

# MARKET INSIGHT

## INLAND NAVIGATION IN EUROPE

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In partnership  
with the



**CCNR**  
CENTRAL COMMISSION  
FOR THE NAVIGATION OF THE RHINE



**Market Insight**  
**INLAND NAVIGATION IN EUROPE**

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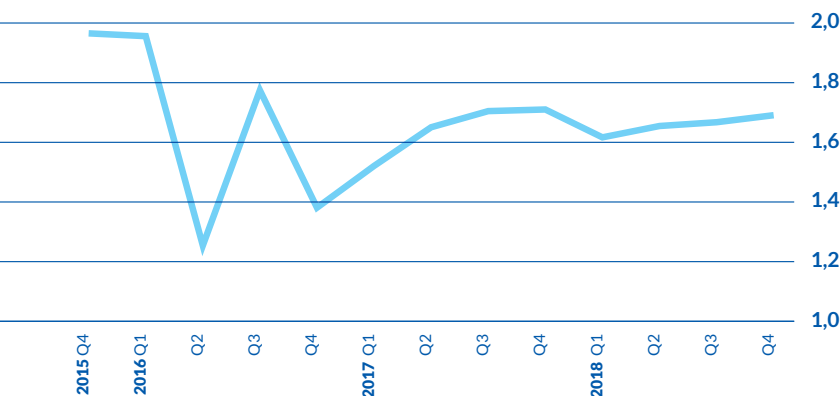
# 01

## ECONOMIC CONTEXT

## ECONOMIC CONTEXT IN EUROPE

### QUARTERLY GDP GROWTH RATE AND OUTLOOK FOR THE EUROZONE (%)

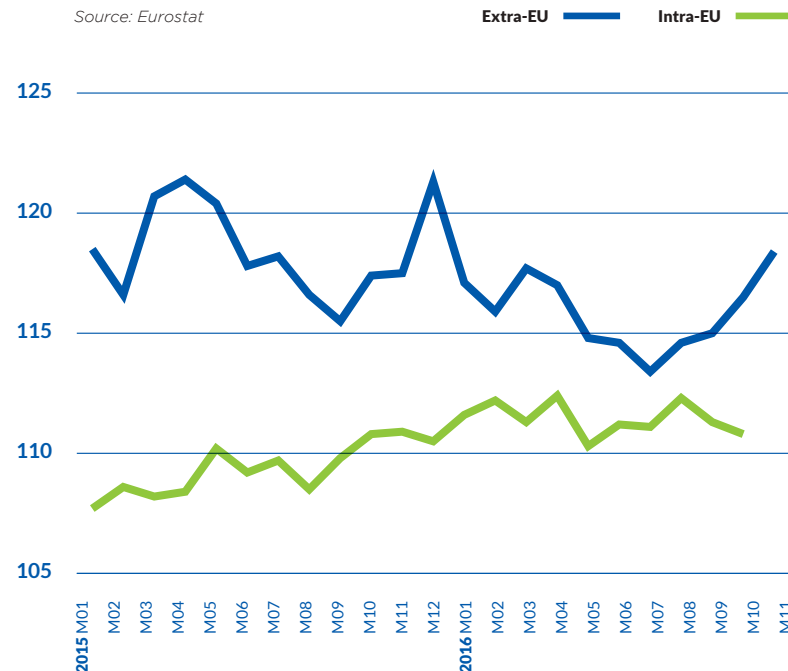
Source: OECD – Economic outlook January 2017



- For Q3 2016, GDP growth compared to Q3 2015 is estimated at 3% globally, and at 1.8% for the Eurozone; these estimations are slightly higher than the ones provided at the end of 2016 (+0.2 pp) in the previous economic outlook made by OECD and IMF.
- Two main reasons explain the update of the outlook:
  - World trade is picking up again, in the wake of rising commodity prices, which helps commodity-rich emerging market economies to trade more with advanced countries. Emerging economies are enjoying this so-called terms-of-trade effect, which is benefitting global world trade.
  - Fiscal stimulus for the entire world economy, which is projected to be triggered with the new economic policy stance of the US administration.
- For the entire time span 2017-2018, OECD and IMF project roughly the same rate of growth as was settled for the Eurozone for Q3 2016 (between +1.6% and +1.8%).

### EXPORTS FROM EUROPEAN UNION (EU) COUNTRIES TO COUNTRIES OUTSIDE (EXTRA-EU-28) AND INSIDE (INTRA-EU-28) THE EU (2010 = 100)

Source: Eurostat



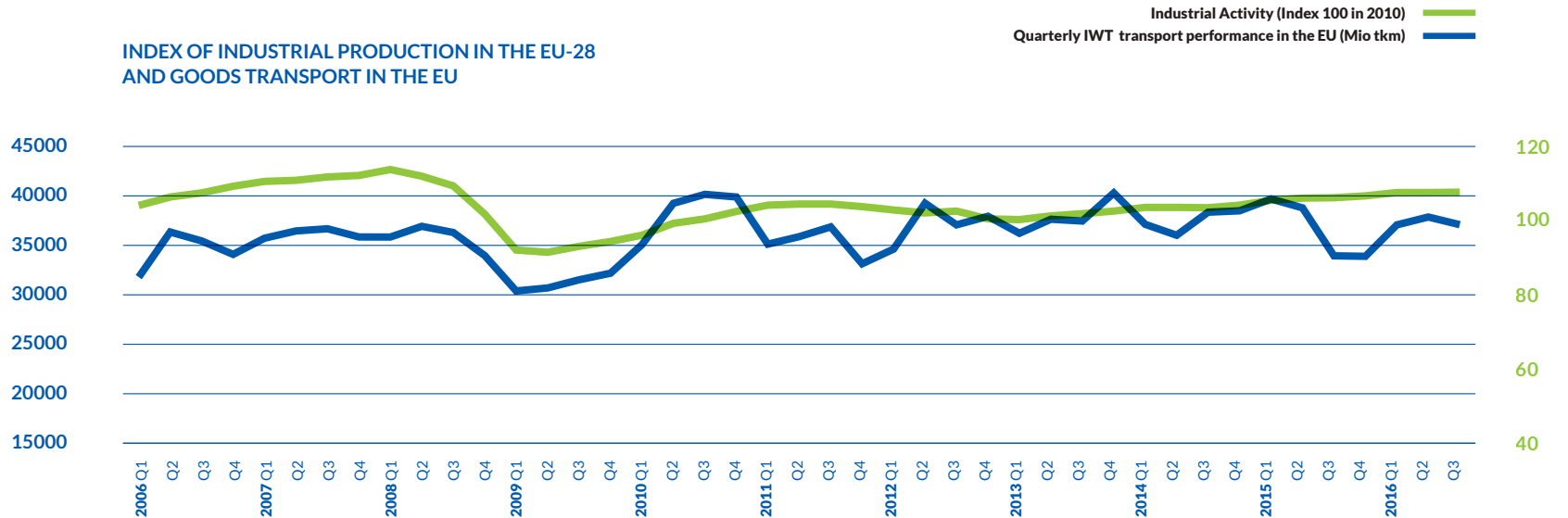
- After the slowdown in world trade in the 1st half of 2016, exports of goods and services recovered in the 2nd half of 2016 and are expected to recover further in 2017 and 2018.
- The reason can be found in the resurgence of commodity prices, which enables commodity-rich developing countries to improve their terms of trade and their capability to import more goods from EU countries.<sup>1</sup>

<sup>1</sup> See: European Commission (2016), European Economic Forecast, autumn 2016 and winter 2017. [Terms of trade = relationship between export prices and import prices of a country]

## INDUSTRIAL ACTIVITY AND INLAND NAVIGATION

Source: IWT goods transport

INDEX OF INDUSTRIAL PRODUCTION IN THE EU-28  
AND GOODS TRANSPORT IN THE EU



- Industrial activity in the EU keeps on progressing steadily, and should continue this trend in 2017 and 2018, supported by higher dynamics in world trade and positive spillover effects from the expansionary fiscal policy in the USA.
- Although IWT demand has partly recovered from the cargo losses of autumn 2015 (cargo losses that even started during summer 2015 for the Danube), a new low water period in autumn 2016 led again to some loss of cargo.

