INLAND NAVIGATION IN EUROPE

MARKETOBSERVATION

2008
1

Market observation no. 7

Situation of supply and demand in 2007 and analysis of the situation at the end of 2008

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Contents

Appendices:

Offer of transport capacity:

Table OM1: national fleets, 2005-2007, by type of vessel
Table OM2: national fleets, at 31 December 2007, by tonnage
Table OM3: national fleets, at 31 December 2007, by year of construction
Table OM4: new vessels up to end December 2008

Demand for transport capacity:

Table OM5: national transport of goods on the States' inland waterways
Table OM6: international transport of goods on the States' inland waterways
Table OM7: total transport of goods on the States' inland waterways
Table OM8: transport of containers on the main routes
Table OM9: transport of containers on the traditional Rhine

Glossary

Sources

Foreword

In accordance with the rhythm of publication adopted, this 2008-1 publication is devoted mainly to an in-depth analysis of the supply of and demand for transport in 2007, a more limited approach to transport in the first half of 2008, and to the prospects for the evolution of the market in the short-term.

This publication has been drawn up at a time of a spectacular about-face in the economic situation in Europe and indeed the world as a whole. The relatively buoyant economic growth observable for a number of years was halted abruptly by the financial crisis in the summer of 2008. Standing at the end of 2008, the economic prospects are looking grimmer day by day for every sector that is a client for transport on inland waterways. No-one knows how the situation will evolve in 2009 or what the scale and duration of the probable recession will be. As a result, the changes that may be observed on the basis of the statistics for 2007 bear no relation to those that may occur in 2008 and even less to those occurring in 2009.

The 2008-1 publication has had to be delayed because the data on goods transport in Europe was not available in full from Eurostat until almost the end of 2008. 2007 is in fact the first statistical year to which the provisions of Commission Regulation (EC) No. 425/2007 are to be applied, and this has caused some delay in transmitting the data on the last quarter of 2007 for some European States.

Although monitoring the offer of transport is still being adversely affected by the difficulties certain European States are having in determining their operational fleets reliably, the development of approaches concerning the demand for transport is continuing, with emphasis being placed on monitoring specific sectors and markets such as, for example, the transport of waste, which is developing strongly.

On the basis of the observations made in the first six publications, an analysis of both trends in logistics over the past four years and the prospects for the future has been carried out by a research institution. Its conclusions are given in this publication with a view to complementing the overview of navigation on inland waterways and its prospects.

It should be noted that this report was drawn up before the economic crisis had truly developed and as a result it has not been possible to include the most recent developments in this publication.

Special Report
Barge transport in Europe: status quo and new perspectives

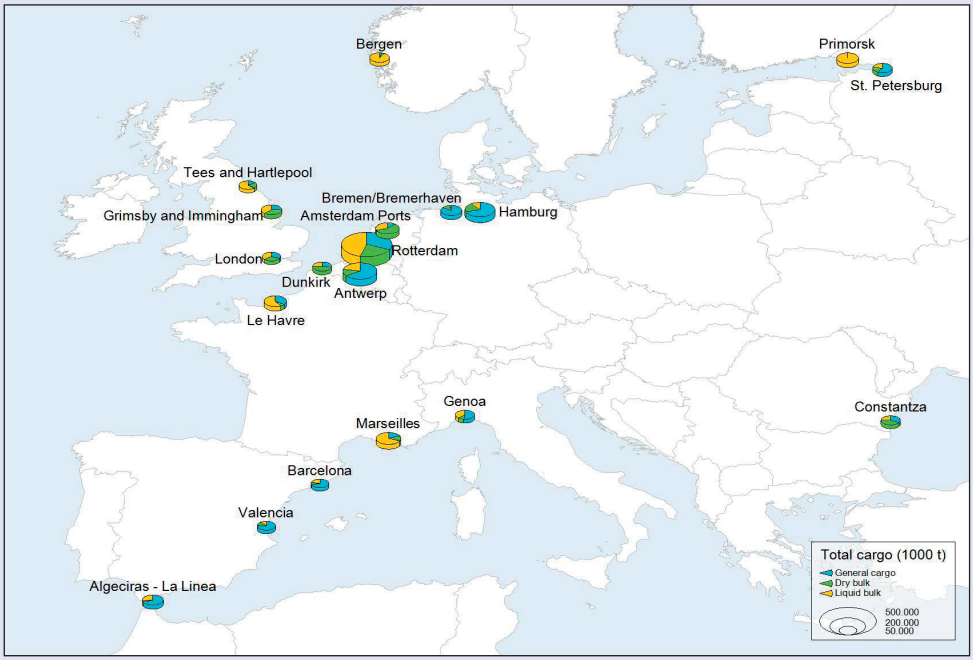
General trends

As other hinterland transport infrastructures are running close to full capacity in and around seaports across Europe, the waterways still have potential for further growth. In recent years, port authorities have therefore strived to increase the share of barge transport in the modal split – with mitigated success.Barge transport is traditionally strong in bulk commodities and in connecting industrial sites with large consignments to the seaports. In container transport, however, inland navigation still faces numerous challenges and has therefore not yet been able live up to the expectations. In the near future, capacity constraints on the other hinterland transport modes and on the terminals may foster new logistics concepts using inland waterway transport as a key element.New impulses for barge transport may also emerge from the compromise of the European Community on energy and climate change in December 2008. The planned CO2 trading scheme to be implemented in 2013 would have to increase the relative cost advantage of barge transport compared to road and – to a lesser extent – rail traffic as inland waterways currently are the most CO2-efficient inland mode of transport. As of today, however, the price of emission allowances and the related impacts are not yet foreseeable.

Bulk trades: high market share for barges

In 2007, there were nineteen European ports with more than 50 mill. tonnes of cargo traffic. Together, they moved 1.8 bill. tonnes, of which 725 mill. tonnes of general cargo, 685 mill. tonnes of liquid bulk and 356 mill. tonnes of dry bulk.

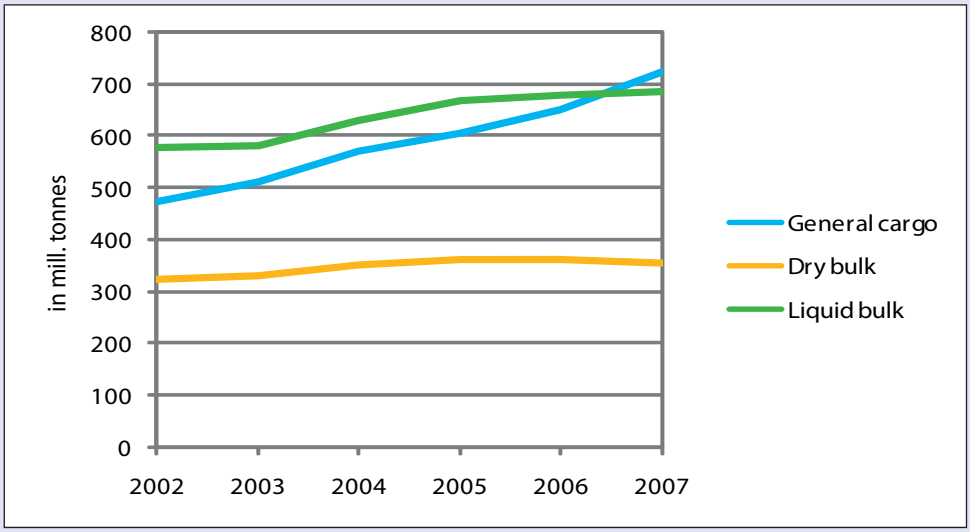
Fig. 1: European ports handling more than 50 mill. tonnes of seaborne cargo in 2007



Source: ISL Port Data Base

Compared to the volume handled five years earlier in these ports, this represents an increase of 33 %. While dry bulk and liquid bulk grew only moderately (1.8 and 3.5 per year on average, respectively), general cargo traffic was particularly dynamic, growing 8.9 per cent per year. The volume of general cargo was more than 50 % higher in 2007 than in 2002. This growth was first and foremost a result of booming container traffic during the past years.

Fig. 2: General cargo, liquid and dry bulk traffic in major European ports 2002-2007

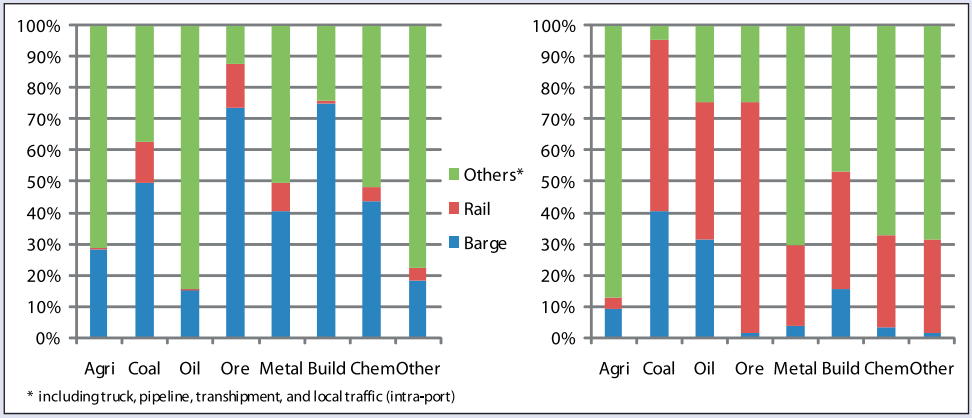


Source: ISL Port Data Base

Some of the cargo has origin or destination in the ports ('local consumption', e.g. refineries within the vicinity of a seaport), some cargo is transhipped, i.e. entering and leaving the port by sea. The largest share, however, is transported from the seaports to the hinterland by barge, rail and truck.

The share of barge traffic in the modal split is particularly high for bulk trades such as coal or oil. Its major advantage compared to railway and truck traffic is the large carrying capacity of barges, allowing considerable economies of scale where large consignments are shipped from or to single customers. This is especially true where large industrial sites or power plants are served with primary materials. Many of these importers have chosen locations at the waterways, often with own cargo handling equipment. On the export side, building materials in bulk have the largest share in barge transport, but oil products and chemicals are also important.

Fig. 3: Modal Split of hinterland traffic at the ports of Rotterdam and Hamburg by major commodity aggregates 2006



Source: ISL, based on Port of Rotterdam and Statistik Nord

In all these segments, barge traffic assumes its role in the modal split and can be expected to grow in parallel to the market. Additional market shares are possible where existing infrastructure restrictions on the waterways are lifted. The development trends for the major branches are summarised below.

Energy sector

In the energy sector, there will be a shift from tanker to dry tonnage. The phasing-out of subsidies in Germany and the reduction of coal production in other European countries, the importance of overseas coal imports will grow in the years to come. During the next 10 years, production in Germany will drop by more than 15 mill. tonnes. As many power plants and industrial sites were supplied by nearby coal mines, carrying distances will increase, increasing the demand for transport capacity. At the same time, a number of coal power plants are currently being constructed in the German hinterland.

At the same time, the imports of oil and oil products are likely to decrease in the middle and long term – especially in Western Europe. In its latest forecast, the Association of the German Petroleum Industry expects a slight decrease of domestic demand by two per cent between 2006 and 2010, and a further decrease of 14.4 per cent until 2025 [MWV 2008].

In the long run, a new market for tanker shipping may be the transport of liquefied carbon dioxide captured from coal power plants' emissions. A first pilot project by Vattenfall using this abatement technology was inaugurated in 2008 in East Germany. However, a widespread use of this technology, which can reduce CO2 emissions by 80-90%, is not expected before 2020. This will also depend on whether and how this technology will be fostered in the context of national and European policies against climate change.

Steel industry

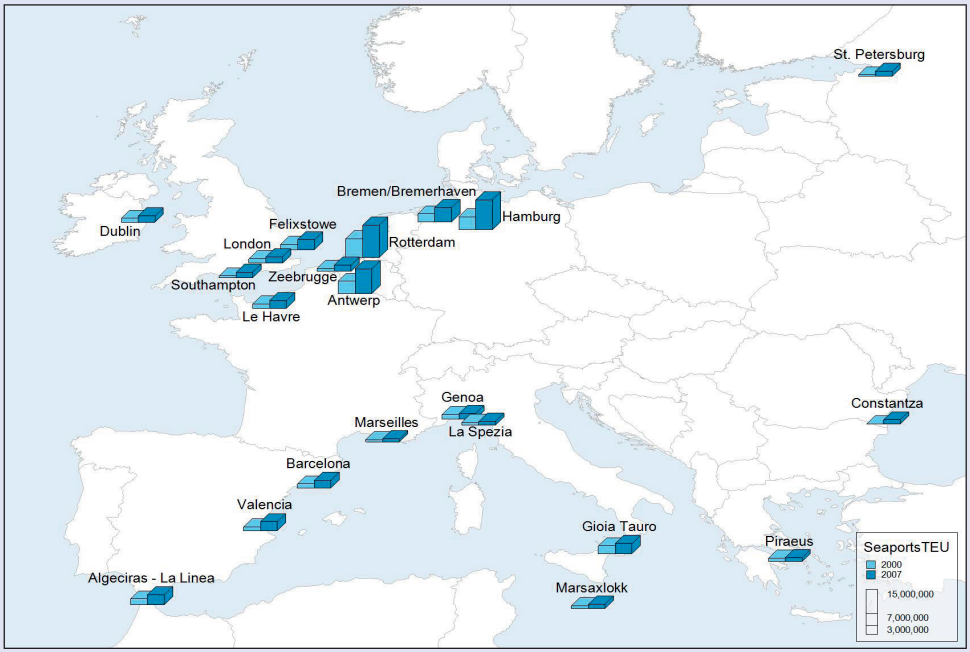
Steel production and steel consumption have seen a boom during the past years as both European steel consumption and steel exports were booming. This led to increasing imports

of iron ore and scrap metal. However, the strongest growth was registered at the port of Hamburg for steel mills in the Peine-Salzgitter region, mostly served by train rather than barge services. The outlook for
2009 is rather bleak due to the global financial crisis and related production cuts, e.g. in the automobile sector. Though growth is expected to recover afterwards, the boom registered in the previous years can be expected to remain an exception.

Chemicals industry
The seaborne cargo traffic of chemical products proved to be particularly dynamic during the past five years. In the three leading European ports Rotterdam, Antwerp and Hamburg, it grew from 32.0 mill. tonnes in 2002 to 44.9 mill. tonnes in 2007. Though the industry also suffers from the current financial crisis [CEFIC 2008], growth is likely to resume once the slump is over.

New perspectives for container traffic on Europe's waterways
For container traffic, the market is much more dispersed. Modal shifts in the hinterland transport chain are widespread, especially on longer distances. Just-in-time operations often necessitate fast and reliable transport solutions, favouring train and truck transport. Also, industries which need a guarantee of continuous supply must often back barge transport by an alternative mode of transport. Extremely high or extremely low waters as well as ice may in some regions hinder inland navigation for several weeks.

Fig. 4: European ports handling more than 1 mill. TEU of seaborne cargo in 2007



Source: ISL Port Data Base

Compared with other cargo types, barge traffic is therefore still largely under-represented in container hinterland traffic of the major European seaports – with the notable exception of Rotterdam and Antwerp, which benefit from their connection to the Rhine. Due to the river's favourable navigating conditions with up to four layers of containers from its mouth all the way to Strasburg and three layers to Basel, it is by far the most attractive inland waterway for containers in Europe.

During the past years, the share of barge traffic in the modal split of the major north range ports was increasing slightly. While their total hinterland traffic grew by 9.1 % per year, barge traffic grew by 9.7 % between 2003 and 2007.

Tab. 1: Share of barge traffic in major north range ports' container hinterland traffic 2003-2007

	Total hinterland 1000 TEU					av. %	Barge traffic 1000 TEU					av. %	Barge share in %	
Seaport	2003	2004	2005	2006	2007	growth	2003	2004	2005	2006	2007	growth	2003	2007
Rotterdam	3517	3878	4088	4469	4843	8.3	1102	1188	1246	1364	1471	7.5	31.3	30.4
Antwerp**	5952	6341	6749	7188	8350	8.8	1818	2034	2312	2377	2750	10.9	30.5	32.9
Hamburg	3678	4159	4513	4850	5390	10.0	58	73	102	90	92	12.3	1.6	1.7
Bremen/Bhv.	1327	1362	1425	1666	1894	9.3	33	41	37	45	54	13.0	2.5	2.8
Total	14474	15740	16775	18173	20477	9.1	3011	3336	3697	3876	4367	9.7	20.8	21.3

* including non-seabourne volumes; 2007 estimated

Source: ISL, based on Port of Rotterdam, Port of Antwerp, Statistik Nord and Senator für Wirtschaft und Häfen, Bremen

Accordingly, while container traffic on the German section of the Rhine reached 1.7 mill. TEU in 2007, it is less prominent on the rivers Weser and Elbe with volumes around 0.1 mill. TEU each. Hopes at the port of Hamburg to increase container transits on the river Elbe to the expanding Czech market have not yet been met.

Inland logistics hubs: new perspectives for barge transport

However, capacity shortages in the major North Range seaports are about to open a new perspective for barge transport. The port of Duisburg sets an example: it is already used today as hinterland hub for the ports of Rotterdam and Antwerp bundling containers for export and distributing import containers. The 265 ha Logport site is a true logistics centre, and its location is rather symbolic for the structural changes that also impact on inland shipping: for almost 100 years up until 1993, it had been a steel mill. During the past years, the major part of the container traffic growth was realised by railway, which repeatedly experienced double-digit growth rates.

The Rotterdam-based terminal operator ECT holds a majority in the DeCeTe terminal in Duisburg and also operates two inland hubs in nearby Venlo (Netherlands) and in Willebroek (Belgium) to bundle traffic. Maersk is currently constructing an inland terminal in the port of Neuss, just opposite to Duisburg, due to be operational by 2010.

All these hinterland terminals are trimodal, offering rail services to the North Range ports complementing barge transport. Value-added services such as packing are also shifted to locations in the hinterland, and logistics companies cluster around the inland terminals to make them fully-fledged logistics centres.

Fig. 5: Existing and planned inland container hubs for North Range ports

Source: ISL

The same tendency could soon be observed in France, too. Congestion on the major hinterland roads is increasingly becoming an issue, increasing the pressure to change the modal split in favour of barge and rail. Existing hinterland terminals in the major consumption centres and industrial regions (e.g. Paris, Lyon, Strasburg) could potentially play a larger role in streamlining France's imports and exports.

Recently, these hinterland hubs are seen as a means to reduce dwell time in the seaports as yard space is becoming one of the major bottlenecks. Shippers and logistic service providers accordingly expect dwelling costs to rise, increasing the pressure to look for alternatives in the hinterland. They are also seen as a way to reduce the number of empty containers in the seaports by better synchronizing the arrival of empties from the hinterland with the departure of the seagoing vessel. Action in this respect is mainly taken by the terminal operators but also by shipping lines. The former try to increase the efficiency of the terminals, the latter want to reduce their port cost. Both are intending to improve their competitive position. In most cases these hinterland hubs are connected to the terminals in the seaports by inland water transport.
While the Rhine and the Schelde accommodate barges with up to four layers of containers, this is not possible on Elbe and Weser. As the cost advantage of barges largely depends on economies of scale, their competitive position compared to other means of transport is not as

good as on the Rhine. While the seaports strive to increase the share of inland navigation to alleviate congestion on roads and railways, third party logistics providers have so far not shown too much interest in container transports to the German North Sea ports. The main customers are rather importing and exporting companies contracting directly with barge operators.

A second factor impeding the development of barge services is the lack of container quay capacity or the low-priority treatment of barges leading to considerable waiting times. The same is true for certain locks. This waiting time additionally increases the disadvantage of barge transport with regard to other hinterland transport means.

France: fostering barge-rail links

In France as well, inland terminals such as Paris, Strasbourg, and Lyon could be further developed into logistics hubs, using barge services to the seaports as a means to streamline container flows and relieve the seashore container terminals.

Fig. 6: Container traffic at major French seaports and inland terminals 2007 (1000 TEU)

Source: ISL

France's major container ports Le Havre and Marseilles are currently investing heavily in new terminal capacities. In Le Havre, the second terminal of the 'Port 2000' project opened in November 2007 and has launched the second phase of the project, planning to commission an additional six berths until mid-2010. The port of Marseilles will boost its container handling capacity by an additional 1.4 mill. TEU by 2010 with the terminal 'Fos 2XL' situated some 70 km west of Marseilles at the mouth of the Rhone. Future plans of the port include the construction of two additional container terminals and a direct connection from the container terminals to the Rhone Canal which links Fos to the Rhone.
Train connections from inland ports to other destinations in the hinterland are seen as a vital element for the promotion of larger volumes of container traffic. If large logistics service providers or operators can be attracted to invest in the inland ports, the latter could be efficiently integrated into the transport chains. Both Seine and Rhone allow transporting three layers from the mouth to the major inland ports Paris and Lyon, respectively.

The Danube river: increasing potential for container traffic

With the entry of Bulgaria and Romania into the European Union on January 1st, 2007, experts expect growing traffic between these countries and Western Europe. With increasing volumes of consumer goods transported between these two new member states and the other European countries bordering the Danube, the river – today almost exclusively used for bulk cargoes – is increasingly attractive for container operations.

Fig. 7: Seaports and inland terminals at the Danube river

Source: ISL

At the same time, the port of Constantza situated at the mouth of the Danube has established itself in the top 20 of European container ports. The port is increasingly used as a gateway for Asian imports to the region and beyond. Between 2004 and 2007, the port has increased total traffic by one million TEU, handling 1.4 million TEU during the first year of Romania's EU membership.

The capacity of the Danube river, which allows transporting four layers of containers from Constantza to Belgrade, and three layers of containers to Bavaria, allows considerable cost savings compared to using the North Range ports for certain regions, most notably for Austria and Hungary. However, transit times of around one week from Constantza to Austria are a considerable disadvantage. Mounting pressure on the North Range ports' capacities and hinterland connections may in the future provide an additional incentive to re-route certain containers via the Danube. A pre-condition, of course, is the acceptance of the new hub and logistic chain by the large players like freight forwarding companies. One main argument to get this acceptance is a cost advantage which might result from less congested port and hinterland facilities as well as from lower cost for inland navigation for emission allowances.

Conclusions

Compared with road and rail, the major waterways still have a large capacity potential. Still, the use of this capacity will not be 'automatic'. Barge transport has to become an integral part of logistics chains and play its competitive advantage where it is strongest: for transports of large volumes of goods which are not too time-sensitive.
Besides the transport of bulk goods, which will remain an important market for barges for the foreseeable future, larger consignments for the industry, different types of consumer goods, but also the transport of empty containers from the hinterland to the seaports are market segments that could be further exploited. It implies that all players along the transport chain organise themselves to realise – and distribute – the associated cost savings. Inland water transport may not be as fast and flexible as road or rail, but it is much cheaper per cargo unit not only in bulk but also in container transport.

In future, the shippers and forwarders will be forced to more explicitly include inland water transport in the planning processes due to rising cost – from congestion, energy, tolls and other fees. With adequate planning tools inland water transport could be integrated in many logistical chains even under the "just-in-time"-aspect.

For increasing the share of barge transport in container transports as desired by governments across Europe, the following measures would be important:

- *fast and reliable treatment of barge ships in the seaports, e.g. through dedicated barge terminals*
- *infrastructure investments in key bottlenecks (locks, bridges, etc.) to reduce waiting times and/or increase the permissible ship sizes*
- *increasing the relative cost advantage of barge transport via the reduction of fees or financial incentives for the use of the CO2-efficient barge transport*
- *transfer of distribution activities to inland hub terminals through the bundling of container traffic flows*

The promotion of barge transport therefore necessitates the cooperation between seaports, politics, barge operators and logistics service providers. If such conditions are met, barge transport may increase its market share even in market segments where it today only plays a minor role.

The market for transport on inland waterways in 2007 and early 2008

INTRODUCTION

In order to describe the level of activity of transport of inland waterways in Europe, and more particularly its prospects for the coming months, it is necessary to take into account the level of economic activity in Europe and worldwide. Demand for transport of any kind depends on the intensity of economic activity and more particularly on an increase in gross domestic product (GDP).

SECTION 1: ANALYSIS OF THE DEMAND FOR TRANSPORT

1. Economic growth - evolution and prospects

According to the most recent estimates, the gross domestic product (GDP) in the euro area and in the 27-member European Union fell by 0.2% in the third quarter of 2008 compared with the preceding quarter. The drop was particularly noticeable in Germany and in Italy (-0.5%). In these States, the industrial sector – which usually reacts more to slowdowns in the economic situation than the services sector does – is particularly important. In comparison, GDP has remained relatively stable in France, the Netherlands, Switzerland and Austria, and has even increased in eastern European States as their economies continue to catch up (Czech Republic: +1%, Poland: +1.2%, Slovakia: +1.5%). The fall in industrial production accelerated considerably towards the end of 2008 in most of the 27 Member States of the European Union. In September, the entire industrial production of Germany only fell by 1.8% compared with September 2007; the figure for the drop increased to 3.8% for October compared with the previous year, and to as much as 6.6% in November. In the same month, France even recorded a drop of 10.7% compared with November 2007. The drop in industrial production was similar for November in Italy (-9.7%), the Grand Duchy of Luxembourg (-13.8%) and, to a lesser extent, the Netherlands (-5.5%).

The evolution in orders recorded by the industrial sector reflects the continuation of this worsening of the economic situation. Further to the slowing down of world trade, this indicator has been falling throughout the euro area and in the 27 Member States of the European Union. In September, orders decreased by approximately 4% in the euro area compared with the previous month, the figure being as much as 4.6% in the 27 Member States of the European Union. This confirms the downward trend that was already being felt in the second half of 2007. The evolution in orders has varied according to the industrial sector under observation. While the chemical and textile industries managed to record a slight improvement, the machine and installations construction sector suffered considerably. This was particularly noticeable in the iron and steel sector and in the vehicle construction sector.

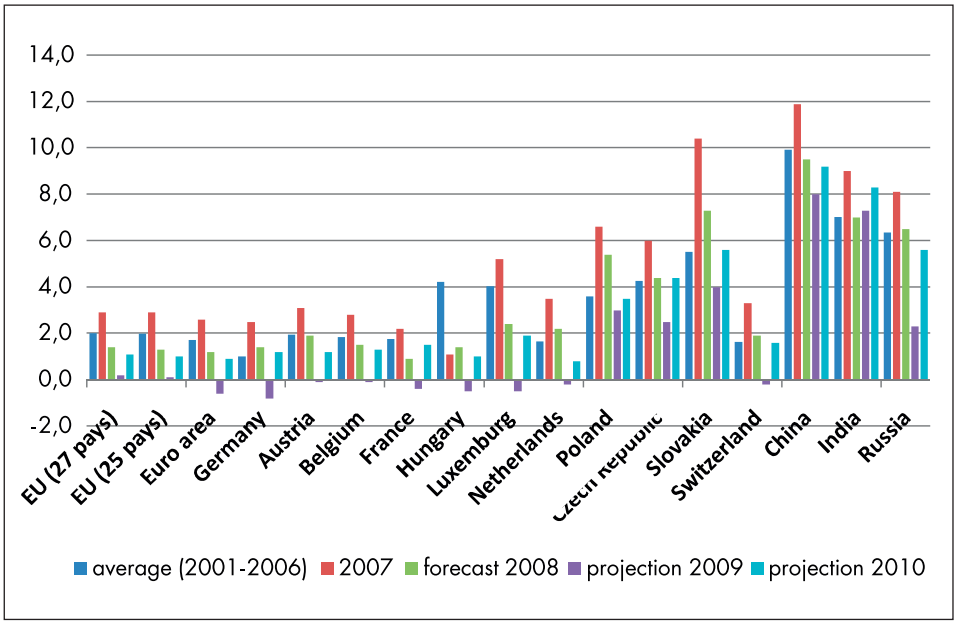
The European States are being affected slightly differently by the present economic crisis. France should be recording a slight drop in exports next year, while corporate investments

should drop significantly. On the other hand, household consumption keeps the economy going, as a result of the low level of indebtedness of the private sector and the drop in inflation. The unfavourable evolution of the automobile sector is raising particular concerns because of its repercussions on the entire economy and more particularly on the iron and steel sector. In France, as throughout the euro area, the conditions for granting credit to the private sector have deteriorated continuously in recent months. Large undertakings suffer more from these credit restrictions than small and medium-sized businesses.

