Mulhouse

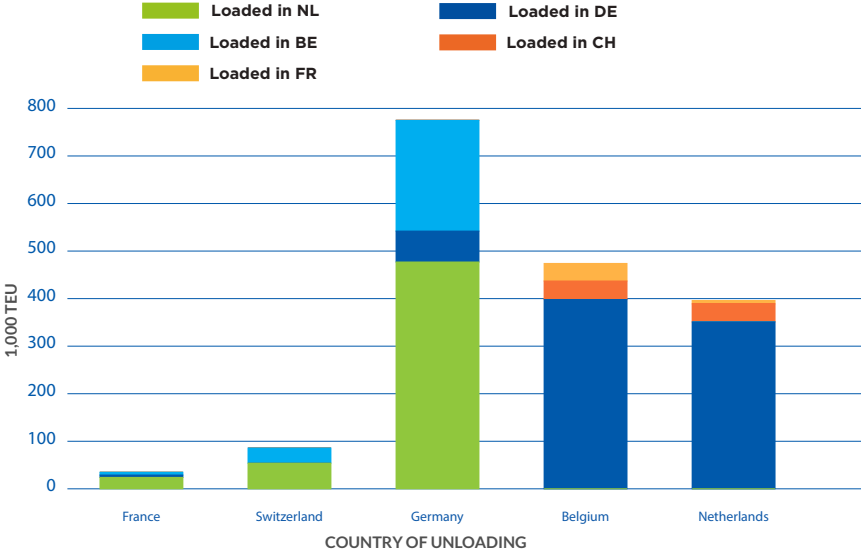


[2] *The TEU values for the Lower and Upper Rhine cannot be summarised as this would lead to double-counting.*

- It can be observed that containers are sent from German, Swiss and French Rhine ports to the seaports in Belgium and the Netherlands. For container transport on the Upper Rhine, Belgian seaports receive more TEU from the hinterland than Dutch seaports. On the Lower Rhine, the lead of Belgium is small, but still exists for container export traffic coming from the hinterland.

CONTAINER TRANSPORT ON THE LOWER RHINE ACCORDING TO COUNTRY OF LOADING AND UNLOADING

Source: calculation CCNR based on data from Destatis and from Port of Strasbourg, Port of Mulhouse



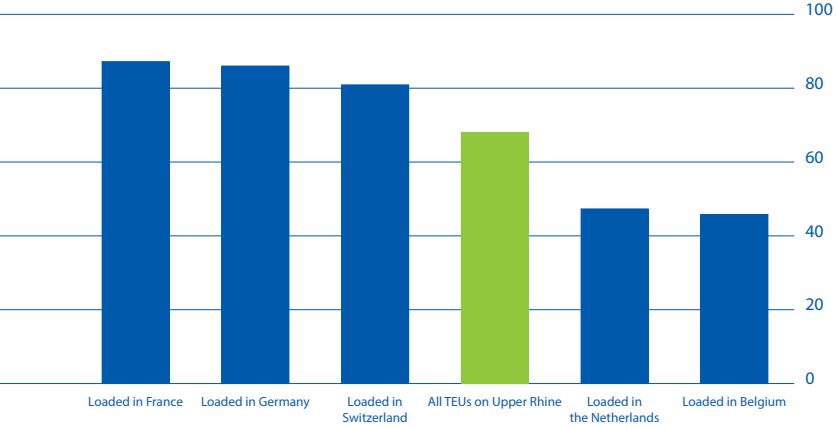
- For the import direction (containers coming from the seaports and going to Rhine ports in Germany, France, Switzerland), the seaports in the Netherlands send more TEU to the hinterland than the Belgian ports: for the Lower Rhine, there are twice as many TEU coming from the Netherlands, and arriving in Germany, than TEU coming from Belgium and arriving in Germany. For the Upper Rhine, this ratio is 1.4: 1 in favour of the Netherlands (for 10 TEU coming from Belgium, 14 come from the Netherlands).

CONTAINER TRANSPORT ON THE RHINE – SHARE OF FILLED CONTAINERS PER COUNTRY OF LOADING

- Information about the share of filled and empty containers per country of loading is also available. For the Upper Rhine, the results are shown in the figure below.

SHARE OF FILLED CONTAINERS ON THE UPPER RHINE ACCORDING TO COUNTRY OF LOADING (IN %)

Source: calculation CCNR based on data from Destatis



80-87% OF ALL CONTAINERS LOADED IN FRENCH, GERMAN AND SWISS UPPER RHINE PORTS ARE FILLED WITH GOODS

- In the first three quarters of 2018, 87.2 % of the containers that were loaded in French Rhine ports were filled with goods, and only 12.8 % were empty. For containers loaded in German and Swiss Rhine ports, the share of filled containers is also above the 80 % level.

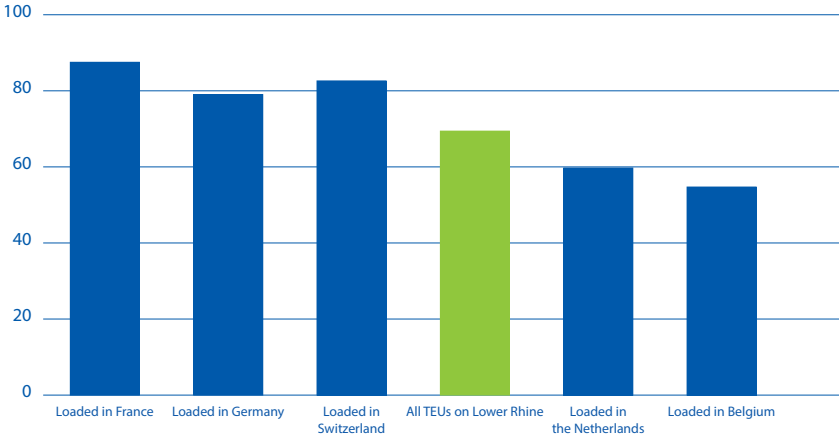
- For containers loaded in the Netherlands and in Belgium, less than one half of all containers were filled with goods. For the Upper Rhine, on average, the ratio was 68 % for filled containers against 32 % for empty containers.

- These different values mirror to a large extent the export of goods from the Upper Rhine region to destinations abroad, and the import of empty containers from abroad (back to the ports along the Upper Rhine where they can be re-filled with goods for export purposes).

- The same calculation for the Lower Rhine indicates that the share of filled containers remains high for France, Germany and Switzerland as countries of loading. The share of filled containers that were loaded in Belgium and the Netherlands is however rising.

SHARE OF FILLED CONTAINERS ON THE LOWER RHINE ACCORDING TO COUNTRY OF LOADING (IN %)

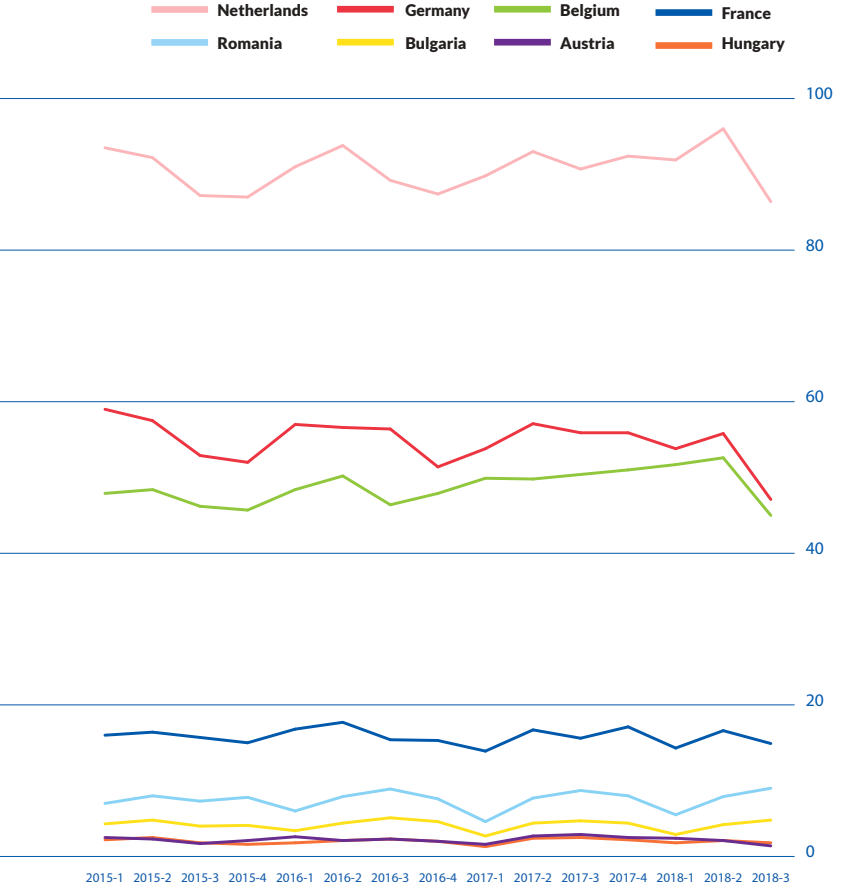
Source: calculation CCNR based on data from Destatis