**INCREASE  
OF INDUSTRIAL  
PRODUCTION  
IN EU BY**



**1.4%**  
IN Q3 2016 VS Q3 2015

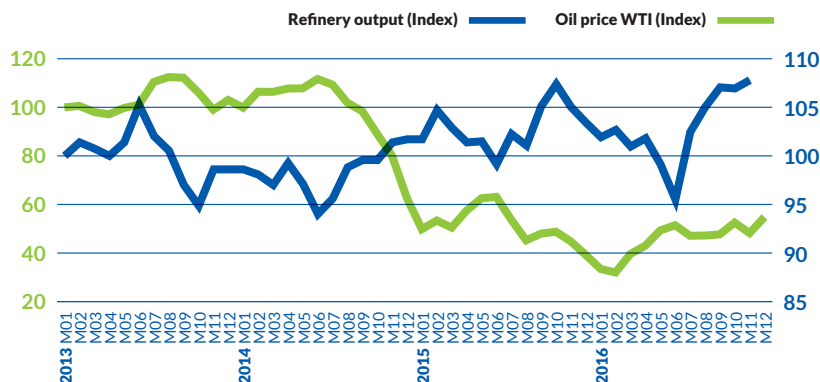
## ECONOMIC SITUATION OF INLAND NAVIGATION-RELATED SECTORS

### On mineral oil products segment

#### REFINERY OUTPUT IN THE EU AND CRUDE OIL PRICE

(INDEX M1/2013 = 100)

Source: Eurostat (Refinery output) and Federal Reserve Bank of St. Louis (Oil price)



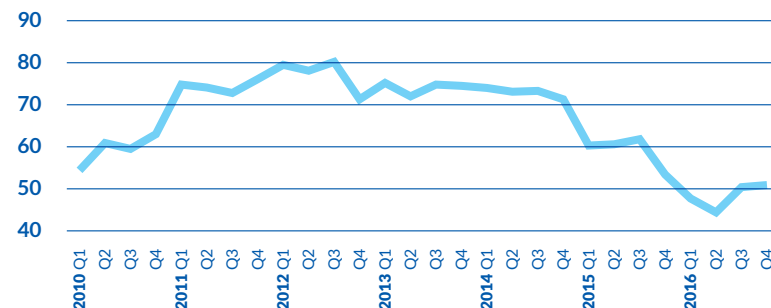
- Having recovered from a multi-annual low point in February 2016 (30 US-\$ per barrel), oil prices stabilised within the band of 45-55 US-\$ per barrel in the 2nd half of 2016.
- This stabilisation still enabled sufficiently high profit margins in the refinery sector, which explains the pick-up of refinery output in the 2nd half of 2016.
- The OPEC agreement from November 2016 will push oil prices further upward in 2017, as it leads to worldwide cuts in oil supply by 1.2 million barrels per day from January 2017 onwards.
- However, rising oil prices have important side effects: unconventional oil drilling fields regain their profitability and reach their break-even point if the oil price passes the threshold of about 50 US-\$.

Therefore, new oil supply enters the market, thereby limiting the increase of oil prices.

- Altogether, this suggests that oil prices are expected to be balanced within a range between 50 and 60 US-\$ per barrel in 2017, implying only a modest weakening for refinery output and transport demand for mineral oil products (source: OilPrice.com and European Economic Forecast).
- In parallel to the expected oil price movements, the fuel costs in inland shipping are expected to be balanced within a price band of 50 to 60€/100 l in 2017.

#### DEVELOPMENT OF FUEL PRICES IN THE IWT SECTOR (€/ 100 L)

Source: CBRB



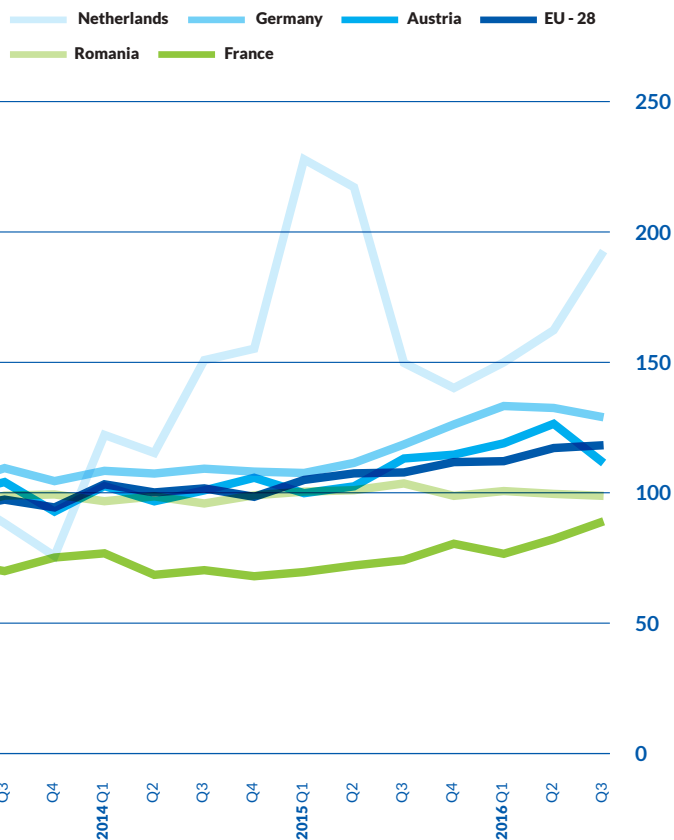
### On steel industry segment

- The current situation is marked by stabilisation and stagnation; according to the German Steel Industry Association, the number of new orders in the German steel industry has increased marginally, so that steel production should pick up slightly in 2017 (+1%).
- Looking at the steel industry output in Austria, we observe a 3.2% decrease between 2015 and 2016 (source: World Steel Association).
- Romanian steel production fell by 2% in 2016, but Serbian production increased by 23%, thanks to Chinese direct investment (takeover of the steel mill in Smederovo/Danube).

## On construction sector segment

## EVOLUTION OF BUILDING PERMITS FOR RESIDENTIAL HOMES IN THE EU (INDEX 2010=100)

Source: Eurostat



- The transport of sand, gravel and other building materials is related to the activity in the construction sector and the development of extraction sites in river beds.
- The construction activity in the EU is rising slightly, but shows very strong growth in the Netherlands. In France, this sector has been growing since 2015 and is expected to remain on a positive path.

## On agricultural products segment

- The harvest results in the 2nd half of 2016 showed large variations in Europe. In Western Europe, unfavourable climate conditions led to huge losses: according to the organisation Agrimer, in 2016 the production of French wheat was estimated to be 1/3 lower than the average of the past 5 years, and 1/4 lower than in 2015. Also the German harvest results were much lower in 2016. This has negative effects on the transport of wheat on the Rhine, Seine, and other waterways in France and Germany.
- In the Danube region, the production of crops harvested in autumn 2016 was higher than in the previous year (Source: Agrimer). The exports of grain via the Danube and the seaport of Constanza, including traffic coming from Serbia and Hungary, to countries in Southern Europe and Northern Africa were therefore promoted. In 2016, Romania was expected to become the biggest exporting country of wheat in Europe, ahead of France and Germany.