The German economy relies heavily on exports by its industrial sector, and has therefore been hard hit by the global recession. As in France, industry is suffering from the global crisis in the automobile sector. The prudent attitude adopted by households in terms of consumption is making this crisis worse. Thus in November 2008 Germany recorded an 18% drop in sales of automobiles. Household consumption in other sectors, however, has taken advantage of the drop in inflation and oil prices, recording an increase of 0.3% (corrected figures) in the third quarter. At best, consumption will remain stable in 2009; it will not be enough to offset the negative evolution of exports and investments.

In the Netherlands and Belgium, the effects of the recession will be slightly less marked than in France and Germany. A slight decrease in general economic activity is nevertheless likely in 2009. This drop will mainly be the result of the drop in exports, whereas household consumption and public investments will have a stimulating effect.

Fig. 8: Evolution of actual GDP (%)



Source: Eurostat (all States except China, India and Russia); China, India and Russia: International Monetary Fund (IMF), OECD

Demand from Asia will have a favourable effect on the GDP of those regions particularly affected by the economic crisis, and more particularly in the USA, but also in Europe. Without this demand for capital goods from the Asian countries, the drop in demand would be much more marked.

The United States are currently facing a particularly difficult economic situation. The financial crisis is being reflected by a substantial and lasting reduction in the granting of credit, which is leading to a significant drop in private investment. The drop is much greater than in Europe. The crisis will continue, mainly because the banking and property sectors have taken a serious blow which has been reflected by considerable loss of wealth. As private consumption is heavily dependent on wealth in the United States, it will continue to suffer from the banking crisis for some time. This factor is all the more important in that private consumption contributes much more to economic growth in the United States than it does in Europe.

Despite the stabilising function of the emerging countries already mentioned, growth has also slowed down considerably in Asia and in Russia.

Although China saw two-figure annual growth in its GDP between 2003 and 2007, growth will only be 7.5% in 2009. This is a result of the collapse of the world market, on which Chinese growth is heavily dependent. The evolution of trade with the Asian countries has also had a serious effect on the activity of Europe's sea ports, particularly in terms of volumes in transit. The situation in India is also expected to continue to deteriorate, one of the reasons being terrorist attacks. The Russian economy depends heavily on energy exports, so a drop in oil prices is reflected by a drop in turnover for exports in the energy sector. This affects not only exports, but also investments, household consumption, and industrial production. In the coming years, exports of investment products from western Europe will also suffer. The Russian rouble is losing value in the face of these problems. Growth in Russia will be barely 2% in 2009.

A side-effect of the slight decrease in growth in Asia will also affect the evolution of prices for oil and raw materials. Because of the deterioration of general macroeconomic conditions in India and China, which were still tending to overheat in the spring, the pressure on prices for oil and raw materials has been relieved somewhat. In Europe, this is enabling companies to benefit from lower prices for oil and raw materials, and enabling consumers to have more net income, which is keeping household consumption stable. This factor does not, however, make it possible to conclude that the situation will improve in the near future. It will take time for the banking sector to regain the confidence it has lost, and it is this process that is a condition for the resumption of investment and hence of the economy in general.

Overall, after a moderate growth of european GDP in 2008, stagnation is expected in 2009. According to the experts, there will be no improvement in the form of an upturn in economic activity in Europe before 2010.

2. Demand for transport - evolution and prospects

The evolution of demand for transport is closely connected to economic growth and, consequently, it showed a relatively high level in 2007 and in the first half of 2008. Although the figures for the second half of 2008 are not yet available, it is likely that demand for transport is regressing, particularly in western Europe because in the current economic situation every industrial sector is revising its production figures downwards.

2.1 Overall evolution of goods transport

In the major States of western Europe, the volume of goods transported by rail showed an increase of approximately 4% in 2007. In the first half of 2008, this growth even reached 6.5% compared with the previous year. In these States, the volume transported increased by 3.5% for road transport and by 2.5% for transport by inland waterways (Eurostat). This means that between 2006 and 2007 growth in the States of western Europe was somewhere between 3.5% and 4%, with growth probably being strongest in the new EU Member States. Demand for transport recorded a further increase in the first quarter of 2008.
In 2007, the volume of containers passing through sea ports accessible to inland navigation (Hamburg-Le Havre Range) increased by 13.8%, reaching 39 million TEUs. This volume had to be transported between the sea ports and the hinterland using various modes of transport on land. After the financial crisis began, and above all after the inversion of the trend in the economic situation that it sparked off, demand for the transport of containers and goods fell as a result of the slowing down of the economy. This drop was particularly noticeable in the sea ports and for maritime traffic. Although all the other modes of transport were also affected by this inversion of the trend, it is still not yet possible to give precise details for the various modes of transport on land.

2.2 Transport of goods using inland waterways

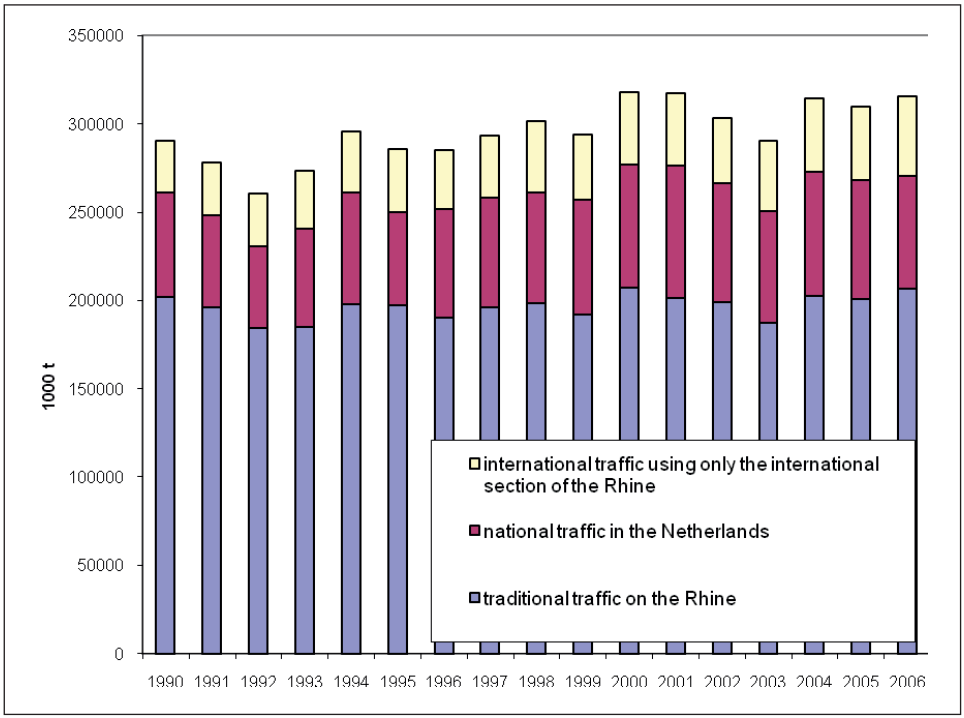
2.2.1 The main European routes

The Rhine route

In 2007, the volume transported on the Rhine increased by 2.6%. The volume transported in the second half of the year showed an increase of 1.3% compared with the previous year. The transport of dry goods increased by 4.4% in 2007, while tanker transport dropped by 3.5% despite good results in the chemicals sector.

During the first half of 2008, navigation on the Rhine was able to benefit from strong demand, as the economic situation was still favourable in Europe. The total volume transported remained at the same level as the previous year, during which the economic situation was generally favourable. With the inversion of the trend that took place at the end of the summer, it is probable that the results will not be so good for the second half of 2008. The only increase in activity was recorded in the transport of oil products, because of the substantial drop in prices on the world oil market.
For the transport of dry goods, the first half of 2008 was comparable to the first half of 2007.

Fig. 9: Volumes transported on the Rhine



Source: CBS, Destatis, CCNR Secretariat

It can be seen, however, that the volumes transported on the Rhine began to decline from mid-spring 2008, compared with the previous year. The drop was more marked from June onwards.

For the sea ports, the forecasts for handling calculated in autumn 2008 looked to a significant drop in 2009. This will without a doubt have unfavourable repercussions on the demand for transport from and to the hinterland.

Fig. 10:

Main transport flows of the inland navigation in Europe

**) data not available*
Source: CCNR Secretariat

East-west route in northern Europe – the Mittellandkanal

On the Mittellandkanal, the total volume transported increased by 2.9% in 2007. Through transport in particular increased by 16.3%. Regional transport alone, however, accounts for 86% of all transport on the Mittellandkanal, with a slight drop in 2007 (-0.5%).
Driven by the economic situation, the transport of sand and gravel increased by 18.1%, the transport of coal increased by 5.4%, and the transport of iron and steel products increased by 61.7%.

The handling of containers in the main ports on the Mittellandkanal was globally stagnant in terms of number.

The transport of goods for the use of the agricultural and chemical sectors fell back slightly. The transport of oil products fell by 22.8% because of the high prices on the oil market.

East-west route in the south:

Main and Upper Danube Canal
The upper Danube (Germany and Austria) and its link with the Rhine via the Main-Danube

Canal form the first segment of the southern east-west route.
The transport of goods on these waterways increased overall by 12.2% in 2007, reaching the figure of 30 million tonnes.
The canal constitutes the geographical link between the Rhine/Main basin and the Danube.
It can, however, be seen that only 6.6 million tonnes (+6.5% compared with 2006) are being carried on the Main-Danube Canal; this represents trade between the Rhine basin and the upper Danube basin.
Thus, in economic terms, these two markets remain relatively separate. Most of the international transport of goods using the Austrian waterways involves the middle and lower Danube. Similarly, it can be seen that upstream of the canal, most of the commercial transport between the Main and the Rhine involves the Main region.
As for the evolution of transport, it should be noted that transport on the Austrian section of the Danube increased by nearly 28% in 2007, while transport on its German section increased by only 6.5%.
In general, the volume transported on this route increased substantially in all sectors. This was the result of the favourable situation in 2007 and the good water conditions on the upper Danube, which navigation was able to take advantage of.

- MIDDLE DANUBE
The evolution of the transport of goods on the middle Danube (Hungary, Slovakia, Croatia, Serbia) varied. Although not all the data is available, it appears that the volume transported decreased in Croatia but increased considerably in Slovakia. This was also a consequence of the good economic situation in 2007 in the iron and steel sector (in Slovakia) and strong activity in the building sector.

- LOWER DANUBE
In 2007, the transport of goods increased by 2.5% on the lower Danube. Coal, chemicals, oil and building materials recorded substantial increases, whereas products connected with the iron and steel industry and the agricultural sector showed a drop. The transport of containers is increasing rapidly in this sector, but – expressed in tonnes – still remains 20 times less than the amount transported in Germany.

2.2.2 National and regional transport

FRENCH NETWORK OF INLAND WATERWAYS:
In 2007, the volume of goods transported on inland waterways dropped by 5.1%. This was the overall view, covering specific evolutions in terms of geography and market segments. Container transport was the only type of transport to record growth in nearly every sector (except for the Rhine).

- SEINE BASIN
In 2007, 40% of the approximately 460 000 TEU containers transported annually on inland waterways were transported on the Seine.
Thanks to the globally favourable situation in the steel sector, there was an increase of 43.6% in terms of t/km.

- NORD-PAS-DE-CALAIS
In this region, the transport of containers made a little progress, reaching 71 000 TEUs. It should be noted that new potential has been available in this region since September 2007, as there is a new waste recycling company, and 6 600 TEUs of waste were transported during the last four months of 2007.

- SAÔNE-RHÔNE
The Saône-Rhône basin recorded a 9.5% increase in the transport of containers in 2007. This involved mainly the link between the sea port of Marseille and the hinterland.
In the chemicals sector, this waterway recorded an increase of 30.8% in services (in t/km). On the other hand, the transport of oil fell, as on all the other inland waterways of Europe, because of the high price of oil.

DUTCH AND BELGIAN NETWORK OF WATERWAYS
Overall, the transport of goods increased by approximately 2% in the Netherlands. The international transport of containers increased by 3.5%. The situation was similar in Belgium, where the increase in the international transport of containers was as high as 5%.

WATERWAYS IN GREAT BRITAIN
The waterways in Great Britain do not constitute a network; they are isolated waterways connected to the sea. Transport is national. There are five main routes for waterways – the Thames, the Forth, the Humber, the Manchester Ship Canal, and the Mersey.

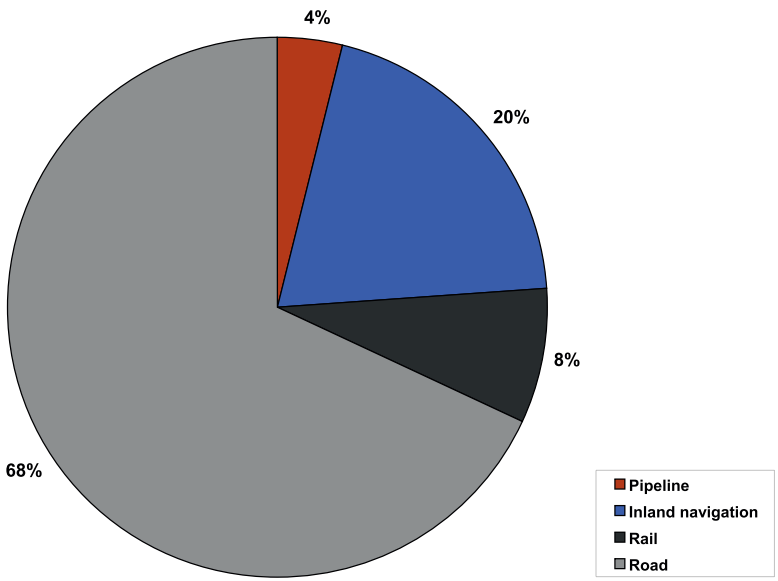
The River Thames represents two-thirds of the volume transported, i.e. approximately 2.4 million tonnes of the 3.4 million tonnes of exclusively inland transport. Adding national transport produces a figure of 52 million tonnes. Exclusively inland transport has been stagnant for years, whereas transport from or to sea ports has been increasing for the past four years.

Apart from inland waterways vessels, vessels operating on both rivers and the sea are also used; they continue their coastal navigation inland on the waterways. This means that navigation on Britain's inland waterways may be considered as being included in coastal navigation. An important volume of oil is also transported to inland ports from offshore oil rigs.

From the point of view of geographical structure, the average journey length for vessels on inland waterways is much shorter than those on the western European network. The average distance travelled in Great Britain is in fact estimated at 40 km.

Over the past ten years, the volume of goods transported by waterway has dropped by 11%. Expressed in t/km, the River Thames is the main waterway, on which 48% of services are carried out (in t/km). As far as the modal split is concerned, approximately 5% of goods are transported by inland waterways vessels in Great Britain.
52 million tonnes were transported on inland waterways in 2007, which is approximately 2% more than during the previous year. 35% of the volume transported is dry cargo, 33% is liquid cargo, and 22% is containers, the remaining 10% being other types of cargo.

Fig. 11: Modal split in Great Britain (in %)



Source: National Statistics (Ministry of Transport)

Main secondary waterways in Germany

Weser

In 2007, total transport on the middle Weser increased by 2.6%. Regional transport, which represents 94% of the total, stagnated, whereas transit transport doubled. The total figure for transport reached 7.466 million tonnes.

The transport of containers into and out of Bremen dropped by one-third in 2007 (from 6 549 in 2006 to 4 136 in 2007). Transport on the Elbe bypass canal increased by the same proportion, which is a sign of a possible shift from Bremerhaven to Hamburg.

Moselle

On the Moselle, upstream transport comes almost exclusively from the Rhine, and downstream transport transits almost exclusively via the Rhine. The observation of transport on the Moselle is therefore carried out mainly on the basis of indications concerning passage through the locks in Koblenz and, for transport in France, the lock in Apach.

In 2007, the volume transported on the Moselle dropped by 7.8%, on the basis of passage through the locks in Koblenz. The main reason for this drop is a decline in the transport of the main types of goods. The transport of coal for the iron and steel industry and for power stations, for example, dropped by 12.9%, and the transport of oil fell by 17.1%.

Only the transport of raw materials for the iron and steel industry increased, by about 2.6%. Downstream, there was a 13.6% drop in transport for the agricultural sector. On the other hand, the volume of iron and steel products transported increased.

The transport of containers increased considerably in 2007, both up- and downstream. The increase was not significant, however, as the volumes concerned are very small.

The number of passenger vessels operating on the Moselle also increased in 2007, by 9.6%.

The lock in Koblenz saw a better filling rate for laden vessels in 2007, despite slightly smaller volumes and fewer passages through the lock (81.8% of full load upstream and 75.3% downstream), i.e. a 7% increase in the rate of use of available capacity. In Apach, the increase was 3.4%. Koblenz saw more particularly an 11.5% increase in the transport of coal. This increase was a result of both the favourable situation of the steel sector and the requirements of power stations for the production of electricity. As on the Rhine and for the same reasons, the transport of oil products fell back over the same period.

The prospects for demand for transport are poor for the second half of the year and above all for 2009.
It should be borne in mind that nearly 80% of the goods transported on the Moselle are products connected with the coal and iron and steel industries.
Currently, production forecasts in the iron and steel industry are deteriorating day by day and production was even partially interrupted in the closing months of 2008. This will certainly affect demand for transport on the Moselle, although it is not yet possible to put a figure to it.

Elbe

Generally, the volume transported was stagnant in the Elbe sector in 2007. Examination of the results for the individual sections of the waterway points to a number of disparities, however. Thus the volume transported was considerably lower for commercial transport at the border between Germany and the Czech Republic. The volume of this transport amounted to only 640 000 tonnes in 2007, compared with 980 000 tonnes in 2006. This reduction in volume is mainly the result of the decrease in the transport of cereals, and the other products carried were not able to offset the drop.

On the sector north of Geesthacht, the connecting point with the port of Hamburg and the North Sea, there has also been stagnation in the transport of goods. Detailed examination, however, reveals a clear increase in the transport of coal (+9.3%), goods connected with the iron and steel industry (+13.5%), materials for the building sector (+19.3%), and chemicals (+18.5%). The transport of TEU containers increased by nearly 43% in this sector, while the transport of oil and agricultural products dropped substantially.

The transport of goods on the secondary waterways of the Elbe (the Mittellandkanal, the Elbe-Havel canal, and the Elbe bypass canal) increased overall; transport into and out of Lübeck even increased by 63%.

It is evident that the favourable economic climate in 2007 resulted in strong demand for

transport on the Elbe. This trend was able to continue during the first half of 2008, but demand began to feel the effects of the economic crisis starting in autumn 2008. The forecasts for 2009 are similar to those for all navigation on inland waterways in Europe immediately dependent on industrial activity.

In structural terms, it should however be noted that the past ten years have seen a drop in the transport of goods on the Elbe. This drop is the result partly of the restructuring of the industrial scene in the upper Elbe following privatisation. However, significant variations in water conditions also contributed to the drop.

The Elbe is a waterway that still has considerable potential for development. It could in the future become an important link between the hinterland and not only the northern German sea ports (particularly Hamburg) but also Berlin, Magdeburg and Dresden, as far as the border with the Czech Republic. In particular, there is strong demand for the return transport of empty containers from the hinterland as far as Hamburg. The development of the Polish sea port of Szczecin could have a favourable effect on navigation on the Elbe. Berlin could also make more of service by inland waterway.

Development of this waterway is currently hampered by very variable water conditions, particularly upstream of Magdeburg, which reduces the number of days on which navigation is possible, thereby affecting profitability. The available draught constitutes a bottleneck, particularly on the Czech Republic side, approximately 40 km from the frontier. To improve the situation, a new lock under construction in Decin should help to stabilise water levels. This would ensure a draught of 140 cm every day of the year, and a draught of 220 cm 180 days a year.

Other projects for the construction of locks should ensure the stability of water levels of the Elbe and the bypass canal by 2010. There are also plans to raise the headroom of the bridges on the German part of the Elbe in order to allow the transport of a second layer of containers between Hamburg and Berlin. This should also make the multi-modal container terminal at the embouchure of the Saale-Elbe more attractive for inland waterways traffic. There is still potential for inland navigation on this route because of the saturation of the rail network.

Other measures and investments will be needed to optimise the upper Elbe. 55% of the goods transported between Hamburg and the Czech Republic are in fact carried by rail, and only 20% by inland waterway.

Oder

In 2007, handling in German ports on the Oder increased by 3.3%.

The River Oder connects Berlin to the Baltic port of Szczecin, which is currently being developed as a deep-sea port, and therefore has potential for inland navigation. In terms of volume, coal is the most important cargo for transport from Poland and Russia to Germany but, to a lesser extent, forestry products, cereals and containers are also carried on this route. Although the volume is still relatively low, as already indicated, there has been significant growth. The development of this type of transport depends essentially on the sea port of Szczecin, particularly for containers and wood. The transport of coal to Germany, however, depends

on Germany's energy policy and the possible construction of new power stations (particularly in Berlin). Large quantities of building materials are also transported as far as Berlin from Poland. Demand in this sector should hold steady.

As on the Elbe, current conditions for navigation on the Oder are restricting the development of inland navigation as a reliable mode of transport. There is potential both to the sea ports and from the port of Schwedt, which is important both for the region and beyond for the export of oil products and products from the paper industry.

The lower Elbe has the benefit of better conditions for navigation. On the German coast, a bypass channel parallel to the Oder offers relatively stable water levels. Poland's ODRA 2006 development programme aims to achieve a continuous draught of 180 cm on the eastern Oder.

The middle Oder is the most difficult sector as regards water conditions. These depend directly on precipitation. The ODRA 2006 project also takes this factor into account. A drop is anticipated, but other infrastructural work would also be necessary, for example the creation of bypass channels.

Generally, transport on inland waterways in Poland fell by a further 2.5% in 2007. There has been a drop each year since 2004, aggregating at 11.7% over the past four years, despite a very favourable economic climate.

2.3 Appreciation of demand for transport, by sector

2.3.1 Agriculture

During 2007, demand for transport on European inland waterways from the agricultural sector fell. On the Rhine, the transport of wheat fell by 17% during the second half-year. This is the consequence of the poor harvest, which resulted in a fall in exports. The high market prices also caused an increase in the volumes in store. The trend was the same for barley. The trend reversed in the sea ports during winter, however, as more cereals were imported to meet demand.

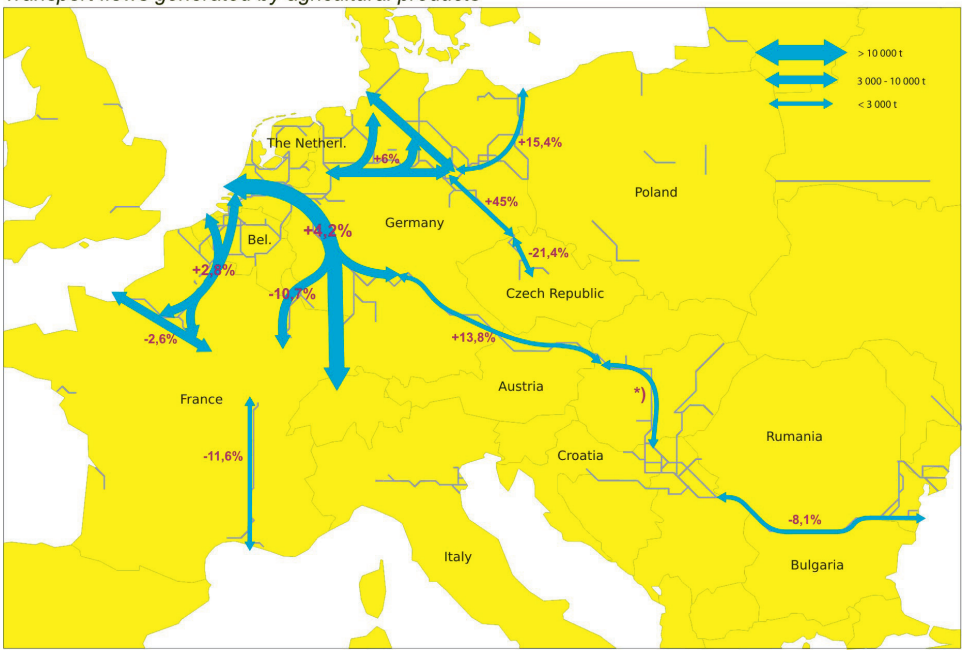
Despite this evolution, transport stagnated during the first half of 2008. The increase recorded for certain products was offset by decreases for other products. The transport of foodstuffs and animal feed progressed by nearly 1.6%. The upstream transport of oils, oleaginous crops and oil cakes increased by 12% because of strong demand for bio-energy and plant oils. The transport of animal feed even increased by more than 25%.

The transport of fertilisers increased by 13.4% compared with the first half of 2007.

Contrary to transport connected with industry, demand for transport in this sector could be relatively sheltered from the effects of the economic crisis.

Fig. 12:

Transport flows generated by agricultural products



**) data not available*
Source: CCNR Secretariat

2.3.2 Iron and steel products

Introduction

Steel is produced by two techniques; each uses different raw materials. While oxygen steel uses iron ore and coal, electric steel uses scrap metal, which is melted down. The market share of the two methods in the main producer States in western Europe is given in the table below.

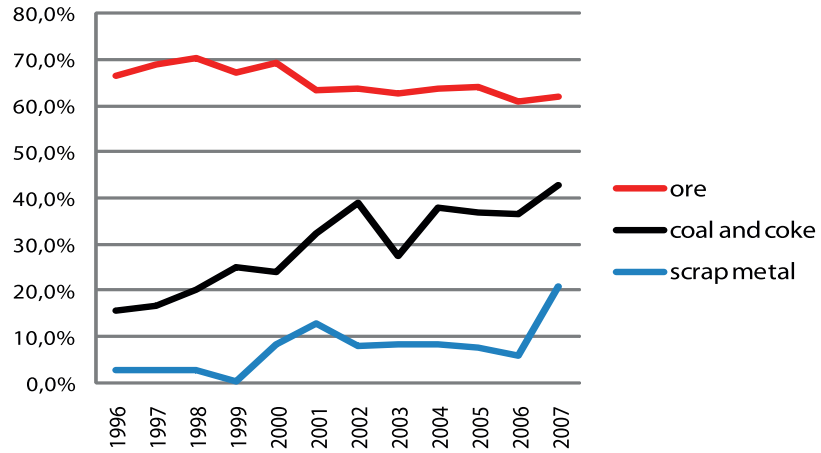
Table: Breakdown of steel production by technology (%)

	Oxygen steel	**Electric steel**
France	62	38
Germany	69	31
Belgium	67	33
Netherlands	97.7	2.3

Source: Association Française de l'Acier, Eurofer, CCNR calculations

In Germany, the main steel producer among the 27 EU Member States, the proportion of navigation on inland waterways in the modal split is 43% for coal, 62% for iron ore and 21% for scrap metal. Since 1996, navigation on inland waterways has become more important above all for the transport of coal, whereas its share of the transport of ore has remains relatively stable. There has been a steep increase recently for scrap metal which may be explained by the fact that increasing numbers of navigation companies are devoting themselves to the transport of raw materials for the production of electric steel. The sharp increase in prices for scrap metal has probably also encouraged many steelworks to turn to navigation on inland waterways in order to offset these high prices by using a cheaper mode of transport.

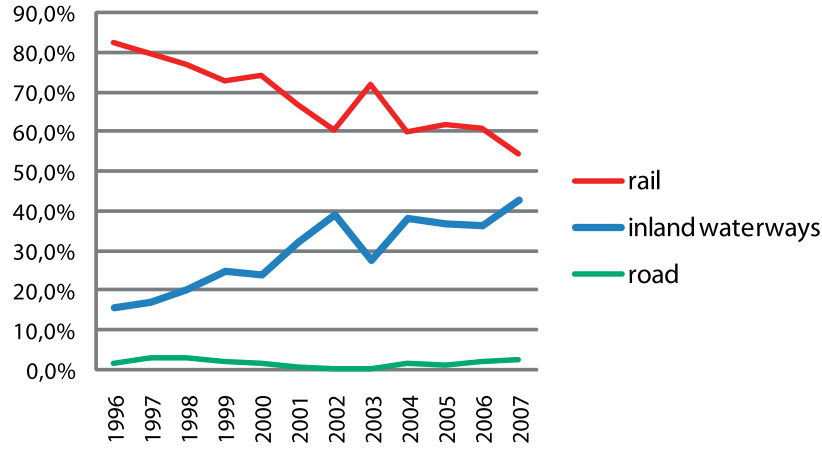
Fig. 13: Percentage of the modal split occupied by inland navigation for raw materials for the iron and steel industry (%)



Source: Wirtschaftsvereinigung Stahl

Examination of the data for coal shows that navigation on inland waterways has won a substantial part of the market away from rail transport.