TRANSPORT VOLUME IN MAIN IWT COUNTRIES IN EUROPE

INLAND SHIPPING TRANSPORT VOLUME IN MAIN EUROPEAN IWT COUNTRIES (QUARTERLY DATA – MILLION TONNES)

Source: Eurostat [iww_go_qnave] and National Statistical Offices

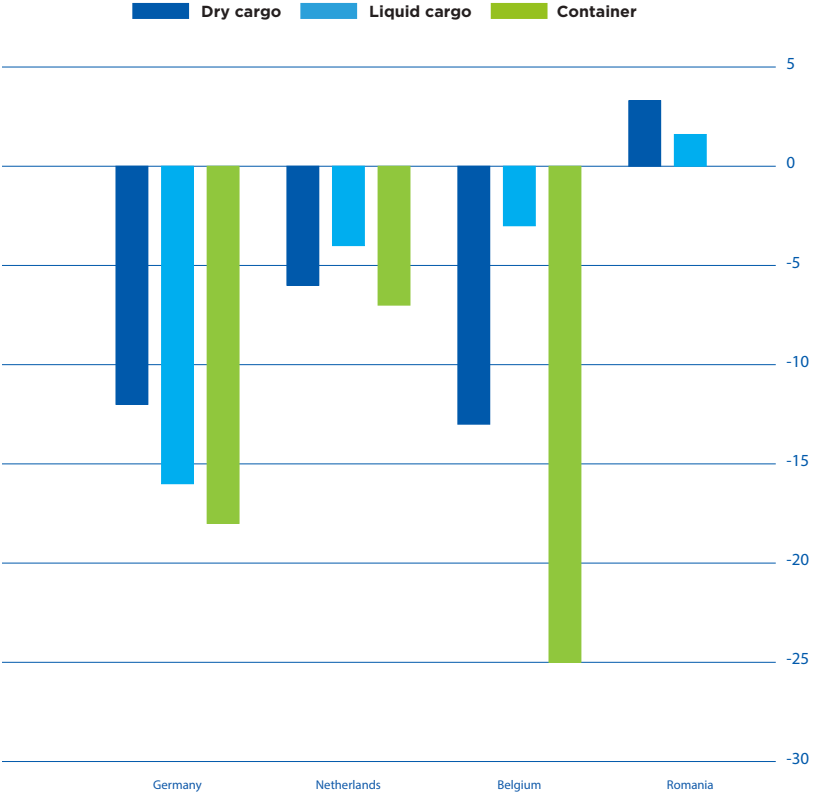


DRY BULK, LIQUID BULK AND CONTAINER TRANSPORT

RATE OF CHANGE IN INLAND SHIPPING TRANSPORT VOLUME (TONNES) IN FOUR MAJOR IWT COUNTRIES (Q3 2018 VS Q3 2017 - %)*

Source: CBS, Destatis, StatBel, Romanian Institute of Statistics

** In Romania, container transport is at a very low level and is therefore not depicted in the graph. The container data for Belgium are provisional.*



- In Germany, dry cargo's share is 56 %, liquid cargo represents 25 % and container transport 12 %. Packaged and other cargo accounts for the remaining shares. The variations per goods segments are the following (in Q3 2018 compared to Q3 2017): metals (-22 %), chemicals (-16 %), coal (-8 %), iron ore (-13 %), agricultural products (-14 %), sand & stones (-16 %). Export traffic lost 22 %. Import traffic fell by 14 %, and national traffic by 7 %.

- In the Netherlands, dry cargo's share is 56 %, liquid cargo represents 30 % and container transport 14 %. In Q3 2018 compared to Q3 2017, export of dry bulk fell by 8 %, export of liquid bulk by 9 % and export of containers by 6 %. National traffic was resilient: dry bulk traffic increased by 4 %, liquid bulk by 2 % and container traffic by 8 %.

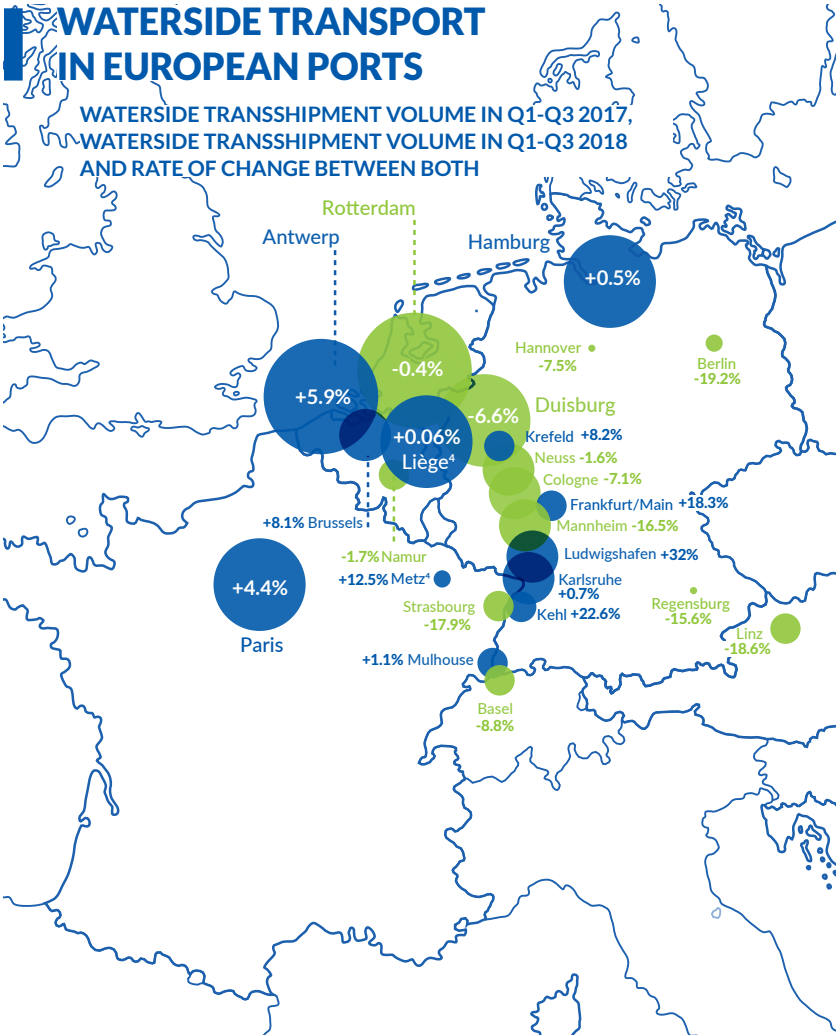
- In Romania, dry cargo has a share of 95.1 %, liquid cargo 4.6 % and container transport 0.2 %. Transport activity was very robust, due to specific natural conditions (see chapter 3). The dry cargo sector benefitted from a 28 % increase of iron ore transport. Sands, stones and construction materials increased by 11 %. The largest product segment which is grain remained relatively stable (see chapter 3).[3]

