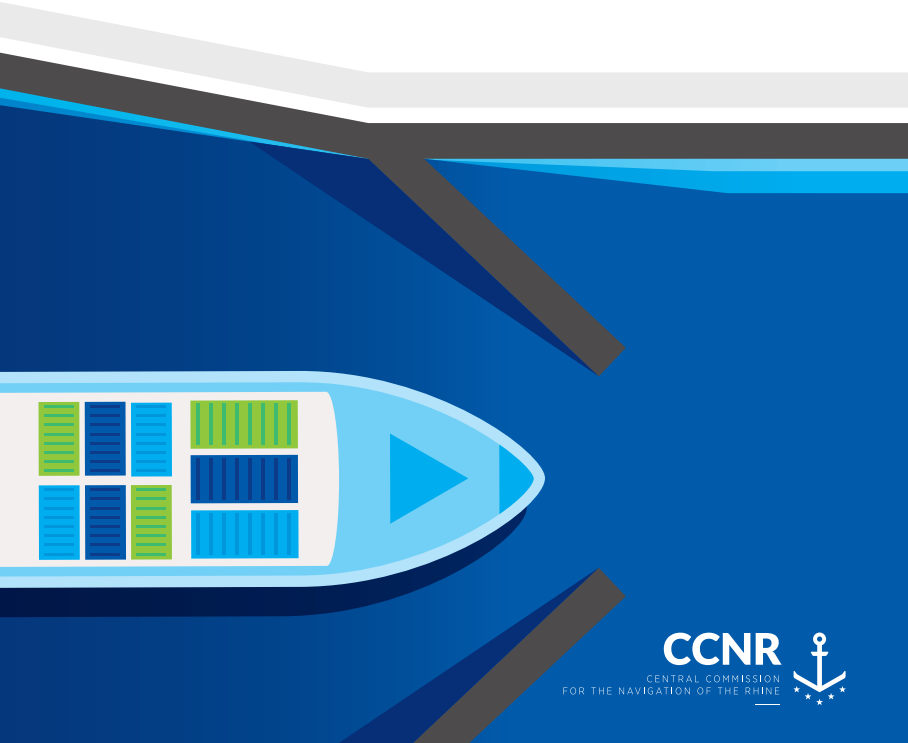
MARKET INSIGHT

INLAND NAVIGATION IN EUROPE

PUBLISHED IN

SPRING 2018



CCNR

CENTRAL COMMISSION
FOR THE NAVIGATION OF THE RHINE

Market Insight

INLAND NAVIGATION IN EUROPE

Published in

Spring 2018

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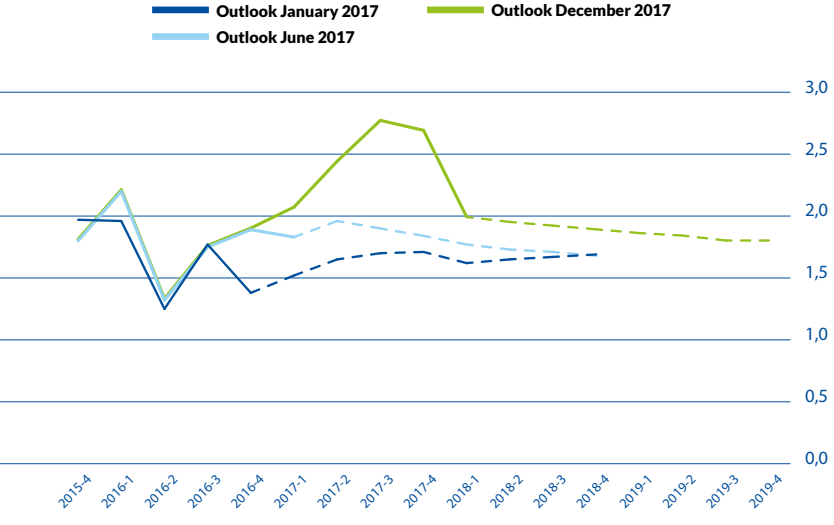
01

ECONOMIC CONTEXT

ECONOMIC CONTEXT IN EUROPE

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

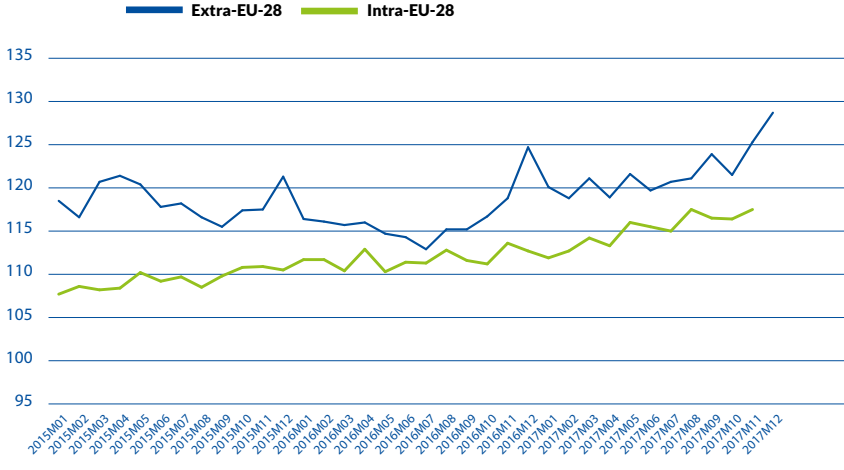
Source: OECD – Economic outlook January 2017, June 2017 and December 2017



- In Q3 2017, the year-on-year GDP growth rate in the EU, as well as in the Eurozone, stood at its highest level since Q1 2011. The amplitude of feedback loops within the current worldwide synchronised upswing has clearly been underestimated in previous forecasts.
- GDP growth in the Eurozone is projected to become weaker in 2018 and 2019, partly due to the downside risks related to the uncertain trade patterns after Brexit (affecting, in particular, trade between the Netherlands and the UK), and partly due to a gradual slowdown of growth in China.

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

Source: Eurostat



- The rebound in trade that started in the middle of 2016 is being driven by Asia; strong infrastructure investment in China in 2016 and 2017 is a key driver of the upswing, boosting economic activity abroad, and raising commodity prices.

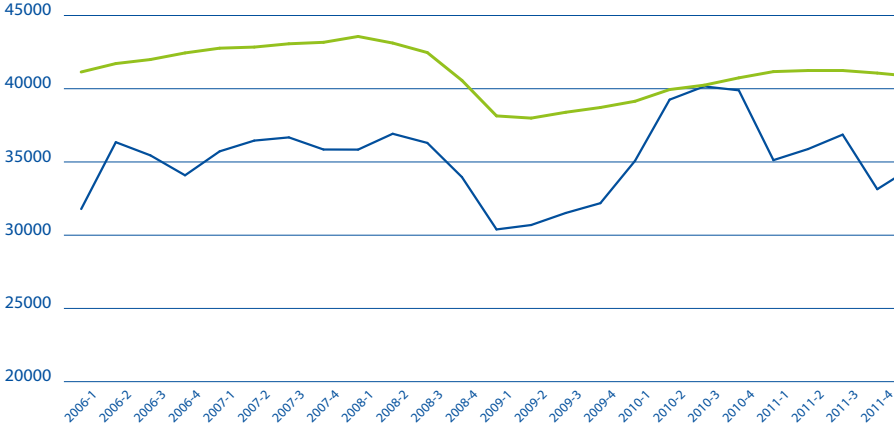
- With higher commodity prices, the terms of trade of resource-rich countries such as Brazil or Russia are becoming more favourable, which increases global trade further and results in a positive growth spiral for global trade and economic activity.[1]

- However, a projected gradual slowdown of stimulus measures in China will challenge the overall pace of trade growth after 2018.