**20%** AGRICULTURAL PRODUCTS  
SHARE OF YEARLY TONNAGE  
TRANSPORTED ON FRENCH  
INLAND WATERWAYS





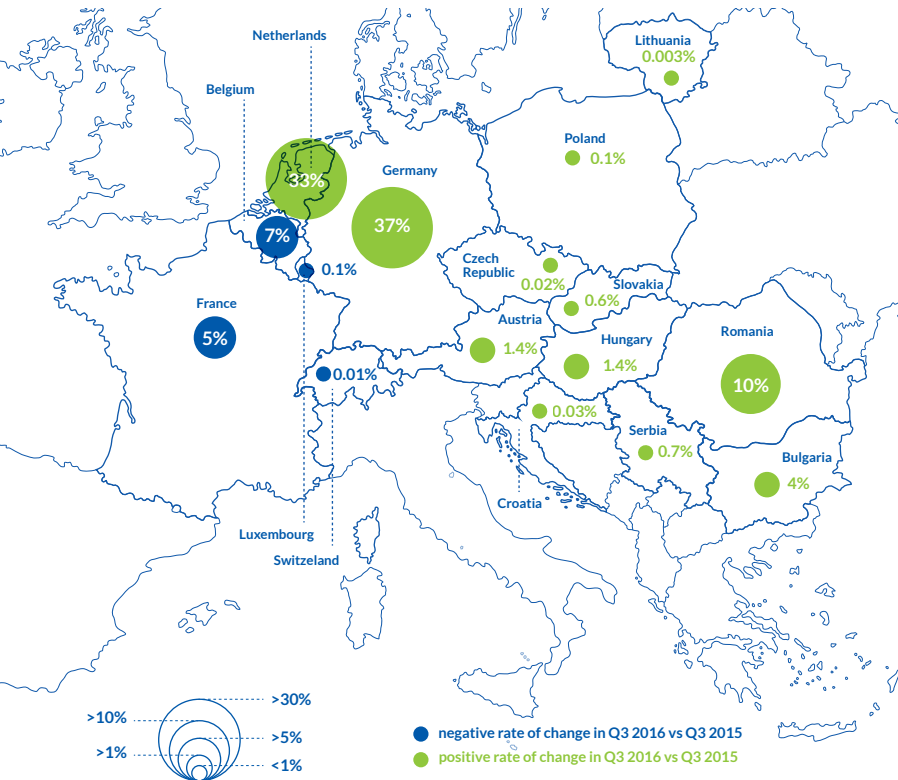
# 02

FREIGHT TRAFFIC  
ON INLAND  
WATERWAYS  
& IN PORTS

## TRANSPORT PERFORMANCE IN EUROPE

TRANSPORT PERFORMANCE IN IWT ON THE NATIONAL TERRITORY  
OF EACH COUNTRY IN EUROPE FOR Q3 2015 AND Q3 2016

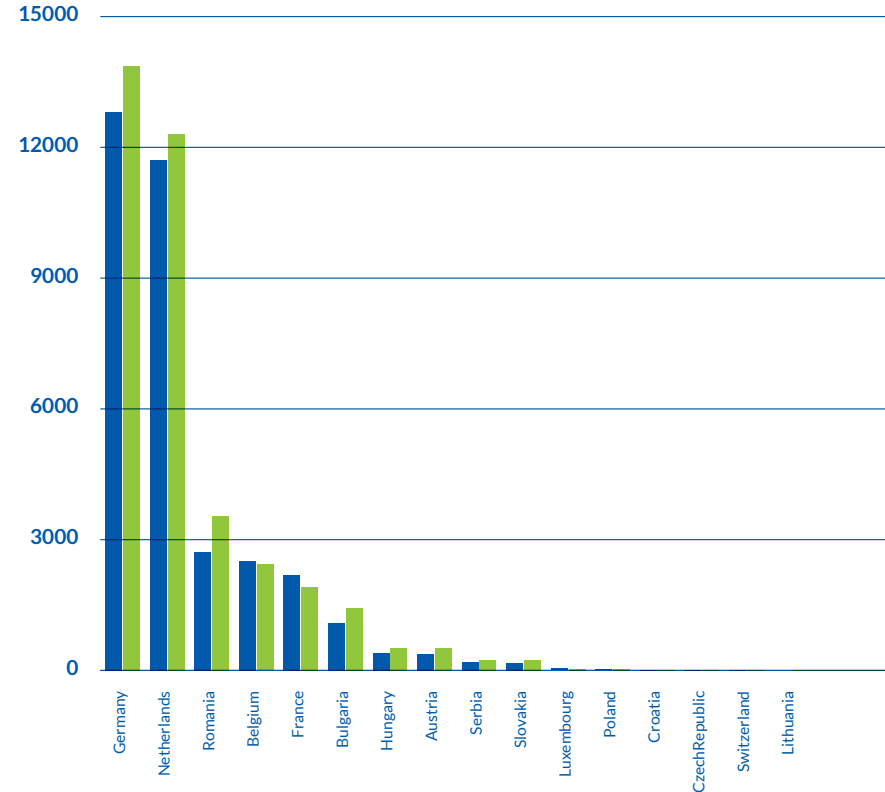
Share of the countries' TKM in total transport performance in Europe



Source: National Statistics Offices, Eurostat, CCNR

Transport performance (in mio. tkm)

Q3 2015 Q3 2016

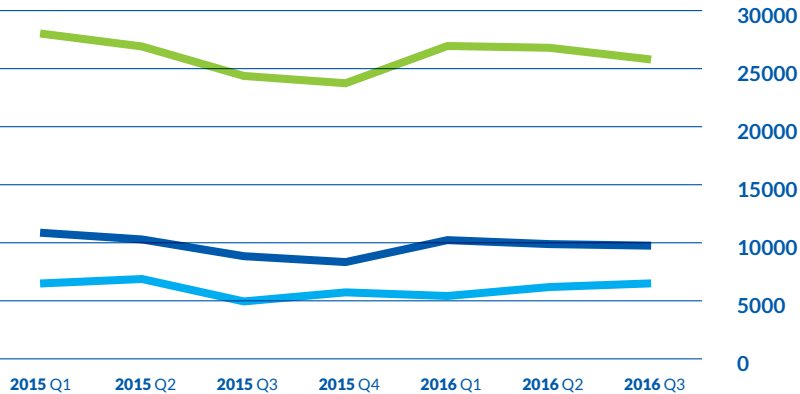


- In Europe, during Q3 2016, Rhine countries represented 82% of the goods transported through inland waterways in Europe, whereas Danube countries represented 17%.

## INLAND WATERWAY TRANSPORT PERFORMANCE EVOLUTION ON RHINE AND DANUBE (TRANSPORT PERFORMANCE IN MILLION TKM)

Source: Destatis, National Statistics Offices

Traditional Rhine Danube  
Rhine, affluents and North-South Axis

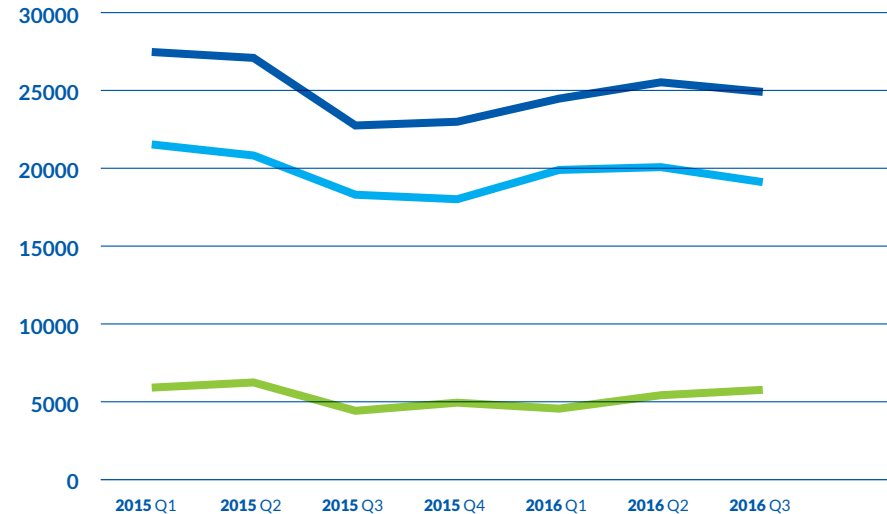


- In Q3 2016, 47.5 million tons of goods were transported on the traditional Rhine (Rhine between Switzerland and Dutch-German border). This represents an increase of 8.8% compared to the low water period in Q3 2015, but stagnation versus Q2 2016. Transport performance was higher by 10% compared to Q3 2015, and also remained constant with respect to Q2 2016.
- The Danube traffic underwent a significant increase during the Q3 2016 (+30% on a quarterly year-on-year basis in the middle and lower Danube countries, and +40% at the upper Danube in Austria and Slovakia), which resulted from the huge catch-up effects for mass cargo transports (iron ore, coke coal, grain), which had been damaged heavily by low water periods of Q3 and Q4 2015.

## DRY CARGO TRANSPORT PERFORMANCE IN EUROPE (QUARTERLY DATA - MIO TKM)

Source: National Statistics Offices, CCNR

Dry Cargo Europe Dry Cargo Rhine Countries Dry Cargo Danube Countries

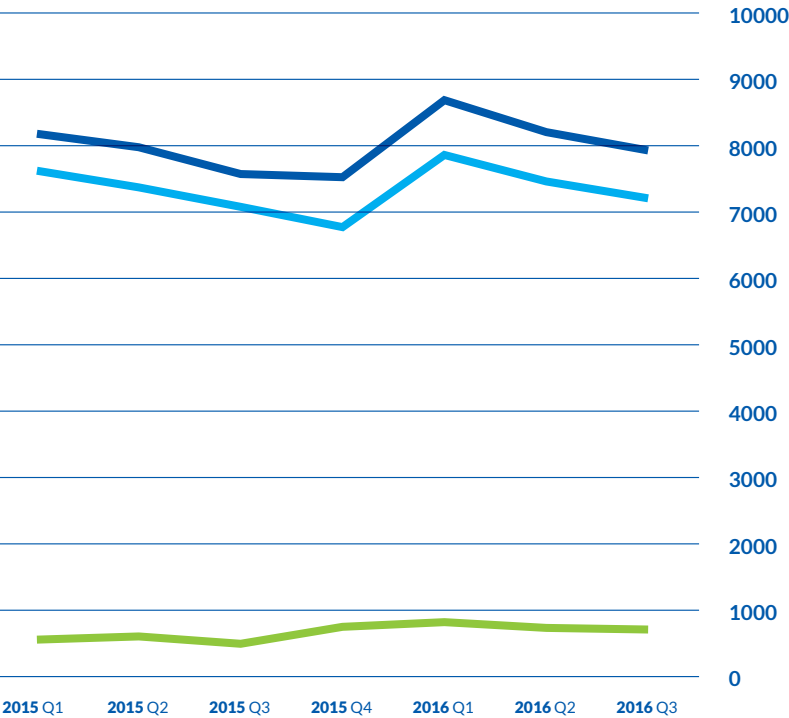


- By comparing dry cargo figures for Rhine countries with previous years, the recovery since Q3 2015 has not enabled dry cargo traffic to reach again the levels of the beginning of 2015. The recovery stopped halfway and started to decrease again during Q3 2016.
- Danube countries experienced better water level conditions during Q3 2016 than in Q3 2015. They also took advantage of good harvest results in 2016 which explains the increase in dry cargo transport performance in Danube countries.