-13% **OF IRON ORE TRANSPORT IN Q3 2018 IN GERMANY COMPARED TO Q3 2017**

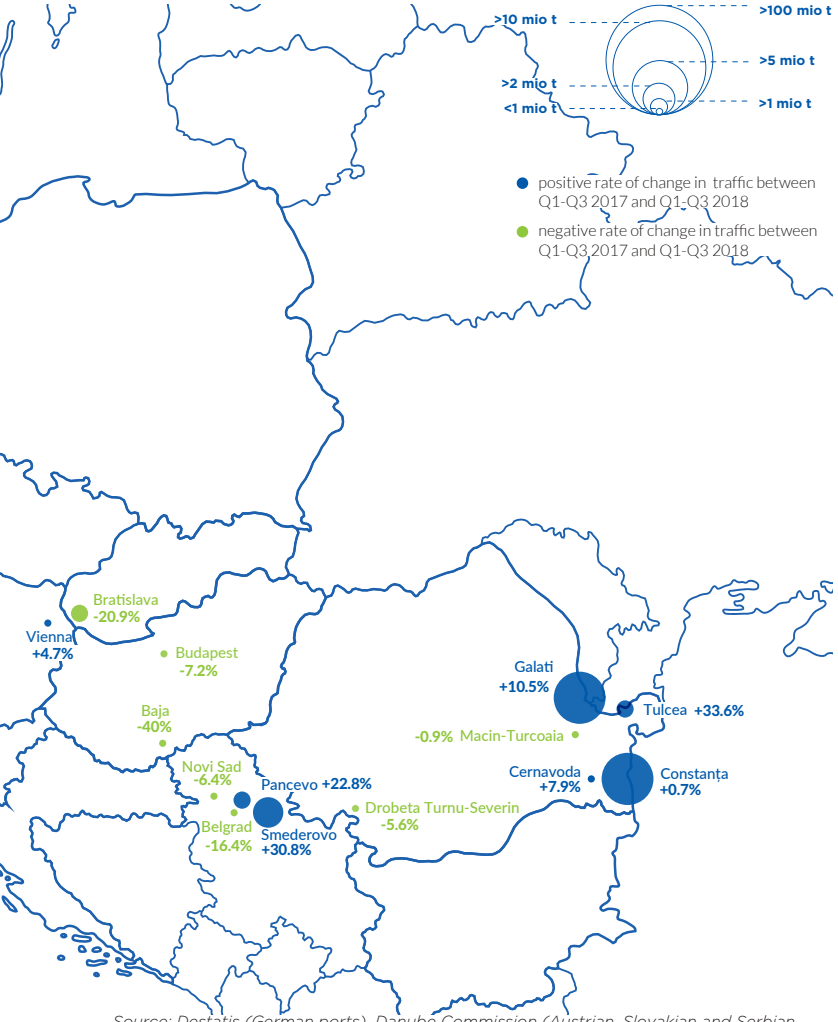
[3] Based on transport volumes (in t), grain is the largest segment in Romania, while it is iron ore, based on TKM.

WATERSIDE TRANSPORT IN EUROPEAN PORTS

WATERSIDE TRANSSHIPMENT VOLUME IN Q1-Q3 2017, WATERSIDE TRANSSHIPMENT VOLUME IN Q1-Q3 2018 AND RATE OF CHANGE BETWEEN BOTH



⁴ *Data for the ports of Liège and Metz include the 4 quarters of 2017 and 2018.*



Source: Destatis (German ports), Danube Commission (Austrian, Slovakian and Serbian ports), Hungarian Central Statistical Office (Hungarian ports), Romanian Institute of Statistics (Romanian ports), and ports data (for all other ports)

02

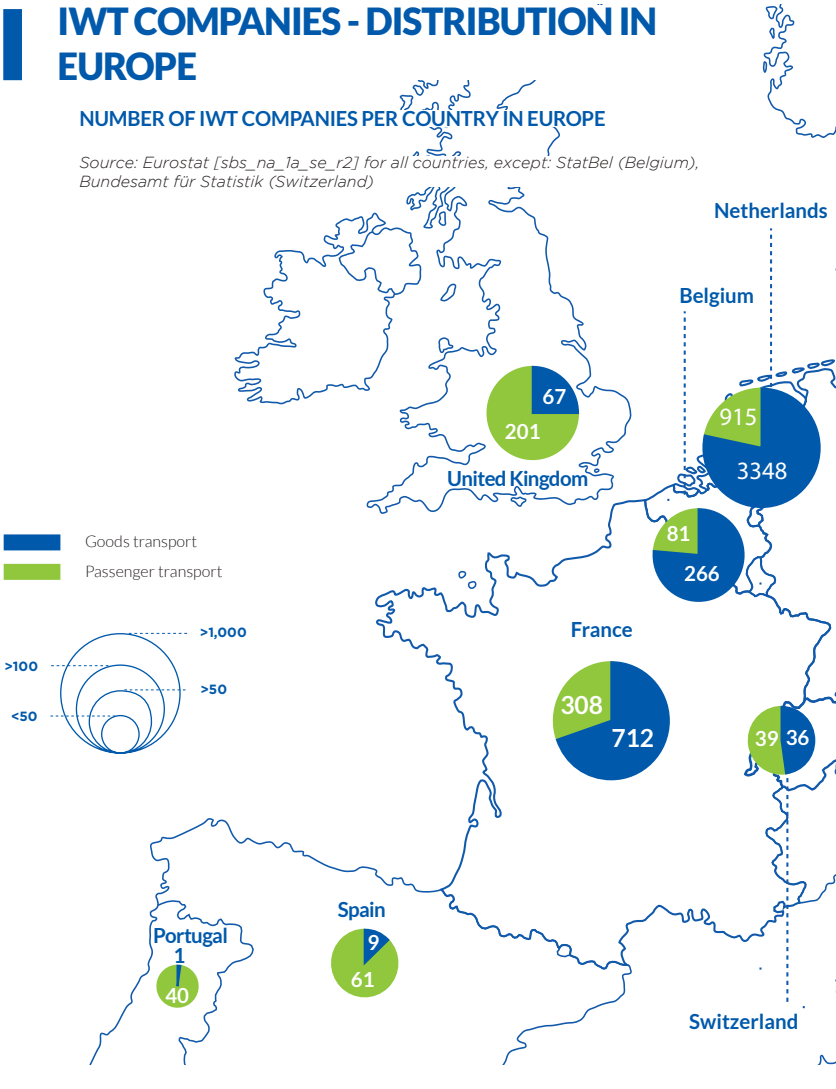
OPERATING CONDITIONS

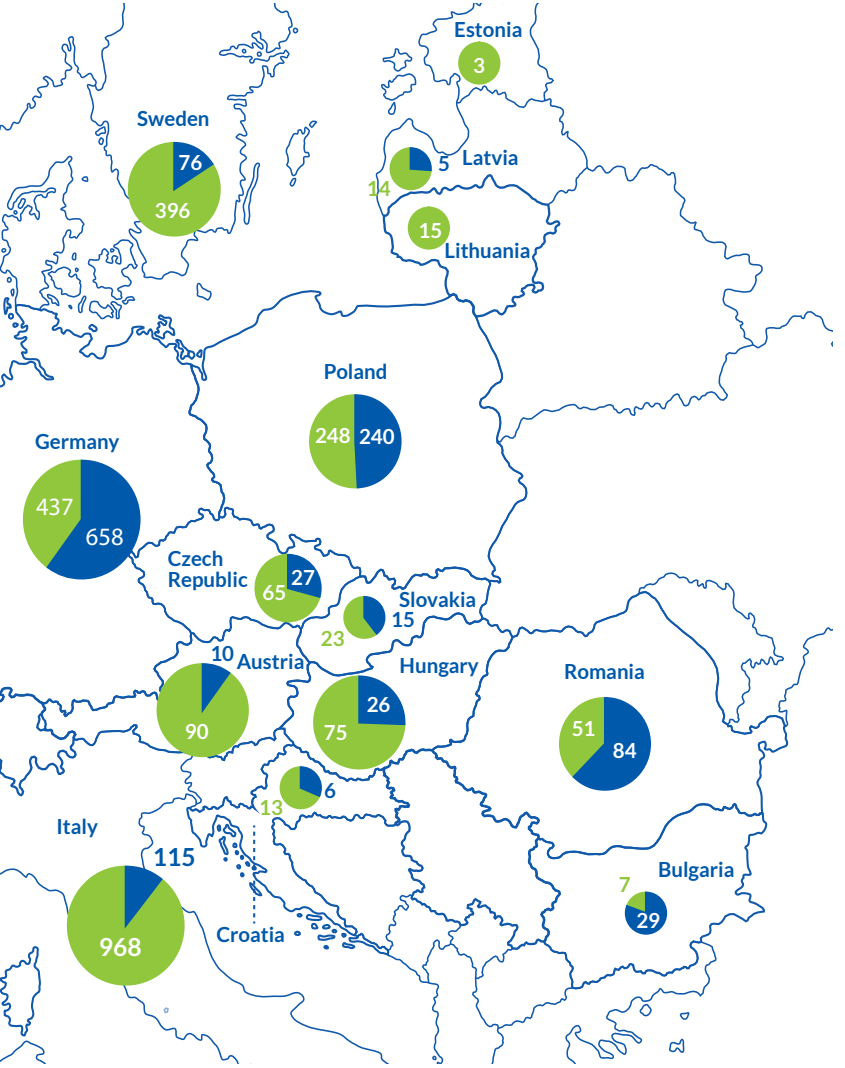
- **Low waters affected vessel s' loading degrees and cargo transport to a different degree, depending on the regions.**
- **On the Upper and Middle Rhine (between Basel and Cologne), vessels' maximum loading degrees fell to levels between 40 % and 50 %, while they remained above 60 % for the Lower Rhine (between Cologne and Duisburg).**
- **Freight rates on the Rhine and the Danube rose strongly due to the decrease of the available effective transport capacity. However, for vessels operating in the Netherlands, where the low water period was less severe, the price increase was very limited.**