Fig. 14: Percentage of modal split occupied by the iron and steel industry in Germany - solid fuels (%)*



Source: Wirtschaftsvereinigung Stahl ** coking coal and coke*

Links between production of steel and transport

The production of steel is closely linked to the transport of iron ore, scrap metal and coal. Imports of iron ore arrive mainly in Rotterdam, Amsterdam, Antwerp and Ghent, and are then transported to their destination by vessels on inland waterways. For the 27 Member States of the EU, the main supplier of iron ore is Brazil, which is the source of 54% of imports. The other major exporters are Canada (9%) and Russia (8%). Statistical analyses have shown that a 1% increase in German production of oxygen steel is reflected by an increase of approximately 1% in the transport of iron ore on the Rhine. A 1% increase in French production of oxygen steel produces an increase of approximately 0.2%. This is plausible inasmuch as the iron and steel industry in Lorraine receives a large part of its raw materials via the Rhine and the Moselle. There is a similar link between production and transport for scrap metal, the other major raw material used in the iron and steel industry, together with coal and iron ore. If German production of electric steel increases by 1%, there is a 1.25% increase in the transport of scrap metal on the Rhine. A 1% increase in French production of electric steel produces a 0.2% increase in transport. There is a similar econometric relationship between the production of steel and the transport of sheet steel. A 1% increase in German and Dutch production of steel produces a 0.7% increase in the transport of sheet steel on the Rhine. The figure for Belgian steel production is currently 0.3%.

General evolution of the situation in the iron and steel sector

Between January and October 2008, production of steel in the 27 Member States of the EU increased by 0.3% compared with the same period of the previous year. In France, production fell by 5% in the first half of the year compared with the annual average, but after recovery from the drop between January and October was only 3% compared with the same period of the previous year. In Germany, production fell by 0.5% in the first half of the year, but the decrease was accentuated from September onwards. Steel production fell by 8% in October compared with the same month in the previous year, and then by 18.5% in November and by nearly 35% in December compared with the same months in the previous year. Since the third quarter, steel producers have significantly cut back on production; in some steelworks production has actually stopped temporarily. The drop in or suspension of production is likely to continue for some time. Further to the drop in demand for steel, prices for scrap metal have almost halved and there has also been a substantial drop in iron ore prices. For steel purchases, however, prices will not fall until spring, when prices are to be renegotiated.

Fig. 15:

Transport flows generated by Iron and steel products

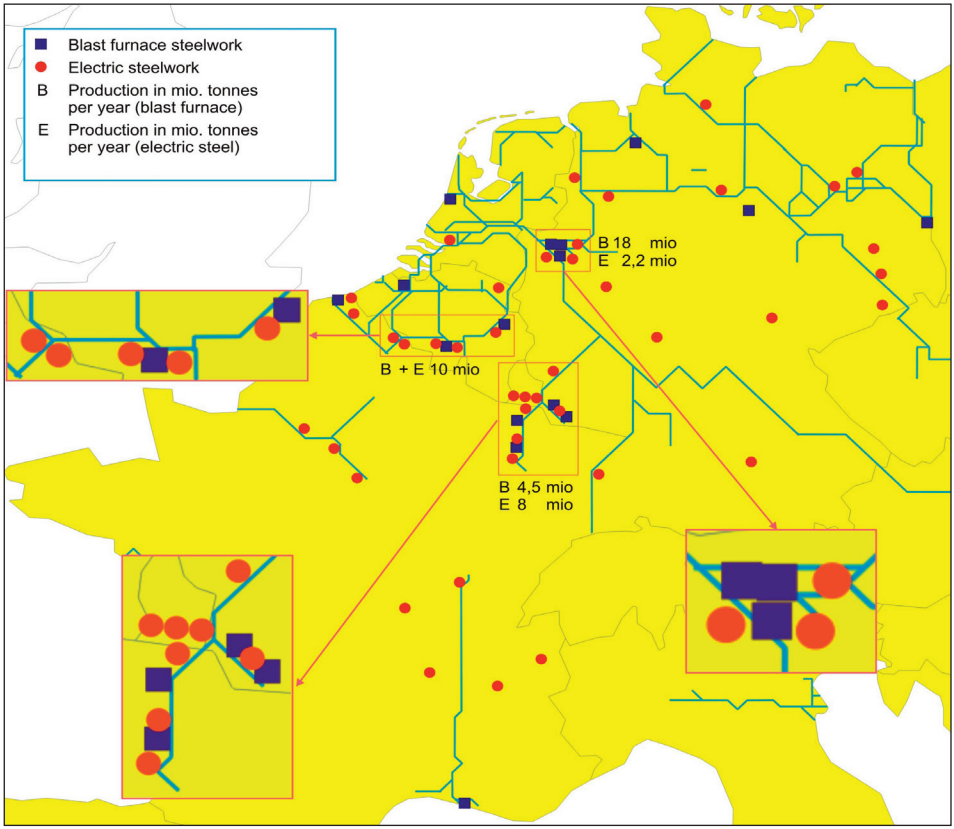
**) data not available*
Source: CCNR Secretariat

Transport using inland navigation, and forecasts

The evolution of the transport of steel, iron ore and scrap metal on the whole is following the slowing down of the economy. For finished products such as sheet steel and wide flats, a drop of 1.5% was recorded on the Rhine during the first half of 2008 compared with the first half of 2007. For the transport of iron ore, the first half of 2008 was marked by a 3% drop. The transport of iron ore on the Rhine represents nearly 100% of the transport of iron ore on all inland waterways in Germany, because the iron and steel industry is heavily concentrated near the Rhine, the Saar and the Moselle. Consequently, the results recorded on the other inland waterways are similar to those recorded on the Rhine. Here, the drop in the transport of iron ore and metal scrap was approximately 2% between January and September. For iron and non-iron metals, the drop was as much as 6.7%. On the Rhine, approximately 70% of the scrap intended for re-smelting is transported upstream. During the first half of 2008, transport increased slightly, by 2%, compared with the same period of the previous year, largely because of the increase in its share of the modal split rather than the economic situation at the time (see Fig. 15 above). Next year it is expected that German steel production will fall, but there is still speculation on the scale of the drop. The French federation of steelworks is expecting a 5% drop in French production. If the figure is similar in Germany, this would

mean a drop in the transport of iron ore on the Rhine of approximately 6% compared with 2008. The transport of scrap metal would then fall by approximately 7 or 8%. There would also be a similar drop in the transport of sheet steel.

Fig. 16: Location of steel production in western Europe



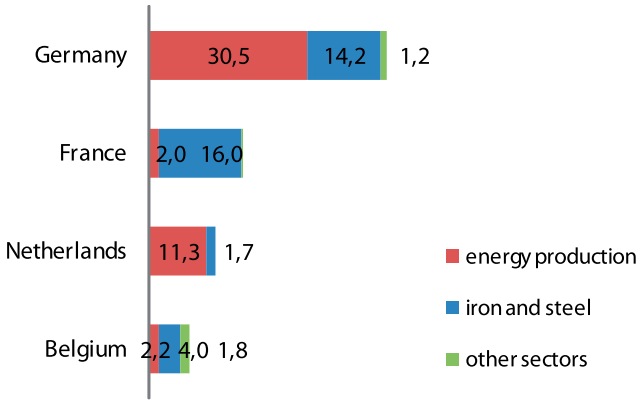
Sources: Wirtschaftsvereinigung Stahl, Federation Française de l'Acier, Belgian Steel Federation (GSV), Eurofer, CCNR calculations

2.3.3 Coal-based energy

Introduction

The upstream transport of coal on the Rhine is closely linked to imports of coal for the energy sector and steel production. A number of power stations producing electricity are located along the Rhine, the Saar and the Mittellandkanal in Germany, and along the Moselle in France. The iron and steel industry is also densely located along the Rhine and the Saar in Germany, and along the Lorraine section of the Moselle in France.
Figure 17 below shows that the use made of coal imports varies widely from one State to another. Whereas approximately two-thirds of German imports are intended for the production of electricity, the production of electricity in the Netherlands accounts for almost all the coal the country imports. The production of iron and steel is far and away the biggest consumer of coal in France, but this activity is also important in Germany, where it consumes approximately one-third of the coal the country imports.

Fig. 17: Use of imported coal (in million tonnes, 2007 figures)

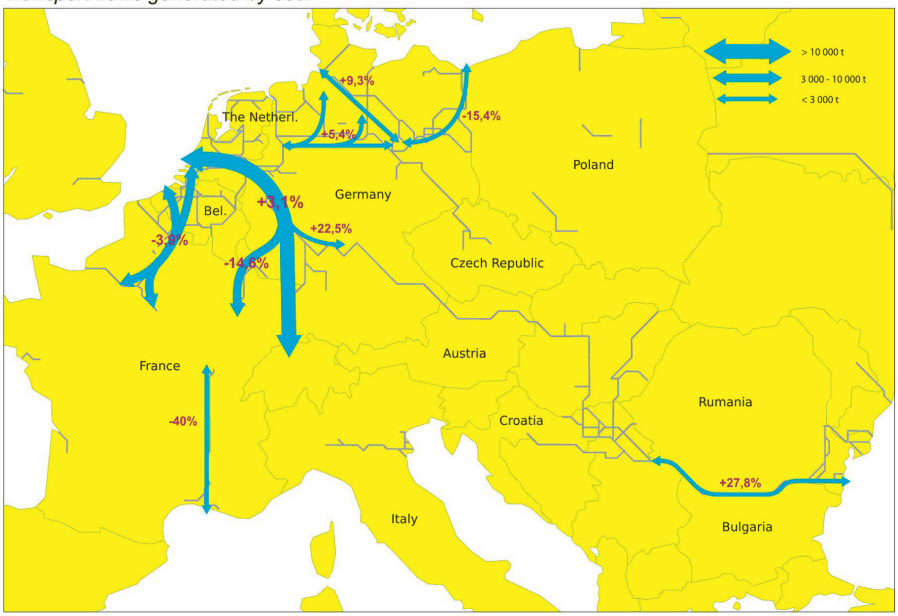


Source: VDKI, Euracoal, Eurostat, Statistics Netherlands, EnergieNed, CCNR calculations

A number of factors point to the upward trend in imports of coal in the long term in States such as France, Germany and the Netherlands. Firstly, national production of coal is continuing to decline. Secondly, energy consumption is increasing in the medium term and approximately a quarter of electricity production is based on coal in Germany and in the Netherlands. Thirdly, investments have been made recently for the production of oxygen steel (increase in production capacity in Duisbourg (Germany) and Liège (Belgium)). Given that the share of navigation on inland waterways in the modal split is increasing for supplying the German iron and steel industry with coal, the increase in imports is resulting in an increase in transport on inland waterways, as Figure 18 below shows. This increase is in the order of 3% per year. On German inland waterways overall, the result of this is a 2.5% increase in the transport of coal per year.

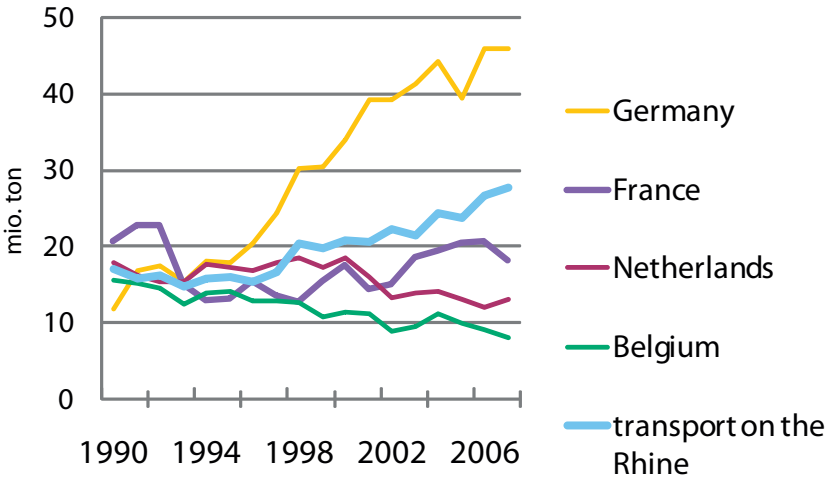
Fig. 18:

Transport flows generated by coal



Source: CCNR Secretariat

Fig. 19: Imports and transport of coal (in million tonnes, 2007 figures)



Source: VDKI, CCNR

Connection between the production of steel and the transport of coal

Apart from the factors already mentioned which have a long-term influence (drop in national production, increase in coal requirements for the production of electricity, increase of inland waterway transport's share of the modal split), the transport of coal is also affected by factors in relation to the economic climate. In this respect, the situation of the steel sector is particularly important. Statistical analyses have shown that a 1% increase in German production of oxygen steel produces an increase in the transport of coal on the Rhine in the order of 0.7%. A 1% increase in French production of oxygen steel produces an increase in transport of about 0.2%. The results are slightly different for the transport of coal if we consider all German inland waterways rather than just the Rhine. On this basis, a 1% increase in German steel production would result in a 0.4% increase in transport. It should therefore be emphasised that the effect on transport on the Rhine is greater than that on the entire German network of inland waterways. This probably explains the geographical location of the part of the iron and steel industry that uses blast furnaces. Most of these industrial sites are located along the Rhine and the Saar, with only a few in other regions (Bremen, Eisenhüttenstadt).

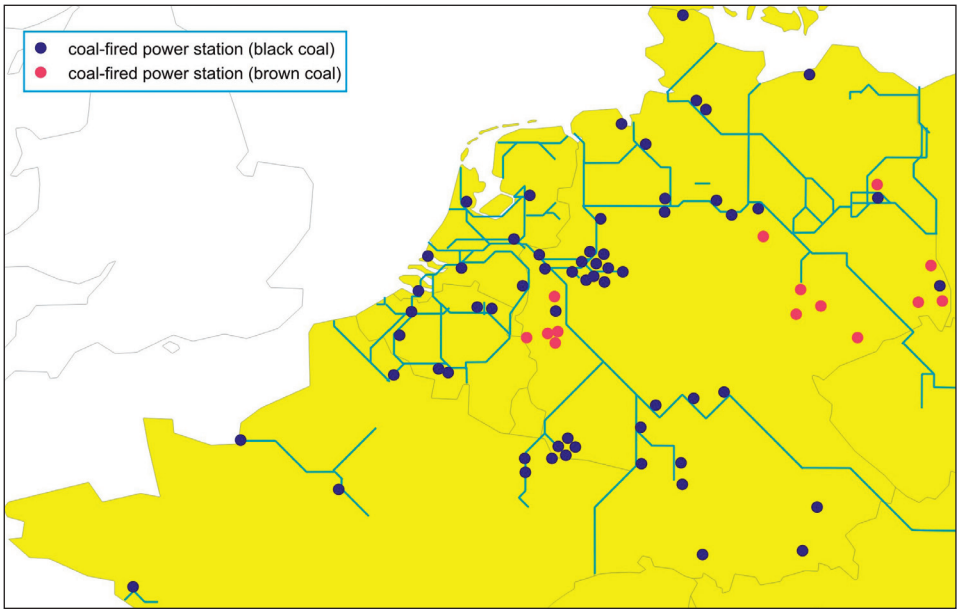
General evolution of the economic situation in the coal sector

During the first eight months of 2008, German imports of coal increased by 4% compared with the same period of the previous year; the increase in France was 2% for the first half of the year compared with the previous year. However, the downward trend apparent in Belgium in recent years continued. Imports of coal during the first eight months of the year fell by approximately 13% compared with the same period of the previous year. This downward trend is the result of the country's restructuring of its steel industry. Old iron- and steelworks have been closed down. In the energy sector, the proportion of the industry occupied by biomass energy is increasing, to the detriment of coal. On the other hand, the proportion of imported coal used in the production of energy continued to increase. Imports of steam coal for German power stations producing electricity increased by 8.6% up to July compared with the same period of the previous year.

Transport on inland waterways and forecasts

During the first half of 2008, the transport of coal on the Rhine increased by approximately 2% compared with the previous year. This result is explained by the context on which the statistical calculations mentioned above are based. There is expected to be an increase in the transport of coal of 3% per year as a result of the long-term factors that influence the energy sector and the modal split. At the same time, the economic situation of the steel sector in France has resulted in 1% less growth; the figure for this drop is only 0.35% in Germany. Overall, the increase of approximately 2% is therefore explained by the evolution of the energy sector and the current situation in the steel sector. The amounts transported remained almost stable in the first half of the year, taking into consideration the entire German network of inland waterways. The forecasts for 2009 are very uncertain because of the economic and financial crisis. It is however likely that the transport of coal will drop less than the transport of steel and ore, as the recession has a direct influence on demand for raw materials on the part of the steel sector, but less influence on demand for coal for the energy sector. Only part of total energy consumption is connected to the economic situation, and the production of coal in Germany is continuing to fall, which implies a corresponding compensatory increase in imports. In view of this context, a drop of approximately 15% in the transport of coal on the Rhine is expected.

Fig. 20: Location of coal- and lignite-fired power stations



Sources: EnergieNed, MEEDDAT/DGEC, Umweltbundesamt, Belgian Ministry of the Economy, SMBs, Middle Classes, and Energy

2.3.4 Building materials

In terms of volume, the transport of building materials is concentrated mainly on the Rhine, the north-south route, and the Mittellandkanal.

In 2007, the volume of building materials transported increased by 2.3%, although there was a slight slowing in the second half of the year.

This transport increased by a further 2.4% in the first half of 2008, with the downstream transport of gravel representing nearly 60% of volume, reflecting an increase of 6.5%. The transport of civil engineering materials and asphalt fell by 6.2%.

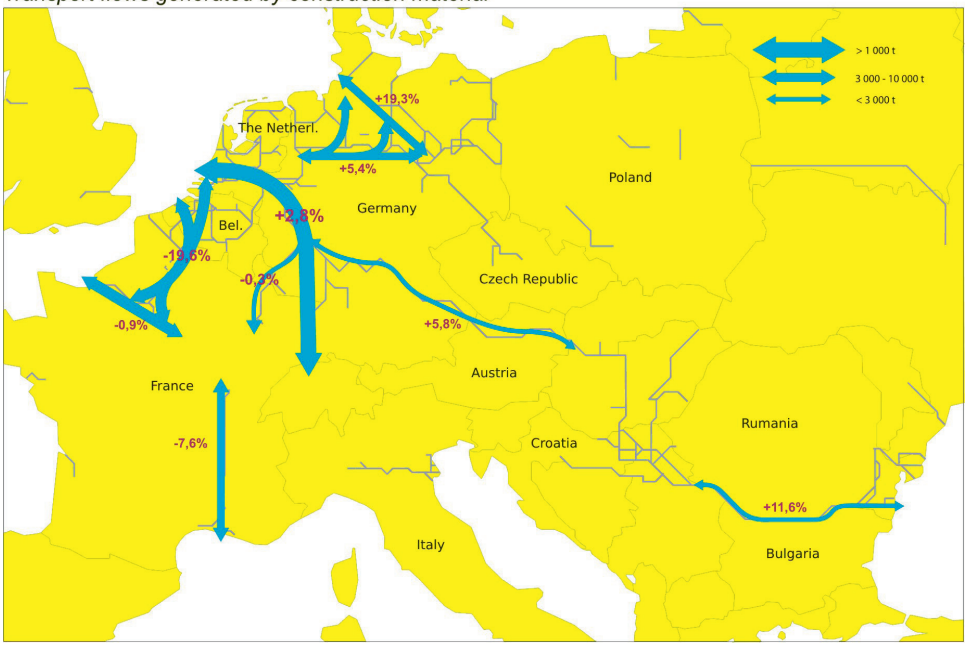
In the building and public works sector, the increase in the first half of 2008 was greater than during the same period of the previous year. This was particularly the case in Germany, a country in which traditional transport on the Rhine is particularly important. The market segments that will be the first to suffer the consequences of the financial crisis are housing, which is dependent on the solvency of households, and commercial construction, both sectors being directly dependent on the attitude of the banks in granting credit.

The uncertainty hanging over this economic sector, which represents 20% of the volume

transported on the Rhine, points to a less optimistic view of 2009 concerning demand for transport on the Rhine and inland waterways.

Fig. 21:

Transport flows generated by construction material



Source: CCNR Secretariat

2.3.5 Containers

In terms of volume, the transport of containers is concentrated mainly on the Rhine, the north-south route, and the Mittellandkanal. On the north-south route and on the east-west route, it often involves recently-developed new markets, most often because of the gradual removal of bottlenecks in infrastructures.

Thus the transport of containers on inland waterways in France evolved as follows in 2007:

	2007	**2006**	**evolution (TEUs)**	**evolution (%)**
Rhône	67 055	61 258	5 797	9.5%
Seine	185 008	143 206	41 802	29.2%
Nord	71 103	69 751	1 352	1.9%

Source: VNF

It is expected that in the future there will be an increase in this transport on the north-south route as soon as the Seine-Nord canal is completed (by 2015).

On the north-south route, the transport of containers has increased by approximately 5% per year, reaching a figure of approximately 904 937 TEUs.

On the Rhine, the increase in the transport of containers reached 2%; this percentage refers to a volume of 1 968 958 TEUs for 2007.

As already indicated, the transport of containers on the Rhine increased by 2% in 2007. The proportion of full containers rose from 66.7 to 68.5%. This rate of growth in the volume transported on the Rhine should be compared with the 10% increase recorded by the sea ports.

In the first half of 2008, the number of containers transported on the Rhine increased overall by 2.7%, with an increase (in TEUs) in full containers of 1.2% and an increase in empty containers of 5.8%. Handling increased on average by more than 7% in the ARA ports.

The difference between the increase in the ARA sea ports and the Rhine (approximately 4%) points to market losses for navigation on the Rhine. These losses are always partly the result of the known bottlenecks in Rotterdam and greater competition from transport by rail.

In December 2007 and during the first two months of 2008, there was still an increase in volume of between 8 and 9%, but the trend was reversed – on the Rhine, at least – from mid-spring onwards. A general drop in volume had already been noted during the first half of 2008 compared with the previous year, and this trend became more marked in June.

In the sea ports, the negative effects of the economic crisis began to be felt in September 2008. The port authorities are expecting a serious reduction in handling in 2009. From the autumn onwards owners began to suspend various regular lines to Europe. No exact figure can be put on the scale of this reduction as yet.

Fig. 22:

Transport flows generated by containers

**) data not available*
Source: CCNR Secretariat

2.3.6 Transport of oil products

In 2007, the transport of oil products lost ground overall. For the Rhine, on which most of this transport takes place, volumes fell by more than 10% in 2007 (of which -2.8% for petrol and -21% for diesel fuel, diesel oil and domestic fuel oil). The figure for the volume transported upstream fell, but increased downstream.

The prices of oil products hit new highs on the world market and there has been speculation. Every drop in prices was used to quickly make up stock levels. This was reflected in a number of peaks in demand for transport.

The oil industry is expecting a structural drop in the consumption of oil products from 2008 onwards, and the drop could continue for a number of years. In Germany, the consumption of petrol and domestic fuel oil is likely to decrease by 25% by 2025, more particularly because of the development of energy-saving engines and heating systems. The consumption of diesel fuel should nevertheless increase until 2010.

In the long term, these forecasts indicate that there may be a structural drop in demand for transport.

As a result of oil prices, which peaked in mid-2008, the volume transported on the Rhine during the first half of the year fell by 3.1% compared with the previous year (-5.6% for petrol and -1.4% for diesel oil and domestic fuel oil).

Starting in mid-August 2008, the first signs of a drop in oil prices produced an increase in the transport of oil products. This trend continued in the autumn of 2008 as prices continued to fall. Firstly, stocks had been low for a long period and the fall in prices was used to the full to replenish stocks during the second half of the year. Secondly, the transport of oil products benefited from the seasonal factor, i.e. the purchase of domestic fuel oil and fuels for the winter. This situation was reflected on the Rhine by an increase in demand for transport during the autumn. Demand was nevertheless less strong from November onwards, as stocks had been replenished by then.

Fig. 23:

Transport flows generated by oil products

**) data not available*
Source: CCNR Secretariat

2.3.7 Chemicals

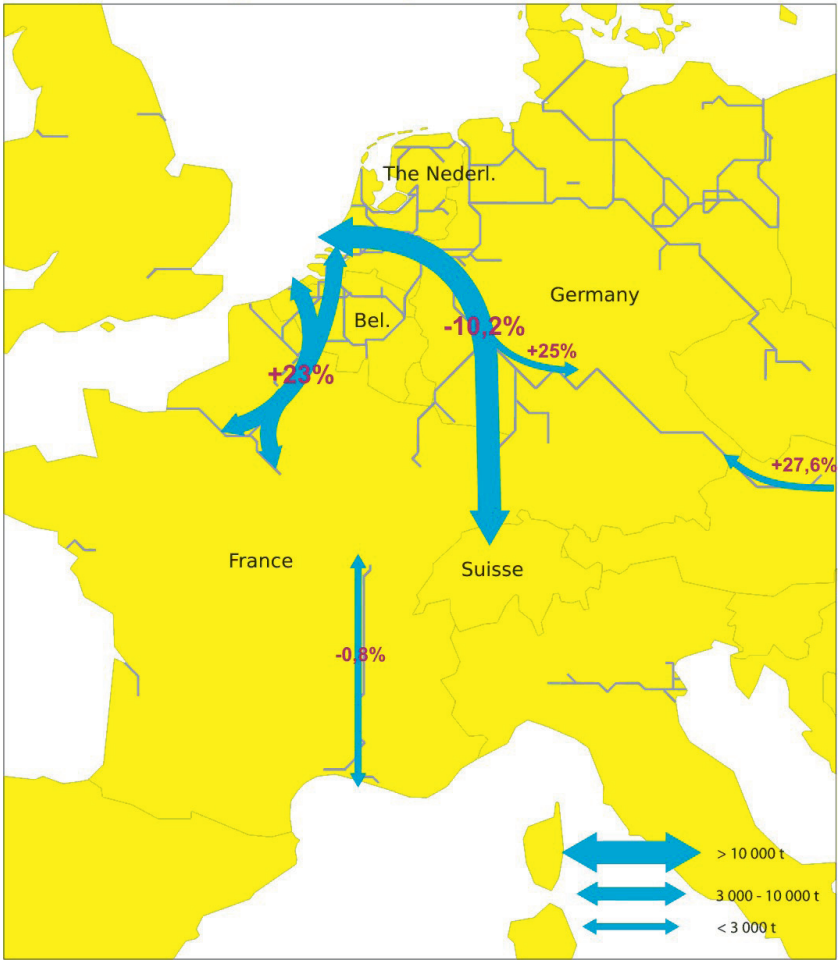
Growth continued in this sector in 2007. The volume of chemicals transported on the Rhine increased by 10% compared with the previous year.
During the first half of 2008, the volume transported on European inland waterways increased by no more than 1.6%.

This positive evolution in the volume transported up to July 2008 was the result of the favourable situation in the sector.

The trend was reversed after July 2008, under the effect of the worldwide economic crisis. For 2008 as a whole, the chemicals industry is expecting growth to be limited to 1%, after an increase of 5% in 2007. According to the experts, production in the chemicals sector should drop in 2009. This trend has in fact already been noticed in recent months. This evolution will also have an unfavourable effect on demand for transport on inland waterways.

Fig. 24:

Transport flows generated by chemicals



Source: CCNR Secretariat

3. Handling in ports and inland navigation's share of the modal split

Observation of handling in the maritime sector in Europe's main sea ports gives indications of the evolution of general demand for transport, correlated with information on production in the various sectors of industry. Thus the sea ports supply information on European imports and exports. Imports and exports have a direct effect on general demand for transport, including on inland waterways. In most cases, the sea ports are linked to all the modes of transport (rail, route, waterways, short sea routes, and pipelines). This means they are able to obtain initial information on the modal split for transport into and out of the hinterland.