LIQUID CARGO TRANSPORT PERFORMANCE IN EUROPE  
(QUARTERLY DATA – MIO TKM)

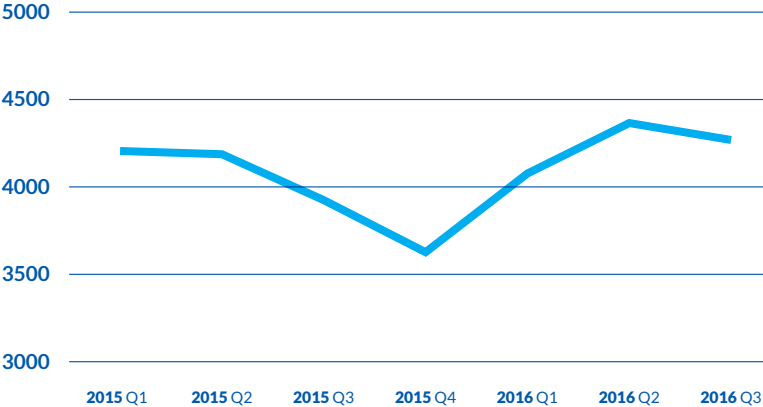
Source: National Statistics Offices, CCNR

■ Liquid Cargo Europe  
■ Liquid Cargo Rhine Countries  
■ Liquid Cargo Danube Countries



CONTAINER TRANSPORT PERFORMANCE IN EUROPE  
(QUARTERLY DATA – MIO TKM)

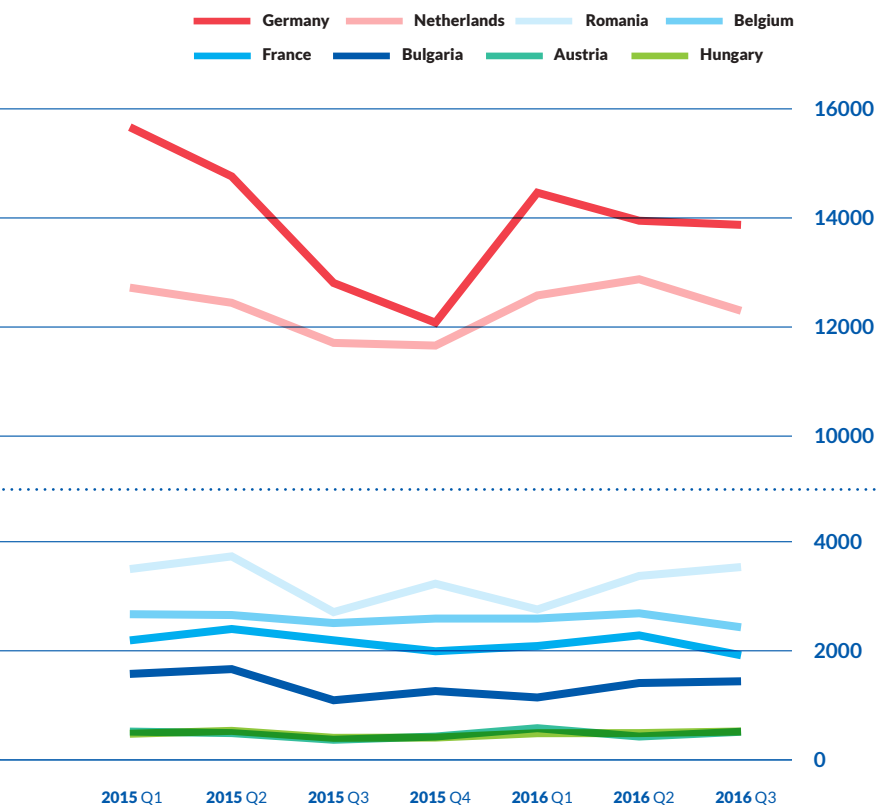
Source: National Statistics Offices, CCNR



- Liquid cargo and container transports have, in contrast, not only caught up, but even surpassed the respective levels of Q3 2015. However liquid cargo transport performance has decreased after its peak during Q1 2016 while container transport performance is maintaining transport performance levels over 4 billion TKM.
- Container transport on the Danube is marginal, and therefore container transport in Europe is almost equivalent to container transport in Rhine countries.
- Container transport on the traditional Rhine amounted in Q3 2016 to 4.2 million tons of goods and 581 thousand TEU. Compared to Q3 2015, the number of transported tons was higher by 8% and TEU figures by 6%.

## TRANSPORT PERFORMANCE IN MAIN IWT EUROPEAN COUNTRIES

INLAND SHIPPING TRANSPORT PERFORMANCE IN MAIN  
EUROPEAN IWT COUNTRIES (QUARTERLY DATA - MIO TKM)



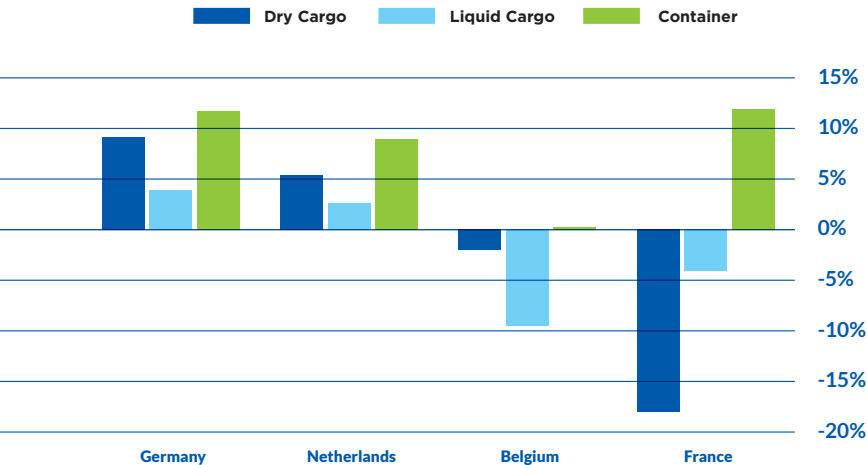
Source: Eurostat and National Statistics Offices

- Compared to Q2 2016, transport performance weakened by 4% in the Netherlands and by 1% in Germany.
- Compared to Q3 2015, transport performance in Q3 2016 was higher by 5% in the Netherlands and by 8% in Germany. The higher growth rate in Germany reflects the still huge catch-up process filling the gap in the dry cargo segment.
- In France, IWT performance suffered heavily in Q3 2016, particularly because of bad harvest results. According to the agricultural association Agrimer, the 2nd half of 2016 saw French exports of wheat to overseas countries cut in half (-50%) when compared to the export volumes in the same period of 2015. Due to this effect, the dry cargo segment lost 18% compared to its transport performance levels during Q3 2015 and Q2 2016.
- While the liquid cargo segment in France lost only moderately in Q3 2016, the container segment saw an increase: +12% when compared to Q3 2015 and +2% when compared to Q2 2016.
- In the Danube countries, a very strong increase in transport demand could be observed, both for the upper Danube (Austria, Slovakia) as well as for the middle Danube (Hungary, Serbia, Croatia) and the lower Danube (Romania, Bulgaria). This has mainly to do with the recovery of mass cargo transports for important market segments in Danube shipping, such as the steel industry, the chemical industry and the agricultural and foodstuff sector.
- In Croatia and Serbia, transport demand weakened in Q3 2016 compared to the previous quarter, while it kept on rising between Q2 2016 and Q3 2016 in Austria, Slovakia, Hungary, Romania and Bulgaria.

## DRY BULK, LIQUID BULK & CONTAINER TRANSPORT

### RATE OF CHANGE IN INLAND SHIPPING TRANSPORT PERFORMANCE IN RHINE COUNTRIES (Q3 2016 VS Q3 2015 -%)

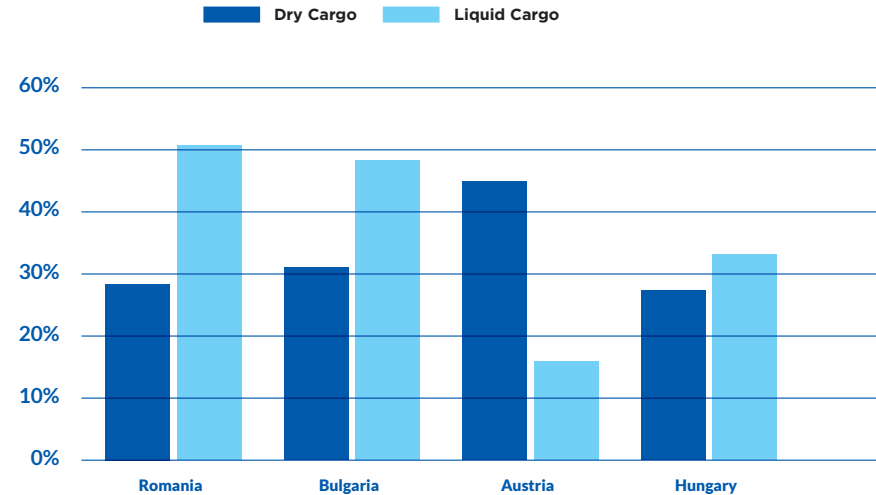
Source: Eurostat and National Statistics Offices



- Although surpassing the Q3 2015 levels by far (+12% in Germany; +9% in the Netherlands), the ever prospering container traffic in these two countries witnessed a small decline in transport performance compared to the previous quarter Q2 2016: -3% (DE) and -2% (NL). Nevertheless, container traffic still follows an upward trend, especially in these two countries. Between Q1 2011 and Q3 2016, quarterly container transport performance increased by 33% both in the Netherlands and in Germany.
- Dry cargo transport performance increased strongly in Germany (+8%), reflecting above all catch-up effects, and it was higher also in the Netherlands (+5%). In France, especially bad harvest results lead to a strong decrease of 18%.