IWT COMPANIES - DISTRIBUTION IN EUROPE

NUMBER OF IWT COMPANIES PER COUNTRY IN EUROPE

Source: Eurostat [sbs_na_1a_se_r2] for all countries, except: StatBel (Belgium), Bundesamt für Statistik (Switzerland)

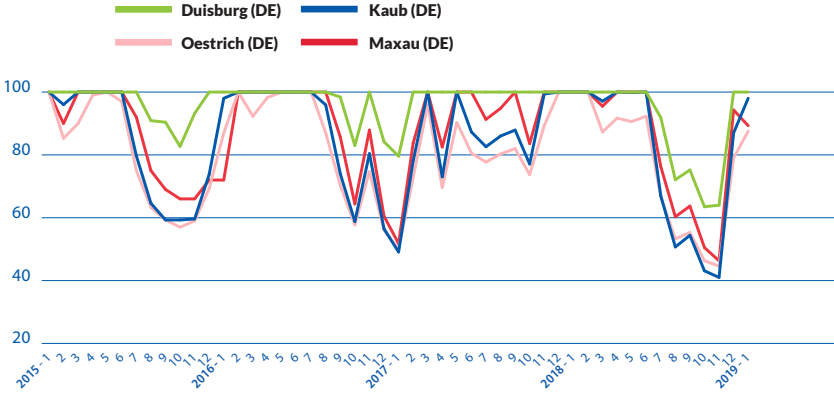



Estonia
3
Sweden
76
396
5
Latvia
14
15
Lithuania
Poland
248
240
Germany
437
658
Czech Republic
65
27
Slovakia
15
23
10
Austria
Hungary
Romania
26
75
51
84
90
6
13
Italy
115
968
Croatia
Bulgaria
7
29

WATER LEVELS AND VESSELS' LOADING DEGREES IN THE RHINE BASIN

MAXIMUM LOADING DEGREE OF VESSELS WITH A DRAUGHT OF 3 M AT GAUGING STATIONS ALONG THE RHINE (IN %)

Source: Calculation CCNR based on data provided by the Federal German Office of Hydraulicity

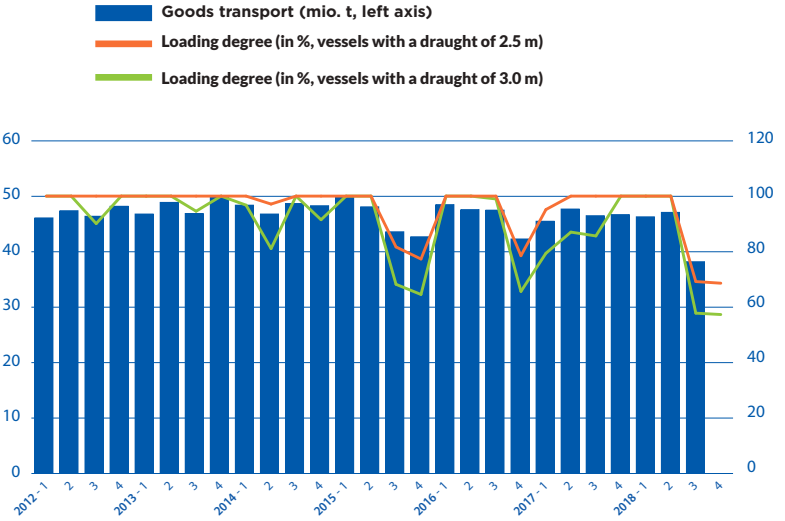


- The maximum loading degrees differ according to vessel type and the location of a river. They are calculated by the CCNR on a monthly basis, based on a formula that takes into account specific waterway parameters and the water level data themselves[5].
- According to the Kiel Institute for the World Economy[6], the low water period on the Rhine curbed the growth rate of industrial production in Germany in Q3 2018 by 0.8 percentage points, equivalent to 1.9 billion euros. Temporary interruptions of logistical chains, notably for the chemical industry and for container traffic, are mainly responsible for this loss.
- The correlation between goods transport on the Rhine and water levels/loading degrees shows that larger vessels are more vulnerable to low water periods. This raises the question of new/updated logistical concepts and low draught ships, including the possible revival of smaller vessels in the future.

[5] For more information on the method, see the journal "SVS aktuell" of the "Schweizerische Vereinigung für Schifffahrt und Hafenwirtschaft" (Swiss Association for Shipping and Ports), edition December 2018 / January 2019, pages 7-8
[6] See: Ademmer, M.; Jannsen, N.; Kooths, S.; Mösle, S. (2019). Niedrigwasser bremst Produktion (Low water slows production level), in: Wirtschaftsdienst 99 (1), 79-80

QUARTERLY GOODS TRANSPORT ON THE RHINE AND VESSELS' LOADING DEGREES AT KAUB/RHINE

Source: Destatis and calculation CCNR based on data provided by the Federal German Office of Hydraulicity

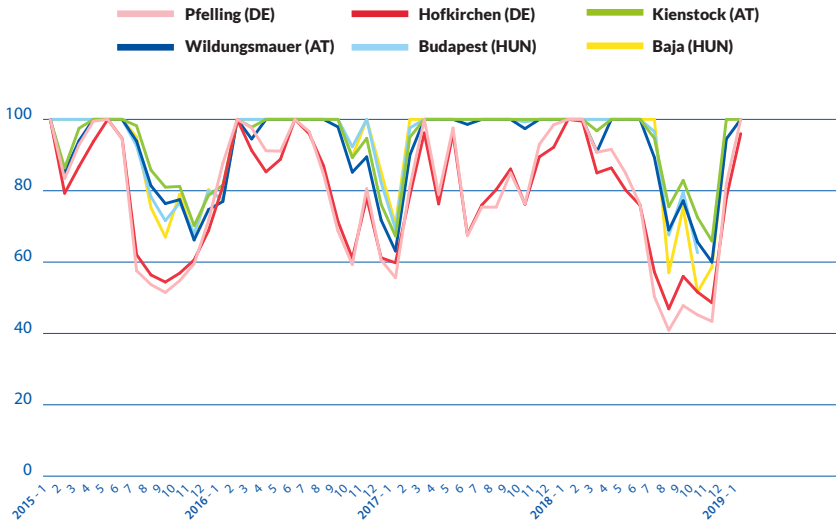


VESSELS' LOADING DEGREES WERE MOST IMPACTED BY LOW WATER LEVELS IN Q4 2018

WATER LEVELS AND VESSELS' LOADING DEGREES IN THE DANUBE BASIN

MAXIMUM LOADING DEGREE OF VESSELS WITH A DRAUGHT OF 3 M AT GAUGING STATIONS ALONG THE DANUBE (IN %)