[1] *The positive growth spiral in global trade explains to a large extent the dynamics of real GDP growth (see previous page)*

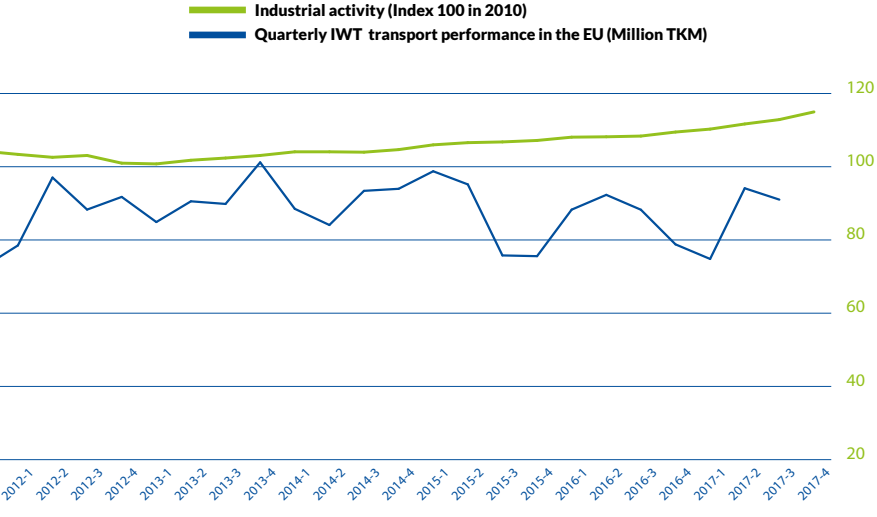
INDUSTRIAL ACTIVITY AND INLAND NAVIGATION

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



- In parallel with exports, industrial production accelerated in 2017: the year-on-year growth rate was 2 % in Q1 2017, 3 % in Q2 2017, 4 % in Q3 2017 and 5 % in Q4 2017.
- IWT transport performance in the EU reached 37.7 billion tkm in Q3 2017, compared to 37.0 billion tkm in Q2 2016. There was also some acceleration: the year-on-year growth rate was 1.2 % in Q2 2017, and 1.9 % in Q3 2017.
- IWT transport performance grew around half as fast again as industrial production in Q3 2017, but the relative gap in growth rates narrowed slightly, compared to Q2 2017.

Source: Eurostat



INCREASE OF INDUSTRIAL PRODUCTION IN EU BY

4 %

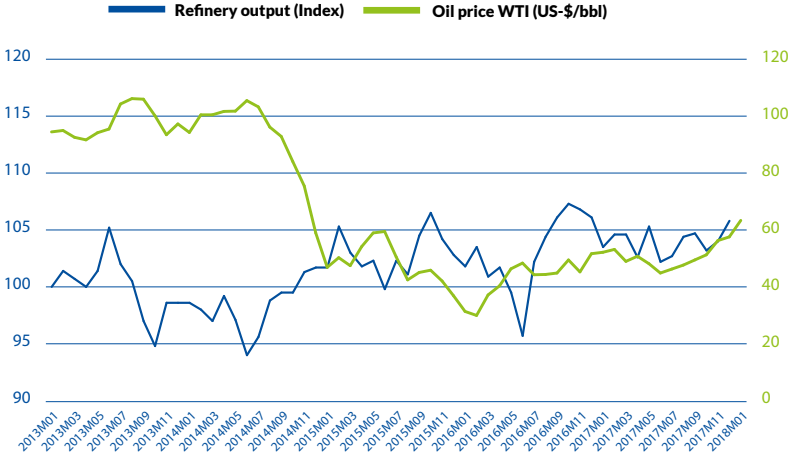
IN Q3 2017 VS Q3 2016

ECONOMIC SITUATION OF INLAND NAVIGATION-RELATED SECTORS

Mineral oil products segment

REFINERY OUTPUT IN THE EU AND CRUDE OIL PRICE

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

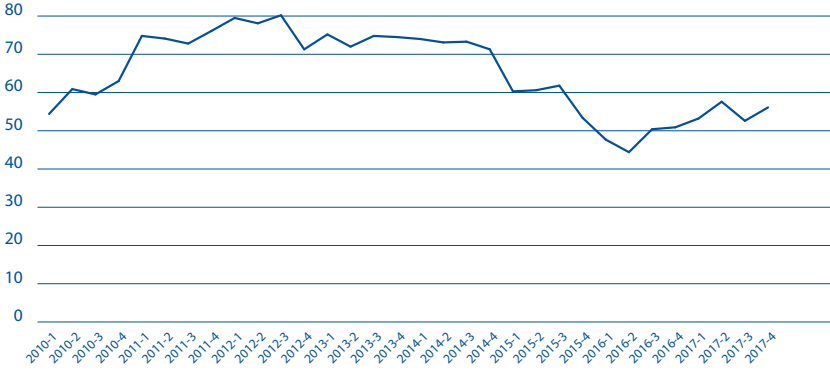


- Fueled by rising oil demand, and due to the extended production cuts in OPEC countries and Russia, oil prices were raised to a level of more than 60 US-$ in January 2018.
- Further price increases in 2018 and 2019 are projected to be more limited, as the rising non-OPEC oil production in the USA would act as a counter-balance if oil prices would increase further.[2]
- Fuel prices in inland shipping were 4 % higher in Q3 2017 than in Q3 2016, and in Q4 2017, the difference was 10 % compared to Q4 2016.

[2] *European Economic Forecast – Autumn 2017, Winter (Interim) 2018, published in January 2018*

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

Source: CBRB



Steel industry segment

YEAR-ON-YEAR GROWTH RATES OF STEEL PRODUCTION (Q_T/Q_{T-4})

Source: Calculation CCNR based on World Steel Association

	Q1 2017	Q2 2017	Q3 2017	Q4 2017
Germany	2%	2%	5%	6%
France	4%	18%	13%	0%
Austria	6%	12%	13%	6%
Hungary	82%	72%	30%	33%
Serbia	77%	29%	16%	3%

- Strong increase in the Danube countries, and stabilisation in the Rhine region contributed positively to the transport demand on European inland waterways (see chapter 2).

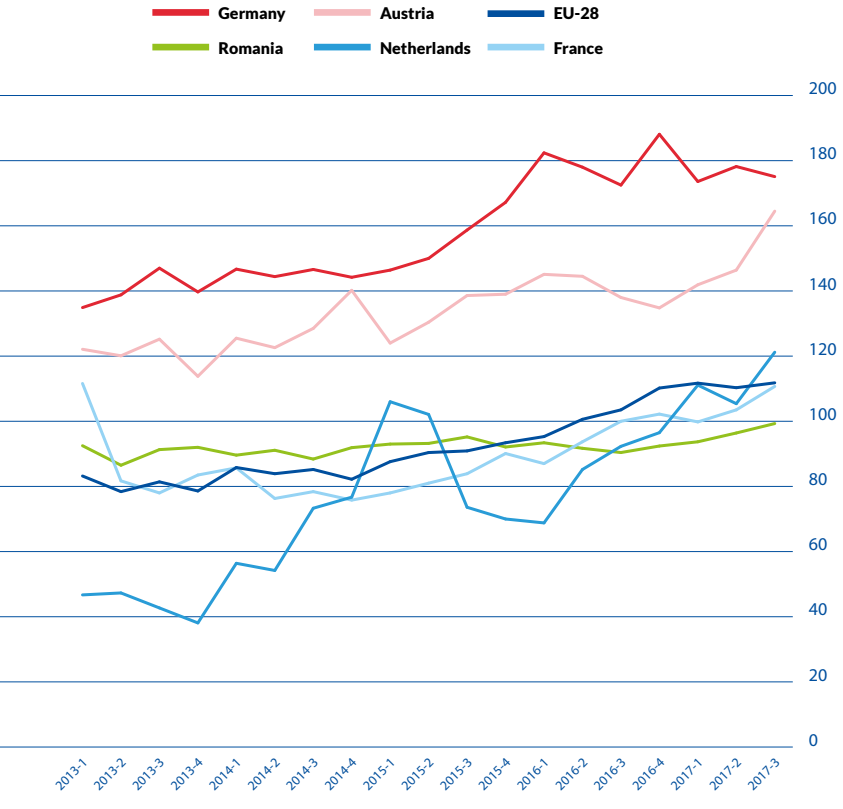
- Serbia/Hungary: the high growth rates of steel production are explained by the takeover of the Smederovo steel plant on the Danube by a Chinese steel company. The company aims at further increasing steel production in Serbia in 2018.[3]

[3] *Source: http://uk.businessinsider.com / Serbia's Smederevo steel mill boosts revenue (18.12.2017)*

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 on inland waterways is promoted by low interest rates on the housing market, and a search-for-yield mode among investors.

- Although interest rates will increase in 2018, this segment is promoted also in a structural way, due to modal shift initiatives within ports (see also chapter 2/Waterside traffic in European ports).

Agricultural products segment

- The grain harvest in France in July 2017 was 60 % above the (very low) level of July 2016. For Q3 and Q4 2017 as a whole, the increase was somewhat lower (Q3: +13 %, Q4: +11.5 %). [4]

- An even better result in the second half of 2017 was prevented by a dry season in August and September. According to information from the French ministry of agriculture, the eastern regions of France in particular were confronted with dry weather during that period.