Observation of the main inland ports provides information on the evolution of navigation on inland waterways and on its position in inland regions, and on local demand for certain goods.

Fig. 25:

Main ports in Europe

Source: CCNR Secretariat

3.1 Evolution in the sea ports

Evolution in the ports of the Hamburg-Le Havre Range with annual handling of more than 50 million tonnes (report covers up to the end of the third quarter, unless stated otherwise)

The following indications are based on the handling statistics published by the ports up to September 2008. It is, however, important to emphasise that the consequences of the economic crisis did not really start to be felt until October, with negative effects on every link in the transport chain. These are currently difficult times for shippers, particularly in the container sector.
Because of this, the market is taking steps to make savings, for example by reducing frequency and loading, and by cancelling orders for the construction of new vessels. The evolution in the transport of containers on regular routes has an effect on handling in the sea ports. After a particularly mediocre third quarter, the forecast for 2008 as a whole is for a slow-down and perhaps even stagnation. Thus the handling of containers is stagnant in the port of Rotterdam and the handling of raw materials for the chemicals sector is falling. The handling of iron ore has increased because of delivery contracts that are applicable until the end of the year. Whereas annual growth of 4 to 5% was still being announced in September, the port of Rotterdam has revised these figures downwards and is forecasting serious slowing down of growth in 2009. The Flemish sea ports have also noted a clear slowing of the economy. In the ports of Antwerp (containers) and Zeebrugge (handling of automobiles), growth is close to stagnation. The port authorities are expecting handling to fall back in the fourth quarter. The German sea ports are also anticipating a drop in loading volumes. The port of Hamburg is not expecting any increase in the handling of containers for this year. Until September, the increase had been 0.9%, but the trend was reversed in October. French ports have not been spared either.

ROTTERDAM
During the first nine months of 2008, 321 million tonnes passed through the port of Rotterdam, representing an increase of 6.1%. After three-quarters of the year, the port was still continuing to grow, although the handling of raw materials for the iron and steel and chemicals industries and the handling of containers declined at the first signs of the slowing down of the global economy. The second Maasvlakte went into construction in September; this will increase the port's capacity by 20%. Theoretically, the first vessel will tie up there in 2013.
147 million tonnes of bulk liquid cargo passed through the port during the first nine months of the year, representing an increase of 6.5%. The handling of crude oil increased by 7%, reaching a figure of 76 million tonnes. The handling of oil products increased by nearly 1%. Other bulk liquid cargos increased by 15.7% during the first three quarters, reaching a figure of 27 million tonnes, mainly in biodiesel and bioethanol.
For packages, the volume handled reached a figure of 102 million tonnes, i.e. an increase of 3.9%. The handling of containers, calculated in TEUs, increased by 2% to reach a figure of 8.2 million TEUs (a 6% increase in tonnage). Despite a 4% increase in TEUs during the first six months of the year, there has been a drop because of the slowing down of trade between the United Kingdom and Asia. Ro-ro trade has suffered from the slowing down of the United Kingdom's economy, although it has increased by 1.7%. The handling of other packages fell by 15%. The total volume of bulk products increased by 8.5% until the end of September 2008, reaching a figure of 71 million tonnes. Until the end of September, demand for the

transport of ores and scrap metal increased by 11% to reach the figure of 33 million tonnes, despite the substantial increase in ore prices in 2005. Demand comes largely from the extension of production capacity in Liège and Duisbourg. Approximately 22 million tonnes of coal passed through the port (+9%). German demand for coal increased because of structural factors and circumstances. The handling of bulk agricultural products increased by 29% up to July, reaching a figure of 5 million tonnes as a result of disappointing harvests in the European Union. With the improvement in harvests, handling settled at 25.6% in the third quarter. The handling of other dry bulk goods fell by 11%, as demand fell for the raw materials used by the chemicals sector and for building materials such as sand and gravel.
Source: Port of Rotterdam

ANTWERP
During the first nine months of the year, the port of Antwerp recorded a 7.2% increase in handling, representing 144 million tonnes. The effects of the slowing down of the global economy were not felt during the first half of the year, and record figures were even recorded in May. The increase in handling slowed down in the third quarter, however, compared to the first half of the year. For packages, containers continued to increase in importance from January to September (+9%), representing 6.7 million TEUs. The handling of vehicles increased by 2.5% during this period, reaching a figure of 723 500 units. Conventional packages fell by 15.3%, however, to approximately 13 million tonnes. The handling of bulk dry goods increased by 18% during the first three quarters of the year. Ore and coals even recorded larger increases further to the commissioning of a blast furnace in Liège and the increase in imports and stocks in connection with the increase in ore prices. Demand for raw materials for the chemicals industry increased by 9%. The handling of steel, however, fell by 16% until the third quarter, halting the continuous increase of the past three years. The handling of bulk liquid goods increased by 3.6%, with an increase of 9% for crude oil.
Source: Port of Antwerp

HAMBURG
During the first half of 2008, the port of Hamburg handled more than 71 million tonnes of goods, i.e. an increase of 2.1% compared with the same period of 2007. Between January and July 2008, the handling of containers increased by 3.8% to reach the figure of approximately 5 million TEUs. Hamburg is suffering a drop in the transport of containers, particularly in trade with China, its main trading partner. The third quarter was much worse than the second. The consequences of the crisis are also noticeable in the weakness of the exchange rate for the dollar and the limited exports from Germany and other countries using Hamburg for their exports. As a result, the port will probably have to postpone its objective of achieving 10 million TEUs per year and becoming the lead container port in Europe. The handling of packages not in containers increased by 4.1% in the first half of the year, reaching a figure of 1.5 million tonnes. The handling of bulk goods fell by 3.7% to nearly 20 million tonnes. Ores, coals and foodstuffs fell by 12%, mainly because of the temporary drop in demand in the steel sector in connection with the replacement of an important blast furnace. The handling of other bulk dry goods, including scrap metal and building materials, increased nevertheless by 14.7%, reaching a figure of 574 000 tonnes. For bulk liquid goods, the increase was 0.2%, while imports of crude oil dropped by 13%. Imports of oil products increased, however (+26,8%). Inland navigation is of secondary importance in liaisons with the hinterland. Transport by inland waterway increased by 8% in the first quarter

(approximately 3 million tonnes), with an increase of nearly 40% for containers (total of 30 400 TEUs).
Source: Port of Hamburg

AMSTERDAM
The volume of handling in Amsterdam reached 57 million tonnes during the first three quarters of 2008, i.e. an increase of 12% compared with the same period of 2007. Dry goods are the main segment, with 27 million tonnes handled; this figure is almost identical to the figure for the previous year. Imports of coal slowed down, however. Liquid cargos, corresponding to approximately 25 million tonnes, increased by 26% during the first nine months, mainly because of the increase in exports of refined products. The handling of containers also increased, by 323 680 TEUs, corresponding to an increase of 18.4% compared with the same period of 2007.
Source: Port of Amsterdam

BREMEN
The twin port of Bremen/Bremerhaven, the second most important port in Germany, handled more than 57 million tonnes of goods in the first three quarters of 2008, i.e. an increase of 10.3%. The handling of bulk goods fell by 7.7% until the end of September, reaching a figure of 7.7 million tonnes. The handling of dry goods fell by 8.1% to 6.5 million tonnes, and the handling of liquid goods fell by 1% to 1.2 million tonnes. The handling of packages increased – up to the end of September, 4.2 million TEUs were handled, i.e. an increase of 15.2%. The port is used not only for containers and packages, but also for importing and exporting cars (> 2 million per year). Metals and agricultural products are also strongly represented. Approximately 50% of transport between the post and the hinterland is handled by rail; the figure is even higher for the container segment. Six million tonnes were transported by navigation on inland waterways in 2007.
Source: Port of Bremen

LE HAVRE
In the first quarter of 2008, Le Havre recorded an increase in handling. The second quarter was less favourable, and a slight drop was recorded for the first half of the year (-0.6%, corresponding to 38.9 million tonnes) compared with the same period of 2007. The main category of goods in the port of Le Havre is liquid goods. Handling for this segment increased by 2.6% during the first half of the year, to 23.6 million tonnes. General cargo accounted for 13 million tonnes, which corresponds to a relative drop of 4%. The handling of containers involved 1.2 million TEUs in the first half of the year. The first half of the year was promising, but there was a slowing down in the second half – the main reason for this was strike action. Solid bulk cargos accounted for 2.2 million tonnes, i.e. a drop of 3.4%. However, the handling of coal, the main partial segment, increased by 9.8% to 1.4 million tonnes. Since the handling of cement remained stable, the segment of "other solid bulk goods" is responsible for the drop in solid bulk goods.
Source: Port of Le Havre

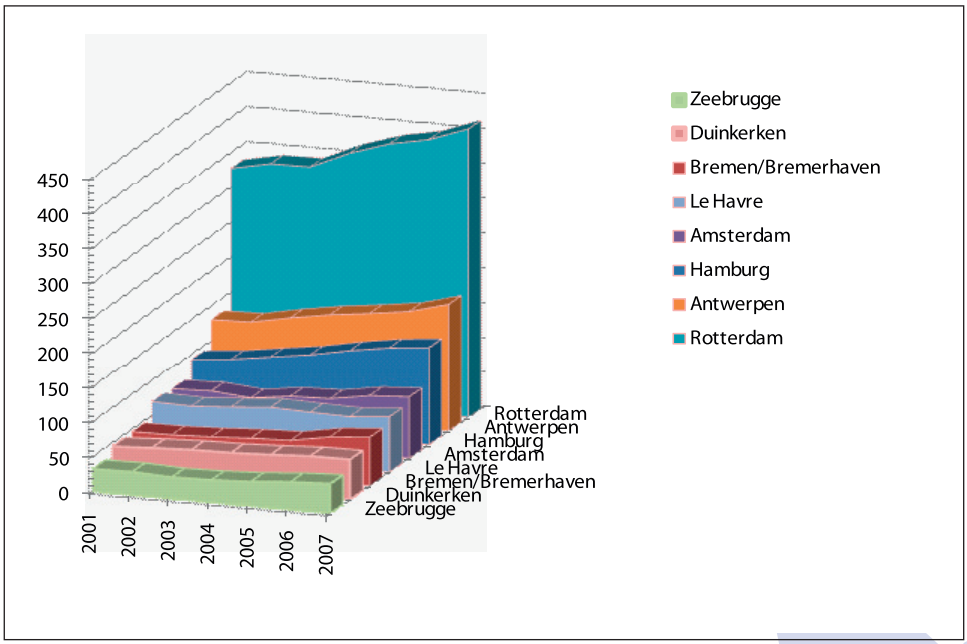
ZEEBRUGGE
From January to September, the port of Zeebrugge handled 32 million tonnes of goods, i.e. an increase of 1.6%. The main segment is that of containers, handling of which increased by

11.1%, measured in TEUs. Liquid goods, the third most important segment, also increased (+6.3%). Handling involving ro-ro transport (the second most important segment) and solid bulk goods and other packages recorded a drop. Nearly 1.7 million new vehicles were handled in this port nevertheless, which corresponds to an increase of 1%.
Source: Port of Zeebrugge

DUNKERQUE
Solid bulk goods constitute the main segment in this port (approximately 50%, mainly ore and coal), with the remaining two quarters divided generally between liquid goods and other goods. Despite a fall-back in the first quarter, handling increased by 2.7% during the first nine months of the year 2008, reaching a figure of 44 million tonnes. Over this same period, the handling of containers increased by 6.6% (measured in TEUs).
Source: Port of Dunkerque

The following graph shows the evolution of handling in million tonnes for the main sea ports in the Hamburg-Le Havre Range over the past six years, up to 2007. (Source: NHR)

Fig. 26: Evolution of handling in the main sea ports in the Hamburg – Le Havre Range (in million tonnes)



Source: NHR

3.2 Inland ports

• German ports on the Rhine

In inland areas close to the North Sea sea ports, the inland ports serve industry and the local and regional economic catchment areas located along the German section of the Rhine. The following table lists handling in the main ports.

Handling in the main ports on the Rhine

in 1000 t	2006	2007	%
Duisbourg	47580	49402	3.7
Cologne	15631	15947	2.0
Mannheim	7949	8352	4.8
Ludwigshafen	7616	7984	4.6
Karlsruhe	7113	6385	-11.4
Neuss	6610	7193	8.1
Mainz-Wiesbaden	3285	3627	9.4
Andernach	2863	2647	-8.2
Düsseldorf	2492	2621	4.9
Leverkusen	2298	2368	2.9
Worth	1481	1584	6.5
Emmerich	1155	1411	18.1
Germersheim	1071	1143	6.4
Bonn	515	677	23.9

Inland ports in France

• Inland port in France

In the year 2007, the port of Paris handled 21.4 mio. t of goods. Building materials as well as ores are by far the most important segments. However, the year 2006 had seen a slightly higher handling if goods.In the port of Le Havre, handling of goods decreased slightly in 2007 compared to 2006. Altogether, a turnover of 5 mio. t was observed, which represents a decrease by 6.6 %.

During the first months of 2008, Strasbourg handled approximately 4.2 million tonnes, i.e. 2% less than during the same period of 2007. Sand and earth and oil products are important products for this port, as are packages and cereals, although to a lesser extent. The handling of oil products fell by 2.4%, i.e. approximately 1.3 million tonnes, the handling of sand and earth increased slightly (+0.5%), i.e. 1.6 million tonnes, and the handling of cereals increased by 9.4% (0.5 million tonnes). The handling of containers reached the figure of 37 229 TEUs, i.e. 4.5% less than during the first half of 2007. Over 2007 as a whole, the port handled 8.8 million tonnes (an increase of 3.5% compared with 2006. Handling in the port of Mulhouse increased by 6% in the first half of 2008, accounting for 2.9 million tonnes. Agricultural and

oil products increased, while ores fell. The container segment increased by 4.3%; the level remained the same at Ottmarsheim (1.8 million tonnes).
In 2007 navigation on inland waterways handled more than 1.3 million tonnes. This volume is substantially more than in 2004 and 2005, but represents a drop of nearly 10% compared with 2006. Containers reached the figure of 83 171 TEUs, which corresponds to an increase of 1.6% compared with 2006.
Source: Port of Paris, Port of Le Havre, Port of Strasbourg, Port of Lille

- **Inland ports in Switzerland**

BASLE
Basle recorded a slight drop of 0.2% for the first three quarters of 2008. Less oil, mineral oils, and chemicals came in, whereas there were more building materials. Iron and steel remained at a more or less steady level. The handling of containers involved 71 439 TEUs (a drop of 9.2%). Exports in particular recorded a drop.

- **Inland ports in Belgium**

BRUSSELS
In 2007, a total of 4.3 million tonnes were handled, i.e. an increase of 3% compared with 2006. Building materials accounted for 52% of the goods, oil products 24%, and agricultural products 9%.

GHENT
In 2007, inland waterways handled 17 717 603 tonnes, of which 11 468 437 tonnes in dry cargo, 4 844 582 tonnes in liquid cargo, and 1.4 million tonnes in packages. In 2007, 25 million tonnes of goods travelling by sea were handled, of which 20 million tonnes was bulk cargo and approximately 5 million tonnes was made up of packages.

LIÈGE
In 2007 the port of Liège recorded the waterways transport of 15 788 667 tonnes (compared with 14 413 738 tonnes in 2006), i.e. an increase of nearly 10%, which is a record for waterways transport. These results make the port of Liège the leading inland port in Belgium and the third most important in Europe (after Duisbourg and Paris). The handling of building materials, oil, ore, and solid fuels was particularly important.
Source: Port of Brussels, Port of Ghent, Port of Liège

- **Ports in Romania**

CONSTANZA
The port of Constanza on the Black Sea has grown substantially in recent years. It occupies a strategic position between Asia and the emerging markets in eastern Europe. In 2007, 57 million tonnes of gods were transshipped in the port, which represents a drop of 5% compared with the previous year, although the volume of bulk goods continued to make progress. There was particular interest in containers from China and Turkey. Transshipments of containers reached the level of 1 million TEUs in 2007, compared with just 100 000 in 2003. In view of this strong increase, terminal capacity is currently being developed, with the

support of Community funding. Constanza hopes to become a new access port for Europe in the coming years, although it still has some way to go before it becomes an alternative route for supplies entering Europe. At the moment, containers being transported to the hinterland are mainly carried by road and rail. Because of the poor state of the networks, inland navigation manages to achieve 5% of the market. The canal between the Danube and the Black Sea is a worthwhile route for communication, but the fleet on the Danube has not been adapted sufficiently for the transport of containers, and in fact along the Danube there are very few well-equipped transshipment sites. The locks and their operating hours also influence the situation. For the transport of oil products, there is competition from pipelines, and a pan-European pipeline is currently under construction. This will reach as far as Trieste initially, and subsequently further into Europe.
Source: port of Constanza

- **Ports in Bulgaria**

There are both sea ports and inland ports in Bulgaria. 32 million tonnes of goods were transshipped in 2007 in the sea ports of Varna and Burgas, and 6.7 million tonnes in the inland ports of Vidin, Rousse and Lom. This represents progress of 10% in the inland ports compared with 2006. Bulk goods such as coal and ore constitute the main categories of goods being transshipped, and it is these that have contributed most to the overall progress made. Most of the infrastructures in the Bulgarian ports date back to the 1950s, and maintenance has been neglected for a long time. Modernisation is therefore a priority for the coming years.
Source: EVD(NL)

- **Ports in Austria**

In 2007, the volume transshipped in Austrian ports reached a total of 9.8 million tonnes, corresponding to an increase of 12% compared with 2006. Ore and scrap metal represented 35% of the volume transshipped, building materials 10%, and other goods 27%. The port of Linz accounted for 53% of all transshipments, and Vienna 17%. During the first half of 2008, 4.6 million tonnes of goods were transshipped in Austrian ports. This is therefore slightly less than the previous year, although transshipments of iron and steel products made progress.
Source: Bundesanstalt Statistik Österreich

SECTION 2: ANALYSIS OF THE OFFER OF TRANSPORT

1. Structure of the European fleets

Comparison of the situation of the fleets of the main States of western Europe shows that over the past eight years there has been a drop of nearly 30% in self-propelled barges with a capacity of less than 1000 tonnes. Many of these units are being used as accommodation, while some have been sold to other States. There are very few new constructions in this category of vessel.

Traffic on the Rhine mainly involves large units, which are more profitable when water conditions are normal. Small units are necessary, however, for transport on many secondary waterways in Belgium, northern France, eastern Germany, Poland and the Czech Republic. Thus withdrawing small, relatively unproductive units from service does not have much effect on the general offer of transport, but it is reflected at times by a lack of available capacity on certain waterways where there are niches of activity.

Although the number of small units is decreasing, the fleets of western Europe are building up the number of newly constructed large units. These vessels are mainly operated on the Rhine. The average number of units is stable, with the occasional new construction.

2. New transport capacity on the market

The available data on the commissioning of new vessels in 2007 shows strong construction activity for new vessels for the transport of dry goods. 74 new self-propelled barges with an average capacity of more than 3000 tonnes and 31 barges with an average capacity of nearly 2800 tonnes have been put into circulation. This means that nearly twice as many new vessels were commissioned in the course of the year compared with 2006. These are nearly all large, highly productive units that are operational round the clock.

This means that the European fleet of self-propelled barges increased by nearly 4% in 2007, given that very few units are currently being withdrawn from the market to be broken up or converted. 31 tanker vessels were put into circulation in 2007, with an average capacity of approximately 2500 tonnes. This increase in capacity is comparable to the figure for 2006, and may be estimated at 4%, the same as for vessels for transporting dry goods. In the light of the figures currently available for 2008, new capacity appeared to be continuing to come onto the market in the first half of 2008 at the same pace as in 2007. Although owners are still very active at the moment, a number of orders for vessels have already been cancelled, as investors prefer to refrain from committing themselves at a time of serious uncertainty about the medium-term evolution of demand for transport.

Breakdown by capacity of new units on the market

Type of vessel	2006		2007	
	Number	Capacity	Number	Capacity
Self-propelled barges	**41**	**100%**	**74**	**100%**
0 - 1999 t	5	**5.1%**	4	**2.5%**
2000 - 2999 t	9	**20.7%**	10	**10.2%**
+ 3000 t	25	**74.2%**	60	**87.3%**
not known	3	-	0	-
Push barges	**25**	**100%**	**34**	**100%**
0 - 1999 t	15	**25.6%**	2	**1.8%**
2000 - 2999 t	6	**61.2%**	26	**74.6%**
+ 3000 t	1	**13.2%**	6	**23.6%**
not known	4	-	0	-
Tanker vessels	**35**	**100%**	**31**	**100%**
0 - 1999 t	7	**12.7%**	10	**16.6%**
2000 - 2999 t	7	**19.2%**	11	**36.9%**
+ 3000 t	15	**68.1%**	10	**46.5%**
not known	6	-	0	-

Type de bateau	2008	
	Number	Capacity
Self-propelled barges	**23**	**100.0%**
0 - 1999 t	1	**2.0%**
2000 - 2999 t	3	**9.0%**
+ 3000 t	18	**89.0%**
not known	1	-
Push barges	**27**	**100.0%**
0 - 1999 t	2	**15.0%**
2000 - 2999 t	5	**67.5%**
+ 3000 t	1	**17.5%**
not known	19	-
Tanker vessels	**16**	**100.0%**
0 - 1999 t	3	**11.0%**
2000 - 2999 t	3	**18.0%**
+ 3000 t	6	**71.0%**
not known	4	-

Sources: IVR + national authorities

SECTION 3: WATER CONDITIONS

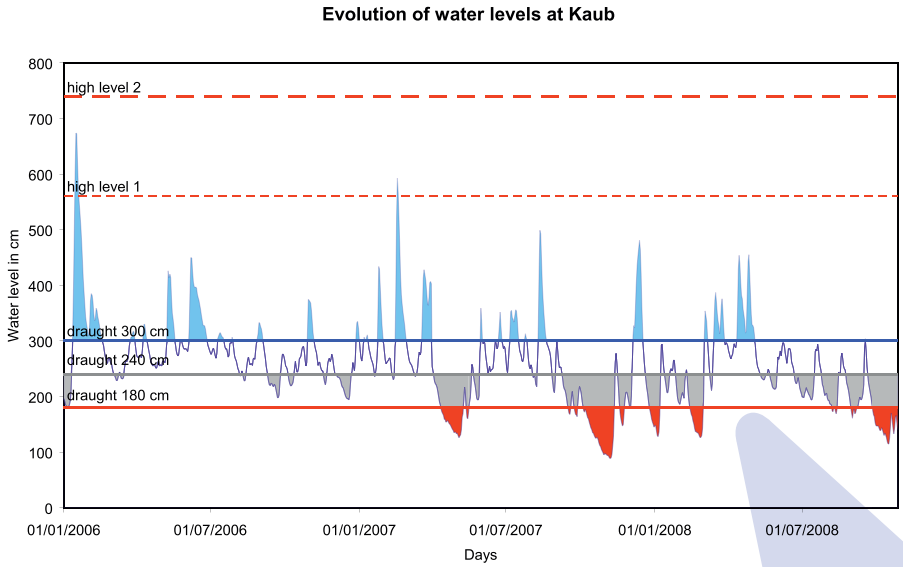
1. Water conditions and operating capacity

Overall, the water conditions of the various inland waterways in Europe may be qualified as satisfactory for the years 2007 and 2008. Apart from a few usual seasonal variations, draught possibilities were on the whole satisfactory and allowed optimal loading of vessels. The favourable water conditions on the upper Danube enabled this sector to record a significant increase in the volume transported.

2. Water conditions on the Rhine

No extreme variation in the water level was recorded the Rhine during 2007. There were no periods of low water until the end of October and during the first half of November, when one period lasted three weeks.
Although water conditions were relatively poor on the Rhine in January and February 2008, they were substantially favourable between March and August. Following the seasonal cycle, the trend was towards a drop in the autumn; precipitation nevertheless made it possible to avoid long periods of low water levels.

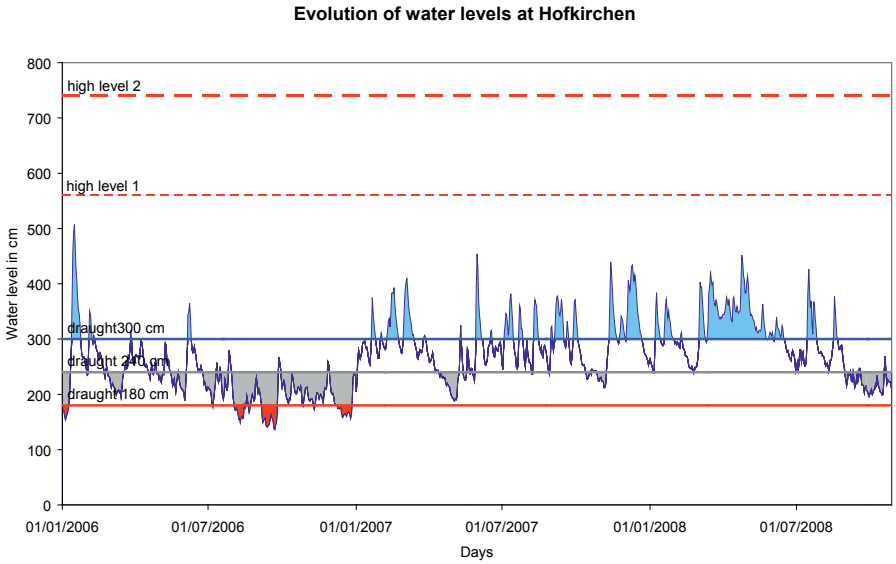
Fig. 27: Evolution of water conditions at Kaub



Source: BAFG

3. Water conditions on the upper Danube

Fig. 28: Evolution of water levels at Hofkirchen



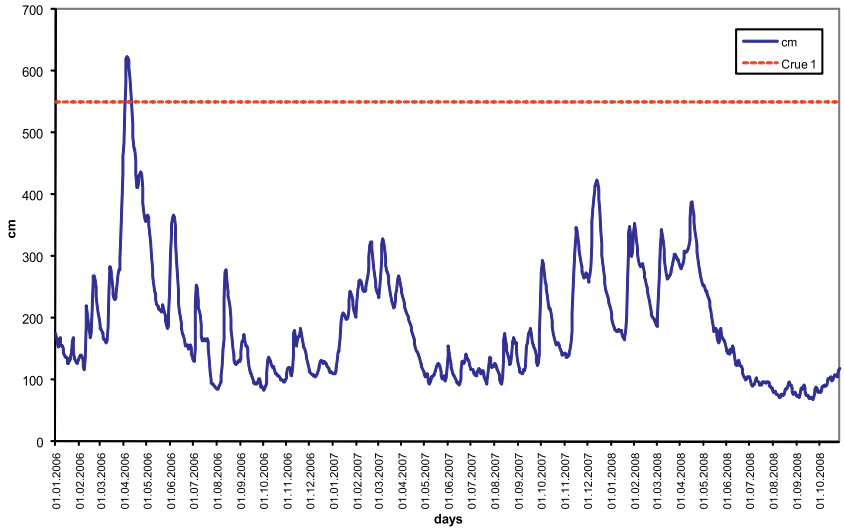
Source: BAFG

The chart shows that the upper Danube enjoyed average water conditions in 2007 and throughout most of 2008, showing a clear improvement compared with 2006. This is partly because of the considerable increase in the volume transported on this sector of the Danube, which is relatively sensitive to variations in water conditions.

4. Water conditions on the Elbe at Magdeburg

Water conditions during 2007 may be considered to have been average, apart from seasonal fluctuations.

Fig. 29: Evolution of water levels at Magdeburg



The graph nevertheless shows that there was a period of low water in the summer of 2008. This means that water conditions were less favourable than in 2007. There were no periods of notable high water during the two years.

Conclusions and forecasts

During 2007 and the first half of 2008, demand for transport continued its sustained progress, supported by a situation that was still favourable in all the sectors that are decisive for navigation on inland waterways. Until the summer, oil was the only sector where the volumes transported fell. The collapse of oil prices on the world market in 2008 nevertheless had the effect of increasing demand on the market significantly, and an exceptional level of freight was recorded in the autumn. For containers, the limiting effect of congestion, particularly in the port of Rotterdam, continued to hamper the development of transport on inland waterways, despite the constant increase in maritime transshipments.