Source: Calculation CCNR based on data provided by the Federal German Office of Hydraulicity, viadonau and the General Directorate of Water Management in Hungary

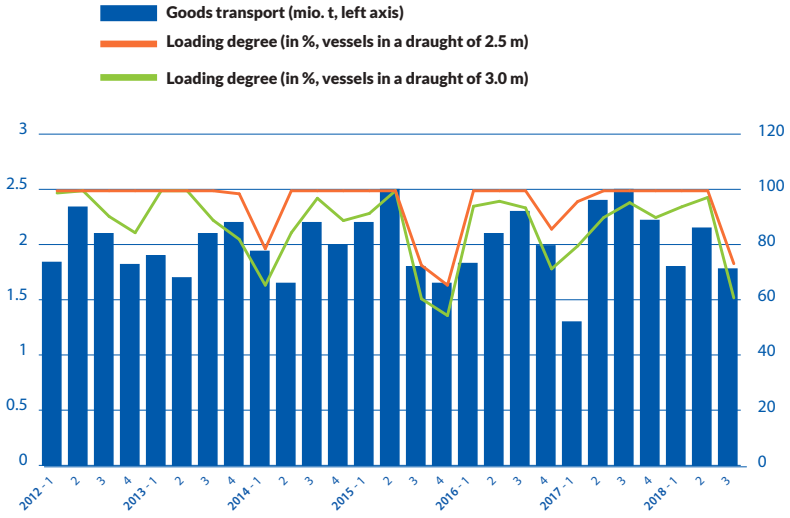


- Within the Danube basin, a relatively limited impact of low waters on vessels' loading degrees in Austria and Hungary can be observed. However, a more pronounced impact on Germany is visible. This can be explained by the fact that the German Danube is a free-flowing river in many parts.

THE AUSTRIAN AND HUNGARIAN DANUBE WERE IMPACTED LESS SEVERELY BY LOW WATERS THAN THE GERMAN DANUBE

QUARTERLY GOODS TRANSPORT IN HUNGARY AND VESSELS' LOADING DEGREES IN BUDAPEST

Source: Eurostat [iww_go_qnave] and calculation CCNR based on data from General Directorate of Water Management in Hungary



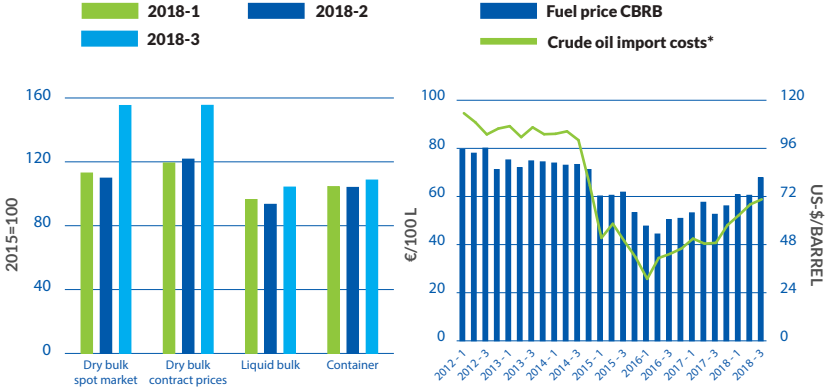
- In Hungary, not only low water periods, but also ice periods (for example in Q1 2017) and the general seasonality of Danube transports - related to the agricultural segment - affect transport activity and operating conditions quite strongly.

FREIGHT RATES AND BUNKER PRICES IN THE RHINE BASIN

CBS FREIGHT RATE INDEX FOR THE NETHERLANDS, BUNKER PRICES AND OIL IMPORT COSTS*

Source: Centraal Bureau voor de Statistik (Netherlands), CBRB and IEA

** Volume-weighted average costs, includes France, Germany, Italy, Spain, UK, Japan, Canada and USA, cost of insurance and freight included (cif)*

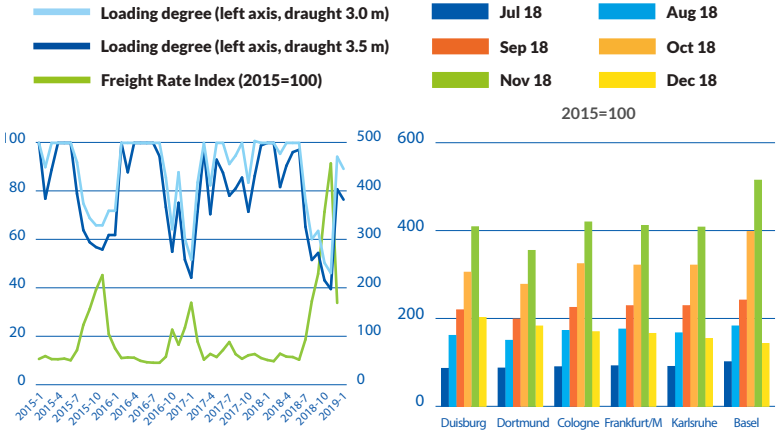


- The CBS conducts regular surveys among 80 Dutch IWW companies, eight times per year. The prices include fuel and low water surcharges. The revenue of a company determines the influence it has on the price index. According to this index, dry bulk freight rates of companies in the Netherlands increased strongly in Q3 2018, reflecting partly the international traffic towards the Rhine hinterland where low water levels were present.

- The liquid bulk part of the CBS index includes freight traffic in multiple areas, such as the Rhine, but also shorter trips within the ARA area (Amsterdam-Rotterdam-Antwerp) and other locations within the Netherlands where the water level has less impact on the amount of cargo that can be shipped. It contains spot market rates as well as (long-term) contract rates, and the delivery of all types of liquid bulk (chemicals, diesel, fuel oil, methanol, naphta, sunflower oil, etc.)
- The liquid bulk PJK index is a spot market index based on the transport of oil products from the ARA region via the Rhine to destinations in Germany, France and Switzerland. Its spot market character and the fact that it is based purely on the ARA-Rhine trade, where water levels had a stronger impact on the market than in the Netherlands, explain the differences in its evolution compared to the CBS index for liquid cargo.

PJK FREIGHT RATE INDEX FOR LIQUID CARGO FROM THE ARA REGION TO DESTINATIONS ALONG THE RHINE - COMPARED WITH VESSELS' LOADING DEGREE AT MAXAU/UPPER RHINE*

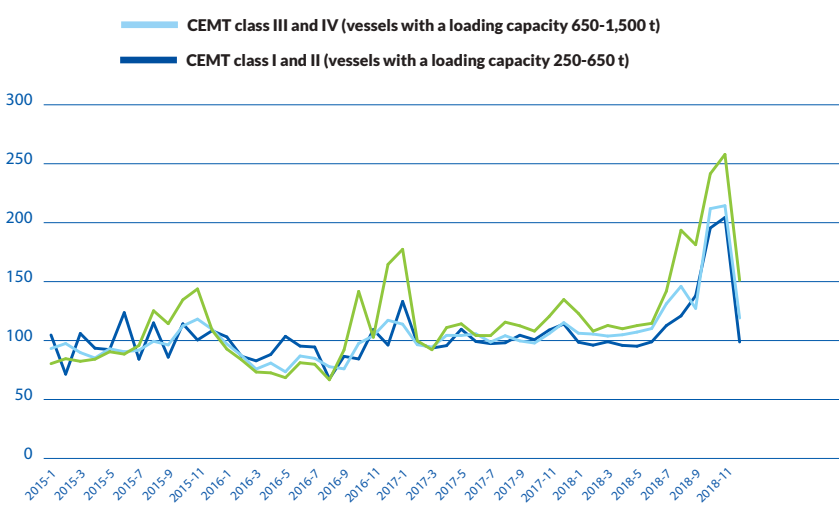
Source: Calculation CCNR based on PJK International and German Federal Office for Hydrology
** Gasoil freight rates including pilotage, harbour and canal dues*
Left figure: average freight rate level, right figure: per destination



- Freight rates also differ according to vessel classes. Each waterway is limited by the dimensions of the locks and boat lifts. The Classification of European Inland Waterways (CEMT) is a set of standards for navigable waterways and vessel classes.
- The following figure shows that freight rates for larger vessels increased markedly during low water periods. This is because the supply side (loading capacity) of larger vessels is more affected during low water periods than the supply side for smaller vessels.
- The freight rates per CEMT-class include all kinds of dry cargo and all sailing areas in the Rhine basin. However, the smaller vessel classes (CEMT class I & II = Vessel types Spits and Kempenaar with a cargo capacity of up to 650 t) generally transport agricultural products on the spot market and mainly operate on Dutch and Belgian waterways.