- In the Danube region, the harvest results in 2017 were lower than in 2016. This became clearly visible when looking at the transport demand of middle Danube countries such as Serbia, where grain transport on the Danube dropped strongly in Q3 2017 (see chapter 2).

+60% **FRENCH GRAIN HARVEST INCREASE IN JULY 2017 VS JULY 2016**

[4] *Source: http://agreste.agriculture.gouv.fr*

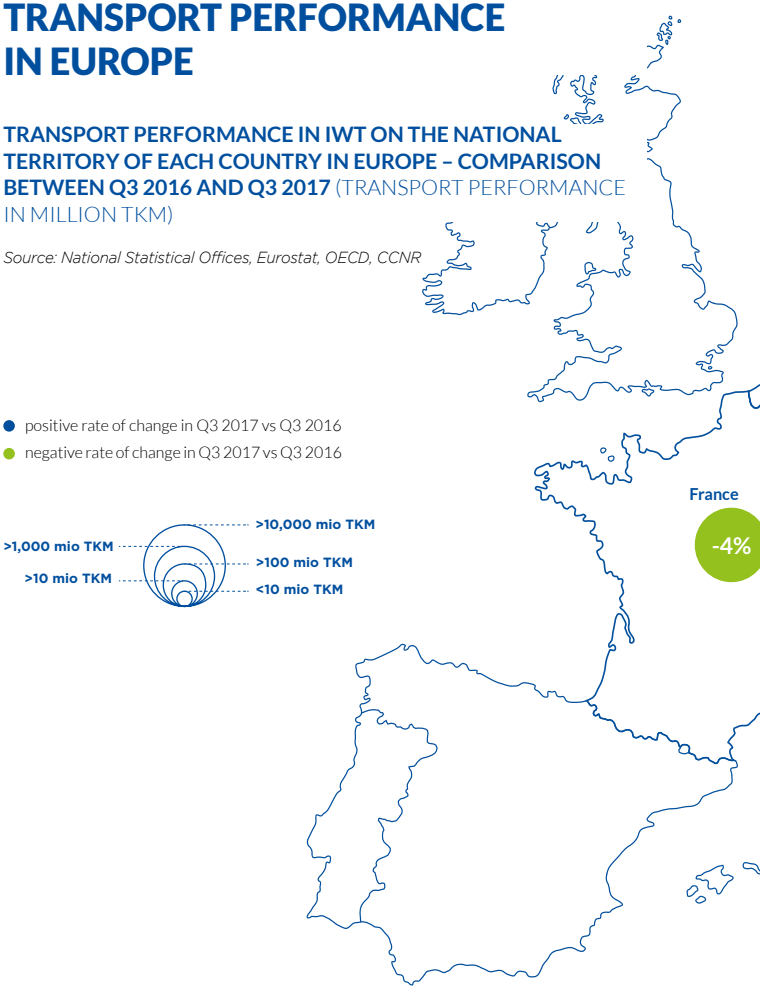
02

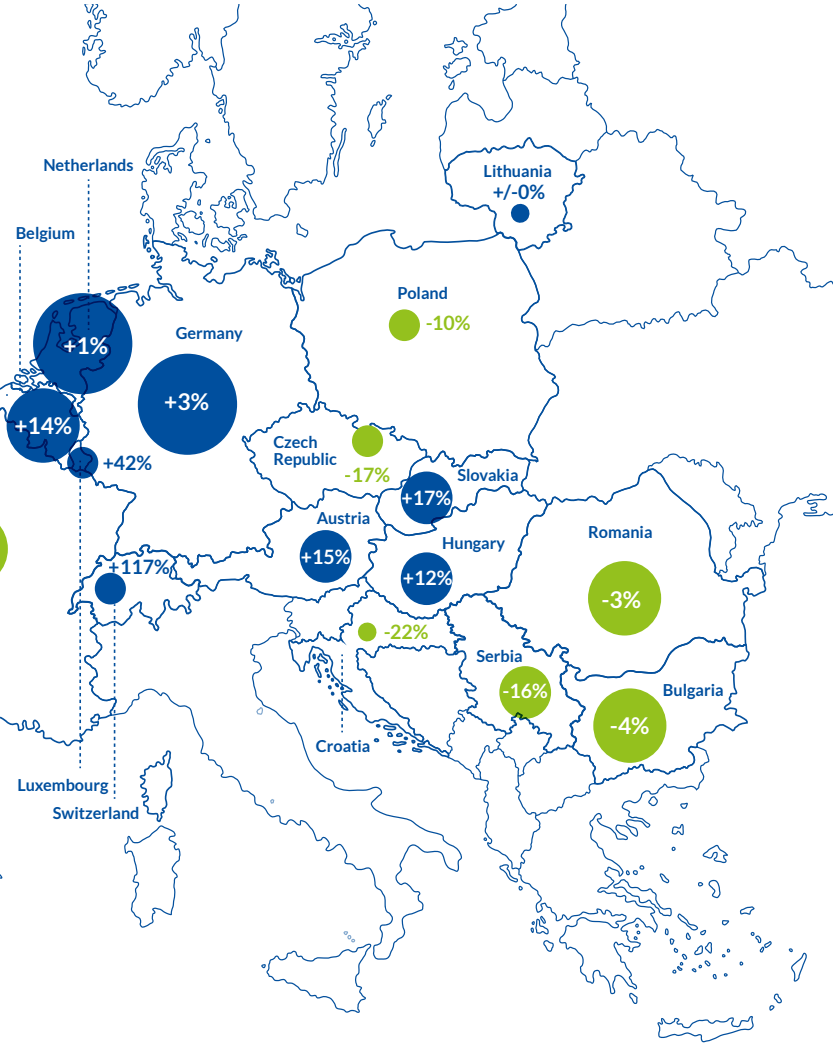
FREIGHT TRAFFIC ON INLAND WATERWAYS AND IN PORTS

TRANSPORT PERFORMANCE IN EUROPE

TRANSPORT PERFORMANCE IN IWT ON THE NATIONAL TERRITORY OF EACH COUNTRY IN EUROPE – COMPARISON BETWEEN Q3 2016 AND Q3 2017 (TRANSPORT PERFORMANCE IN MILLION TKM)

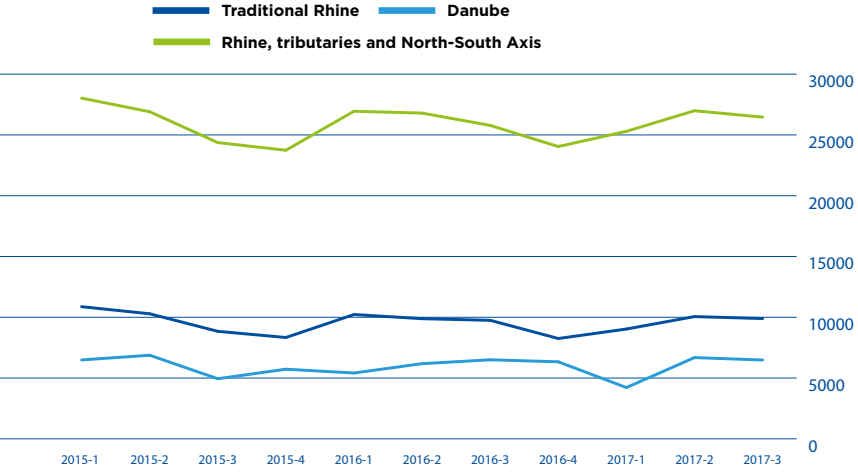
Source: National Statistical Offices, Eurostat, OECD, CCNR




Netherlands
Belgium
+1%
Germany
+3%
+14%
+42%
+117%
Luxembourg
Switzerland
Lithuania
+/-0%
Poland
-10%
Czech Republic
-17%
Slovakia
+17%
Austria
+15%
Hungary
+12%
Romania
-3%
-22%
Serbia
-16%
Bulgaria
-4%
Croatia

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

Source: Destatis, National Statistical Offices



+1,5%

INCREASE OF TRADITIONAL RHINE TRANSPORT PERFORMANCE IN Q3 2017 VS Q3 2016

- On the traditional Rhine, after the strong recovery of transport performance between Q1 2017 and Q2 2017 (+11 %), transport performance consolidated at a high level. Its value in Q3 2017 was only 2 % lower than in Q2 2017. Compared to one year earlier, there was a growth of 1.5 %. The strongest contribution came from container transport (+12.5 % based on tkm), which reached a share of 18 % in transport performance.