During 2007 and the first half of 2008, water conditions were relatively favourable for optimal loading of vessels, and therefore did not constitute a hindrance to the development

of transport.

Effects of the economic crisis

In terms of demand for transport, a radical change in trend occurred in the last quarter of 2008. At the time of going to press, actual figures are not yet available for transport on inland waterways. Nevertheless, given the substantial drop in production in all the sectors of industry which represent approximately 75% of the volume transported by inland waterway in Europe (the remaining 25% corresponding to the agricultural sector and the transport of oil products) and a substantial drop in arrivals of containers in the sea ports, there is every reason to fear a clear drop in demand for transport on inland waterways. The cruise vessel sector will not be spared by the crisis either, because of its serious effect on the American clientele that constitutes an important proportion of the market on inland waterways in Europe. The figures for this will be available in the first half of 2009.

In terms of available transport capacity, 2007 was evidently a record year for the commissioning of vessels in the dry goods sector. For tanker transport, new capacity was about 20% less than in 2006.

There is no doubt that the pace of new commissioning would have continued throughout the year if the crisis had not put an abrupt halt to it in the autumn of 2008. At present, a good number of orders for hulls have been cancelled and investors are attempting to adapt their strategy to falling demand as quickly as possible.

It should be recalled that over the past eight years, capacity in the dry good sector has increased, with 13% of vessels newly commissioned, in a market where until recently the rate of growth in demand was comparable to that of the fleet.

Tanker capacity has increased by 38% over the past eight years, in a context of stagnant demand; the fleet has been renewed for technical reasons.

In the current more than morose climate, it should be noted that there is one factor that is making it considerably easier to operate vessels – the substantial drop in the price of fuel.

Annexes

Offer of transport capacity

	Self propelled barges			Ordinary barges			Total capacity / dry cargo fleet		
	Units	Tonnage	Power	Units	Tonnage	Power	Units	Tonnage	Power
	Nbre	t	kW	Nbre	t	kW	Nbre	t	kW
31.12.2005									
Germany	937	1115046	483221	915	864366		**1852**	**1979412**	**483221**
Austria (2004)	5	7058		54	84807		**59**	**91865**	**0**
Belgium	1029	1009258	505767	231	429666		**1260**	**1438924**	**505767**
France	917	491114	179878	461	521328		**1378**	**1012442**	**179878**
Luxemburg	17	18679	9524	0	0		**17**	**18679**	**9524**
Netherlands	3008	3209011	1566798	781	1374696		**3789**	**4583707**	**1566798**
Switzerland	15	32107	16899	2	3338		**17**	**35445**	**16899**
Poland							**0**	**0**	**0**
Czech Republic	66			177			**243**	**0**	**0**
Slowakia	25	19932		150	222731		**175**	**242663**	**0**
Hungary	92			360			**452**	**0**	**0**
total	**6111**	**5902205**	**2762087**	**3131**	**3500932**		**9242**	**9403137**	**2762087**
31.12.2006									
Germany	902	1080755	495775	901	863287		**1803**	**1944042**	**495775**
Austria (2004)	5	7058		54	84807		**59**	**91865**	**0**
Belgium	1042	1072502	543816	230	468629		**1272**	**1541131**	**543816**
France	892	501391	179027	424	459822		**1316**	**961213**	**179027**
Luxemburg	13	12821	6689	0	0		**13**	**12821**	**6689**
Netherlands	3039	3296591	1582804	789	1388295		**3828**	**4684886**	**1582804**
Switzerland	18	37243	18724	2	3339		**20**	**40582**	**18724**
Poland	40	20146	9571	11	6425		**51**	**26571**	**9571**
Czech Republic	68	61659	28698	249	123989		**317**	**185648**	**28698**
Slowakia	20	28390	13073	117	205126		**137**	**233516**	**13073**
Hungary	92			360			**452**	**0**	**0**
Romania	281	342071	1952	601	1072960		**882**	**1415031**	**1952**
Bulgaria	15	10321	12485	153	74893		**168**	**85214**	**12485**
total	**6427**	**6470948**	**2892614**	**3891**	**4751572**		**10318**	**11222520**	**2892614**
31.12.2007									
Germany	**886**	**1095787**	**505031**	**854**	**854121**		**1740**	**1949908**	**505031**
Austria (2004)	**5**	**7058**	**0**	**54**	**84807**		**59**	**91865**	**0**
Belgium	**1193**	**1153108**	**583559**	**228**	**461121**		**1421**	**1614229**	**583559**
France	**867**	**503926**	**178939**	**425**	**463949**		**1292**	**967875**	**178939**
Luxemburg	**12**	**11400**	**6027**	**0**	**0**		**12**	**11400**	**6027**
Netherlands	**3086**	**3477553**	**1605008**	**797**	**1448779**		**3883**	**4926332**	**1605008**
Switzerland	**16**	**30488**	**15282**	**1**	**1259**		**17**	**31747**	**15282**
Poland	**107**	**64668**	**30208**	**428**	**217219**		**535**	**281887**	**30208**
Czech Republic	**68**	**61659**	**28698**	**249**	**123989**		**317**	**185648**	**28698**
Slowakia	**14**	**20697**	**11013**	**132**	**215625**		**146**	**236322**	**11013**
Hungary	**4**	**4494**	**1964**	**132**	**215625**		**136**	**220119**	**1964**
Romania	**286**	**347730**	**4986**	**601**	**1073187**		**887**	**1420917**	**4986**
Bulgaria	**15**	**11451**	**11311**	**152**	**74893**		**167**	**86344**	**11311**
total	**6559**	**6790019**	**2982026**	**4053**	**5234574**		**10612**	**12024593**	**2982026**

(Data for the dutch fleet are based on an estimation by the secretariat of the CCNR) (For Poland a new data source was used)

Table MO1 – INLAND FLEETS 2005-2007 (Summary)
BY CAPACITY OF VESSELS

	Self-propelled tankerbarges			Tanker barges			Total capacity of tanker fleet		
	Units	Tonnage	Power	Units	Tonnage	Power	Units	Tonnage	Power
	Nbre	t	kW	Nbre	t	kW	Nbre	t	kW
31.12.2005									
Germany	369	603569	287183	47	54196		**416**	**657765**	**287183**
Austria (2004)	5	5601		15	22055		**20**	**27656**	**0**
Belgium	213	301523	140767	5	8041		**218**	**309564**	**140767**
France	29	37182	11518	48	70710		**77**	**107892**	**11518**
Luxemburg	18	30481	15720	2	8435		**20**	**38916**	**15720**
Netherlands	703	814207	446633	39	68240		**742**	**882447**	**446633**
Switzerland	34	84099	37356	1	2073		**35**	**86172**	**37356**
Poland							**0**	**0**	**0**
Czech Republic							**0**	**0**	**0**
Slowakia	3	4200		42	58478		**45**	**62678**	**0**
Hungary							**0**	**0**	**0**
total	**1374**	**1880862**	**939177**	**199**	**292228**		**1573**	**2173090**	**939177**
31.12.2006									
Germany	375	619646	312577	47	53436		**422**	**673082**	**312577**
Austria (2004)	5	5601		15	22055		**20**	**27656**	**0**
Belgium	218	316761	147157	5	8049		**223**	**324810**	**147157**
France	31	41551	11562	46	72835		**77**	**114386**	**11562**
Luxemburg	16	27754	13838	2	8435		**18**	**36189**	**13838**
Netherlands	728	876505	465024	39	68241		**767**	**944746**	**465024**
Switzerland	36	88395	38822	1	2073		**37**	**90468**	**38822**
Poland	1			2			**3**	**0**	**0**
Czech Republic	1			0			**1**	**0**	**0**
Slowakia	3	3669	2041	30	45949		**33**	**49618**	**2041**
Hungary							**0**	**0**	**0**
Romania	9	18040	883	0	0		**9**	**18040**	**883**
Bulgaria	0	0	0	0	0		**0**	**0**	**0**
total	**1423**	**1997922**	**991904**	**187**	**281073**		**1610**	**2278995**	**991904**
31.12.2007									
Germany	**377**	**618953**	**324237**	**46**	**52634**		**423**	**671587**	**324237**
Austria (2004)	**5**	**5601**	**0**	**15**	**22055**		**20**	**27656**	**0**
Belgium	**232**	**335150**	**154934**	**5**	**9533**		**237**	**344683**	**154934**
France	**33**	**39590**	**10088**	**44**	**65505**		**77**	**105095**	**10088**
Luxemburg	**16**	**27754**	**13838**	**0**	**0**		**16**	**27754**	**13838**
Netherlands	**746**	**935391**	**477953**	**39**	**68240**		**785**	**1003631**	**477953**
Switzerland	**44**	**106637**	**47781**	**2**	**4043**		**46**	**110680**	**47781**
Poland	**0**	**0**	**0**	**0**	**0**		**0**	**0**	**0**
Czech Republic	**1**	**0**	**0**	**0**	**0**		**1**	**0**	**0**
Slowakia	**3**	**3669**	**2041**	**30**	**45949**		**33**	**49618**	**2041**
Hungary	**2**	**1167**	**0**	**2**	**4043**		**4**	**5210**	**0**
Romania	**9**	**18040**	**883**	**0**	**0**		**9**	**18040**	**883**
Bulgaria	**0**	**0**	**0**	**0**	**0**		**0**	**0**	**0**
total	**1468**	**2091952**	**1031755**	**183**	**272002**		**1651**	**2363954**	**1031755**

(Data for the dutch fleet are based on an estimation by the secretariat of the CCNR) (For Poland a new data source was used)

	Self-propelled tankerbarges			Tanker barges			Total capacity of tanker fleet		
	Units	Tonnage	Power	Units	Tonnage	Power	Units	Tonnage	Power
	Nbre	t	kW	Nbre	t	kW	Nbre	t	kW
31.12.2005									
Germany	143		28925	293		133646	**436**		**162571**
Austria (2004)				10		9200	**10**		**9200**
Belgium	12		2941	107		54511	**119**		**57452**
France	35		5908	242		131606	**277**		**137514**
Luxemburg	0		0	18		15220	**18**		**15220**
Netherlands	461		91532	500		195665	**961**		**287197**
Switzerland	1		368	5		1947	**6**		**2315**
Poland							**0**		**0**
Czech Republic				111			**111**		**0**
Slowakia	8		6995	39		40234	**47**		**47229**
Hungary	56			24			**80**		**0**
total	**716**		**136669**	**1349**		**582029**	**2065**		**718698**
31.12.2006									
Germany	143		28064	303		139410	**446**		**167474**
Austria (2004)				10		9200	**10**		**9200**
Belgium	0		0	123		57041	**123**		**57041**
France	35		5908	242		131606	**277**		**137514**
Luxemburg	0		0	17		14787	**17**		**14787**
Netherlands	461		91532	500		195665	**961**		**287197**
Switzerland	1		368	1		353	**2**		**721**
Poland	0		0	13		3670	**13**		**3670**
Czech Republic	51		7245	123		13872	**174**		**21117**
Slowakia	4		5858	33		36184	**37**		**42042**
Hungary	56			24			**80**		**0**
Romania	0		0	31		6997	**31**		**6997**
Bulgaria	0		0	24		28083	**24**		**28083**
total	**751**		**138975**	**1444**		**636868**	**2195**		**775843**

	Self-propelled tankerbarges			Tanker barges			Total capacity of tanker fleet		
	Units	Tonnage	Power	Units	Tonnage	Power	Units	Tonnage	Power
	Nbre	t	kW	Nbre	t	kW	Nbre	t	kW
31.12.2007									
Germany	**139**		**27768**	**292**		**138985**	**431**		**166753**
Austria (2004)	**0**		**0**	**10**		**9200**	**10**		**9200**
Belgium	**23**		**6068**	**118**		**53655**	**141**		**59723**
France	**0**		**0**	**0**		**0**	**0**		**0**
Luxemburg	**0**		**0**	**0**		**0**	**0**		**0**
Netherlands	**126**		**89731**	**802**		**197203**	**928**		**286934**
Switzerland	**1**		**353**	**4**		**1398**	**5**		**1751**
Poland	**0**		**0**	**0**		**0**	**0**		**0**
Czech Republic	**51**		**7245**	**123**		**13872**	**174**		**21117**
Slowakia	**0**		**0**	**36**		**40570**	**36**		**40570**
Hungary	**0**		**0**	**0**		**0**	**0**		**0**
Romania	**45**		**14303**	**31**		**6997**	**76**		**21300**
Bulgaria	**26**		**10930**	**24**		**28083**	**50**		**39013**
total	**411**		**156398**	**1440**		**489963**	**1851**		**646361**

(Data for the dutch fleet are based on an estimation by the secretariat of the CCNR)
Austria : *non detailled data avaible only from 2004*
France : *from 2004 until 2006, data about the tugs and pusher tugs provided by the french transport Ministry*
(For Poland a new data source was used)

Table MO2 – INLAND FLEETS AT 31.12.2007 BY TONNAGE

	Ordinary self-propelled barges			Ordinary barges			Total capacity of the dry cargo fleet		
	Units	Tonnage	Power	Units	Tonnage	Power	Units	Tonnage	Power
	Nbre	t	kW	Nbre	t	kW	Nbre	t	kW
Germany									
up to 249 t	25	3946	2484	65	8482		**90**	**12428**	**2484**
250 - 399 t	50	16097	9685	92	33416		**142**	**49513**	**9685**
400 - 649 t	40	20715	11874	311	136767		**351**	**157482**	**11874**
650 - 999 t	174	145757	66732	83	72029		**257**	**217786**	**66732**
1000 - 1499 t	360	434631	202494	95	118942		**455**	**553573**	**202494**
1500 - 1999 t	123	212194	96863	63	107025		**186**	**319219**	**96863**
2000 - 2499 t	58	127804	54780	59	137360		**117**	**265164**	**54780**
2500 - 2999 t	43	114860	47575	77	212854		**120**	**327714**	**47575**
3000 t and more	6	19783	8831	7	27244		**13**	**47027**	**8831**
not known	7	0	3713	2	0		**9**	**0**	**3713**
total	**886**	**1095787**	**505031**	**854**	**854121**	**854**	**1740**	**1949908**	**505031**
Austria (2004)									
Up tp 249 t	0	0	0	0	0		**0**	**0**	**0**
250 - 399 t	1	364		1	259		**2**	**623**	**0**
400 - 649 t	0	0	0	0	0		**0**	**0**	**0**
650 - 999 t							**0**	**0**	**0**
1000 - 1499 t							**0**	**0**	**0**
1500 - 1999 t							**0**	**0**	**0**
2000 - 2499 t	4	6694		53	84548		**57**	**91242**	**0**
2500 - 2999 t							**0**	**0**	**0**
3000 t and more							**0**	**0**	**0**
Not known							**0**	**0**	**0**
total	**5**	**7058**	**0**	**54**	**84807**		**59**	**91865**	**0**
Belgium									
Up to 249 t	11	990	2504	5	398		**16**	**1388**	**2504**
250 - 399 t	382	137966	74371	20	6864		**402**	**144830**	**74371**
400 - 649 t	178	97387	49878	34	17785		**212**	**115172**	**49878**
650 - 999 t	172	138264	72917	9	7594		**181**	**145858**	**72917**
1000 - 1499 t	246	297015	152824	22	27686		**268**	**324701**	**152824**
1500 - 1999 t	71	117904	60427	16	28028		**87**	**145932**	**60427**
2000 - 2499 t	52	115443	53772	21	50554		**73**	**165997**	**53772**
2500 - 2999 t	41	113300	55501	48	135065		**89**	**248365**	**55501**
3000 t and more	40	134839	61366	53	187147		**93**	**321986**	**61366**
Not known	0	0	0	0	0		**0**	**0**	**0**
total	**1193**	**1153108**	**583559**	**228**	**461121**		**1421**	**1614229**	**583559**

	Ordinary self-propelled barges			Ordinary barges			Total capacity of the dry cargo fleet		
	Units	Tonnage	Power	Units	Tonnage	Power	Units	Tonnage	Power
	Nbre	t	kW	Nbre	t	kW	Nbre	t	kW
France									
Up to 249 t	1	242	110	0	0		**1**	**242**	**110**
250 - 399 t	508	192392	77523	44	14939		**552**	**207331**	**77523**
400 - 649 t	137	67670	25130	161	80806		**298**	**148476**	**25130**
650 - 999 t	117	97826	35483	90	68111		**207**	**165937**	**35483**
1000 - 1499 t	79	96197	27791	18	22177		**97**	**118374**	**27791**
1500 - 1999 t	13	21148	6031	16	26985		**29**	**48133**	**6031**
2000 - 2499 t	8	17581	3431	21	46714		**29**	**64295**	**3431**
2500 - 2999 t	4	10870	3440	74	200567		**78**	**211437**	**3440**
3000 t and more	0	0	0	1	3650		**1**	**3650**	**0**
Not known	0	0	0	0	0		**0**	**0**	**0**
total	**867**	**503926**	**178939**	**425**	**463949**		1292	**967875**	**178939**
Luxemburg									
Up to 249 t	0	0	0	0	0		**0**	**0**	**0**
250 - 399 t	2	732	582	0	0		**2**	**732**	**582**
400 - 649 t	1	500	368	0	0		**1**	**500**	**368**
650 - 999 t	2	1445	684	0	0		**2**	**1445**	**684**
1000 - 1499 t	6	7137	3686	0	0		**6**	**7137**	**3686**
1500 - 1999 t	1	1587	707	0	0		**1**	**1587**	**707**
2000 - 2499 t	0	0	0	0	0		**0**	**0**	**0**
2500 - 2999 t	0	0	0	0	0		**0**	**0**	**0**
3000 t and more	0	0	0	0	0		**0**	**0**	**0**
Not known	0	0	0	0	0		**0**	**0**	**0**
total	**12**	**11400**	**6027**	**0**	**0**		12	11400	6027
Netherlands									
Up to 249 t	115	16748	10927	120	13519		**235**	**30267**	**10927**
250 - 399 t	271	90792	45229	31	10249		**302**	**101041**	**45229**
400 - 649 t	501	271735	136554	66	36728		**567**	**308463**	**136554**
650 - 999 t	725	586981	287150	36	30696		**761**	**617677**	**287150**
1000 - 1499 t	673	809753	382847	41	50477		**714**	**860230**	**382847**
1500 - 1999 t	281	476181	219079	50	85066		**331**	**561247**	**219079**
2000 - 2499 t	133	298354	133489	87	196988		**220**	**495342**	**133489**
2500 - 2999 t	117	321129	150372	230	640244		**347**	**961373**	**150372**
3000 t and more	170	605880	215387	98	384811		**268**	**990691**	**215387**
Not known	100	0	23974	38	0		**138**	**0**	**23974**
total	**3086**	**3477553**	**1605008**	797	**1448779**		3883	4926332	1605008

	Ordinary self-propelled barges			Ordinary barges			Total capacity of the dry cargo fleet		
	Units	Tonnage	Power	Units	Tonnage	Power	Units	Tonnage	Power
	Nbre	t	kW	Nbre	t	kW	Nbre	t	kW
Switzerland									
Up to 249 t	0	0	0	0	0		**0**	**0**	**0**
250 - 399 t	2	682	316	0	0		**2**	**682**	**316**
400 - 649 t	0	0	0	0	0		**0**	**0**	**0**
650 - 999 t	0	0	0	0	0		**0**	**0**	**0**
1000 - 1499 t	1	1176	948	1	1259		**2**	**2435**	**948**
1500 - 1999 t	6	11393	6649	0	0		**6**	**11393**	**6649**
2000 - 2499 t	2	4443	2561	0	0		**2**	**4443**	**2561**
2500 - 2999 t	1	2987	880	0	0		**1**	**2987**	**880**
3000 t and more	3	9807	3928	0	0		**3**	**9807**	**3928**
Not known	1	0	0	0	0		**1**	**0**	**0**
total	**16**	**30488**	**15282**	**1**	**1259**		**17**	**31747**	**15282**
Hungary									
Up to 249 t	0	0	0	0	0		**0**	**0**	**0**
250 - 399 t	0	0	0	0	0		**0**	**0**	**0**
400 - 649 t	0	0	0	0	0		**0**	**0**	**0**
650 - 999 t	2	1619	787	1	793		**3**	**2412**	**787**
1000 - 1499 t	1	1223	588	0	0		**1**	**1223**	**588**
1500 - 1999 t	1	1652	589	0	0		**1**	**1652**	**589**
2000 - 2499 t	0	0	0	0	0		**0**	**0**	**0**
2500 - 2999 t	0	0	0	0	0		**0**	**0**	**0**
3000 t and more	0	0	0	0	0		**0**	**0**	**0**
Not known	0	0	0	0	0		**0**	**0**	**0**
total	**4**	**4494**	**1964**	**1**	**793**		**5**	**5287**	**1964**
Slowakia									
Up to 249 t	0	0	0	0	0		**0**	**0**	**0**
250 - 399 t	0	0	0	0	0		**0**	**0**	**0**
400 - 649 t	0	0	0	11	6600		**11**	**6600**	**0**
650 - 999 t	4	3329	2067	4	3899		**8**	**7228**	**2067**
1000 - 1499 t	3	3816	1736	4	4653		**7**	**8469**	**1736**
1500 - 1999 t	4	7445	4120	113	200473		**117**	**207918**	**4120**
2000 - 2499 t	3	6107	3090	0	0		**3**	**6107**	**3090**
2500 - 2999 t	0	0	0	0	0		**0**	**0**	**0**
3000 t and more	0	0	0	0	0		**0**	**0**	**0**
Not known	0	0	0	0	0		**0**	**0**	**0**
total	**14**	**20697**	**11013**	**132**	**215625**		**146**	**236322**	**11013**

	Ordinary self-propelled barges			Ordinary barges			Total capacity of the dry cargo fleet		
	Units	Tonnage	Power	Units	Tonnage	Power	Units	Tonnage	Power
	Nbre	t	kW	Nbre	t	kW	Nbre	t	kW
Romania									
Up to 249 t	0	0	0	1	233		**1**	**233**	**0**
250 - 399 t	0	0	0	0	0		**0**	**0**	**0**
400 - 649 t	7	3637	0	5	2409		**12**	**6046**	**0**
650 - 999 t	17	15255	758	12	11655		**29**	**26910**	**758**
1000 - 1499 t	223	252044	1754	303	404163		**526**	**656207**	**1754**
1500 - 1999 t	39	76794	2474	85	141297		**124**	**218091**	**2474**
2000 - 2499 t	0	0	0	73	152519		**73**	**152519**	**0**
2500 - 2999 t	0	0	0	118	340855		**118**	**340855**	**0**
3000 t and more	0	0	0	4	20056		**4**	**20056**	**0**
Not known	0	0	0	0	0		**0**	**0**	**0**
total	**286**	**347730**	**4986**	**601**	**1073187**		**887**	**1420917**	**4986**
Bulgaria									
Up to 249 t	1	160	368	2	101		**3**	**261**	**368**
250 - 399 t	2	595	330	1	378		**3**	**973**	**330**
400 - 649 t	0	0	0	12	6073		**12**	**6073**	**0**
650 - 999 t	1	930	442	66	51132		**67**	**52062**	**442**
1000 - 1499 t	1	1117	489	16	17209		**17**	**18326**	**489**
1500 - 1999 t	5	8649	3352	0	0		**5**	**8649**	**3352**
2000 - 2499 t	0	0	0	0	0		**0**	**0**	**0**
2500 - 2999 t	0	0	0	0	0		**0**	**0**	**0**
3000 t and more	0	0	0	0	0		**0**	**0**	**0**
Not known	5	0	6330	55	0		**60**	**0**	**6330**
total	**15**	**11451**	**11311**	**152**	**74893**		**167**	**86344**	**11311**
Czech Republic									
Up to 249 t	2	161	135	103	11225		**105**	**11386**	**135**
250 - 399 t	0	0	0	22	7727		**22**	**7727**	**0**
400 - 649 t	14	8367	4758	49	26569		**63**	**34936**	**4758**
650 - 999 t	15	11459	5542	18	15249		**33**	**26708**	**5542**
1000 - 1499 t	36	41672	18131	51	63220		**87**	**104892**	**18131**
1500 - 1999 t	0	0	0	0	0		**0**	**0**	**0**
2000 - 2499 t	0	0	0	0	0		**0**	**0**	**0**
2500 - 2999 t	0	0	0	0	0		**0**	**0**	**0**
3000 t and more	0	0	0	0	0		**0**	**0**	**0**
Not known	1	0	132	6	0		**7**	**0**	**132**
total	**68**	**61659**	**28698**	**249**	**123989**		**317**	**185648**	**28698**

	Ordinary self-propelled barges			Ordinary barges			Total capacity of the dry cargo fleet		
	Units	Tonnage	Power	Units	Tonnage	Power	Units	Tonnage	Power
	Nbre	t	kW	Nbre	t	kW	Nbre	t	kW
Poland									
Up to 249 t	0	0	0	48	6456		**48**	**6456**	**0**
250 - 399 t	0	0	0	80	29437		**80**	**29437**	**0**
400 - 649 t	81	39993	19401	237	116515		**318**	**156508**	**19401**
650 - 999 t	16	13653	6107	38	30040		**54**	**43693**	**6107**
1000 - 1499 t	10	11022	4700	19	21647		**29**	**32669**	**4700**
1500 - 1999 t	0	0	0	0	0		**0**	**0**	**0**
2000 - 2499 t	0	0	0	6	13124		**6**	**13124**	**0**
2500 - 2999 t	0	0	0	0	0		**0**	**0**	**0**
3000 t and more	0	0	0	0	0		**0**	**0**	**0**
Not known	0	0	0	0	0		**0**	**0**	**0**
total	**107**	**64668**	**30208**	**428**	**217219**		**535**	**281887**	**30208**
Total									
Up to 249 t	**155**	**22247**	**16528**	**344**	**40414**		**499**	**62661**	**16528**
250 - 399 t	**1218**	**439620**	**208036**	**291**	**103269**		**1509**	**542889**	**208036**
400 - 649 t	**959**	**510004**	**247963**	**886**	**430252**		**1845**	**940256**	**247963**
650 - 999 t	**1245**	**1016518**	**478669**	**357**	**291198**		**1602**	**1307716**	**478669**
1000 - 1499 t	**1639**	**1956803**	**797988**	**570**	**731433**		**2209**	**2688236**	**797988**
1500 - 1999 t	**544**	**934947**	**400291**	**343**	**588874**		**887**	**1523821**	**400291**
2000 - 2499 t	**260**	**576426**	**251123**	**320**	**681807**		**580**	**1258233**	**251123**
2500 - 2999 t	**206**	**563146**	**257768**	**547**	**1529585**		**753**	**2092731**	**257768**
3000 t and more	**219**	**770309**	**289512**	**163**	**622908**		**382**	**1393217**	**289512**
Not known	**114**	**0**	**34149**	**101**	**0**		**215**	**0**	**34149**
total	**6559**	**6790019**	**2982026**	**3922**	**5019742**		**10481**	**11809761**	**2982026**