### RATE OF CHANGE IN INLAND SHIPPING TRANSPORT PERFORMANCE IN DANUBE COUNTRIES (Q3 2016 VS Q3 2015 -%)

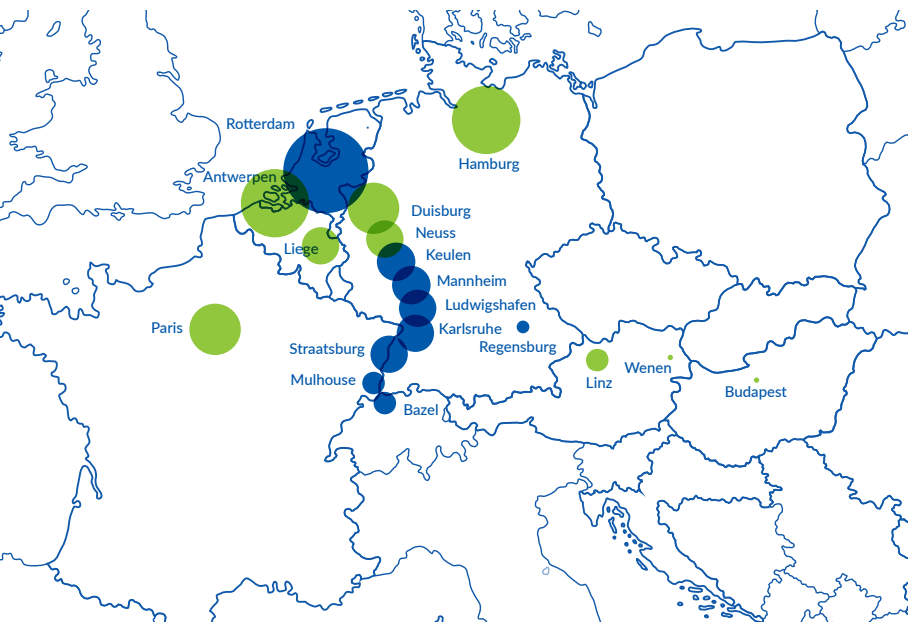
Source: Eurostat and National Statistics Offices



- Overall the dominant market segment in the Danube region, the dry cargo segment, is marked by high volatility due to the large role of agricultural products, and because of the peculiarities of water level fluctuations on the Danube.
- At the upper Danube in Austria, the important dry cargo segment of iron ore and metal transports registered a very strong increase of 50% compared to Q3 2015. This was due to sharply increasing iron ore transport upstream to Austria, and metal products downstream towards the middle and lower Danube. A strong rate of increase was observed also for agricultural products.
- In the middle as well as in the lower Danube region, the transport of mineral oil products increased strongly. For the middle Danube, this was due to more upstream movements of oil products from Hungary to Slovakia.

## WATERSIDE TRANSPORT IN EUROPEAN PORTS

### EVOLUTION OF TRANSshipment BETWEEN Q1-Q3 2015 AND Q1-Q3 2016



- positive rate of change in global traffic between Q1-Q3 2015 and Q1-Q3 2016
- negative rate of change in global traffic between Q1-Q3 2015 and Q1-Q3 2016

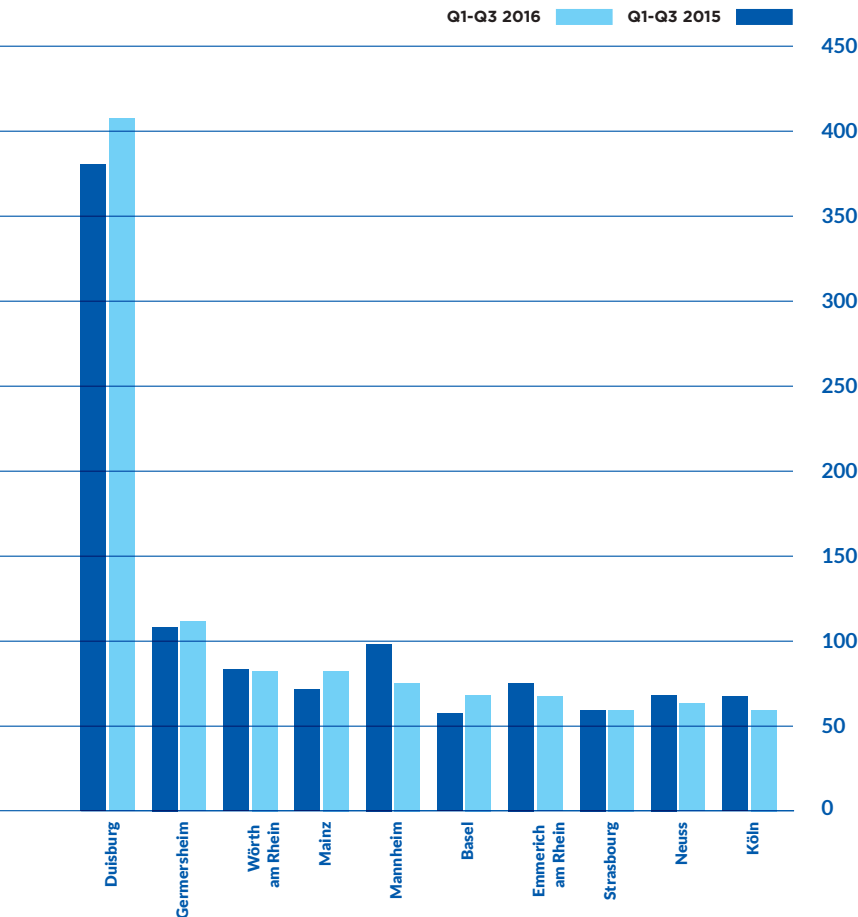
Source: Destatis, ports mentioned

- Maritime goods traffic in the port of Rotterdam decreased by 2% in the first three quarters of 2016, compared to the same period in 2015. This was especially due to less coal and iron ore traffic. The port of Antwerp increased its traffic by 3.3%, thanks to more liquid cargo, while dry cargo decreased. Goods traffic in the port of Hamburg stagnated (+0.3%).
- The inland shipping traffic in the biggest European inland port Duisburg reached 47 million tons in the first nine months of 2016 (+3.8% compared to one year earlier). Around 90% of the waterside traffic in Duisburg is international traffic related to the steel industry. Within this international waterside traffic, the majority of goods (iron ore, coal, etc.) are imported (82%), while only 12% (steel products, etc.) are exported.
- The second biggest inland port in Europe, the port of Paris, witnessed a growth of 1% in river traffic. This was due to an increase in building materials, which represent 50% of the River traffic in Paris, and are – in terms of volumes transshipped – the most important goods segment. Another significant segment, agricultural products and foodstuff, suffered heavily from the bad harvest results in France and lost 19%.
- The third biggest inland port in Europe, the port of Liege, saw its river traffic go up by 6%. As in Paris, building materials are the most important goods segment for waterside traffic also in Liege, and an increase was witnessed in 2016.
- Following the traffic growth in Danube countries in 2016, goods transshipment in inland ports also increased between 2015 and 2016 (looking at cumulated transshipment volume for Q1, Q2 and Q3). The overall transshipment growth for all national inland ports is positive for all Danube countries: in Austria (+3.6%), in Croatia (+28.8%), in Serbia (+25.8%) and in Romania (+3.5%).
- In the port of Izmail (Ukraine), transshipment increased in 2016 by 7% (Q1-Q3) mainly due to the increase of iron ores shipped to the ports of Linz (Austria) and Smederevo (Serbia).

## CONTAINER TRANSPORT IN EUROPEAN PORTS

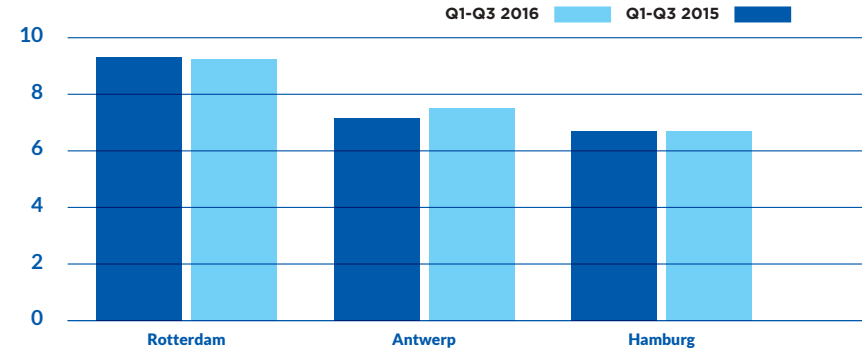
### IWT CONTAINER TRAFFIC IN EUROPEAN INLAND PORTS IN THE FIRST THREE QUARTERS 2016 AND 2015 (1000 TEU)

Source: Eurostat and National Statistics Offices



### MARITIME CONTAINER TRAFFIC IN EUROPEAN SEA-PORTS IN THE FIRST THREE QUARTERS 2016 AND 2015 (IN MIO TEU)

Source: Eurostat and National Statistics Offices



- Among the three biggest seaports in Europe, the port of Antwerp was the one that saw its maritime container traffic increase by 5% within the first nine months of 2016, compared to the same period in 2015.
- In Rotterdam, the figures for the first nine months of 2016 were slightly lower (-0.4%) than in the same period of 2015. In Hamburg, the results were as high as in Q1-Q3 2015.
- The biggest inland port of Europe, the port of Duisburg, registered an increase of 7% in its container traffic. The level in Q1-Q3 2016 amounted to 431 210 TEU.
- In the port of Paris, for which quarterly statistics were not available, around 400 000 TEU were transhipped over the whole year 2016 (+7.3%).
- In Liege, container traffic grew strongly by 40% in 2016 as a whole, reaching almost 57 000 TEU. However, its level is still much lower than in the other two big inland ports of Duisburg and Paris.
- The container traffic results in major Rhine ports except Duisburg were very mixed. In Germersheim on the upper Rhine, a small increase occurred (+2.4%), and a strong increase in Mainz (+11%) and in Basel (+13%). Rhine ports where container traffic in Q1-Q3 2016 was below the results of the previous year were Mannheim, Emmerich, Neuss and Köln. In Strasbourg, the rate of change was 0.2%.