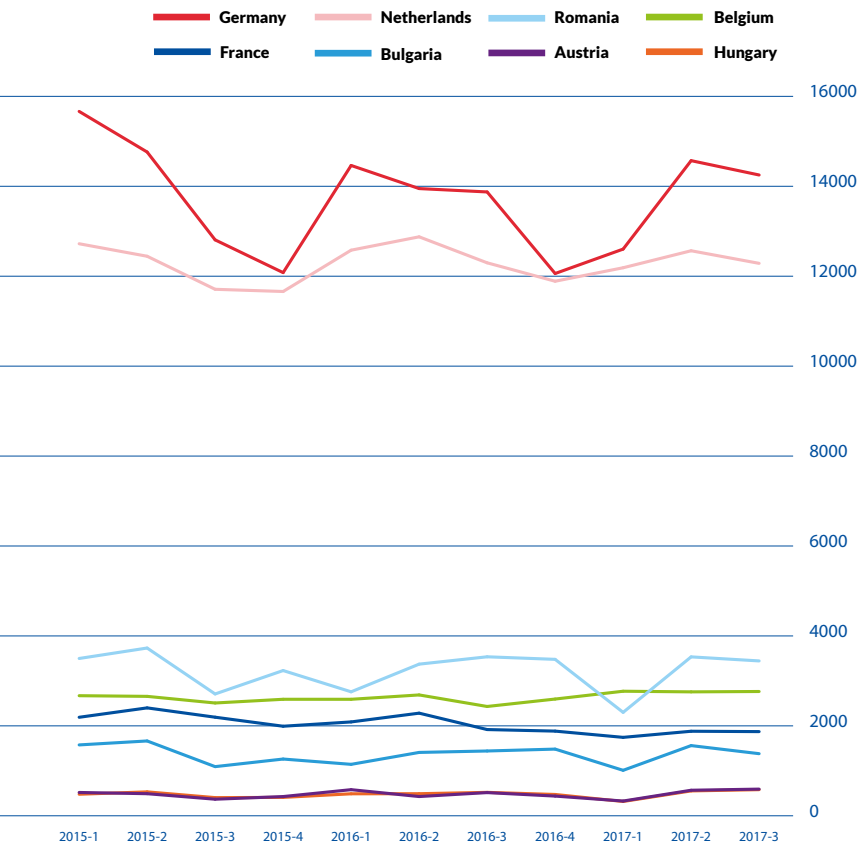
- Transport on the Rhine affluents was pushed by growing steel production, better harvest results and also better navigation conditions. The Moselle (+31 %) and Saar (+46 %) rivers benefited the most in Q3 2017, when compared to Q3 2016, due to the large role of iron ore (and grain on Moselle) transport on these rivers.

- Danube navigation was influenced by two main factors. The positive aspect was a rising steel production, and therefore rising iron ore and metal traffic, which had a very positive effect on transport demand on the upper Danube. On the other hand, bad harvest results in the Danube region led to falling grain transports, the second backbone of Danube shipping.

TRANSPORT PERFORMANCE IN MAIN IWT EUROPEAN COUNTRIES

INLAND SHIPPING TRANSPORT PERFORMANCE IN MAIN IWT EUROPEAN COUNTRIES (QUARTERLY DATA – MILLION TKM)

Source: Eurostat, National Statistical Offices



- In both Germany and the Netherlands a certain consolidation took place after the strong recovery effects in Q2 2017. The better economic conditions, especially in the construction sector, had a positive effect on the dry cargo segment. The short and medium-term outlook is also especially favourable in this area. The strongest growth was observed in the container segment.

- In Belgium, all important goods segments had a positive evolution - the highest growth rate was reached by agricultural products, due to the good harvest results in Western Europe in 2017. A segment which accounts for half of all dry cargo transports in Belgium is sands, stones, and building materials. Their transport performance was 7 % higher in Q3 2017 than in Q3 2016, due to structural and cyclical reasons (see chapter 1 and the part on ports traffic).

- In France, the two largest product segments increased, i.e. agricultural products by 6 %, and sands, stones and building materials by 10 %. Likewise in France, this latter mentioned segment is very important (share of more than 1/3 in total transport performance). Negative evolutions were observed for coal transport (decarbonisation), and also for container transport.

- In Austria, the dominant product segment is the steel segment (iron ores, metals) with a share of 40 % of total transports. The transport of iron ore and metal traffic increased very strongly, due to a rising steel production: Austrian steel production figures in Q3 2017 were 13 % higher than in Q3 2016.

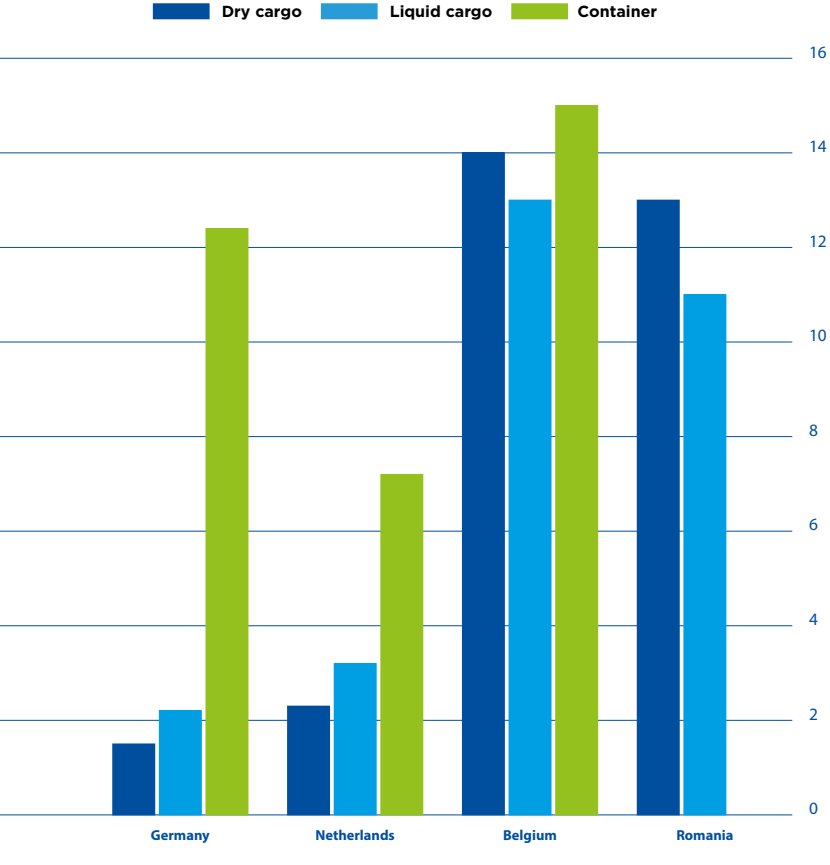
- In Romania, the falling grain transport from the middle Danube region dampened transport demand in Q3 2017, but a rising steel production in the Danube region acted as a stabilising force.

DRY BULK, LIQUID BULK AND CONTAINER TRANSPORT

RATE OF CHANGE IN INLAND SHIPPING TRANSPORT PERFORMANCE IN FOUR MAJOR IWT COUNTRIES

(Q3 2017 VS Q3 2016 - %)

Source: National Statistical Offices



- In Germany, container traffic benefited strongly from an interruption of rail traffic for seven weeks in August and September 2017, due to an accident in railway construction works (Rastatt incident[5]). Inland shipping on the Rhine proved its free capacities and its reliability when acquiring a higher number of containers, in order to keep logistical chains running.

- In the Netherlands, the strongest growth (+12 %) was observed for the exports of goods in containers to other countries: 55 % of these container streams were destined for Germany, 37 % for Belgium, and 4 % for France. The second strongest growth was seen for the transport of containers within the country (+9 %).

- In Belgium, the dry cargo transports were strongly supported by better harvest results in 2017: agricultural goods transport performance increased by 36 %. Likewise, the largest dry cargo segment (sands, stones, building materials, with a share of 50 % of all dry cargo transports in Q3 2017) had a significant increase (+7 %), due to the growing activity in the construction sector.

- In Romania, the two major dry cargo segments (agriculture, iron ores & metals) had different results. While the steel segment benefited from the rising steel production in the Danube region, grain transport suffered under a worsening of harvest results in the middle Danube region. Liquid goods traffic has a very small share of only 4 %, and container transport only 0.02 %.