	Self-propelled tankerbarges			Tanker barges			Total capacity of tanker fleet		
	Units	Tonnage	Power	Units	Tonnage	Power	Units	Tonnage	Power
	Nbre	t	kW	Nbre	t	kW	Nbre	t	kW
Germany									
up to 249 t	2	357	372	4	513		**6**	**870**	**372**
250 - 399 t	1	337	272	2	782		**3**	**1119**	**272**
400 - 649 t	4	2157	1306	13	6374		**17**	**8531**	**1306**
650 - 999 t	16	13278	7193	7	6094		**23**	**19372**	**7193**
1000 - 1499 t	154	196337	105544	3	4065		**157**	**200402**	**105544**
1500 - 1999 t	69	116360	60455	4	6660		**73**	**123020**	**60455**
2000 - 2499 t	69	154019	72347	9	20295		**78**	**174314**	**72347**
2500 - 2999 t	31	84722	38784	3	7851		**34**	**92573**	**38784**
3000 t and more	16	51386	24030	0	0		**16**	**51386**	**24030**
not known	15	0	13934	1	0		**16**	**0**	**13934**
total	**377**	**618953**	**324237**	**46**	**52634**		**423**	**671587**	**324237**
Austria (2004)									
Up tp 249 t	0	0	0	0	0		**0**	**0**	**0**
250 - 399 t	0	0	0	0	0		**0**	**0**	**0**
400 - 649 t	0	0	0	0	0		**0**	**0**	**0**
650 - 999 t	0	0	0	0	0		**0**	**0**	**0**
1000 - 1499 t	0	0	0	0	0		**0**	**0**	**0**
1500 - 1999 t	0	0	0	0	0		**0**	**0**	**0**
2000 - 2499 t	0	0	0	0	0		**0**	**0**	**0**
2500 - 2999 t	5	5601	0	15	22055		**20**	**27656**	**0**
3000 t and more	0	0	0	0	0		**0**	**0**	**0**
Not known	0	0	0	0	0		**0**	**0**	**0**
total	**5**	**5601**	**0**	**15**	**22055**		**20**	**27656**	**0**
Belgium									
Up to 249 t	44	4201	5648	0	0		**44**	**4201**	**5648**
250 - 399 t	19	6338	3697	0	0		**19**	**6338**	**3697**
400 - 649 t	27	13633	7237	0	0		**27**	**13633**	**7237**
650 - 999 t	10	7990	4904	1	945		**11**	**8935**	**4904**
1000 - 1499 t	46	56636	29680	1	1103		**47**	**57739**	**29680**
1500 - 1999 t	16	27674	13607	0	0		**16**	**27674**	**13607**
2000 - 2499 t	23	52426	23134	2	4562		**25**	**56988**	**23134**
2500 - 2999 t	15	41947	18345	1	2923		**16**	**44870**	**18345**
3000 t and more	32	124305	48682	0	0		**32**	**124305**	**48682**
Not known	44	4201	5648	0	0		**44**	**4201**	**5648**
total	**232**	**335150**	**154934**	**5**	**9533**		**237**	**344683**	**154934**

	Self-propelled tankerbarges			Tanker barges			Total capacity of tanker fleet		
	Units	Tonnage	Power	Units	Tonnage	Power	Units	Tonnage	Power
	Nbre	t	kW	Nbre	t	kW	Nbre	t	kW
France									
Up to 249 t	0	0	0	0	0		**0**	**0**	**0**
250 - 399 t	12	4400	1789	0	0		**12**	**4400**	**1789**
400 - 649 t	6	2803	1083	12	5843		**18**	**8646**	**1083**
650 - 999 t	1	672	257	8	6267		**9**	**6939**	**257**
1000 - 1499 t	2	2680	801	4	4493		**6**	**7173**	**801**
1500 - 1999 t	2	3299	1249	4	7273		**6**	**10572**	**1249**
2000 - 2499 t	5	11605	4909	8	19357		**13**	**30962**	**4909**
2500 - 2999 t	4	10231	0	6	16206		**10**	**26437**	**0**
3000 t and more	1	3900	0	2	6066		**3**	**9966**	**0**
Not known	0	0	0	0	0		**0**	**0**	**0**
total	**33**	**39590**	**10088**	**44**	**65505**		**77**	**105095**	**10088**
Luxemburg									
Up to 249 t	0	0	0	0	0		**0**	**0**	**0**
250 - 399 t	0	0	0	0	0		**0**	**0**	**0**
400 - 649 t	0	0	0	0	0		**0**	**0**	**0**
650 - 999 t	1	920	544	0	0		**1**	**920**	**544**
1000 - 1499 t	8	9861	5028	0	0		**8**	**9861**	**5028**
1500 - 1999 t	2	3656	1704	0	0		**2**	**3656**	**1704**
2000 - 2499 t	2	4269	1934	0	0		**2**	**4269**	**1934**
2500 - 2999 t	1	2895	2648	0	0		**1**	**2895**	**2648**
3000 t and more	2	6153	1980	0	0		**2**	**6153**	**1980**
Not known	0	0	0	0	0		**0**	**0**	**0**
total	**16**	**27754**	**13838**	**0**	**0**		**16**	**27754**	**13838**
Netherlands									
Up to 249 t	221	23047	25849	1	79		**222**	**23126**	**25849**
250 - 399 t	26	8231	4599	1	314		**27**	**8545**	**4599**
400 - 649 t	55	28059	15226	3	1425		**58**	**29484**	**15226**
650 - 999 t	53	42655	21086	3	2381		**56**	**45036**	**21086**
1000 - 1499 t	95	119387	60794	5	7101		**100**	**126488**	**60794**
1500 - 1999 t	70	116639	69454	4	6768		**74**	**123407**	**69454**
2000 - 2499 t	71	155634	74775	11	24507		**82**	**180141**	**74775**
2500 - 2999 t	44	122295	57352	7	18392		**51**	**140687**	**57352**
3000 t and more	82	319443	140466	2	7274		**84**	**326717**	**140466**
Not known	29	0	8352	2	0		**31**	**0**	**8352**
total	**746**	**935391**	**477953**	**39**	**68240**		**785**	**1003631**	**477953**

	Self-propelled tankerbarges			Tanker barges			Total capacity of tanker fleet		
	Units	Tonnage	Power	Units	Tonnage	Power	Units	Tonnage	Power
	Nbre	t	kW	Nbre	t	kW	Nbre	t	kW
Switzerland									
Up to 249 t	0	0	0	0	0		**0**	**0**	**0**
250 - 399 t	0	0	0	0	0		**0**	**0**	**0**
400 - 649 t	0	0	0	0	0		**0**	**0**	**0**
650 - 999 t	0	0	0	0	0		**0**	**0**	**0**
1000 - 1499 t	8	10424	6033	0	0		**8**	**10424**	**6033**
1500 - 1999 t	5	8036	4215	1	1970		**6**	**10006**	**4215**
2000 - 2499 t	4	8918	3482	1	2073		**5**	**10991**	**3482**
2500 - 2999 t	18	48664	21124	0	0		**18**	**48664**	**21124**
3000 t and more	9	30595	12927	0	0		**9**	**30595**	**12927**
Not known	0	0	0	0	0		**0**	**0**	**0**
total	**44**	**106637**	**47781**	**2**	**4043**		**46**	**110680**	**47781**
Hungary									
Up to 249 t	0	0	0	0	0		**0**	**0**	**0**
250 - 399 t	0	0	0	0	0		**0**	**0**	**0**
400 - 649 t	0	0	0	0	0		**0**	**0**	**0**
650 - 999 t	0	0	0	0	0		**0**	**0**	**0**
1000 - 1499 t	1	1167	0	0	0		**1**	**1167**	**0**
1500 - 1999 t	0	0	0	1	1970		**1**	**1970**	**0**
2000 - 2499 t	0	0	0	1	2073		**1**	**2073**	**0**
2500 - 2999 t	0	0	0	0	0		**0**	**0**	**0**
3000 t and more	0	0	0	0	0		**0**	**0**	**0**
Not known	1	0	0	0	0		**1**	**0**	**0**
total	**2**	**1167**	**0**	**2**	**4043**		**4**	**5210**	**0**
Slowakia									
Up to 249 t	0	0	0	0	0		**0**	**0**	**0**
250 - 399 t	0	0	0	0	0		**0**	**0**	**0**
400 - 649 t	1	442	234	0	0		**1**	**442**	**234**
650 - 999 t	0	0	0	2	1782		**2**	**1782**	**0**
1000 - 1499 t	1	1227	736	2	2218		**3**	**3445**	**736**
1500 - 1999 t	0	0	0	26	41949		**26**	**41949**	**0**
2000 - 2499 t	1	2000	1071	0	0		**1**	**2000**	**1071**
2500 - 2999 t	0	0	0	0	0		**0**	**0**	**0**
3000 t and more	0	0	0	0	0		**0**	**0**	**0**
Not known	0	0	0	0	0		**0**	**0**	**0**
total	**3**	**3669**	**2041**	**30**	**45949**		**33**	**49618**	**2041**

	Self-propelled tankerbarges			Tanker barges			Total capacity of tanker fleet		
	Units	Tonnage	Power	Units	Tonnage	Power	Units	Tonnage	Power
	Nbre	t	kW	Nbre	t	kW	Nbre	t	kW
Romania									
Up to 249 t	0	0	0	0	0		**0**	**0**	**0**
250 - 399 t	0	0	0	0	0		**0**	**0**	**0**
400 - 649 t	0	0	0	0	0		**0**	**0**	**0**
650 - 999 t	0	0	0	0	0		**0**	**0**	**0**
1000 - 1499 t	0	0	0	0	0		**0**	**0**	**0**
1500 - 1999 t	8	15544	0	0	0		**8**	**15544**	**0**
2000 - 2499 t	1	2496	883	0	0		**1**	**2496**	**883**
2500 - 2999 t	0	0	0	0	0		**0**	**0**	**0**
3000 t and more	0	0	0	0	0		**0**	**0**	**0**
Not known	0	0	0	0	0		**0**	**0**	**0**
total	**9**	**18040**	**883**	**0**	**0**		**9**	**18040**	**883**
Bulgaria									
Up to 249 t	0	0	0	0	0		**0**	**0**	**0**
250 - 399 t	0	0	0	0	0		**0**	**0**	**0**
400 - 649 t	0	0	0	0	0		**0**	**0**	**0**
650 - 999 t	0	0	0	0	0		**0**	**0**	**0**
1000 - 1499 t	0	0	0	0	0		**0**	**0**	**0**
1500 - 1999 t	0	0	0	0	0		**0**	**0**	**0**
2000 - 2499 t	0	0	0	0	0		**0**	**0**	**0**
2500 - 2999 t	0	0	0	0	0		**0**	**0**	**0**
3000 t and more	0	0	0	0	0		**0**	**0**	**0**
Not known	0	0	0	0	0		**0**	**0**	**0**
total	**0**	**0**	**0**	**0**	**0**		**0**	**0**	**0**
Czech Republic									
Up to 249 t	0	0	0	0	0		**0**	**0**	**0**
250 - 399 t	0	0	0	0	0		**0**	**0**	**0**
400 - 649 t	0	0	0	0	0		**0**	**0**	**0**
650 - 999 t	0	0	0	0	0		**0**	**0**	**0**
1000 - 1499 t	0	0	0	0	0		**0**	**0**	**0**
1500 - 1999 t	0	0	0	0	0		**0**	**0**	**0**
2000 - 2499 t	0	0	0	0	0		**0**	**0**	**0**
2500 - 2999 t	0	0	0	0	0		**0**	**0**	**0**
3000 t and more	0	0	0	0	0		**0**	**0**	**0**
Not known	0	0	0				**0**	**0**	**0**
total	**1**	**0**	**0**	**0**	**0**		**1**	**0**	**0**

	Self-propelled tankerbarges			Tanker barges			Total capacity of tanker fleet		
	Units	Tonnage	Power	Units	Tonnage	Power	Units	Tonnage	Power
	Nbre	t	kW	Nbre	t	kW	Nbre	t	kW
Poland									
Up to 249 t	0	0	0	0	0		**0**	**0**	**0**
250 - 399 t	0	0	0	0	0		**0**	**0**	**0**
400 - 649 t	0	0	0	0	0		**0**	**0**	**0**
650 - 999 t	0	0	0	0	0		**0**	**0**	**0**
1000 - 1499 t	0	0	0	0	0		**0**	**0**	**0**
1500 - 1999 t	0	0	0	0	0		**0**	**0**	**0**
2000 - 2499 t	0	0	0	0	0		**0**	**0**	**0**
2500 - 2999 t	0	0	0	0	0		**0**	**0**	**0**
3000 t and more	0	0	0	0	0		**0**	**0**	**0**
Not known	0	0	0	0	0		**0**	**0**	**0**
total	**0**	**0**	**0**	**0**	**0**		**0**	**0**	**0**
Total									
Up to 249 t	**267**	**27605**	**31869**	**5**	**592**	**267**	**272**	**28197**	**31869**
250 - 399 t	**58**	**19306**	**10357**	**3**	**1096**	**58**	**61**	**20402**	**10357**
400 - 649 t	**93**	**47094**	**25086**	**28**	**13642**	**93**	**121**	**60736**	**25086**
650 - 999 t	**81**	**65515**	**33984**	**21**	**17469**	**81**	**102**	**82984**	**33984**
1000 - 1499 t	**315**	**397719**	**208616**	**15**	**18980**	**315**	**330**	**416699**	**208616**
1500 - 1999 t	**172**	**291208**	**150684**	**40**	**66590**	**172**	**212**	**357798**	**150684**
2000 - 2499 t	**176**	**391367**	**182535**	**32**	**72867**	**176**	**208**	**464234**	**182535**
2500 - 2999 t	**118**	**316355**	**138253**	**32**	**67427**	**118**	**150**	**383782**	**138253**
3000 t and more	**142**	**535782**	**228085**	**4**	**13340**	**142**	**146**	**549122**	**228085**
Not known	**89**	**4201**	**27934**	**3**	**0**	**89**	**92**	**4201**	**27934**
total	**1551**	**2300390**	**1125276**	**183**	**272002**	**1551**	**1734**	**2572392**	**1125276**

Table MO3 – INLAND FLEETS AT 31.12.2007 BY YEAR OF CONSTRUCTION

	Ordinary self-propelled barges			Ordinary barges			Total capacity / dry cargo fleet		
	Units	Tonnage	Power	Units	Tonnage	Power	Units	Tonnage	Power
	Nbre	t	kW	Nbre	t	kW	Nbre	t	kW
Germany									
before 1930	218	212291	94752	25	10118		**243**	**222409**	**94752**
1930 - 1949	114	117483	54667	7	2444		**121**	**119927**	**54667**
1950 - 1959	197	201029	96816	12	7723		**209**	**208752**	**96816**
1960 - 1969	179	214225	90791	116	86489		**295**	**300714**	**90791**
1970 - 1979	113	190445	95186	132	193355		**245**	**383800**	**95186**
1980 - 1989	45	111759	49018	454	405183		**499**	**516942**	**49018**
1990 - 1999	9	17502	9903	96	132354		**105**	**149856**	**9903**
2000 - 2006	11	31053	13898	7	16198		**18**	**47251**	**13898**
not known	0	0	0	5	256		**5**	**256**	**0**
total	**886**	**1095787**	**505031**	**854**	**854120**	**886**	**1740**	**1949907**	**505031**
Austria (2004)									
before 1930							**0**	**0**	**0**
1930 - 1949							**0**	**0**	**0**
1950 - 1959							**0**	**0**	**0**
1960 - 1969							**0**	**0**	**0**
1970 - 1979							**0**	**0**	**0**
1980 - 1989							**0**	**0**	**0**
1990 - 1999							**0**	**0**	**0**
2000 - 2006							**0**	**0**	**0**
not known	5	7058		54	84807		**59**	**91865**	**0**
total	**5**	**7058**	**0**	**54**	**84807**		**59**	**91865**	**0**
Belgium									
before 1930	128	97598	45243	4	2883		**132**	**100481**	**45243**
1930 - 1949	120	84460	42909	4	2832		**124**	**87292**	**42909**
1950 - 1959	353	241755	127596	3	1058		**356**	**242813**	**127596**
1960 - 1969	384	277462	145005	33	42998		**417**	**320460**	**145005**
1970 - 1979	75	127261	60126	16	40414		**91**	**167675**	**60126**
1980 - 1989	40	82754	39452	72	211382		**112**	**294136**	**39452**
1990 - 1999	34	84399	41239	26	57075		**60**	**141474**	**41239**
2000 - 2006	59	157419	81988	70	102479		**129**	**259898**	**81988**
not known	0	0	0	0	0		**0**	**0**	**0**
total	**1193**	**1153108**	**583558**	**228**	**461121**	**1193**	**1421**	**1614229**	**583558**

	Ordinary self-propelled barges			Ordinary barges			Total capacity / dry cargo fleet		
	Units	Tonnage	Power	Units	Tonnage	Power	Units	Tonnage	Power
	Nbre	t	kW	Nbre	t	kW	Nbre	t	kW
France									
before 1930	30	21475	8583	10	6460		**40**	**27935**	**8583**
1930 - 1949	100	54397	19079	17	9389		**117**	**63786**	**19079**
1950 - 1959	373	189831	69398	47	31444		**420**	**221275**	**69398**
1960 - 1969	274	147260	58812	118	71026		**392**	**218286**	**58812**
1970 - 1979	12	8403	2100	40	47162		**52**	**55565**	**2100**
1980 - 1989	29	33919	14796	21	23755		**50**	**57674**	**14796**
1990 - 1999	5	7864	3643	90	156581		**95**	**164445**	**3643**
2000 - 2006	8	7780	1159	33	34836		**41**	**42616**	**1159**
not known	36	32997	1369	49	83296		**85**	**116293**	**1369**
total	**867**	**503926**	**178939**	**425**	**463949**		**1292**	**967875**	**178939**
Luxemburg									
before 1930	2	1754	1252	0	0		**2**	**1754**	**1252**
1930 - 1949	2	2441	1073	0	0		**2**	**2441**	**1073**
1950 - 1959	4	3754	1861	0	0		**4**	**3754**	**1861**
1960 - 1969	3	1864	1134	0	0		**3**	**1864**	**1134**
1970 - 1979	1	1587	707	0	0		**1**	**1587**	**707**
1980 - 1989	0	0	0	0	0		**0**	**0**	**0**
1990 - 1999	0	0	0	0	0		**0**	**0**	**0**
2000 - 2006	0	0	0	0	0		**0**	**0**	**0**
not known	0	0	0	0	0		**0**	**0**	**0**
total	**12**	**11400**	**6027**	**0**	**0**		**12**	**11400**	**6027**
Netherlands									
before 1930	510	322618	150735	9	6518		**519**	**329136**	**150735**
1930 - 1949	269	201192	100308	8	4349		**277**	**205541**	**100308**
1950 - 1959	646	555712	280035	7	5976		**653**	**561688**	**280035**
1960 - 1969	864	756661	356388	173	131822		**1037**	**888483**	**356388**
1970 - 1979	225	342564	164984	157	264536		**382**	**607100**	**164984**
1980 - 1989	188	336519	149782	211	500103		**399**	**836622**	**149782**
1990 - 1999	109	254125	136273	106	266429		**215**	**520554**	**136273**
2000 - 2006	262	692895	264560	112	256780		**374**	**949675**	**264560**
not known	13	15267	1943	14	12267		**27**	**27534**	**1943**
total	**3086**	**3477553**	**1605008**	**797**	**1448780**		**3883**	**4926333**	**1605008**

	Ordinary self-propelled barges			Ordinary barges			Total capacity / dry cargo fleet		
	Units	Tonnage	Power	Units	Tonnage	Power	Units	Tonnage	Power
	Nbre	t	kW	Nbre	t	kW	Nbre	t	kW
Switzerland									
before 1930	1	308	147	0	0		**1**	**308**	**147**
1930 - 1949	0	0	0	0	0		**0**	**0**	**0**
1950 - 1969	0	0	0	0	0		**0**	**0**	**0**
1970 - 1979	2	1550	1117	0	0		**2**	**1550**	**1117**
1980 - 1989	2	3563	1604	0	0		**2**	**3563**	**1604**
1990 - 1999	6	14339	6780	0	0		**6**	**14339**	**6780**
2000 - 2006	0	0	0	0	0		**0**	**0**	**0**
not known	4	10728	5634	1	1259		**5**	**11987**	**5634**
	1	0	0	0	0		**1**	**0**	**0**
total	**16**	**30488**	**15282**	**1**	**1259**		**17**	**31747**	**15282**
Hungary									
before 1930	0	0	0	0	0		**0**	**0**	**0**
1930 - 1949	1	902	382	0	0		**1**	**902**	**382**
1950 - 1959	2	1940	993	0	0		**2**	**1940**	**993**
1960 - 1969	1	7689	589	0	0		**1**	**7689**	**589**
1970 - 1979	0	0	0	0	0		**0**	**0**	**0**
1980 - 1989	0	0	0	1	793		**1**	**793**	**0**
1990 - 1999	0	0	0	0	0		**0**	**0**	**0**
2000 - 2006	0	0	0	0	0		**0**	**0**	**0**
not known	0	0	0	0	0		**0**	**0**	**0**
total	**4**	**10531**	**1964**	**1**	**793**		**5**	**11324**	**1964**
Slovakia									
before 1930	0	0	0	0	0		**0**	**0**	**0**
1930 - 1949	0	0	0	0	0		**0**	**0**	**0**
1950 - 1959	2	0	1030	0	0		**2**	**0**	**1030**
1960 - 1969	9	0	7511	0	0		**9**	**0**	**7511**
1970 - 1979	2	0	1442	12	0		**14**	**0**	**1442**
1980 - 1989	0	0	0	110	0		**110**	**0**	**0**
1990 - 1999	1	0	1030	9	0		**10**	**0**	**1030**
2000 - 2006	0	0	0	0	0		**0**	**0**	**0**
not known	0	0	0	16	0		**16**	**0**	**0**
total	**14**	**0**	**11013**	**147**	**0**		**161**	**0**	**11013**

	Ordinary self-propelled barges			Ordinary barges			Total capacity / dry cargo fleet		
	Units	Tonnage	Power	Units	Tonnage	Power	Units	Tonnage	Power
	Nbre	t	kW	Nbre	t	kW	Nbre	t	kW
Romania									
before 1930	6	5266	1427	1	1585		**7**	**6851**	**1427**
1930 - 1949	2	1580	405	0	0		**2**	**1580**	**405**
1950 - 1959	2	2015	1268	0	0		**2**	**2015**	**1268**
1960 - 1969	33	34644	530	9	10585		**42**	**45229**	**530**
1970 - 1979	32	51076	0	188	268651		**220**	**319727**	**0**
1980 - 1989	198	240755	150	303	587390		**501**	**828145**	**150**
1990 - 1999	13	12394	1206	100	204976		**113**	**217370**	**1206**
2000 - 2006	0	0	0	0	0		**0**	**0**	**0**
not known	0	0	0	0	0		**0**	**0**	**0**
total	**286**	**347730**	**4986**	**601**	**1073187**		**887**	**1420917**	**4986**
Bulgaria									
before 1930	0	0	0	0	0		**0**	**0**	**0**
1930 - 1949	0	0	0	0	0		**0**	**0**	**0**
1950 - 1959	2	1117	1129	9	3510		**11**	**4627**	**1129**
1960 - 1969	1	1972	442	44	27119		**45**	**29091**	**442**
1970 - 1979	2	1823	1030	30	13394		**32**	**15217**	**1030**
1980 - 1989	9	6539	8050	45	20265		**54**	**26804**	**8050**
1990 - 1999	0	0	0	20	10605		**20**	**10605**	**0**
2000 - 2006	1	0	660	1	0		**2**	**0**	**660**
not known	0	0	0	3	0		**3**	**0**	**0**
total	**15**	**11451**	**11311**	**152**	**74893**		**167**	**86344**	**11311**
Czech Republic									
before 1930	0	0	0	0	0		**0**	**0**	**0**
1930 - 1949	1	632	287	2	170		**3**	**802**	**287**
1950 - 1959	5	2376	1792	6	2895		**11**	**5271**	**1792**
1960 - 1969	27	19014	9206	52	15293		**79**	**34307**	**9206**
1970 - 1979	26	30371	11858	40	14027		**66**	**44398**	**11858**
1980 - 1989	3	3385	2232	123	79779		**126**	**83164**	**2232**
1990 - 1999	6	5881	3323	19	10381		**25**	**16262**	**3323**
2000 - 2006	0	0	0	6	1444		**6**	**1444**	**0**
not known	0	0	0	1	0		**1**	**0**	**0**
total	**68**	**61659**	**28698**	**249**	**123989**		**317**	**185648**	**28698**

	Ordinary self-propelled barges			Ordinary barges			Total capacity / dry cargo fleet		
	Units	Tonnage	Power	Units	Tonnage	Power	Units	Tonnage	Power
	Nbre	t	kW	Nbre	t	kW	Nbre	t	kW
Poland									
before 1930	0	0	0	0	0		**0**	**0**	**0**
1930 - 1949	10	9855	4360	0	0		**10**	**9855**	**4360**
1950 - 1959	92	51781	24391				**92**	**51781**	**24391**
1960 - 1969	0	0	0	33	17600		**33**	**17600**	**0**
1970 - 1979	4	2385	1226	206	103465		**210**	**105850**	**1226**
1980 - 1989	1	549	296	174	87556		**175**	**88105**	**296**
1990 - 1999	0	0	0	10	7297		**10**	**7297**	**0**
2000 - 2006	0	0	0	4	1201		**4**	**1201**	**0**
not known	0	0	0	0	0		**0**	**0**	**0**
total	**107**	**64570**	**30273**	**427**	**217119**		**534**	**281689**	**30273**
total									
before 1930	**895**	**661310**	**302139**	**49**	**27564**		**944**	**688874**	**302139**
1930 - 1949	**619**	**472942**	**223470**	**38**	**19184**		**657**	**492126**	**223470**
1950 - 1959	**1678**	**1251310**	**606309**	**84**	**52606**		**1762**	**1303916**	**606309**
1960 - 1969	**1777**	**1462341**	**671525**	**578**	**402932**		**2355**	**1865273**	**671525**
1970 - 1979	**494**	**759478**	**340263**	**821**	**945004**		**1315**	**1704482**	**340263**
1980 - 1989	**519**	**830518**	**270556**	**1514**	**1916206**		**2033**	**2746724**	**270556**
1990 - 1999	**177**	**382165**	**196617**	**476**	**845698**		**653**	**1227863**	**196617**
2000 - 2006	**345**	**899875**	**367899**	**234**	**414197**		**579**	**1314072**	**367899**
not known	**55**	**55322**	**3312**	**142**	**180626**		**197**	**235948**	**3312**
total	**6559**	**6775261**	**2982090**	**3936**	**4804017**		**10495**	**11579278**	**2982090**

	Self-propelled tankerbarges			Tanker barges			Total capacity of tanker fleet		
	Units	Tonnage	Power	Units	Tonnage	Power	Units	Tonnage	Power
	Nbre	t	kW	Nbre	t	kW	Nbre	t	kW
Germany									
before 1930	0	0	0	1	383		**1**	**383**	**0**
1930 - 1949	6	5428	3098	0	0		**6**	**5428**	**3098**
1950 - 1959	60	78521	39121	4	2688		**64**	**81209**	**39121**
1960 - 1969	65	84419	40989	5	5757		**70**	**90176**	**40989**
1970 - 1979	140	242644	123602	17	31238		**157**	**273882**	**123602**
1980 - 1989	40	79529	39719	16	10547		**56**	**90076**	**39719**
1990 - 1999	31	59810	34055	3	2021		**34**	**61831**	**34055**
2000 - 2006	35	68603	43653	0	0		**35**	**68603**	**43653**
not known	0	0	0	0	0		**0**	**0**	**0**
total	**377**	**618954**	**324237**	**46**	**52634**		**423**	**671588**	**324237**
Austria (2004)									
before 1930	0	0	0	0	0		**0**	**0**	**0**
1930 - 1949	0	0	0	0	0		**0**	**0**	**0**
1950 - 1959	0	0	0	0	0		**0**	**0**	**0**
1960 - 1969	0	0	0	0	0		**0**	**0**	**0**
1970 - 1979	0	0	0	0	0		**0**	**0**	**0**
1980 - 1989	0	0	0	0	0		**0**	**0**	**0**
1990 - 1999	0	0	0	0	0		**0**	**0**	**0**
2000 - 2006	0	0	0	0	0		**0**	**0**	**0**
not known	5	5601	0	15	22055		**20**	**27656**	**0**
total	**5**	**5601**	**0**	**15**	**22055**		**20**	**27656**	**0**
Belgium									
before 1930	16	3974	2562	0	0		**16**	**3974**	**2562**
1930 - 1949	13	4170	3139	0	0		**13**	**4170**	**3139**
1950 - 1959	44	35896	18911	0	0		**44**	**35896**	**18911**
1960 - 1969	52	44421	22155	2	2048		**54**	**46469**	**22155**
1970 - 1979	34	65398	29884	1	2923		**35**	**68321**	**29884**
1980 - 1989	24	52908	21402	2	4562		**26**	**57470**	**21402**
1990 - 1999	15	21303	11261	0	0		**15**	**21303**	**11261**
2000 - 2006	34	107080	45619	0	0		**34**	**107080**	**45619**
not known	0	0	0	0	0		**0**	**0**	**0**
total	**232**	**335150**	**154933**	**5**	**9533**		**237**	**344683**	**154933**