# 03

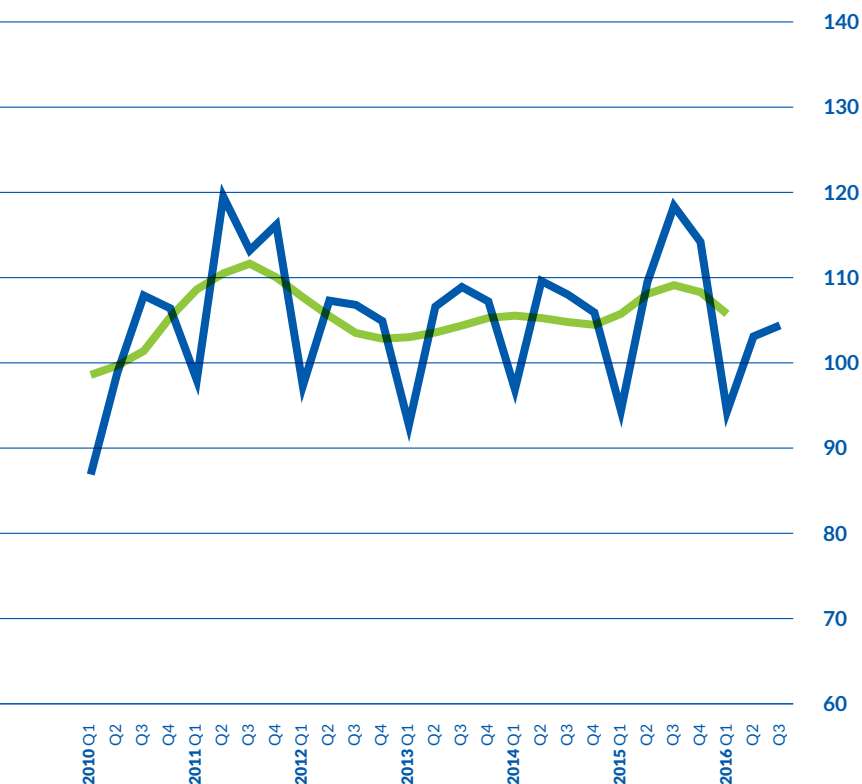
OPERATING  
CONDITIONS

## TURNOVER DEVELOPMENT IN EUROPE

### TURNOVER DEVELOPMENT IN THE NETHERLANDS (2010=100) - RHINE COUNTRY MAINLY WITH GOODS TRANSPORT ACTIVITY

Source: CBS

— original series — seasonally adjusted



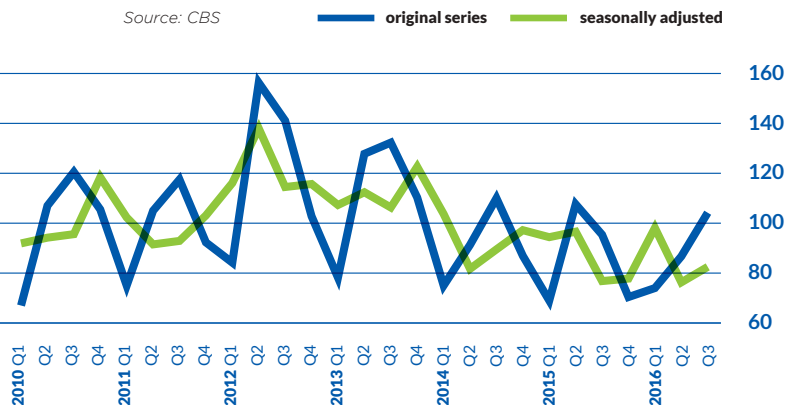
- In a quarterly year-on-year comparison, inland shipping turnover in the Netherlands decreased by 12% in Q3 2016. In comparison, turnover in maritime shipping fell by 8.5%, and the turnover in the whole transport sector decreased by 1.5%.
- Compared to both waterborne transport modes, the Dutch land transport sector increased its turnover: road transport by 2.8% and rail transport by 3.5% (source: CBS).
- Although the intensity of the sharp drop in turnover in IWT is mainly a result of the exceptionally high levels of the previous year (in Q3 2015, prices and turnover were boosted by low water levels), the data reveal some further observations: turnover in IWT in Q3 2016 was about 5% lower than the average for the time period from 2005 to 2016, if we only look at the 3rd quarters of those years.

# +1.2%

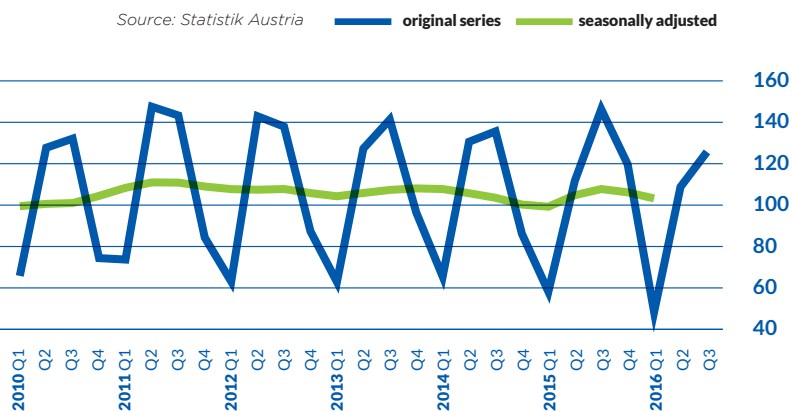
COMPARED TO Q2 2016, TURNOVER IN THE DUTCH IWT SECTOR SAW **A SMALL INCREASE OF 1.2% IN Q3 2016**, WHICH IS IN LINE WITH USUAL SEASONAL PEAKS REACHED IN GOODS TRANSPORT IN THE 2ND HALF OF THE YEAR.

**TURNOVER DEVELOPMENT IN HUNGARY (2010=100) - DANUBE  
COUNTRY MAINLY WITH GOODS TRANSPORT ACTIVITY**

Source: CBS

**TURNOVER DEVELOPMENT IN AUSTRIA (2010=100) - DANUBE  
COUNTRY MAINLY WITH PASSENGER TRANSPORT ACTIVITY**

Source: Statistik Austria



- In Austria, where the passenger transport share of IWT turnover accounts for 2/3 of the total, while the goods transport share is only 1/3, turnover increased in Q3 2016 by 15% compared to Q2 2016, which was mainly due to seasonal effects, as the 3rd quarter is - in passenger shipping - by far the quarter with the highest turnover of the whole year.
- Compared to Q3 2015, turnover declined by 14%. This decline is explained by the extreme low water period in 2015 which had boosted prices and turnover. Even a small increase in the number of passengers transported on the upper Danube in 2016 could not prevent the turnover from going down (Source: Danube Commission).
- Hungary is a Danube country where, in contrast to Austria, goods transport has a higher share in IWT turnover (almost 3/4) than passenger transport (about 1/4).
- Turnover in the Hungarian inland shipping industry was on the rise during the year 2016, but this was mainly due to the usual seasonal variations in goods transport. Nevertheless, Q3 2016 saw an increase in turnover in Hungary by 9% compared to Q3 2015.

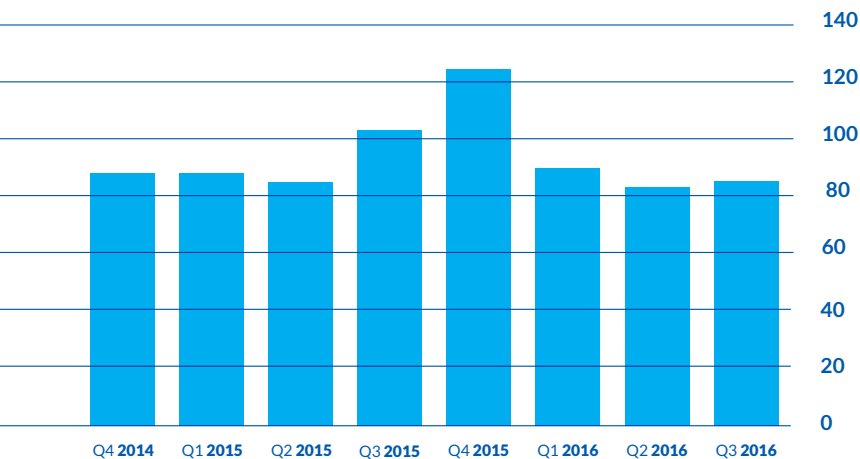
2/3

**PASSENGER TRANSPORT SHARE OF IWT  
TOTAL TURNOVER IN AUSTRIA**

## ■ FREIGHT RATES

### DEVELOPMENT OF FREIGHT RATES IN THE NETHERLANDS (2015 AVERAGE=100)

Source: CBS - Centraal Bureau voor de Statistiek

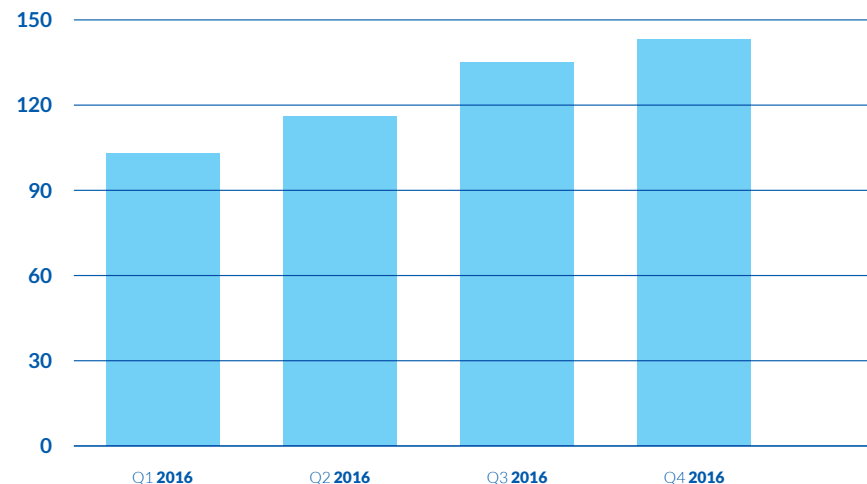


- The average transport prices in goods transport in the Netherlands (average of dry cargo, liquid cargo and containers) in Q3 2016 were far below the level of Q3 2015 (-17.5%). Compared to one quarter earlier (Q2 2016), transport prices in Q3 2016 were slightly higher (+2.6%).
- In tanker shipping (liquid cargo transport), freight rates in Q3 2016 were, as for the average of the three segments, slightly higher (+2%) than in Q2 2016.
- Compared to Q3 2015, tanker shipping freight rates were about 50% lower (see also figure p.38). Freight rates moved up further in Q4 2016, hand in hand with very low water levels at the end of 2016.