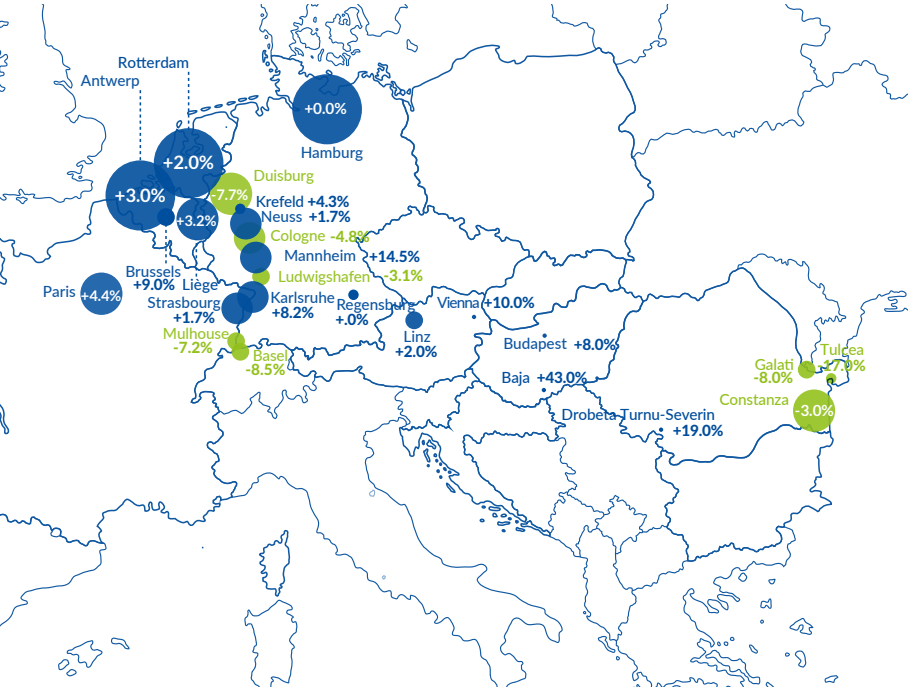
[5] Near the German town of Rastatt on the upper Rhine, railway traffic along the Rhine axis was interrupted for 7 weeks between 12 August 2017 and 2 October 2017, due to the collapse of a tunnel

WATERSIDE TRANSPORT IN EUROPEAN PORTS

TRANSSHIPMENT VOLUME IN (Q1+Q2+Q3) 2017, TRANSSHIPMENT VOLUME IN (Q1+Q2+Q3) 2016 AND RATE OF CHANGE BETWEEN BOTH

Source: Destatis, Statistics Austria, Hungarian Statistical Office, Romanian Institute of Statistics and ports mentioned

- positive rate of change in traffic between (Q1+Q2+Q3) 2016 and (Q1+Q2+Q3) 2017
- negative rate of change in traffic between (Q1+Q2+Q3) 2016 and (Q1+Q2+Q3) 2017



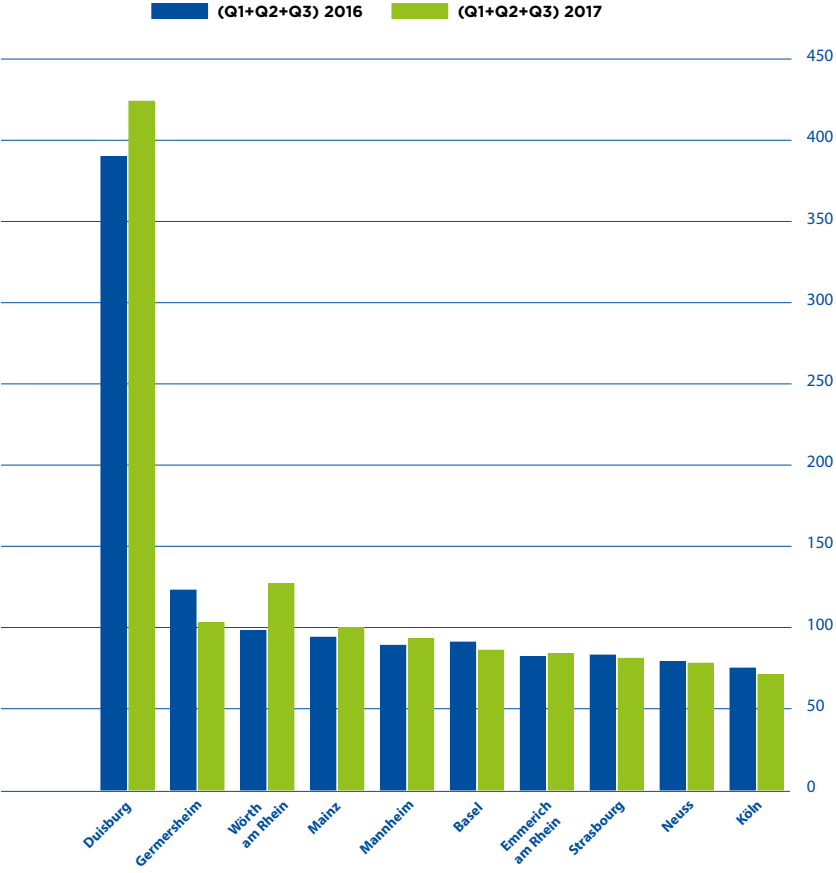
- Ten largest Rhine ports: waterside traffic of 85.7 million tonnes in the first nine months of 2017, compared to 90 million tonnes in the same period of 2016 – a decrease of 5 %, compared to a reduction of 2 % of cargo traffic on the traditional Rhine. The difference can be explained by special effects in certain ports.[6]
- Ports of Paris: total waterway traffic grew by 5 %. Sands, stones and building materials kept on increasing in 2017, by 9 %. Their share in total traffic grew from 74 % to 77 % within one year – a result of the favourable economic conditions for this segment, and the additional construction works in the Ile-de-France region (project Grand Paris Express).
- Port of Brussels: increase of waterway traffic by 9 % due to the positive evolution for sands, stones and building materials (a parallel with the results on a national level in Belgium, the Netherlands and France). The growth in 2017 can also be explained by the Brussels port authorities' efforts to convince companies to transport more sands and stones via inland waterways (modal shift initiatives).
- Port of Liège: increase of waterway traffic by 3 %, and the two product segments with the highest growth rate were wood / wood products (+21 %) and manufactured goods (+21 %). The category of wood contains wood pellets that are used by an energy plant to produce electricity. This energy plant had been the first plant worldwide that was reconverted from coal to biomass in 2005 (see also chapter 4).
- Port of Linz: traffic figures in one of the largest Danube ports rose strongly in the course of the year. After the cargo losses in Q1 2017 due to ice and low water levels, traffic results in Q2 were 18 % higher than one year earlier, and in Q3 2017 the difference was even 35 %, fostered by the rising steel production. For the sum of Q1-Q3 2017, the growth rate compared to Q1-Q3 2016 was only 2 %, due to the negative effects in Q1 2017.

[6] *An important special effect was an accident in the port of Ludwigshafen in October 2016, which led to a strong reduction of ports traffic in 2017*

CONTAINER TRANSPORT IN EUROPEAN PORTS

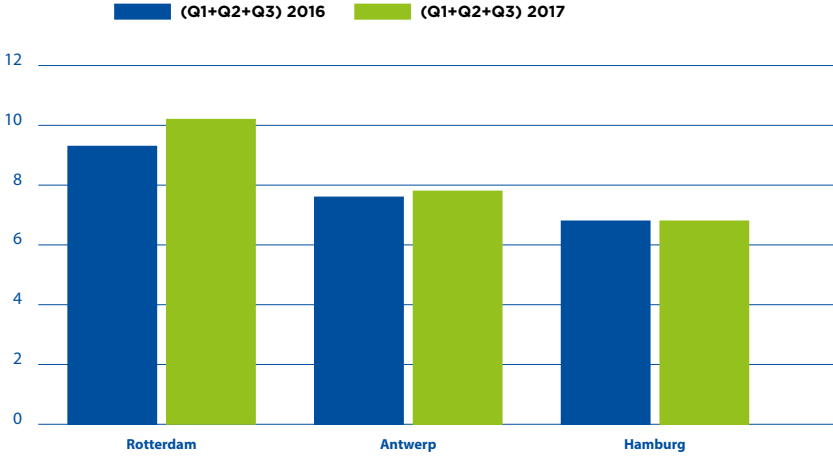
IWT CONTAINER TRAFFIC IN EUROPEAN INLAND PORTS IN (Q1+Q2+Q3) 2016 AND (Q1+Q2+Q3) 2017 (1000 TEU)

Source: Destatis, Port autonome de Strasbourg, Swiss Rhine ports



MARITIME CONTAINER TRAFFIC IN EUROPEAN SEAPORTS IN (Q1+Q2+Q3) 2016 AND (Q1+Q2+Q3) 2017 (IN MIO TEU)

Source: Port of Rotterdam, Port of Antwerp, Port of Hamburg



- Port of Duisburg: in the biggest European inland port, located on the lower Rhine, around 265,000 container boxes with a total cargo weight of 4 million tonnes were transshipped per inland vessel in the first nine months, compared to 250,000 boxes and 4.1 million tonnes of cargo one year earlier.
- Port of Duisburg: 67 % of all containers transshipped per inland vessel in Q1-Q3 2017 were loaded; this share had been 64 % one year earlier.
- Swiss Rhine ports: after a weak first quarter 2017 due to low water levels on the Rhine, waterside container traffic had a strong stimulus in the third quarter – the Rastatt incident was followed by an interruption of rail traffic along the upper Rhine axis for seven weeks, leading to a strong modal shift towards IWT.