	Self-propelled tankerbarges			Tanker barges			Total capacity of tanker fleet		
	Units	Tonnage	Power	Units	Tonnage	Power	Units	Tonnage	Power
	Nbre	t	kW	Nbre	t	kW	Nbre	t	kW
France									
before 1930	1	382	0	0	0		**1**	**382**	**0**
1930 - 1949	2	1841	595	0	0		**2**	**1841**	**595**
1950 - 1959	9	4897	1858	6	4434		**15**	**9331**	**1858**
1960 - 1969	8	4175	2065	15	13224		**23**	**17399**	**2065**
1970 - 1979	5	11613	1396	7	13214		**12**	**24827**	**1396**
1980 - 1989	3	6906	4174	0	0		**3**	**6906**	**4174**
1990 - 1999	0	0	0	6	11978		**6**	**11978**	**0**
2000 - 2006	2	860	0	4	9819		**6**	**10679**	**0**
not known	3	8916	0	6	12836		**9**	**21752**	**0**
total	**33**	**39590**	**10088**	**44**	**65505**		**77**	**105095**	**10088**
Luxemburg									
before 1930	0	0	0	0	0		**0**	**0**	**0**
1930 - 1949	0	0	0	0	0		**0**	**0**	**0**
1950 - 1959	2	3100	1603	0	0		**2**	**3100**	**1603**
1960 - 1969	0	0	0	0	0		**0**	**0**	**0**
1970 - 1979	7	9996	4615	0	0		**7**	**9996**	**4615**
1980 - 1989	5	11635	5878	0	0		**5**	**11635**	**5878**
1990 - 1999	2	3023	1742	0	0		**2**	**3023**	**1742**
2000 - 2006	0	0	0	0	0		**0**	**0**	**0**
not known	0	0	0	0	0		**0**	**0**	**0**
total	**16**	**27754**	**13838**	**0**	**0**		**16**	**27754**	**13838**
Netherlands									
before 1930	16	1745	1482	0	0		**16**	**1745**	**1482**
1930 - 1949	22	5867	3813	0	0		**22**	**5867**	**3813**
1950 - 1959	129	72442	39698	0	0		**129**	**72442**	**39698**
1960 - 1969	202	101334	57326	7	3207		**209**	**104541**	**57326**
1970 - 1979	96	123238	57911	14	27874		**110**	**151112**	**57911**
1980 - 1989	57	93655	52961	7	13749		**64**	**107404**	**52961**
1990 - 1999	77	141035	77376	8	19798		**85**	**160833**	**77376**
2000 - 2006	137	379490	187108	2	2934		**139**	**382424**	**187108**
not known	10	16584	277	1	677		**11**	**17261**	**277**
total	**746**	**935390**	**477952**	**39**	**68239**		**785**	**1003629**	**477952**

	Self-propelled tankerbarges			Tanker barges			Total capacity of tanker fleet		
	Units	Tonnage	Power	Units	Tonnage	Power	Units	Tonnage	Power
	Nbre	t	kW	Nbre	t	kW	Nbre	t	kW
Switzerland									
before 1930	0	0	0	0	0		**0**	**0**	**0**
1930 - 1949	0	0	0	0	0		**0**	**0**	**0**
1950 - 1969	2	3559	2103	0	0		**2**	**3559**	**2103**
1970 - 1979	3	4135	1821	1	1970		**4**	**6105**	**1821**
1980 - 1989	9	20252	10321	0	0		**9**	**20252**	**10321**
1990 - 1999	13	33713	13325	0	0		**13**	**33713**	**13325**
2000 - 2006	10	21489	10824	0	0		**10**	**21489**	**10824**
not known	7	23489	9387	1	2073		**8**	**25562**	**9387**
	0	0	0	0	0		**0**	**0**	**0**
total	**44**	**106637**	**47781**	**2**	**4043**		**46**	**110680**	**47781**
Hungary									
before 1930	0	0	0	0	0		**0**	**0**	**0**
1930 - 1949	0	0	0	0	0		**0**	**0**	**0**
1950 - 1959	0	0	0	0	0		**0**	**0**	**0**
1960 - 1969	0	0	0	0	0		**0**	**0**	**0**
1970 - 1979	2	1167	0	1	1235		**3**	**2402**	**0**
1980 - 1989	0	0	0	0	0		**0**	**0**	**0**
1990 - 1999	0	0	0	0	0		**0**	**0**	**0**
2000 - 2006	0	0	0	0	0		**0**	**0**	**0**
not known	0	0	0	0	0		**0**	**0**	**0**
total	**2**	**1167**	**0**	**1**	**1235**		**3**	**2402**	**0**
Slovakia									
before 1930	0	0	0	0	0		**0**	**0**	**0**
1930 - 1949	0	0	0	1	0		**1**	**0**	**0**
1950 - 1959	0	0	0	1	0		**1**	**0**	**0**
1960 - 1969	3	0	2041	2	0		**5**	**0**	**2041**
1970 - 1979	0	0	0	22	0		**22**	**0**	**0**
1980 - 1989	0	0	0	0	0		**0**	**0**	**0**
1990 - 1999	0	0	0	4	0		**4**	**0**	**0**
2000 - 2006	0	0	0	0	0		**0**	**0**	**0**
not known	0	0	0	0	0		**0**	**0**	**0**
total	**3**	**0**	**2041**	**30**	**0**		**33**	**0**	**2041**

	Self-propelled tankerbarges			Tanker barges			Total capacity of tanker fleet		
	Units	Tonnage	Power	Units	Tonnage	Power	Units	Tonnage	Power
	Nbre	t	kW	Nbre	t	kW	Nbre	t	kW
Romania									
before 1930	0	0	0	0	0		**0**	**0**	**0**
1930 - 1949	0	0	0	0	0		**0**	**0**	**0**
1950 - 1959	0	0	0	0	0		**0**	**0**	**0**
1960 - 1969	0	0	0	0	0		**0**	**0**	**0**
1970 - 1979	1	2496	883	0	0		**1**	**2496**	**883**
1980 - 1989	0	0	0	0	0		**0**	**0**	**0**
1990 - 1999	8	15544	0	0	0		**8**	**15544**	**0**
2000 - 2006	0	0	0	0	0		**0**	**0**	**0**
not known	0	0	0	0	0		**0**	**0**	**0**
total	**9**	**18040**	**883**	**0**	**0**		**9**	**18040**	**883**
Bulgaria									
before 1930	0	0	0	0	0		**0**	**0**	**0**
1930 - 1949	0	0	0	0	0		**0**	**0**	**0**
1950 - 1959	0	0	0	0	0		**0**	**0**	**0**
1960 - 1969	0	0	0	0	0		**0**	**0**	**0**
1970 - 1979	0	0	0	0	0		**0**	**0**	**0**
1980 - 1989	0	0	0	0	0		**0**	**0**	**0**
1990 - 1999	0	0	0	0	0		**0**	**0**	**0**
2000 - 2006	0	0	0	0	0		**0**	**0**	**0**
not known	0	0	0	0	0		**0**	**0**	**0**
total	**0**	**0**	**0**	**0**	**0**		**0**	**0**	**0**
Czech Republic									
before 1930	0	0	0	0	0		**0**	**0**	**0**
1930 - 1949	0	0	0	0	0		**0**	**0**	**0**
1950 - 1959	0	0	0	0	0		**0**	**0**	**0**
1960 - 1969	0	0	0	0	0		**0**	**0**	**0**
1970 - 1979	1	0	0	0	0		**1**	**0**	**0**
1980 - 1989	0	0	0	0	0		**0**	**0**	**0**
1990 - 1999	0	0	0	0	0		**0**	**0**	**0**
2000 - 2006	0	0	0	0	0		**0**	**0**	**0**
not known	0	0	0	0	0		**0**	**0**	**0**
total	**1**	**0**	**0**	**0**	**0**		**1**	**0**	**0**

	Self-propelled tankerbarges			Tanker barges			Total capacity of tanker fleet		
	Units	Tonnage	Power	Units	Tonnage	Power	Units	Tonnage	Power
	Nbre	t	kW	Nbre	t	kW	Nbre	t	kW
Poland									
before 1930	0	0	0	0	0		**0**	**0**	**0**
1930 - 1949	0	0	0	0	0		**0**	**0**	**0**
1950 - 1959	0	0	0	0	0		**0**	**0**	**0**
1960 - 1969	0	0	0	0	0		**0**	**0**	**0**
1970 - 1979	0	0	0	0	0		**0**	**0**	**0**
1980 - 1989	0	0	0	0	0		**0**	**0**	**0**
1990 - 1999	0	0	0	0	0		**0**	**0**	**0**
2000 - 2006	0	0	0	0	0		**0**	**0**	**0**
not known	0	0	0	0	0		**0**	**0**	**0**
total	**0**	**0**	**0**	**0**	**0**		**0**	**0**	**0**
Total									
before 1930	**33**	**6101**	**4044**	**1**	**383**	**0**	**34**	**6484**	**4044**
1930 - 1949	**43**	**17306**	**10645**	**1**	**0**	**0**	**44**	**17306**	**10645**
1950 - 1959	**246**	**198415**	**103294**	**11**	**7122**	**0**	**257**	**205537**	**103294**
1960 - 1969	**333**	**238484**	**126397**	**32**	**26206**	**0**	**365**	**264690**	**126397**
1970 - 1979	**295**	**476804**	**228612**	**62**	**76484**	**0**	**357**	**553288**	**228612**
1980 - 1989	**142**	**278346**	**137459**	**25**	**28858**	**0**	**167**	**307204**	**137459**
1990 - 1999	**143**	**262204**	**135258**	**21**	**33797**	**0**	**164**	**296001**	**135258**
2000 - 2006	**215**	**579522**	**285767**	**7**	**14826**	**0**	**222**	**594348**	**285767**
not known	**18**	**31101**	**277**	**22**	**35568**	**0**	**40**	**66669**	**277**
total	**1468**	**2088283**	**1031753**	**182**	**223244**	**0**	**1650**	**2311527**	**1031753**

	Tugs			Pusher tugs			Total propelled vessels		
	Units	Tonnage	Power	Units	Tonnage	Power	Units	Tonnage	Power
	Nbre	t	kW	Nbre	t	kW	Nbre	t	kW
Germany									
before 1930	40		9071	19		4675	**59**		**13746**
1930 - 1949	26		4351	23		8580	**49**		**12931**
1950 - 1959	31		6263	17		4556	**48**		**10819**
1960 - 1969	24		3957	84		28853	**108**		**32810**
1970 - 1979	13		2428	57		58591	**70**		**61019**
1980 - 1989	2		705	84		31068	**86**		**31773**
1990 - 1999	2		883	6		2390	**8**		**3273**
2000 - 2006	0		0	1		213	**1**		**213**
not known	1		110	1		59	**2**		**169**
total	**139**		**27768**	**292**		**138985**	**431**		**166753**
Austria (2004)									
before 1930	0		0	0		0	**0**		**0**
1930 - 1949	0		0	0		0	**0**		**0**
1950 - 1959	0		0	0		0	**0**		**0**
1960 - 1969	0		0	0		0	**0**		**0**
1970 - 1979	0		0	0		0	**0**		**0**
1980 - 1989	0		0	0		0	**0**		**0**
1990 - 1999	0		0	0		0	**0**		**0**
2000 - 2006	0		0	0		0	**0**		**0**
not known	0		0	10		9200	**10**		**9200**
total	**0**		**0**	**10**		**9200**	**10**		**9200**
Belgium									
before 1930	2		501	18		5371	**20**		**5872**
1930 - 1949	3		220	25		7399	**28**		**7619**
1950 - 1959	6		1159	20		6518	**26**		**7677**
1960 - 1969	4		1154	16		9135	**20**		**10289**
1970 - 1979	5		2464	20		10652	**25**		**13115**
1980 - 1989	2		196	7		3444	**9**		**3641**
1990 - 1999	1		374	8		5292	**9**		**5666**
2000 - 2006	0		0	4		5844	**4**		**5844**
not known	0		0	0		0	**0**		**0**
total	**23**		**6068**	**118**		**53655**	**141**		**59723**

	Tugs			Pusher tugs			Total propelled vessels		
	Units	Tonnage	Power	Units	Tonnage	Power	Units	Tonnage	Power
	Nbre	t	kW	Nbre	t	kW	Nbre	t	kW
France (#)									
before 1930	0		0	0		0	**0**		**0**
1930 - 1949	0		0	0		0	**0**		**0**
1950 - 1959	0		0	0		0	**0**		**0**
1960 - 1969	0		0	0		0	**0**		**0**
1970 - 1979	0		0	0		0	**0**		**0**
1980 - 1989	0		0	0		0	**0**		**0**
1990 - 1999	0		0	0		0	**0**		**0**
2000 - 2006	0		0	0		0	**0**		**0**
not known	0		0	0		0	**0**		**0**
total	**0**		**0**	**0**		**0**	**0**		**0**
(#)France : data about the tugs and pusher tugs from decembre, 31th 2003									
Luxemburg									
before 1930	0		0	0		0	**0**		**0**
1930 - 1949	0		0	0		0	**0**		**0**
1950 - 1959	0		0	0		0	**0**		**0**
1960 - 1969	0		0	0		0	**0**		**0**
1970 - 1979	0		0	0		0	**0**		**0**
1980 - 1989	0		0	0		0	**0**		**0**
1990 - 1999	0		0	0		0	**0**		**0**
2000 - 2006	0		0	0		0	**0**		**0**
not known	0		0	0		0	**0**		**0**
total	**0**		**0**	**0**		**0**	**0**		**0**
Netherlands									
before 1930	11		4728	155		23916	**166**		**28644**
1930 - 1949	18		7742	201		43069	**219**		**50811**
1950 - 1959	9		3748	185		46679	**194**		**50427**
1960 - 1969	27		12990	128		30090	**155**		**43080**
1970 - 1979	30		22014	71		28648	**101**		**50662**
1980 - 1989	25		25642	37		18167	**62**		**43809**
1990 - 1999	5		11517	11		4044	**16**		**15561**
2000 - 2006	1		1350	5		774	**6**		**2124**
not known	0		0	9		1816	**9**		**1816**
total	**126**		**89731**	**802**		**197203**	**928**		**286934**

	Tugs			Pusher tugs			Total propelled vessels		
	Units	Tonnage	Power	Units	Tonnage	Power	Units	Tonnage	Power
	Nbre	t	kW	Nbre	t	kW	Nbre	t	kW
Switzerland									
before 1930	0		0	0		0	**0**		**0**
1930 - 1949	1		353	1		368	**2**		**721**
1950 - 1969	0		0	1		728	**1**		**728**
1970 - 1979	0		0	2		302	**2**		**302**
1980 - 1989	0		0	0		0	**0**		**0**
1990 - 1999	0		0	0		0	**0**		**0**
2000 - 2006	0		0	0		0	**0**		**0**
not known	0		0	0		0	**0**		**0**
	0		0	0		0	**0**		**0**
total	**1**		**353**	**4**		**1398**	**5**		**1751**
Hungary									
before 1930	0		0	0		0	**0**		**0**
1930 - 1949	0		0	0		0	**0**		**0**
1950 - 1959	0		0	0		0	**0**		**0**
1960 - 1969	0		0	0		0	**0**		**0**
1970 - 1979	0		0	0		0	**0**		**0**
1980 - 1989	0		0	0		0	**0**		**0**
1990 - 1999	0		0	0		0	**0**		**0**
2000 - 2006	0		0	0		0	**0**		**0**
not known	0		0	0		0	**0**		**0**
total	**0**		**0**	**0**		**0**	**0**		**0**
Slovakia									
before 1930	0		0	0		0	**0**		**0**
1930 - 1949	0		0	0		0	**0**		**0**
1950 - 1959	0		0	0		0	**0**		**0**
1960 - 1969	0		0	4		5444	**4**		**5444**
1970 - 1979	0		0	11		9910	**11**		**9910**
1980 - 1989	0		0	17		18186	**17**		**18186**
1990 - 1999	0		0	4		7030	**4**		**7030**
2000 - 2006	0		0	0		0	**0**		**0**
not known	0		0	0		0	**0**		**0**
total	**0**		**0**	**36**		**40570**	**36**		**40570**

	Tugs			Pusher tugs			Total propelled vessels		
	Units	Tonnage	Power	Units	Tonnage	Power	Units	Tonnage	Power
	Nbre	t	kW	Nbre	t	kW	Nbre	t	kW
Romania									
before 1930	0		0	0		0	**0**		**0**
1930 - 1949	2		0	1		0	**3**		**0**
1950 - 1959	3		0	0		0	**3**		**0**
1960 - 1969	15		5232	4		3127	**19**		**8359**
1970 - 1979	14		1058	7		2106	**21**		**3164**
1980 - 1989	10		8013	18		0	**28**		**8013**
1990 - 1999	1		0	1		1764	**2**		**1764**
2000 - 2006	0		0	0		0	**0**		**0**
not known	0		0	0		0	**0**		**0**
total	**45**		**14303**	**31**		**6997**	**76**		**21300**
Bulgaria									
before 1930	1		0	0		0	**1**		**0**
1930 - 1949	2		426	0		0	**2**		**426**
1950 - 1959	3		1792	0		0	**3**		**1792**
1960 - 1969	12		4482	3		1514	**15**		**5996**
1970 - 1979	6		2024	12		11738	**18**		**13762**
1980 - 1989	1		2206	6		7550	**7**		**9756**
1990 - 1999	0		0	3		7281	**3**		**7281**
2000 - 2006	0		0	0		0	**0**		**0**
not known	1		0	0		0	**1**		**0**
total	**26**		**10930**	**24**		**28083**	**50**		**39013**
Czech Republic									
before 1930	1		99	0		0	**1**		**99**
1930 - 1949	3		488	0		0	**3**		**488**
1950 - 1959	6		1269	0		0	**6**		**1269**
1960 - 1969	8		1211	8		385	**16**		**1596**
1970 - 1979	15		1419	32		3141	**47**		**4560**
1980 - 1989	17		2567	76		9226	**93**		**11793**
1990 - 1999	0		0	6		1099	**6**		**1099**
2000 - 2006	1		192	0		0	**1**		**192**
not known	0		0	1		21	**1**		**21**
total	**51**		**7245**	**123**		**13872**	**174**		**21117**

	Tugs			Pusher tugs			Total propelled vessels		
	Units	Tonnage	Power	Units	Tonnage	Power	Units	Tonnage	Power
	Nbre	t	kW	Nbre	t	kW	Nbre	t	kW
Poland									
before 1930	0		0	0		0	**0**		**0**
1930 - 1949	0		0	0		0	**0**		**0**
1950 - 1959	0		0	0		0	**0**		**0**
1960 - 1969	0		0	0		0	**0**		**0**
1970 - 1979	0		0	0		0	**0**		**0**
1980 - 1989	0		0	0		0	**0**		**0**
1990 - 1999	0		0	0		0	**0**		**0**
2000 - 2006	0		0	0		0	**0**		**0**
not known	0		0	0		0	**0**		**0**
total	**0**		**0**	**0**		**0**	**0**		**0**
Total									
before 1930	**55**		**14399**	**192**		**33962**	**247**		**48361**
1930 - 1949	**55**		**13580**	**251**		**59416**	**306**		**72996**
1950 - 1959	**58**		**14231**	**223**		**58481**	**281**		**72712**
1960 - 1969	**90**		**29026**	**249**		**78850**	**339**		**107876**
1970 - 1979	**83**		**31407**	**210**		**124786**	**293**		**156193**
1980 - 1989	**57**		**39329**	**245**		**87641**	**302**		**126971**
1990 - 1999	**9**		**12774**	**39**		**28900**	**48**		**41674**
2000 - 2006	**2**		**1542**	**10**		**6831**	**12**		**8373**
not known	**2**		**110**	**21**		**11096**	**23**		**11206**
total	**411**		**156398**	**1440**		**489963**	**1851**		**646361**

Table MO4: NEW BUILDINGS AT DECEMBER 2008

Type of vessel	2002		2003		2004		2005	
	nbr	T	nbr	T	nbr	T	nbr	T
ordinary self-propelled barges	45	113114	34	89676	28	71326	34	87645
ordinary barges	29	37180	28	78156	14	23636	12	11401
total	**74**	**150294**	**62**	**167832**	**42**	**94962**	**46**	**99046**
Self-propelled tankerbarges	22	65548	45	131455	54	139718	46	130860
Tanker barges	2	178	1	1800	3	2427	2	2527
total	**24**	**65726**	**46**	**133255**	**57**	**142145**	**48**	**133387**
tugs	17		10		5		5	
Pusher tugs	9		1		1		5	
	26		**11**		**6**		**10**	
	number	kW	**number**	kW	**number**	kW	**number**	kW
Cruise vessels	2	1276	0	0	1	992	0	0
Excursion vessels	3	11670	1	279	1	177	0	0
total	**5**	**12946**	**1**	**279**	**2**	**1169**	**0**	**0**

Type of vessel	2006		2007		2008		total 2002 - 2008	
	nbr	T	nbr	T	nbr	T	nbr	T
ordinary self-propelled barges	41	124116	74	254030	23	79084	279	818991
ordinary barges	25	37735	34	94224	27	65223	169	347555
total	**66**	**161851**	**108**	**348254**	**50**	**144307**	**448**	**1166546**
Self-propelled tankerbarges	35	102352	31	78734	16	57734	249	706401
Tanker barges	0	0	0	0	0	0	8	6932
total	**28**	**77565**	**31**	**78734**	**16**	**57734**	**257**	**713333**
tugs	4	1644	4		4	8520	49	10164
Pusher tugs	2	1959	3		0	0	21	1959
	6		**7**		**4**	**8520**	**70**	**12123**
	number	kW	**number**	kW	**number**	kW	**number**	kW
Cruise vessels	0	0	5	7780	0	0	8	10048
Excursion vessels	0	0			0	0	5	12126
total	**0**	**0**	**1**	**0**	**0**	**0**	**13**	**22174**

source: IVR and secretariat of the CCNR

Table MO5 – NATIONAL TRANSPORT OF GOODS ON INLAND WATERWAYS, BY STATE

		Volumes carried			Services			Difference 06 / 07	
N°	Country	**2005**	**2006**	**2007**	**2005**	**2006**	**2007**	1000 t	mio TKM
NST	Category of good								
		1000 t			1000000 TKM			%	
	Switzerland	Not recorded as transported volumes only concern transport on lakes							
0	Agricultural products								
1	Foodstuffs, animal fodder								
2	Solid mineral fuels								
3	Oil and oil-based products								
4	Ore and pig iron for iron and steel industry								
5	Iron and steel products								
6	Crude and manufactured minerals, building materials								
7	Fertilisers								
8	Chemicals								
9	Machinery, transport equipment, manufactured articles								
	Germany	**56663**	**57156**	**59150**	**11695**	**11231**	**11798**	**3,49%**	**5,05%**
0	Agricultural products	2554	2348	2458	838	728	805	**4,69%**	**10,64%**
1	Foodstuffs, animal fodder	3441	3565	3940	1014	974	1093	**10,51%**	**12,25%**
2	Solid mineral fuels	7571	7324	6624	1126	1057	1057	**-9,56%**	**0,04%**
3	Oil and oil-based products	14770	14245	14336	2750	2537	2547	**0,64%**	**0,38%**
4	Ore and pig iron for iron and steel industry	3115	3065	4253	810	725	836	**38,76%**	**15,27%**
5	Iron and steel products	1505	1385	1522	616	538	558	**9,89%**	**3,74%**
6	Crude and manufactured minerals, building materials	15657	17397	17501	2944	3013	3124	**0,60%**	**3,69%**
7	Fertilisers	1044	1012	1040	403	395	402	**2,73%**	**1,71%**
8	Chemicals	5262	5297	5912	873	998	1122	**11,60%**	**12,47%**
9	Machinery, transport equipment, manufactured articles	1744	1518	1565	321	266	253	**3,11%**	**-4,78%**
	Austria	**356**	**1137**	**972**	**36**	**137**	**146**	**-14,50%**	**6,37%**
0	Agricultural products	9	4	2	2	1	0	**-49,90%**	**-62,33%**
1	Foodstuffs, animal fodder	2	0	0	0	0	0		
2	Solid mineral fuels	0	1	2	0	0	0	**55,60%**	
3	Oil and oil-based products	136	601	572	23	125	121	**-4,85%**	**-3,02%**
4	Ore and pig iron for iron and steel industry	1	0	0	0	0	0		
5	Iron and steel products	85	91	113	10	11	14	**24,13%**	**28,37%**
6	Crude and manufactured minerals, building materials	111	439	283	0	0	10	**-35,57%**	
7	Fertilisers	11	1	1	1	0	0	**-50,00%**	
8	Chemicals	0	0	0	0	0	0		
9	Machinery, transport equipment, manufactured articles	1	0	0	0	0	0		

		Volumes carried			Services			Difference 06 / 07	
N°	Country	2005	2006	2007	2005	2006	2007	1000 t	mio TKM
NST	Category of good								
		1000 t			1000000 TKM			%	
	Belgium	**35409**	**37543**	**(*)**	**3060**	**3169**	**(*)**		
0	Agricultural products	520	537		53	56			
1	Foodstuffs, animal fodder	1013	1286		58	74			
2	Solid mineral fuels	4241	3742		449	409			
3	Oil and oil-based products	7453	7478		550	550			
4	Ore and pig iron for iron and steel industry	1504	1728		164	181			
5	Iron and steel products	1282	2192		99	202			
6	Crude and manufactured minerals, building materials	11678	12224		1182	1153			
7	Fertilisers	1649	1585		102	104			
8	Chemicals	2218	2315		188	197			
9	Machinery, transport equipment, manufactured articles	3851	4456		215	243			
	Bulgaria	**1876**	**2000**	**2203**	**67**	**64**	**(*)**		
0	Agricultural products	1	0		0	0			
1	Foodstuffs, animal fodder	0	0		0	0			
2	Solid mineral fuels	17	39	7	3	6			
3	Oil and oil-based products	0	0	17	0	0			
4	Ore and pig iron for iron and steel industry	0	0		0	0			
5	Iron and steel products	0	0	2	0	0			
6	Crude and manufactured minerals, building materials	1855	1961	2176	64	58			
7	Fertilisers	0	0		0	0			
8	Chemicals	0	0		0	0			
9	Machinery, transport equipment, manufactured articles	3	0	0	0	0			
	France	**28936**	**30555**	**(*)**	**4640**	**4645**	**(*)**		
0	Agricultural products	2981	2753		811	725			
1	Foodstuffs, animal fodder	461	562		130	140			
2	Solid mineral fuels	1809	1557		539	497			
3	Oil and oil-based products	3274	3988		358	447			
4	Ore and pig iron for iron and steel industry	161	180		42	48			
5	Iron and steel products	246	273		59	68			
6	Crude and manufactured minerals, building materials	17066	18127		1980	1954			
7	Fertilisers	84	107		23	32			
8	Chemicals	1035	963		260	252			
9	Fahrzeuge, Maschinen, Halb-/ Fertigwaren.	1819	2045		438	482			

(*) For these countries, data from EUROSTAT are only delivered according to NST 2007