PANTEIA FREIGHT RATE INDEX FOR DRY CARGO TRANSPORT PER CEMT WATERWAY CLASSES (2015=100)

Source: Panteia

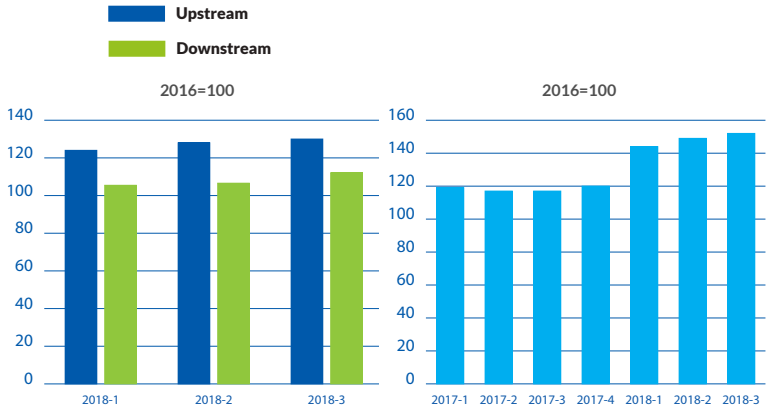


FREIGHT RATES AND BUNKER PRICES IN THE DANUBE BASIN

- According to the Danube Commission, the average bunker price in the Danube region was 710 to 735 US-$ per tonne in Q1 2018 and Q2 2018, and 755 US-$ per tonne in Q3 2018. This corresponds to 127€ to 132€ per 100 litre in the first half year, and to 136€ per 100 litre in Q3 2018, which is well above the price level in Western Europe (see previous page).
- There has been a strong price increase in bunker costs in recent times: in the first nine months of 2018, the costs were 27 % above the average level of 2017[7].
- Freight rates in the Danube region were pushed upwards by rising bunker costs and by the low water levels in parts of the Danube. Freight rates for upstream transport on the Danube (where iron ore and coal are transported) were higher than freight rates for downstream traffic.

FREIGHT RATE INDEX IN DANUBE SHIPPING (LEFT)**, AND EVOLUTION OF BUNKER PRICES** (RIGHT) **IN THE DANUBE REGION**

Source: Danube Commission, analysis CCNR



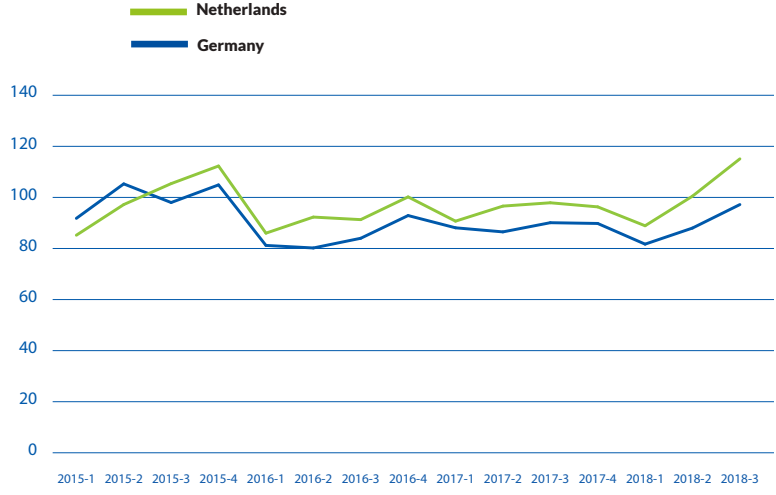
[7] *Source: Danube Commission (2019), Market Observation Danube navigation, first 9 months 2018*

QUARTERLY IWT TURNOVER EVOLUTION PER COUNTRY IN EUROPE[8]

TURNOVER DEVELOPMENT IN THE NETHERLANDS AND IN GERMANY - MAINLY GOODS TRANSPORT* (2015=100)

Source: CBS, Destatis

** For the Netherlands, the series contains turnover from total IWT, but goods transport has a very high share of 92 %; for Germany, the series contains only turnover from goods transport.*



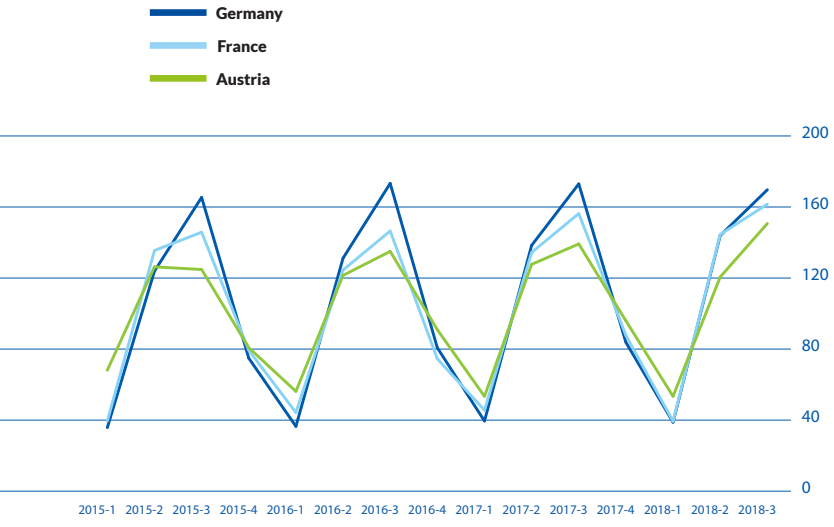
- Despite a drop of goods transport in the Netherlands and Germany, turnover picked up. The reason was the increase in freight rates, due to the low water levels (see previous pages).

[8] Quarterly data on turnover in IWT are at present only available for very few countries, due to statistical limitations. EUROSTAT presents data for the NACE sector H50 (water transport) which covers maritime and IWT transport together. Based on this dataset, it is possible to identify turnover in IWT only for countries with almost no activity in maritime shipping. For France, Germany and the Netherlands, quarterly turnover data are provided by the national statistical offices (INSEE; Destatis, CBS).

- Railway and road goods transport in Germany witnessed a somewhat flat turnover evolution during the years 2017 and 2018. But the turnover level in Q3 2018 was 12-13 % higher than in the reference year 2015, whereas turnover in German IWT was – despite the rise in Q3 2018 – still 3 % lower than in 2015.
- In the Netherlands, turnover in railway goods transport in Q3 2018 exceeded the level of 2015 by 9 %. As in Germany, its evolution since 2017 has been rather flat, but on a higher overall level than in inland shipping[9].

TURNOVER DEVELOPMENT IN AUSTRIA, FRANCE AND GERMANY – MAINLY PASSENGER TRANSPORT* (2015=100)

Source: Eurostat [sts_setu_q] for Austria, Destatis for Germany and INSEE for France
** For Austria, the series contains turnover from total IWT, but the sector activity is dominated by passenger transport; for Germany and France, the data contain only turnover in passenger transport.*



[9] *Source: Destatis (Germany) and CBS (Netherlands)*

- Turnover of Austrian, French and German passenger shipping companies showed the usual seasonal variations, proving that this segment was not too severely affected by the low water levels. The number of cruise vessels on the Upper Danube at the German-Austrian border was 6 % higher in 2018 than in 2017.
- Passenger shipping was also not severely affected on the Middle Danube. According to the Danube Commission, the number of cruise vessels passing the lock at Mohacs in southern Hungary was only 3 % lower in Q3 2018 than one year previously[10].
- For the interpretation of these figures, it should be said that most of the 228 river cruise vessels active on the Danube are registered and owned by companies in Rhine countries: 54% are registered in Switzerland, 18% in Germany, 5% in the Netherlands and also 5% in France. In addition, 14 % of the Danube cruise vessels are registered in Malta. Vessels registered in Danube countries have a share of only 3 % of the cruise fleet active on the Danube.