- Swiss Rhine ports: in September 2017, TEU volumes were 36 % higher than in September 2016. Even after the railway lines were re-opened, river traffic had similar growth rates (October: +31 %, November: 34 %). It can therefore be assumed that large parts of the additional waterside traffic generated by the Rastatt incident will remain on the Rhine.
- Ten largest Rhine ports: the sum of waterside container traffic in Q1-Q3 2017 was 4 % higher than one year earlier. The result for the entire year 2017 will certainly be much better, as the effects of the Rastatt incident could still be felt in the fourth quarter.
- Ports of Paris: container traffic by IWT stagnated at a high level in 2017 (162,000 TEU) but, within this figure, the urban logistics segment - container transport with origin and destination within the Ile-de-France - progressed at a high rate (+14 %), reaching 33,500 TEU.
- Port of Brussels: container traffic confirmed its record level of 2016, and increased further by 4 %, reaching 31,000 TEUs. Thanks to this growth, port authorities are already thinking about a further extension of the container terminal.

+14%

URBAN WATERSIDE CONTAINER TRAFFIC IN PARIS IN 2017 COMPARED TO 2016

5 x 39

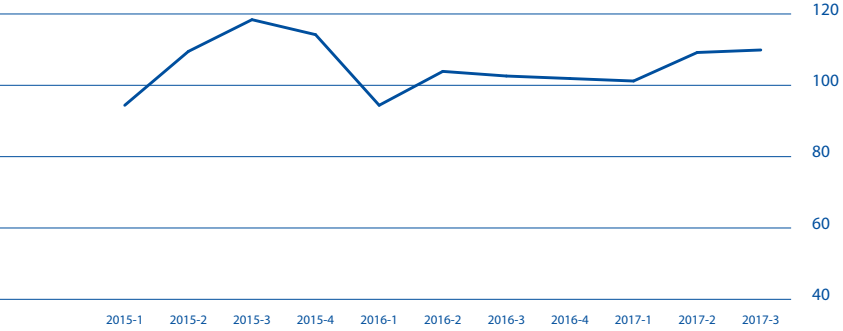
03

OPERATING CONDITIONS

TURNOVER DEVELOPMENT IN EUROPE[7]

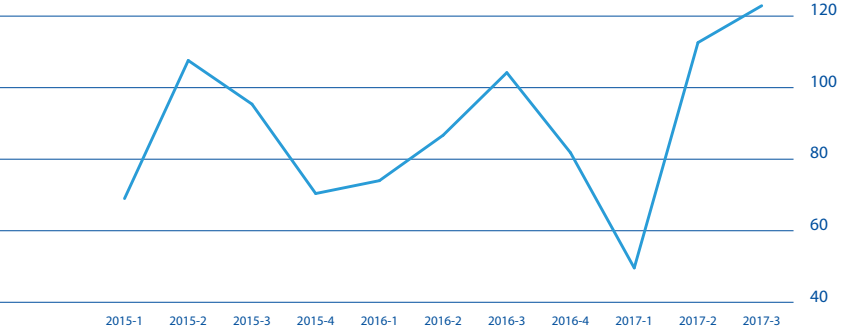
TURNOVER DEVELOPMENT IN THE NETHERLANDS (2010=100) RHINE COUNTRY WITH MAINLY GOODS TRANSPORT ACTIVITY

Source: CBS



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

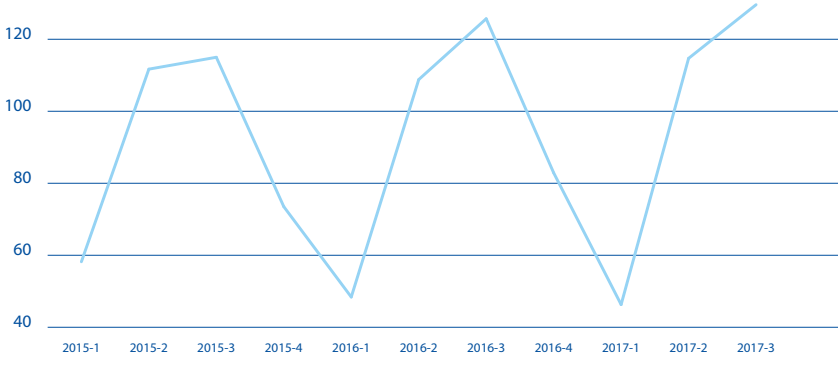
Source: Eurostat



[7] 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 (Austria, Hungary). For the Netherlands, turnover data on a quarterly basis is provided by the national statistical office (CBS)

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

Source: Statistik Austria



- Inland shipping turnover in the Netherlands was 7 % higher in Q3 2017 than in Q3 2016. This increase was by far less strong than the increase in transport prices, as total transport performance in Q3 2017 almost stagnated. The turnover evolution for other modes of transport in the Netherlands in Q3 2017 was: maritime shipping (+6.1 %), road transport (+5.5 %), rail transport (+4.1 %), total transport sector (+ 4.8 %).
- Hungary is a middle Danube country where goods transport has a high share in IWT turnover (almost 3/4). The increase in turnover in Q3 2017 (+18 % compared to Q3 2016) is a parallel to the strong increase of transport demand in this quarter (+11.5 %), although stronger in magnitude.
- Austria is an upper Danube country where passenger transport has a very high share in turnover (around 2/3). This explains the strong seasonal variations, a pattern typical for passenger shipping. Turnover in Q3 2017 was 3 % higher than one year earlier. One explanation is found in the increasing goods transport demand. Another role is played by the upward trend in passenger shipping, both in terms of the number of companies and in terms of their share in turnover.

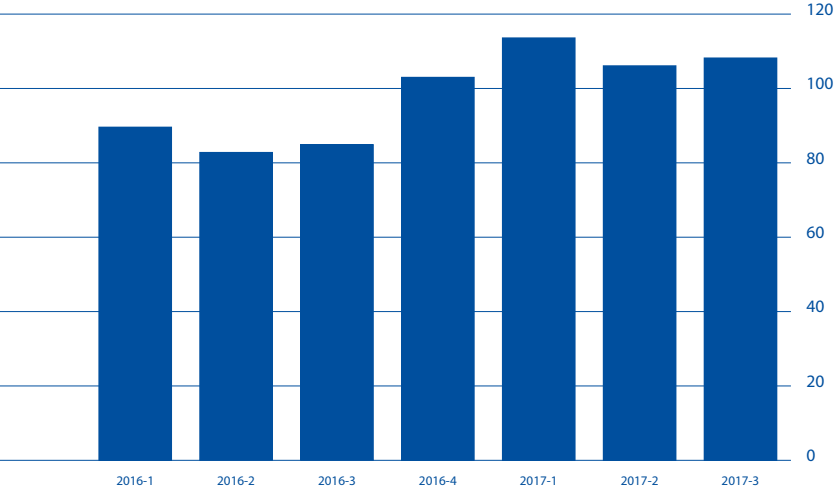
FREIGHT RATES

DEVELOPMENT OF FREIGHT RATES* IN THE NETHERLANDS

(2015 AVERAGE=100)