- The vessels' loading degrees were reduced, so more vessels had to be put into service, and fleet capacities were fully used. This increased operating costs as more vessels had to be scheduled.

### DEVELOPMENT OF FREIGHT RATES IN THE DANUBE REGION (JANUARY 2015=100)

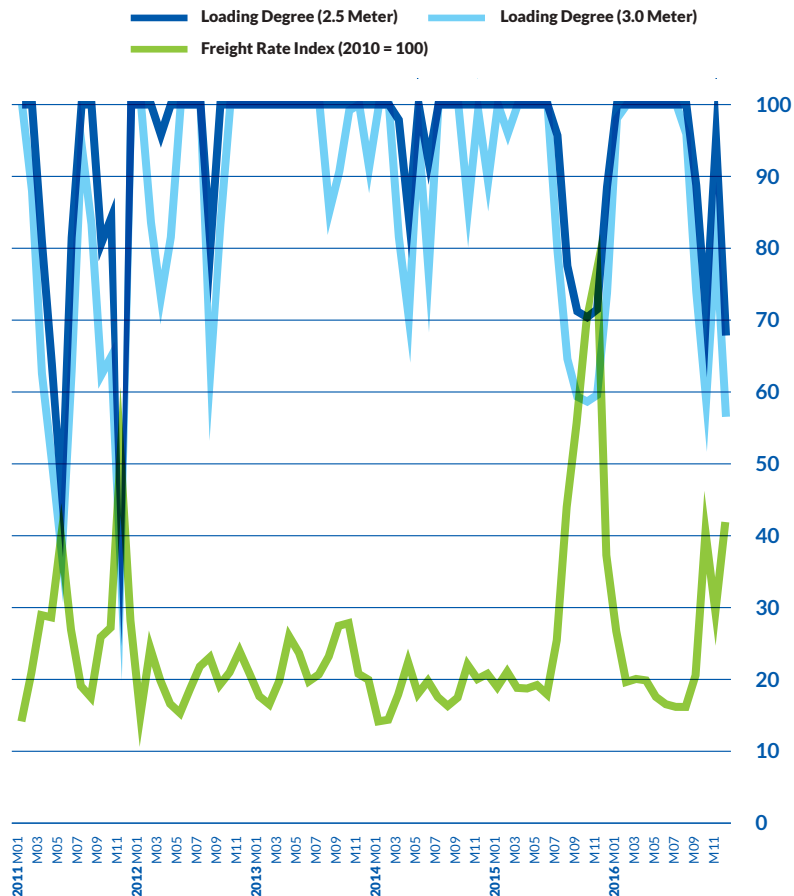
Source: Danube Commission



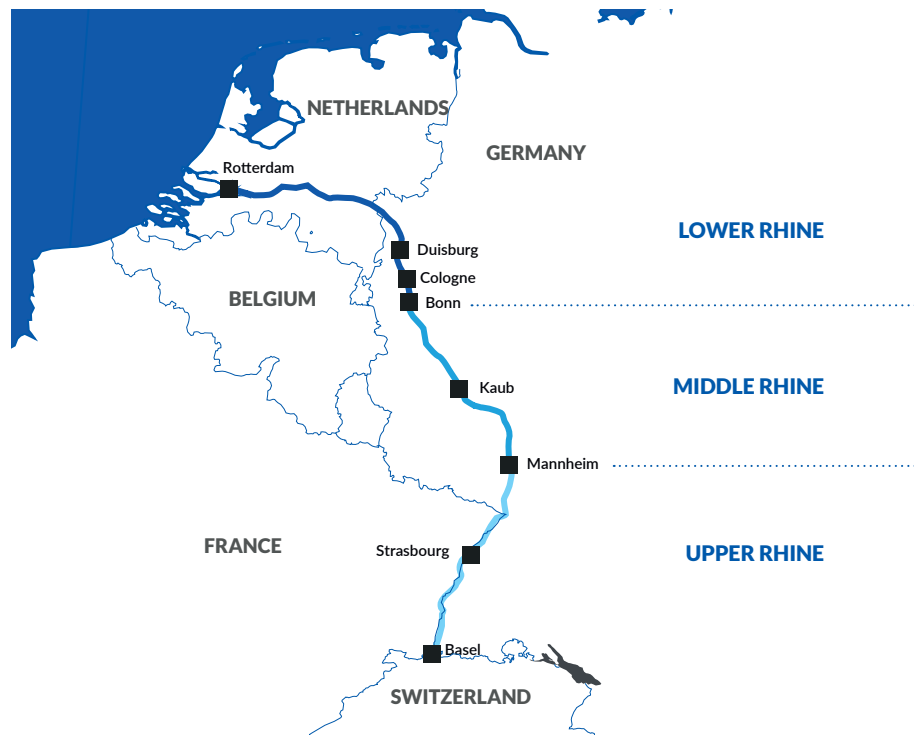
- On the Danube, freight rates are above all determined by bunker fuel costs. These bunker fuel costs were on a strong upward trend in 2016. According to the Danube Commission, freight rates increased sharply in the course of 2016 (freight rates based on transport of grain and chemical products from Middle Danube inland ports).

### MAXIMUM LOADING DEGREES AT KAUB/ MIDDLE RHINE FOR VESSELS WITH A DRAUGHT OF 2.5 AND 3 METRES, COMPARED WITH FREIGHT RATES INDEX\*

Source: CCNR and PJK International. \* Freight rates in tanker shipping



- According to surveys conducted by the German Federal Office of Goods Transport, it can be noticed that the reactivation of vessels during low water periods increases the operational fleet and the supply side of the market on a permanent basis. The reason is that many reactivated vessels are not taken out of the market when water levels recover. This puts more pressure on transport prices after the low water period.
- Further pressure on prices stems from ongoing market consolidation: the concentration of freight forwarding companies to bigger companies enables them to decrease operational unit cost and thus put pressure on prices. Although this consolidation is beneficial for the market integration of IWT, it can create difficulties for the profitability and the business models of smaller companies.







# 04

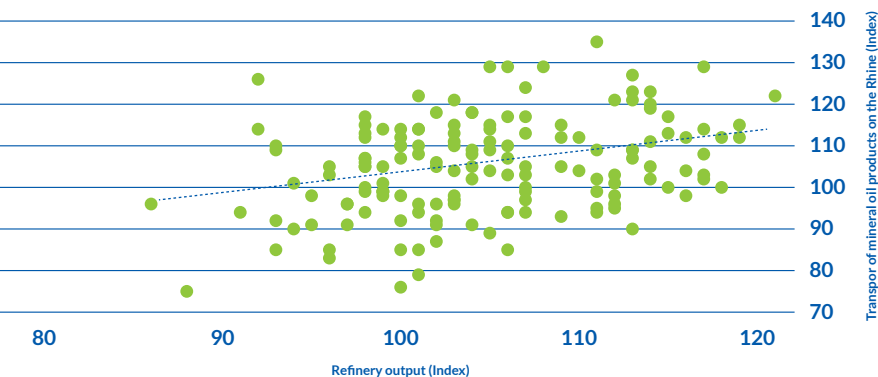
OUTLOOK

## FOCUS ON MINERAL OIL PRODUCTS TRANSPORT

- In this sector, Inland Shipping is used for the logistics of end products: tanker shipping delivers heating oil, gasoline, diesel, and other materials from refineries to storage depots and trading companies. The modal share of IWT can hereby reach more than 50 % and it even goes up to 90 % looking at IWT modal share in the Netherlands for refined petroleum products transport (source: Eurostat).
- Crude oil, however, – the input for refineries – is largely delivered by pipeline or by maritime shipping (if refineries are at the seashore).
- In Europe, the largest refineries are found in the Rhine area with the biggest production sites in the port areas of Rotterdam, Antwerp and Cologne.
- The transport demand for mineral oil products is promoted by high refinery output and low oil prices.