[10] Market Observation of the Danube Commission, results of the first nine months of 2018

03

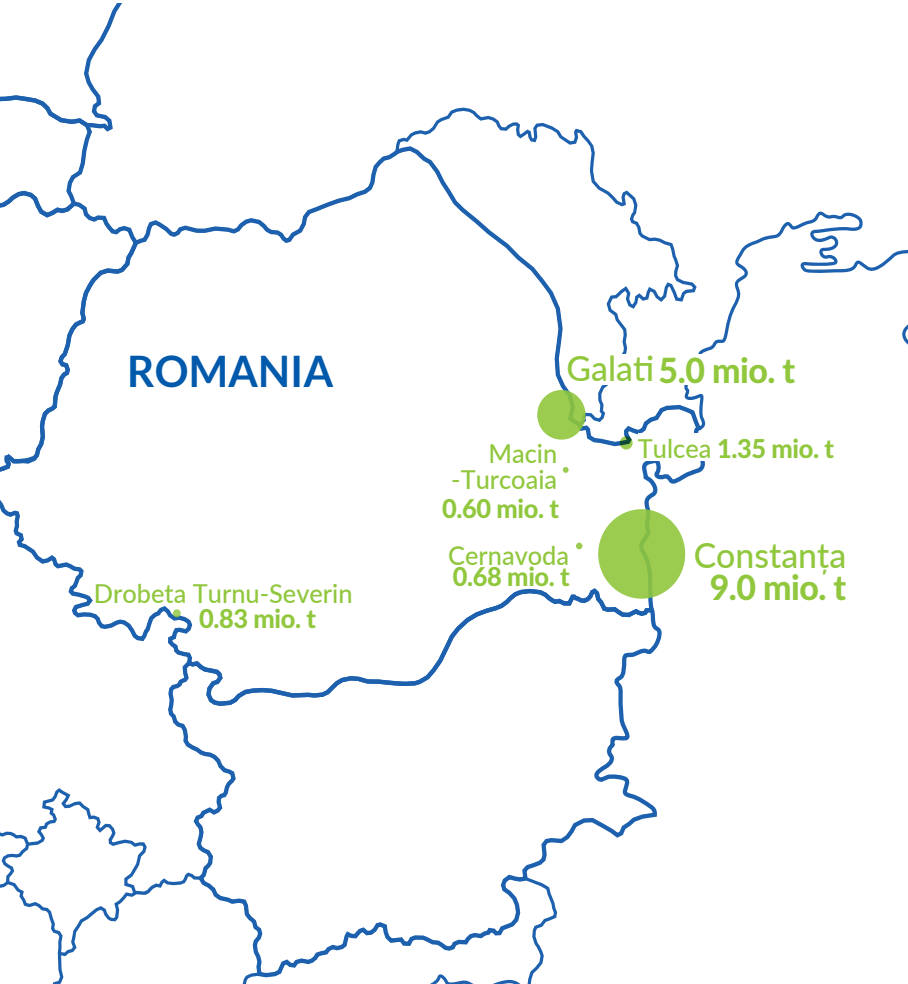
FOCUS ON ROMANIA

- **Yearly goods transport performance on inland waterways in Romania represents 8.5% of the total European inland waterway transport performance (12,517 Million TKM in 2017).**
- **Behind iron ores, sand and gravel, the agricultural products are the second largest IWT goods segment in Romania, representing 23.1% of the total transport performance of agricultural products in the EU.**
- **Constanța and Galati are the 1st and 3rd largest seaports in Romania, also registering respectively an inland waterway traffic of 3.91 and 1.65 million tonnes in Q3 2018.**

PORTS IN ROMANIA

INLAND WATERWAY CARGO TRAFFIC IN Q1-Q3 2018 (IN MILLION TONNES)

Source: National Institute of Statistics (Romania)

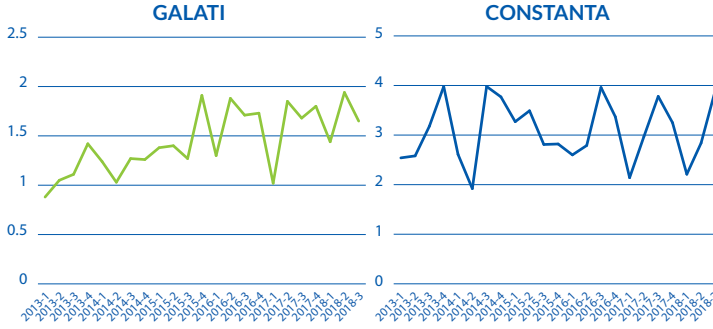


PORT OF CONSTANTA AND PORT OF GALATI

- With 29 million tonnes of maritime traffic in Q1-Q3 2018, the port of Constanța is the largest seaport in Romania as well as in the whole Danube region. It is very important for the export of grain and for the import of iron ores and coal.
- The seaport of Constanța is also an important point of loading and unloading of river transport, and the river traffic is fluctuating at around a quarterly amount of 3 million tonnes.
- The port of Galati is a river-sea port and is also the third-largest seaport of Romania. Its seagoing traffic amounted to 0.9 million tonnes in Q1-Q3 2018. On the export side, metals from the local steel industry play the largest role. As in Constanța, grain exports from the Danube hinterland are also very important.
- Inland waterway traffic in the river-sea port of Galati has followed an upward trend in the last years, and the dry weather has not interrupted this trend.

INLAND WATERWAY TRAFFIC IN THE PORTS OF GALATI AND CONSTANTA (IN MILLION TONNES)

Source: National Institute of Statistics (Romania), CCNR analysis

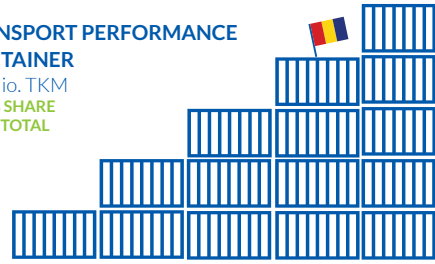


FACT SHEET IWT IN ROMANIA

ABSOLUTE VALUE 2017 FOR ROMANIA VS SHARE IN EU TOTAL

TRANSPORT PERFORMANCE TOTAL
12,517 Mio. TKM
8.5% SHARE IN EU TOTAL

TRANSPORT PERFORMANCE CONTAINER
15 Mio. TKM
0.09% SHARE IN EU TOTAL

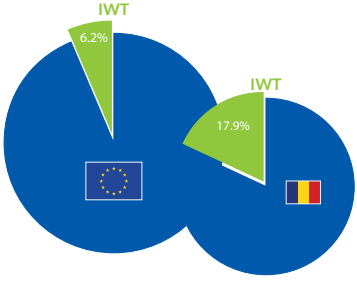


Volume of total goods transport: 29.04 Mio. tonnes

Volume of container transport: 55,000 tonnes

GOODS SEGMENTS IN IWT

1. Ores, sands, building material: 4,748 Mio. TKM
   13.3% SHARE IN EU TOTAL
2. Agricultural products: 3,883 Mio. TKM
   23.1% SHARE IN EU TOTAL
3. Chemical products: 1,089 Mio. TKM
   6.8% SHARE IN EU TOTAL



MODAL SPLIT SHARE OF IWT - TOTAL TRANSPORT PERFORMANCE

Notes: "Share in EU total" contains figures for the EU plus Switzerland and Serbia. # In contrast to transport performance, for transport volume a country-specific share cannot be calculated due to double-counting problems (cross-border transport).