Source: CBS - Centraal Bureau voor de Statistiek

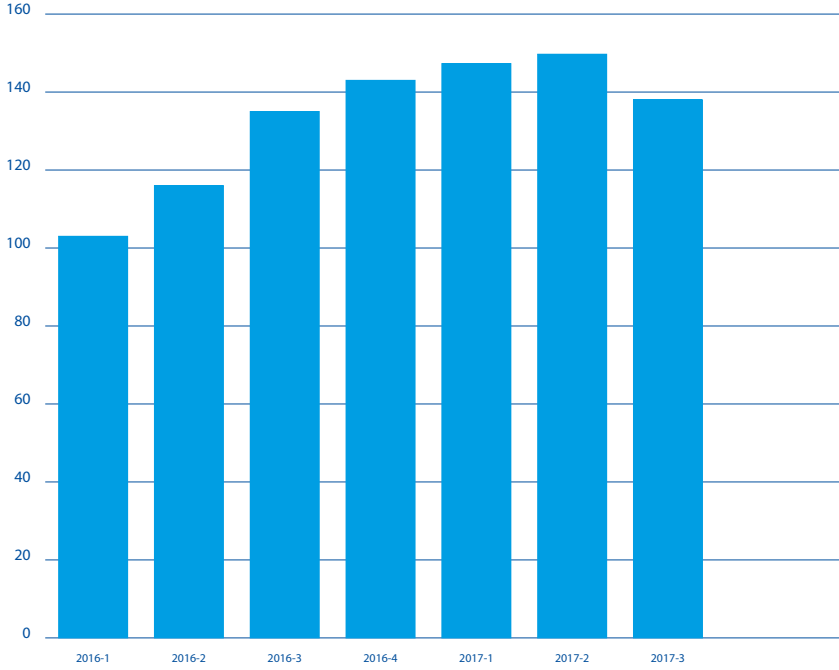
**Note: Average freight rate evolution for transports of dry cargo, liquid cargo and containers in the Netherlands*



- The average transport prices in IWT goods transport in the Netherlands remained at about the same level in Q3 2017 as in Q1 2017 and Q2 2017. While the reasons for the high level of freight rates in Q1 2017 can be seen in the low water levels, the explanation for the high freight rate level in Q2 2017 and Q3 2017 is more related to economic reasons.
- Indeed, the second and third quarters of 2017 brought a recovery of freight traffic in the Netherlands, while the low water phenomenon was limited to a very short period in July. Therefore, the rather high freight rate level in Q2 2017 and Q3 2017 was mainly due to the high transport demand.

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

Source: Danube Commission
**Note: Freight rates based on transports of grain and chemical products from Middle Danube ports*

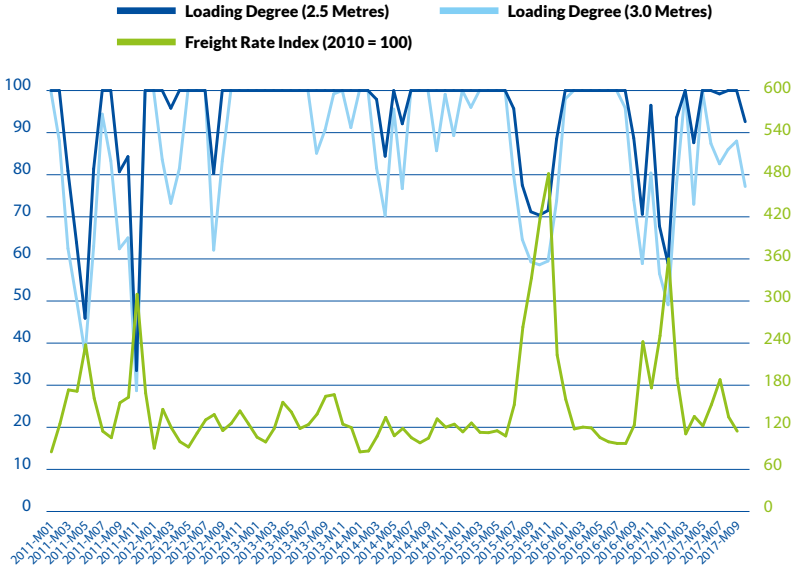


- On the Danube, freight rates in Q3 2017 for the transport of grain and fertilisers from the middle Danube region towards the ports on the Black Sea were below the level of Q2 2017. The fall in grain transports, due to the weaker harvest results, explains this evolution only partly. Another aspect to be taken into account is that freight rates are also determined by bunker fuel costs, and these costs were rising strongly on the Danube in Q3 2017 (by 7 % compared to Q2 2017.)

- Freight rates in tanker shipping on the Rhine were, in July 2017, influenced by temporary production restrictions of German refineries, which led to more imports via the Rhine and therefore higher freight rates. Lower water levels in July played an additional role. During August and September, freight rates fell back to a lower level, due to a shift from contango to backwardation on the future oil market, and therefore less transport demand.

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 on the Rhine*



04

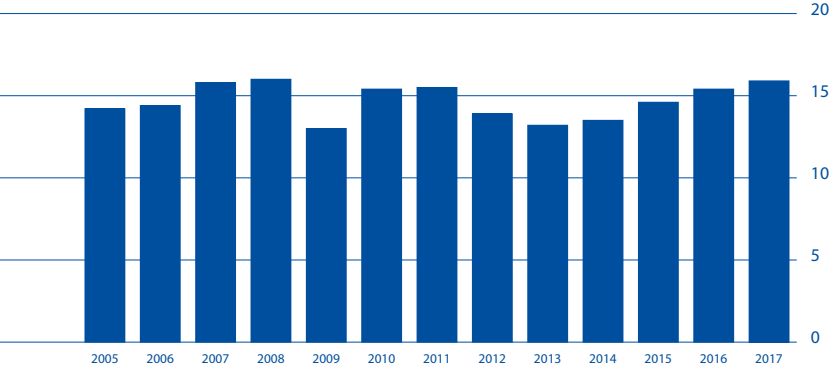
PORT FACT SHEETS ON BIOMASS AND OUTLOOK

BIOMASS IN THE PORT OF LIÈGE

The port of Liège was founded in 1937 and is the largest inland port in Belgium as well as the third largest European inland port. Despite a fall in traffic in 2012 (-10% compared to 2011), due to both a macroeconomic recession and the steel crisis, the port of Liège managed to restructure its activity by shifting goods traffic from traditional segments towards containers and renewable energies. The recent growth of the volumes is mainly explained by the increase of container traffic and, to a lesser extent, by the rising importance of biomass.

EVOLUTION OF WATERSIDE GOODS TRAFFIC IN THE PORT OF LIÈGE (IN MIO T)

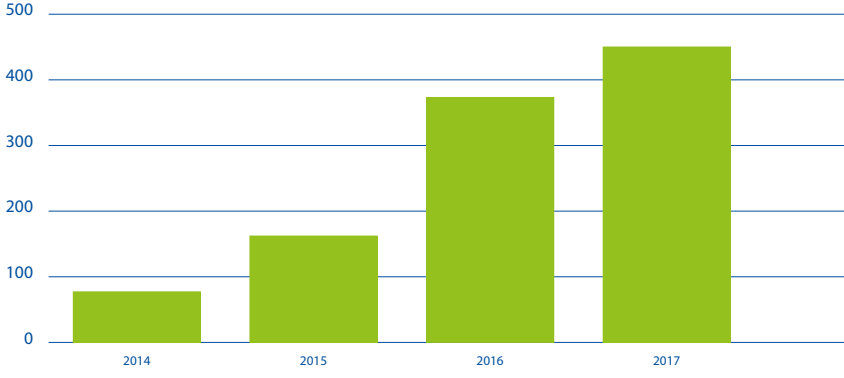
Source: Port of Liège



- An important element of the restructuring process concerns the biomass traffic in the port of Liège. In 2005, an existing coal fired power plant on the Maas River was fully reconverted to biomass. This reconversion was the first 100 % shift from coal to biomass worldwide.
- After a difficult period related to a low profitability and high wood pellet prices, its activity has strongly increased since 2013, causing a tremendous rise in wood products being transported: in 2016, wood pellets traffic increased by 130%, compared to 2015, and in 2017 there was a growth of 20 % compared to 2016.

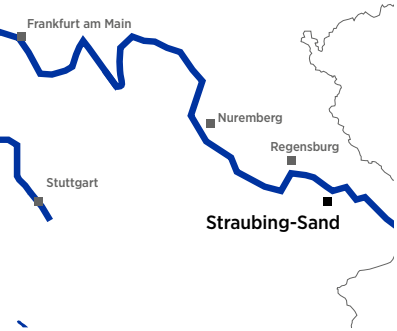
EVOLUTION OF WOOD PRODUCTS TRAFFIC IN THE PORT OF LIÈGE (IN 1000 T)

Source: Port of Liège



- Another activity in Liège in the field of renewable energies is the production of biofuel based on agribulk. For their logistics, this plant makes use of both inland waterways and road transport, while IWT is preferred for long distance transport.