### RELATIONSHIP BETWEEN GERMAN REFINERY OUTPUT AND TRANSPORT DEMAND FOR MINERAL OIL PRODUCTS ON THE RHINE\*

Source: Eurostat and destatis. \* Monthly data from 1/2004 until 11/2016



# 90%

**IWT MODAL SHARE  
IN THE NETHERLANDS FOR REFINED  
PETROLEUM PRODUCTS TRANSPORT**

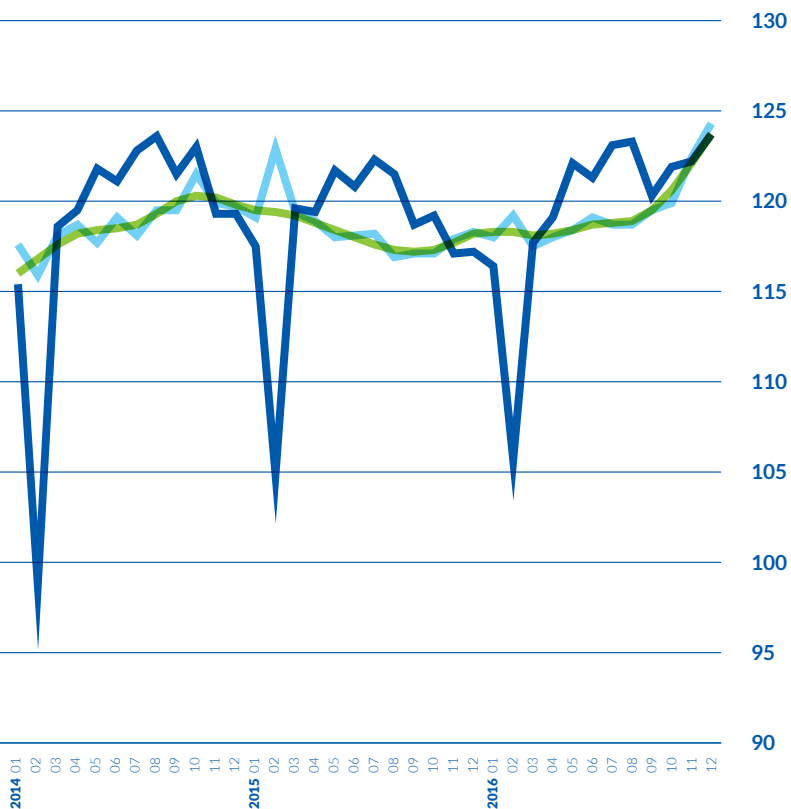
- Transport of mineral oil products on the Rhine is positively correlated with a high refinery output.
- The outlook for the refinery output in 2017 is altogether linked with the expected evolution of oil prices. Oil prices reached a level of more than 50 US-\$ per barrel at the beginning of 2017.
- In 2017, oil prices are expected to increase modestly, which will have a rather negative impact on refinery output and therefore on transport demand for mineral oil products.
- The decline of transport demand is expected to be modest, as oil prices should not exceed the threshold of 60-70 US-\$ in 2017, due to the re-opening of non-conventional oil drilling fields in 2017.
- The transport of mineral oil products is expected to decrease slightly in 2017, due to the expectation of a modest rise in oil prices and therefore a modest weakening of refinery production.

## WORLD TRADE OUTLOOK & TRANSPORT TRENDS

### RWI/ISL CONTAINER THROUGHPUT INDEX

Source: RWI and ISL calculation based on data for 81 ports

— original series — seasonally & working day adjusted — Trend - Cycle - Component



- The RWI/ISL Container throughput index is based on data from 81 world container ports covering 60% of worldwide container handling.
- This index is an early indicator for world trade and maritime container shipping.
- Recent index data point to an increasing container traffic and world trade in 2017 which should as well trigger an increase in IWT container traffic in 2017.





TRENDS IN DEMAND FOR TRANSPORT IN 2017  
IN RHINE COUNTRIES

Source: CCNR

	Main driver(s)	Trends in demand for transport in 2017
Agricultural products	Harvest results	Decrease (1st semester) & Increase (2nd semester)
Iron ores	Steel production	Stagnation
Metals	Steel production	Stagnation
Coal	Weather & energy policy, partly steel production	Decrease
Sand, soil & building materials	Construction activity	Increase
Containers	World trade	Increase
Mineral oil products	Oil prices & refinery output	Decrease
Chemicals	Chemical production	Increase

- The only difference with previous Market Insight reports concerns the mineral oil products segment where the expected oil price increase in 2017 has led us to change the trend from Stagnation to Decrease. For other segments, main trends ahead remain valid.
- Bad harvest results in Western Europe in 2016 will keep having a negative impact on transport of agricultural products at least until the middle of the year 2017. On the other hand, in the Danube region, positive harvest results are increasing the transport demand in this segment.
- Also in the steel segment, different trends between the Rhine region and the Danube region are expected: as in the last report, Stagnation in the Western European steel industry, and therefore stagnating transport demand for iron ores and metals is foreseen, and rising transport demand in the Upper Danube Region.
- The outlook for coal in Western Europe remains weak, due to the ongoing transition towards renewable energies. According to statistics from the “Working Group on Energy Balances” (Arbeitsgemeinschaft Energiebilanzen - AGEb), the use of coal in the German energy sector fell by 4 % in 2016, while the use of coal in the German steel industry stagnated.
- Due to the rising trend in the RWI/ISL Container throughput index, the outlook for container transport in Western Europe is positive; for the Danube region, container transport is still suffering from difficulties in river infrastructure.
- The outlook for the liquid cargo sector is mixed. For Western Europe, the ongoing normalisation of oil price levels should lead to a slight decrease in the transport demand for mineral oil products. The transport demand for chemicals, however, is expected to continue its upward trend. In the Danube region, transport demand in this sector is far smaller than in Western Europe.

## GLOSSARY

**BN:** Billion

**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

**GDP:** Gross Domestic Product

**IWT:** Inland Waterways Transport

**LOADING DEGREE:** percentage of maximum vessel loading

**MIO:** Million

**OECD:** Organisation for Economic Co-operation and Development

**PP:** Percentage point

**Q1:** First Quarter

**RHINE COUNTRIES:** Belgium, France, Germany, Luxembourg, Netherlands, Switzerland

**RWI/ISL CONTAINER THROUGHPUT INDEX:** Index of worldwide container throughput in ports

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

**TURNOVER:** Sales volume net of sales taxes

**WTI:** West Texas Intermediate (grade of crude oil used as benchmark in oil pricing)

## NATIONAL STATISTICS OFFICES

Acronym	Original Name	English Name	Country
Statistik	Statistik Austria	Statistics Austria	Austria
Statbel	Statistics Belgium	Statistics Belgium	Belgium
NSI	Национален статистически институт	National Statistical Institute	Bulgaria
DZS	Državni Zavod za Statistiku	Central Bureau of Statistics of Croatia	Croatia
MDCR	Ministerstvo dopravy České republiky	Ministry of Transport of the Czech Republic	Czech Republic
FTA	Liikennevirasto	Finnish Transport Agency	Finland
VNF	Voies Navigables de France	Navigable Waterways of France	France
destatis	Statistisches Bundesamt	Federal Statistical Office of Germany	Germany
KSH / HCSO	Központi Statisztikai Hivatal	Hungarian Central Statistical Office	Hungary
MIT	Ministero delle Infrastrutture e dei Trasporti	Ministry of Transport and Infrastructure	Italy
AIPO	Agenzia Interregionale per il fiume Po	Interregional Agency of the Po River	Italy
OPS	Oficialiosios Statistikos Portalas	Statistics Lithuania (Official Statistics Portal)	Lithuania
STATEC	Institut national de la statistique et des études économiques du Grand-Duché de Luxembourg	National Institute of Statistics and Economic Studies of the Grand Duchy of Luxembourg	Luxembourg
CBS	Centraal Bureau voor de Statistiek	Central Statistical Office	Netherlands
GUS	Główny Urząd Statystyczny	Central Statistical Office	Poland
P3C	Републички завод за статистику	Statistical Office of the Republic of Serbia	Republic of Serbia
INSSE	Institutul National de Statistica	National Institute of Statistics	Romania
Slovstat	Štatistický úrad Slovenskej republiky	Statistical Office of the Slovak Republic	Slovak Republic
Trafa	Trafikanalys	Transport Analysis	Sweden
DfT	Department for Transport	Department for Transport	United Kingdom

## ■ OTHER SOURCES

Original Name	English Name	Country
EUROSTAT	EUROSTAT	EU
European Commission	European Commission	EU
Ports mentioned in the report	Ports mentioned in the report	EU
International Monetary Fund (IMF)	International Monetary Fund (IMF)	World
OECD	OECD	World
World Steel Association	World Steel Association	World
AG Energiebilanzen	Working Group on Energy Balances	Germany
Bundesamt für Güterverkehr	German Federal Office of Goods Transport	Germany
Centraal Bureau voor de Rijn- en Binnenvaart	Central Bureau for Inland Barging	Netherlands
Federal Reserve Bank of St. Louis	Federal Reserve Bank of St. Louis	USA
FranceAgrimer	FranceAgrimer	France
Institut für Seeverkehrswirtschaft und Logistik	Institute of Shipping Economics and Logistics	Germany
PJK International	PJK International	Netherlands
Rheinisch-Westfälisches Institut für Wirtschaftsforschung	RWI - Leibniz-Institute for Economic Research	Germany
Wirtschaftsvereinigung Stahl	German Steel Industry Association	Germany
Oilprice.com	Oilprice.com	United Kingdom

## ■ METHODOLOGY

### Freight traffic on inland waterways and in ports

Europe as defined in chapter 2 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 2).

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.

When available, general cargo is included in dry cargo.

Hungary and Bulgaria transport performance split by segment is based on Hungary and Bulgaria quarterly transport volume split provided by the national statistics office.

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