PERSONS ACTIVE

2,028 **6.5% SHARE IN EU TOTAL** **1.4%**

Goods transport: 1,706 **10.6% SHARE IN EU TOTAL** **1.5%**

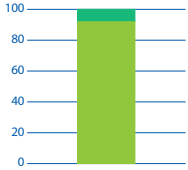
Passenger transport: 322 **2.1% SHARE IN EU TOTAL** **1.4%**

NUMBER OF COMPANIES

135

Goods transport: 84

Passenger transport: 51



LEVEL OF TURNOVER

100 Mio. € **2.1% SHARE IN EU TOTAL**

- Goods transport: 92 Mio. € **3.6% SHARE IN EU TOTAL**
- Passenger transport: 8 Mio. € **0.5% SHARE IN EU TOTAL**

NUMBER OF ACTIVE CARGO VESSELS

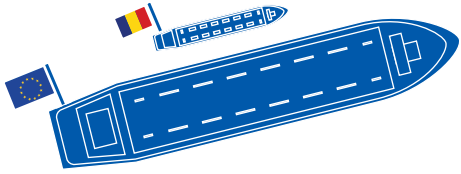
1,574 **11% SHARE IN EU TOTAL**

Dry cargo: 1,191

Liquid cargo: 97

Push & tug: 286

14% SHARE IN EU TOTAL



TONNAGE OF ACTIVE CARGO VESSELS

1.608 Mio. t **11.5% SHARE IN EU TOTAL**

Dry cargo: 1.523 Mio. t

Liquid cargo: 0.085 Mio. t

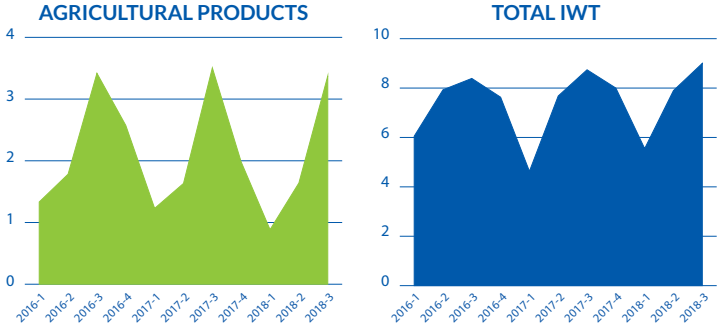
Source: Analysis CCNR based on Eurostat data [sbs_na_1a_se_r2], [iww_go_atygo], [iww_go_actygo], [tran_hv_frmod], [iww_eq_loadcap], [road_go_ta_tcrg], [rail_go_contwgt], [iww_eq_age], CCNR fleet database

IWT GOODS TRANSPORT IN ROMANIA BY SEGMENT

- The quarterly series show heavy seasonal fluctuations for IWT in Romania, due to the harvest cycle and the winter season. In the third quarter of a year (harvest time), the share of agricultural products rises to 38-40 % of total IWT. The third quarter 2018 showed a resilient transport demand, as the lower Danube region has a river-sea-character, with large water depths, so that the dry weather in 2018 could not damage transport evolution.

QUARTERLY TRANSPORT OF AGRICULTURAL PRODUCTS ON INLAND WATERWAYS IN ROMANIA COMPARED WITH TOTAL QUARTERLY IWT (IN MILLION TONNES)

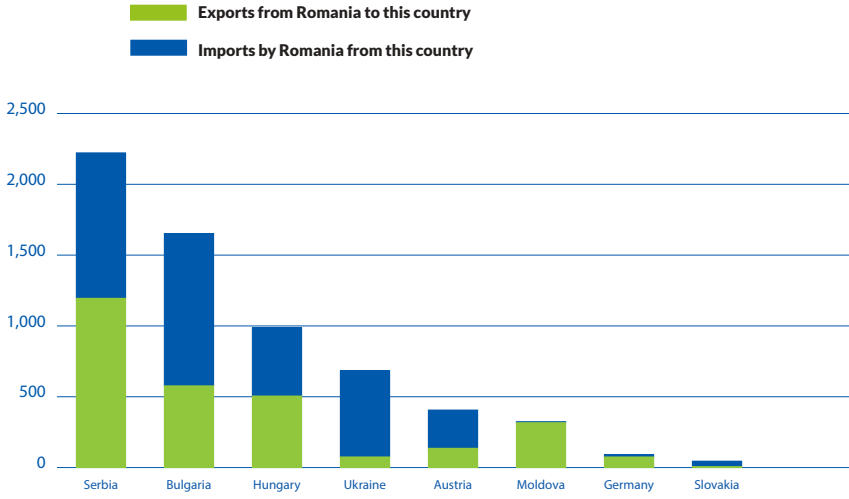
Source: National Institute of Statistics (Romania)



- Within international transport, Serbia and Bulgaria are the most important trading partners for Romania, followed by Hungary. 76 % of all international traffic comes from these three countries or goes to them.

COUNTRIES OF LOADING AND UNLOADING WITHIN INTERNATIONAL IWT FOR ROMANIA (1000 TONNES)

Source: National Institute of Statistics (Romania)
** Q1-Q3 2018*



- The transport relations of Romania are quite intense with the middle Danube region (Serbia, Hungary) and the lower Danube region (Bulgaria, Ukraine, Moldova), but far less intense with the upper Danube region (Slovakia, Austria, Germany).

SERBIA AND BULGARIA ARE THE MOST IMPORTANT TRADING PARTNERS FOR ROMANIAN IWT

GLOSSARY

20XX-1/20XX-Q1: First quarter

20XX-3/20XX-Q3: Third quarter

ARA REGION: Amsterdam-Rotterdam-Antwerp

BN: Billion

CEMT: Classification of European Inland Waterways

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

EU: European Union

EUROPE: European inland navigation in this report includes two countries not belonging to European Union, Switzerland and Serbia

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

IWT: Inland Waterways Transport

IWW: Inland Waterway

LOADING DEGREE: Percentage of maximum vessel loading capacity. Calculated based on two waterways parameters (equivalent water level and target water depth), the security margin under the keel of the vessel and the water levels at a given gauging station

MIO: Million

OECD: Organisation for Economic Co-operation and Development

PP: Percentage point

RHINE COUNTRIES: Belgium, France, Germany, Luxemburg, Netherlands, Switzerland

TEU: Twenty-foot equivalent unit

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

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

TURNOVER: Sales volume net of sales taxes

NATIONAL STATISTICS OFFICES

Acronym	Original Name	English Name	Country
BFS	Bundesamt für Statistik	Federal Office for Statistics	Switzerland
CBS	Centraal Bureau voor de Statistiek	Central Statistical Office	Nederland
Destatis	Statistisches Bundesamt	Federal Statistical Office of Germany	Germany
INSEE	Institut national de la statistique et des études économiques	National Institute of Statistics and Economic Studies	France
INSSE	Institutul National de Statistica	Central Statistical Office	Romania
KSH/ HCSO	Központi Statisztikai Hivatal	Hungarian Central Statistical Office	Hungary
Statbel	Statistics Belgium	Statistics Belgium	Belgium

OTHER SOURCES

Original Name	English Name	Country
Bundesanstalt für Gewässerkunde	German Federal Office for Hydrology	Germany
EUROSTAT	EUROSTAT	EU
European Commission	European Commission	EU
International Energy Agency	International Energy Agency	World
Ports mentioned in the report	Ports mentioned in the report	Europe
Kieler Institut für Weltwirtschaft	Kiel Institute for the World Economy	Germany
Országos Vízügyi Főigazgatóság	General Directorate of Water Management	Hungary
Panteia	Panteia	Netherlands
PJK International	PJK International	Netherlands
Schweizerische Vereinigung für Schifffahrt und Hafenwirtschaft	Swiss Association for Shipping and Ports	Switzerland
Voies Navigables de France	Navigable Waterways of France	France
Wasserstraßen- und Schifffahrtsverwaltung des Bundes	German Waterway Administration	Germany

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 National Statistics Office 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 Market Insight of European inland navigation is a common project of the CCNR and the European Commission

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Imprint: April 2019

Published by the Central Commission for the Navigation of the Rhine (CCNR)
2, place de la République CS10023 – 67082 STRASBOURG cedex – www.ccr-zkr.org
ISSN : 2519-1101

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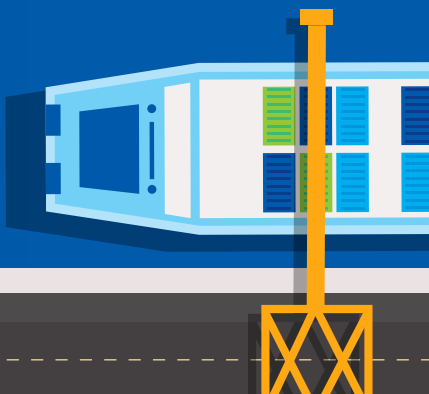
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