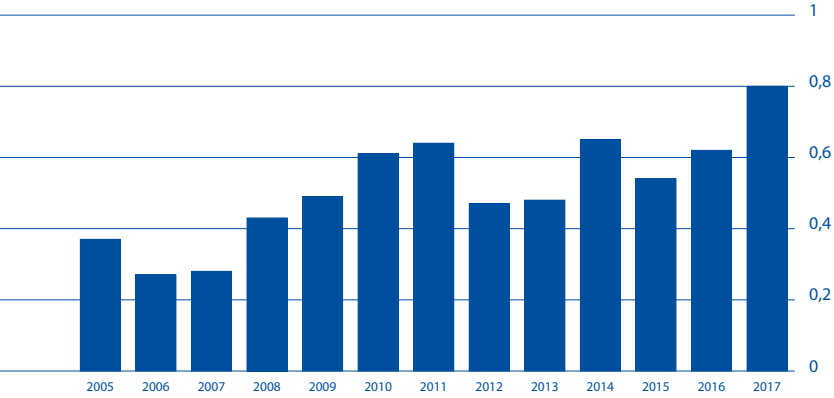
BIOMASS IN THE PORT OF STRAUBING-SAND



The port of Straubing on the Danube (founded in 1996) in southern Germany lies in a region where agricultural products, forests and wood are highly abundant. This was one main reason why the port developed the strategy to become a centre of "green" chemistry. The positive evolution of waterside goods traffic, which nearly tripled between 2007 and 2017, confirms the potential of renewable energies as a segment of activity for inland ports.

EVOLUTION OF WATERSIDE GOODS TRAFFIC IN THE PORT OF STRAUBING (IN MIO T)

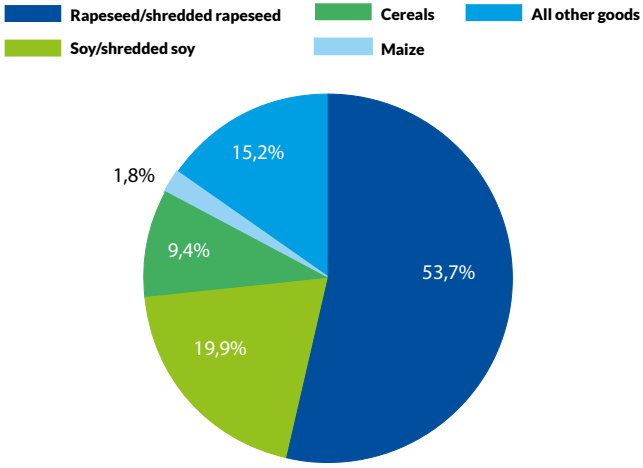
Source: Port of Straubing



- Within waterside goods traffic, the share of biomass is very high (85 %). The largest part of the biomass is used by a company for producing rapeseed oil and shredded rapeseed as by-products. The oil is transported by rail to companies in Austria and the Rhine region, where it is further transformed into biodiesel. The shredded rapeseed is an input for the foodstuff industry in the Netherlands and Belgium.
- Apart from the regional abundance of biomass, the port is importing large volumes of biomass by ship on the Danube from Hungary, Austria and other Danube countries. In 2016, all Danube countries taken together had a share of 56 % of total waterside traffic relations.
- The modal split share of IWT in Straubing stood at 19.8 % in 2017, which is well above the average modal share of IWT in Germany.

WATERSIDE GOODS TRAFFIC IN THE PORT OF STRAUBING
(IN 2017, IN %)

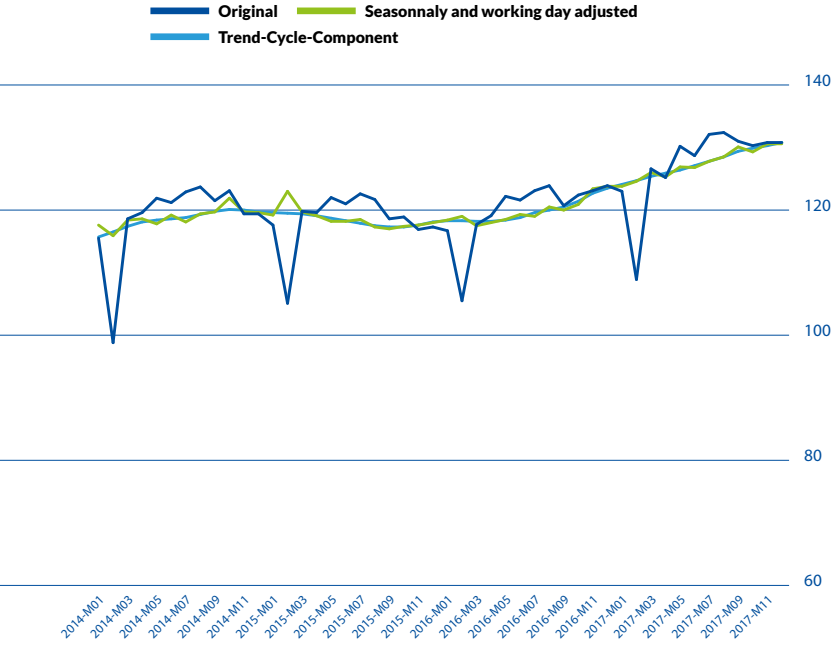
Source: Port of Straubing



WORLD TRADE OUTLOOK AND TRANSPORT TRENDS

RWI/ISL CONTAINER THROUGHPUT INDEX

Source: Computations of RWI and ISL based on data from 82 ports



- 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.
- The index gained 5.4 % in the course of 2017. Its expansion was similarly as strong as in 2016. The progression in 2016 and 2017 indicates that the weakness of world trade, that was present in 2015, has been overcome.

TRENDS IN DEMAND FOR TRANSPORT IN 2018 IN RHINE COUNTRIES

Source: CCNR analysis based on macroeconomic and sectorial data

	Main drivers	Trends in demand for transport in 2018 vs 2017
Agricultural products	Harvest results	Increase
Iron ores	Steel production	Increase
Metals	Steel production	Increase
Coal	Weather & energy policy, partly steel production	Decrease
Sand, soil and building materials	Construction activity	Increase
Containers	World trade	Increase
Mineral oil products	Oil prices and refinery output	Decrease
Chemicals	Chemical production	Stable

- The only change in the outlook compared to the previous report concerns the mineral oil products. Even if oil prices are thought to increase in a limited scope in 2018, transport demand for mineral oil products is expected to decrease slightly in 2018. The reasons are not only the rising prices on the spot markets, but also the change from contango to backwardation on the future oil market, a development that usually causes a falling transport demand.[8]
- 2017 harvest results in France have recovered from very low levels in 2016. This will also increase the transport demand in this segment in 2018 on the French waterways, the Moselle and the Rhine. In the Danube region, however, transport demand in 2018 is weaker than one year earlier due to a weaker harvest result in the Danube region.
- For the steel segment, production figures for 2017 were overall very positive, and the further outlook for the steel industry has brightened, thanks to a synchronised global upswing (see chapter 1) which is expressed by a strong increase in steel production.
- The decline in coal consumption is accelerating. In Germany, the use of coal decreased by 10.4 % in 2017. In the electricity sector, coal was replaced by more renewables and more natural gas. Besides this, several coal-fired power plants were taken off the net. It was only in the steel industry that coal consumption increased slightly in 2017, by 0.6 %.
- The upward movement in the building industry is continuing, as new figures confirm, especially for the Netherlands. The transport of sands, stones and building materials will be promoted further by this development. Even the increase in mortgage interest rates is not supposed to finish the upward movement in the building industry.
- The world trade indicator (RWI/ISL index) showed 5.4 % in 2017 and indicates a clear acceleration in world trade. The world trade outlook for 2018 and 2019 is fundamentally positive.
- It is expected that chemical production will grow only very modestly in 2018. Therefore, the outlook for chemical transport is also stable, with the possibility of a slight increase.

[8] *Contango is a situation regarding the future oil market, when contracts for buying or selling oil in the future indicate a rising oil price (expressed by the behaviour of oil traders). In this case, transport of oil products is increasing, as more oil products are delivered into storage depots. From these depots, oil products are delivered to customers once the increase in prices has materialised. A changing pattern of the future oil market, from contango to backwardation, however, deteriorates the profit potentials of this trade, and decreases related transport activities.*

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

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

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

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

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 Netherlands and Germany

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 Zavodza 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	AgenziaInterregionale 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	Luxemburg
CBS	Centraal Bureau voor de Statistiek	Central Statistical Office	Netherlands
GUS	Główny Urząd Statystyczny	Central Statistical Office	Poland
РЗС	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
Agreste	Agreste	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.

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

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