N° / NST	Country / Category of good	Volumes carried			Services			Difference 06 / 07	
		2005	2006	2007	2005	2006	2007	1000 t	mio TKM
		1000 t			1000000 TKM			%	
	Luxemburg	**0**	**0**	**0**	**0**	**0**	**0**		
0	Agricultural products	0	0	0	0	0	0		
1	Foodstuffs, animal fodder	0	0	0	0	0	0		
2	Solid mineral fuels	0	0	0	0	0	0		
3	Oil and oil-based products	0	0	0	0	0	0		
4	Ore and pig iron for iron and steel industry	0	0	0	0	0	0		
5	Iron and steel products	0	0	0	0	0	0		
6	Crude and manufactured minerals, building materials	0	0	0	0	0	0		
7	Fertilisers	0	0	0	0	0	0		
8	Chemicals	0	0	0	0	0	0		
9	Machinery, transport equipment, manufactured articles	0	0	0	0	0	0		
	Hungary	**54**	**80**	**(*)**	**6**	**8**	**(*)**		
0	Agricultural products	1	4		0	0			
1	Foodstuffs, animal fodder	0	0		0	0			
2	Solid mineral fuels	0	0		0	0			
3	Oil and oil-based products	29	22		4	3			
4	Ore and pig iron for iron and steel industry	0	0		0	0			
5	Iron and steel products	0	2		0	0			
6	Crude and manufactured minerals, building materials	12	40		1	4			
7	Fertilisers	0	0		0	0			
8	Chemicals	0	0		0	0			
9	Machinery, transport equipment, manufactured articles	12	12		1	1			
	Netherlands	**92007**	**90182**	**(*)**	**10425**	**10060**	**(*)**		
0	Agricultural products	1298	1370		176	187			
1	Foodstuffs, animal fodder	6817	6364		898	841			
2	Solid mineral fuels	2732	2721		412	402			
3	Oil and oil-based products	19407	19702		2300	2264			
4	Ore and pig iron for iron and steel industry	1619	1425		240	219			
5	Iron and steel products	1064	1271		157	189			
6	Crude and manufactured minerals, building materials	41433	38681		3953	3626			
7	Fertilisers	1271	1049		258	217			
8	Chemicals	5512	4994		736	664			
9	Machinery, transport equipment, manufactured articles	10854	12605		1295	1451			

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N° / NST	Country / Category of good	Volumes carried			Services			Difference 06 / 07	
		2005	2006	2007	2005	2006	2007	1000 t	mio TKM
		1000 t			1000000 TKM			%	
	Poland	**4466**	**4460**	**(*)**	**185**	**184**	**(*)**		
0	Agricultural products	5	2		0	0			
1	Foodstuffs, animal fodder	5	14		0	1			
2	Solid mineral fuels	682	728		121	126			
3	Oil and oil-based products	62	15		1	0			
4	Ore and pig iron for iron and steel industry	261	106		12	1			
5	Iron and steel products	71	40		6	4			
6	Crude and manufactured minerals, building materials	3004	3207		34	41			
7	Fertilisers	52	74		1	2			
8	Chemicals	276	255		4	4			
9	Machinery, transport equipment, manufactured articles	48	19		6	5			
	Czech Republic	**685**	**418**	**630**	**30**	**15**	**(*)**	**50,82%**	**-100,00%**
0	Agricultural products	21	1	0	1	0			
1	Foodstuffs, animal fodder	0	1	0	0	0		**-73,50%**	
2	Solid mineral fuels	0	0	0	0	0			
3	Oil and oil-based products	0	0	0	0	0			
4	Ore and pig iron for iron and steel industry	1	0	0	1	0			
5	Iron and steel products	0	0	0	0	0			
6	Crude and manufactured minerals, building materials	643	414	630	28	15		**52,15%**	**-95,55%**
7	Fertilisers	14	1	0	0	0			
8	Chemicals	0	1	0	0	0			
9	Machinery, transport equipment, manufactured articles	6	0	0	0	0			
	Romania	**27335**	**23552**	**22829**	**5117**	**4881**	**4355**	**-3,07%**	**-10,77%**
0	Agricultural products	575	653	351	0	200	90	**-46,25%**	**-100,00%**
1	Foodstuffs, animal fodder	104	203	431	33	74	139	**112,07%**	**87,52%**
2	Solid mineral fuels	1837	2371	2852	357	479	578	**20,30%**	**20,67%**
3	Oil and oil-based products	23	9	40	5	7	22	**344,64%**	**214,50%**
4	Ore and pig iron for iron and steel industry	13119	9817	7129	3306	2716	1643	**-27,38%**	**-39,51%**
5	Iron and steel products	1862	1537	1675	438	428	359	**8,98%**	**-16,04%**
6	Crude and manufactured minerals, building materials	9332	8580	9308	822	829	1166	**8,49%**	**40,59%**
7	Fertilisers	434	287	644	142	109	224	**124,53%**	**105,64%**
8	Chemicals	32	59	263	8	23	98	**346,46%**	**325,46%**
9	Machinery, transport equipment, manufactured articles	17	36	134	6	16	37	**273,08%**	**129,18%**

(*) For these countries, data from EUROSTAT are only delivered according to NST 2007

N° / NST	Country / Category of good	Volumes carried			Services			Difference 06 / 07	
		2005	2006	2007	2005	2006	2007	1000 t	mio TKM
		1000 t			1000000 TKM			%	
	Slovakia	**103**	**94**	**239**	**5**	**3**	**4**	**154,30%**	**34,04%**
0	Agricultural products	9	4	0	0	0	0	**-91,93%**	
1	Foodstuffs, animal fodder	0	0	0	0	0	0		
2	Solid mineral fuels	0	0	0	0	0	0		
3	Oil and oil-based products	0	0	0	0	0	0		
4	Ore and pig iron for iron and steel industry	0	0	0	0	0	0		
5	Iron and steel products	0	0	0	0	0	0		
6	Crude and manufactured minerals, building materials	94	90	239	5	3	4	**165,14%**	**32,51%**
7	Fertilisers	0	0	0	0	0	0		
8	Chemicals	0	0	0	0	0	0		
9	Machinery, transport equipment, manufactured articles	0	0	0	0	0	0		
	Croatia	**195**	**189**	**163**	**39**	**39**	**31**	**-13,88%**	**-19,43%**
0	Agricultural products	9	4	0	0	0	0		
1	Foodstuffs, animal fodder	0	0	0	0	0	0		
2	Solid mineral fuels	0	0	0	0	0	0		
3	Oil and oil-based products	173	170	139	38	38	31	**-18,07%**	**-18,40%**
4	Ore and pig iron for iron and steel industry	0	0	0	0	0	0		
5	Iron and steel products	0	0	0	0	0	0		
6	Crude and manufactured minerals, building materials	13	15	23	1	1	0	**56,60%**	**-58,88%**
7	Fertilisers	0	0	0	0	0	0		
8	Chemicals	0	0	0	0	0	0		
9	Machinery, transport equipment, manufactured articles	0	0	0	0	0	0		
	Total Europe 27	**247888**	**247178**	**(**)**	**35465**	**34396**	**(**)**		
0	Agricultural products	7975	7678		2078	1898			
1	Foodstuffs, animal fodder	11843	11994		2133	2103			
2	Solid mineral fuels	18890	18483		3007	2978			
3	Oil and oil-based products	45154	46058		5992	5932			
4	Ore and pig iron for iron and steel industry	19780	16322		4575	3888			
5	Iron and steel products	6113	6790		1386	1441			
6	Crude and manufactured minerals, building materials	100885	101160		11012	10696			
7	Fertilisers	4559	4116		931	858			
8	Chemicals	14335	13885		2068	2139			
9	Machinery, transport equipment, manufactured articles	18354	20692		2283	2463			

(*) For these countries, data from EUROSTAT are only delivered according to NST 2007
(**) At present, these data cannot be calculated because of the transition to the new codification

Table MO6 – INTERNATIONAL TRANSPORT OF GOODS ON INLAND WATERWAYS, BY STATE

		Volumes carried			Services			Difference 06 / 07	
N°	Country	2005	2006	2007	2005	2006	2007	1000 t	mio TKM
NST	Category of good								
		1000 t			1000000 TKM			%	
	Switzerland	**7259**	**6750**	**7106**	**57**	**53**	**56**	**5,27%**	**6,49%**
0	Agricultural products	221	299	384	2	3	4	**28,43%**	**48,15%**
1	Foodstuffs, animal fodder	404	418	543	3	3	5	**29,90%**	**61,81%**
2	Solid mineral fuels	98	145	222	1	1	2	**53,10%**	**36,05%**
3	Oil and oil-based products	3607	3028	2816	29	24	23	**-7,00%**	**-5,58%**
4	Ore and pig iron for iron and steel industry	107	157	112	1	1	1	**-28,66%**	**-31,97%**
5	Iron and steel products	753	862	992	6	6	6	**15,08%**	**-5,66%**
6	Crude and manufactured minerals, building materials	552	454	508	4	3	3	**11,89%**	**-8,81%**
7	Fertilisers	185	161	171	2	2	2	**6,21%**	**14,94%**
8	Chemicals	899	774	857	7	6	7	**10,72%**	**16,28%**
9	Machinery, transport equipment, manufactured articles	433	452	501	2	2	3	**10,84%**	**43,69%**
	Germany	**180103**	**186339**	**189824**	**52401**	**52745**	**52918**	**1,87%**	**0,33%**
0	Agricultural products	8653	8442	8013	4442	4446	4177	**-5,08%**	**-6,06%**
1	Foodstuffs, animal fodder	12334	11076	11310	5217	4253	4517	**2,11%**	**6,20%**
2	Solid mineral fuels	26134	28685	29686	7439	7605	7463	**3,49%**	**-1,87%**
3	Oil and oil-based products	24055	24894	21157	7909	8065	6669	**-15,01%**	**-17,31%**
4	Ore and pig iron for iron and steel industry	32731	32899	33621	5491	5440	5630	**2,19%**	**3,49%**
5	Iron and steel products	11705	12444	14338	3320	3506	4161	**15,22%**	**18,68%**
6	Crude and manufactured minerals, building materials	28535	32352	33777	7274	8261	8561	**4,40%**	**3,63%**
7	Fertilisers	5067	4759	4691	2189	2032	2025	**-1,42%**	**-0,34%**
8	Chemicals	14725	14788	16005	4047	4223	4482	**8,23%**	**6,13%**
9	Machinery, transport equipment, manufactured articles	16164	16000	17227	5073	4914	5234	**7,67%**	**6,52%**
	Austria	**8980**	**8046**	**12000**	**1715**	**1700**	**2451**	**49,14%**	**44,17%**
0	Agricultural products	937	880	1395	197	232	410	**58,50%**	**76,76%**
1	Foodstuffs, animal fodder	887	707	971	221	177	252	**37,36%**	**42,52%**
2	Solid mineral fuels	177	151	273	30	33	55	**81,09%**	**65,44%**
3	Oil and oil-based products	1866	1021	1848	253	136	241	**81,01%**	**77,22%**
4	Ore and pig iron for iron and steel industry	3040	2841	3438	631	601	734	**21,01%**	**22,09%**
5	Iron and steel products	491	803	1199	93	190	299	**49,32%**	**57,30%**
6	Crude and manufactured minerals, building materials	524	493	1486	87	79	111	**201,38%**	**40,86%**
7	Fertilisers	874	916	921	146	176	190	**0,57%**	**7,68%**
8	Chemicals	62	35	71	17	10	18	**101,47%**	**78,99%**
9	Machinery, transport equipment, manufactured articles	122	199	398	40	66	142	**99,90%**	**114,58%**

N° / NST	Country / Category of good	Volumes carried			Services			Difference 06 / 07	
		2005	2006	2007	2005	2006	2007	1000 t	mio TKM
		1000 t			1000000 TKM			%	
	Belgium	**124988**	**128312**	**(*)**	**5506**	**5740**	**(*)**		
0	Agricultural products	4533	5082		395	458			
1	Foodstuffs, animal fodder	4696	4470		214	215			
2	Solid mineral fuels	9187	8870		462	481			
3	Oil and oil-based products	20862	20935		602	592			
4	Ore and pig iron for iron and steel industry	8105	6756		506	442			
5	Iron and steel products	7901	7946		382	454			
6	Crude and manufactured minerals, building materials	28776	30774		1749	1843			
7	Fertilisers	4450	4662		359	372			
8	Chemicals	12662	13824		384	405			
9	Machinery, transport equipment, manufactured articles	23816	24993		453	478			
	Bulgaria	**3395**	**3947**	**4420**	**690**	**721**	**947**	**11,97%**	**31,38%**
0	Agricultural products	144	235	251	17	6	43	**6,85%**	**612,15%**
1	Foodstuffs, animal fodder	118	149	140	5	8	12	**-6,33%**	**44,93%**
2	Solid mineral fuels	1426	1376	1774	318	285	386	**28,91%**	**35,34%**
3	Oil and oil-based products	114	260	397	5	35	74	**52,69%**	**110,96%**
4	Ore and pig iron for iron and steel industry	598	563	686	199	182	235	**21,81%**	**29,14%**
5	Iron and steel products	648	828	763	96	131	131	**-7,85%**	**-0,34%**
6	Crude and manufactured minerals, building materials	99	355	294	19	54	41	**-17,27%**	**-24,40%**
7	Fertilisers	19	18	24	3	3	5	**33,44%**	**55,72%**
8	Chemicals	32	12	54	7	1	10	**345,99%**	**908,85%**
9	Machinery, transport equipment, manufactured articles	197	151	38	21	16	12	**-74,86%**	**-23,73%**
	France	**39411**	**40893**	**(*)**	**4266**	**4360**	**(*)**		
0	Agricultural products	5946	6412		780	821			
1	Foodstuffs, animal fodder	2823	2892		363	357			
2	Solid mineral fuels	4301	4657		257	299			
3	Oil and oil-based products	6440	5361		753	620			
4	Ore and pig iron for iron and steel industry	2350	2620		219	243			
5	Iron and steel products	2585	2984		378	432			
6	Crude and manufactured minerals, building materials	8859	9892		740	824			
7	Fertilisers	1371	1221		193	170			
8	Chemicals	1941	2019		255	269			
9	Machinery, transport equipment, manufactured articles	2795	2835		328	325			

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N° / NST	Country / Category of good	Volumes carried			Services			Difference 06 / 07	
		2005	2006	2007	2005	2006	2007	1000 t	mio TKM
		1000 t			1000000 TKM			%	
	Luxemburg	**10377**	**11395**	(*)	**342**	**381**	(*)		
0	Agricultural products	1776	2057		66	77			
1	Foodstuffs, animal fodder	784	1024		29	38			
2	Solid mineral fuels	3718	3994		138	147			
3	Oil and oil-based products	547	562		3	4			
4	Ore and pig iron for iron and steel industry	1307	1609		42	48			
5	Iron and steel products	826	946		27	31			
6	Crude and manufactured minerals, building materials	1008	870		25	26			
7	Fertilisers	318	250		9	7			
8	Chemicals	81	73		3	3			
9	Machinery, transport equipment, manufactured articles	12	10		0	0			
	Hungary	**8359**	**7247**	(*)	**2105**	**1905**	(*)		
0	Agricultural products	1986	1853		339	333			
1	Foodstuffs, animal fodder	1243	724		268	161			
2	Solid mineral fuels	328	272		90	81			
3	Oil and oil-based products	1251	834		200	121			
4	Ore and pig iron for iron and steel industry	1568	1326		583	495			
5	Iron and steel products	899	1143		276	359			
6	Crude and manufactured minerals, building materials	229	287		69	98			
7	Fertilisers	333	341		98	96			
8	Chemicals	119	133		44	50			
9	Machinery, transport equipment, manufactured articles	403	334		138	111			
	Netherlands	**225631**	**227671**	(*)	**31799**	**32250**	(*)		
0	Agricultural products	6315	6385		929	952			
1	Foodstuffs, animal fodder	12193	11643		1895	1806			
2	Solid mineral fuels	24915	25936		3589	3718			
3	Oil and oil-based products	37492	38293		4951	5008			
4	Ore and pig iron for iron and steel industry	35194	34272		4706	4617			
5	Iron and steel products	10988	10653		1808	1769			
6	Crude and manufactured minerals, building materials	35640	37504		4995	5264			
7	Fertilisers	4695	4559		846	809			
8	Chemicals	22091	22644		3340	3403			
9	Machinery, transport equipment, manufactured articles	36108	35782		4740	4904			

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		Volumes carried			Services			Difference 06 / 07	
N°	Country	2005	2006	2007	2005	2006	2007	1000 t	mio TKM
NST	Category of good								
		1000 t			1000000 TKM			%	
	Poland	**2701**	**2148**	**(*)**	**141**	**105**	**(*)**		
0	Agricultural products	41	51		2	3			
1	Foodstuffs, animal fodder	123	29		7	2			
2	Solid mineral fuels	1092	1055		62	52			
3	Oil and oil-based products	0	0		0	0			
4	Ore and pig iron for iron and steel industry	274	261		14	13			
5	Iron and steel products	497	302		30	16			
6	Crude and manufactured minerals, building materials	329	182		8	4			
7	Fertilisers	289	197		14	10			
8	Chemicals	47	48		2	2			
9	Machinery, transport equipment, manufactured articles	9	23		2	3			
	Czech Republic	**929**	**721**	**511**	**34**	**29**	**19**	**-29,19%**	**-33,60%**
0	Agricultural products	307	232	92	11	8	3	**-60,47%**	**-65,45%**
1	Foodstuffs, animal fodder	354	241	249	10	8	7	**3,49%**	**-9,24%**
2	Solid mineral fuels	10	0	0	0	0	0		
3	Oil and oil-based products	0	0	0	0	0	0		
4	Ore and pig iron for iron and steel industry	13	16	27	1	1	1	**66,08%**	**8,76%**
5	Iron and steel products	18	33	16	0	1	0	**-52,86%**	**-60,60%**
6	Crude and manufactured minerals, building materials	66	65	38	3	3	2	**-40,81%**	**-35,90%**
7	Fertilisers	91	71	46	5	4	3	**-34,79%**	**-30,90%**
8	Chemicals	44	31	14	2	2	1	**-55,79%**	**-58,10%**
9	Machinery, transport equipment, manufactured articles	26	32	29	2	2	2	**-10,08%**	**11,18%**
	Romania	**5510**	**5721**	**6597**	**3121**	**3277**	**3840**	**15,31%**	**17,17%**
0	Agricultural products	2155	2681	1912	1676	2087	1422	**-28,69%**	**-31,85%**
1	Foodstuffs, animal fodder	58	20	61	37	11	34	**203,77%**	**210,37%**
2	Solid mineral fuels	1151	761	1177	333	216	388	**54,70%**	**79,79%**
3	Oil and oil-based products	122	203	303	34	44	72	**49,23%**	**62,71%**
4	Ore and pig iron for iron and steel industry	1035	1152	1387	446	439	970	**20,42%**	**120,93%**
5	Iron and steel products	382	219	582	291	126	449	**165,74%**	**256,39%**
6	Crude and manufactured minerals, building materials	265	359	776	89	134	237	**116,07%**	**77,17%**
7	Fertilisers	199	237	305	137	163	210	**28,84%**	**28,62%**
8	Chemicals	8	8	1	5	1	1	**-90,30%**	**-35,13%**
9	Machinery, transport equipment, manufactured articles	135	81	93	73	56	56	**14,60%**	**0,83%**

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N° / NST	Country / Category of good	Volumes carried			Services			Difference 06 / 07	
		2005	2006	2007	2005	2006	2007	1000 t	mio TKM
		1000 t			1000000 TKM			%	
	Slovakia	**2247**	**2158**	**7774**	**82**	**98**	**1000**	**260,22%**	**920,35%**
0	Agricultural products	154	136	55	11	11	4	**-59,78%**	**-67,98%**
1	Foodstuffs, animal fodder	145	61	87	10	5	7	**42,01%**	**45,49%**
2	Solid mineral fuels	68	111	113	6	10	12	**1,56%**	**23,09%**
3	Oil and oil-based products	634	765	875	14	35	43	**14,34%**	**22,95%**
4	Ore and pig iron for iron and steel industry	778	574	975	18	10	17	**69,89%**	**66,13%**
5	Iron and steel products	99	180	290	8	20	26	**61,23%**	**30,95%**
6	Crude and manufactured minerals, building materials	39	55	37	5	1	3	**-32,75%**	**201,32%**
7	Fertilisers	258	234	194	5	5	4	**-17,01%**	**-10,12%**
8	Chemicals	30	26	2	0	0	0	**-94,05%**	
9	Machinery, transport equipment, manufactured articles	42	16	5147	5	1	883	**(-)**	**(-)**
	Croatia	**1251**	**1320**	**1305**	**81**	**63**	**78**	**-1,16%**	**23,08%**
0	Agricultural products	55	12	60	3	1	3	**401,13%**	**207,11%**
1	Foodstuffs, animal fodder	115	80	27	11	7	2	**-66,62%**	**-76,07%**
2	Solid mineral fuels	102	2	17	8	0	1	**772,05%**	
3	Oil and oil-based products	6	5	4	0	0	0	**-10,16%**	
4	Ore and pig iron for iron and steel industry	721	769	674	42	41	38	**-12,39%**	**-6,21%**
5	Iron and steel products	73	92	135	5	5	7	**46,78%**	**43,62%**
6	Crude and manufactured minerals, building materials	26	86	121	1	0	7	**40,21%**	
7	Fertilisers	132	113	99	9	8	7	**-12,43%**	**-8,33%**
8	Chemicals	13	151	166	1	0	12	**9,74%**	
9	Machinery, transport equipment, manufactured articles	8	10	2	1	1	0	**-81,61%**	**-83,21%**
	Total Europe 27	**251044**	**255509**	**(**)**	**102203**	**103317**	**(**)**		
0	Agricultural products	13261	12916		8866	9432			
1	Foodstuffs, animal fodder	14336	13416		8277	7041			
2	Solid mineral fuels	26756	27712		12723	12929			
3	Oil and oil-based products	40067	40196		14723	14659			
4	Ore and pig iron for iron and steel industry	37485	36699		12853	12533			
5	Iron and steel products	13763	13763		6710	7037			
6	Crude and manufactured minerals, building materials	44176	48721		15063	16594			
7	Fertilisers	6977	6580		4006	3846			
8	Chemicals	22683	23369		8106	8370			
9	Machinery, transport equipment, manufactured articles	31540	32137		10876	10876			

(-) For Slovakia, goods from category 99 have been registered for the first time in 2007.
(*) For these countries, data from EUROSTAT are only delivered according to NST 2007
(**)At present, these data cannot be calculated because of the transition to the new codification

Table MO7 – TOTAL TRANSPORT OF GOODS ON INLAND WATERWAYS, BY STATE

		Volumes carried			Services			Difference 06 / 07	
N°	Country	2005	2006	2007	2005	2006	2007	1000 t	mio TKM
NST	Category of good								
		1000 t			1000000 TKM			%	
	Switzerland	**7259**	**6750**	**7106**	**57**	**53**	**56**	**5,27%**	**6,49%**
0	Agricultural products	221	299	384	2	3	4	**28,43%**	**48,15%**
1	Foodstuffs, animal fodder	404	418	543	3	3	5	**29,90%**	**61,81%**
2	Solid mineral fuels	98	145	222	1	1	2	**53,10%**	**36,05%**
3	Oil and oil-based products	3607	3028	2816	29	24	23	**-7,00%**	**-5,58%**
4	Ore and pig iron for iron and steel industry	107	157	112	1	1	1	**-28,66%**	**-31,97%**
5	Iron and steel products	753	862	992	6	6	6	**15,08%**	**-5,66%**
6	Crude and manufactured minerals, building materials	552	454	508	4	3	3	**11,89%**	**-8,81%**
7	Fertilisers	185	161	171	2	2	2	**6,21%**	**14,94%**
8	Chemicals	899	774	857	7	6	7	**10,72%**	**16,28%**
9	Machinery, transport equipment, manufactured articles	433	452	501	2	2	3	**10,84%**	**43,69%**
	Germany	**236767**	**243495**	**248974**	**64096**	**63975**	**64716**	**2,25%**	**1,16%**
0	Agricultural products	11207	10791	10471	5280	5174	4982	**-2,96%**	**-3,71%**
1	Foodstuffs, animal fodder	15775	14641	15249	6231	5227	5610	**4,16%**	**7,33%**
2	Solid mineral fuels	33705	36009	36310	8565	8662	8521	**0,84%**	**-1,63%**
3	Oil and oil-based products	38825	39138	35493	10659	10602	9215	**-9,31%**	**-13,08%**
4	Ore and pig iron for iron and steel industry	35846	35964	37874	6301	6164	6465	**5,31%**	**4,89%**
5	Iron and steel products	13210	13828	15860	3936	4044	4719	**14,70%**	**16,69%**
6	Crude and manufactured minerals, building materials	44192	49750	51278	10219	11273	11685	**3,07%**	**3,66%**
7	Fertilisers	6111	5771	5731	2591	2427	2427	**-0,69%**	**-0,01%**
8	Chemicals	19987	20085	21916	4920	5222	5604	**9,12%**	**7,32%**
9	Machinery, transport equipment, manufactured articles	17909	17518	18792	5394	5180	5488	**7,27%**	**5,94%**
	Austria	**9336**	**9183**	**12107**	**1753**	**1837**	**2597**	**31,84%**	**41,35%**
0	Agricultural products	945	884	1398	199	232	410	**58,13%**	**76,92%**
1	Foodstuffs, animal fodder	889	707	971	221	177	252	**37,36%**	**42,52%**
2	Solid mineral fuels	177	153	275	30	34	55	**79,74%**	**61,17%**
3	Oil and oil-based products	2004	1622	2420	277	260	362	**49,20%**	**39,32%**
4	Ore and pig iron for iron and steel industry	3041	2841	3438	631	602	734	**21,01%**	**21,88%**
5	Iron and steel products	575	894	1312	103	201	313	**46,76%**	**55,72%**
6	Crude and manufactured minerals, building materials	635	930	887	87	79	121	**-4,64%**	**53,11%**
7	Fertilisers	885	918	922	148	176	190	**0,40%**	**7,72%**
8	Chemicals	62	35	71	17	10	18	**101,47%**	**78,99%**
9	Machinery, transport equipment, manufactured articles	123	199	413	40	66	142	**107,78%**	**114,66%**

N° / NST	Country / Category of good	Volumes carried			Services			Difference 06 / 07	
		2005	2006	2007	2005	2006	2007	1000 t	mio TKM
		1000 t			1000000 TKM			%	
	Belgium	**160397**	**165855**	**(*)**	**8566**	**8909**	**(*)**		
0	Agricultural products	5053	5619		448	514			
1	Foodstuffs, animal fodder	5709	5756		272	289			
2	Solid mineral fuels	13430	12612		910	890			
3	Oil and oil-based products	28314	28413		1152	1142			
4	Ore and pig iron for iron and steel industry	9609	8485		671	622			
5	Iron and steel products	9182	10137		482	657			
6	Crude and manufactured minerals, building materials	40454	42998		2930	2996			
7	Fertilisers	6100	6247		461	476			
8	Chemicals	14880	16139		572	602			
9	Machinery, transport equipment, manufactured articles	27666	29449		668	721			
	Bulgaria	**5270**	**5947**	**6622**	**757**	**785**	**1011**	**11,36%**	**28,77%**
0	Agricultural products	146	235	251	17	6	43	**6,85%**	**612,15%**
1	Foodstuffs, animal fodder	118	149	140	5	8	12	**-6,33%**	**44,93%**
2	Solid mineral fuels	1441	1416	1781	321	291	387	**25,78%**	**33,04%**
3	Oil and oil-based products	114	260	414	5	35	74	**59,24%**	**111,78%**
4	Ore and pig iron for iron and steel industry	598	563	686	199	181	235	**21,81%**	**29,85%**
5	Iron and steel products	648	828	765	96	132	131	**-7,59%**	**-0,89%**
6	Crude and manufactured minerals, building materials	1954	2315	2470	83	112	102	**6,68%**	**-8,58%**
7	Fertilisers	19	18	24	3	3	5	**33,44%**	**55,72%**
8	Chemicals	32	12	54	7	1	10	**345,99%**	**908,85%**
9	Machinery, transport equipment, manufactured articles	200	151	38	21	16	12	**-74,60%**	**-23,58%**
	France	**68347**	**71448**	**(*)**	**8905**	**9005**	**(*)**		
0	Agricultural products	8927	9165		1590	1547			
1	Foodstuffs, animal fodder	3285	3454		494	497			
2	Solid mineral fuels	6110	6215		796	796			
3	Oil and oil-based products	9714	9349		1111	1066			
4	Ore and pig iron for iron and steel industry	2511	2800		261	291			
5	Iron and steel products	2831	3256		436	501			
6	Crude and manufactured minerals, building materials	25925	28018		2720	2779			
7	Fertilisers	1455	1328		216	202			
8	Chemicals	2975	2982		515	520			
9	Machinery, transport equipment, manufactured articles	4614	4881		766	806			

(*) For these countries, data from EUROSTAT are only delivered according to NST 2007

N° / NST	Country / Category of good	Volumes carried			Services			Difference 06 / 07	
		2005	2006	2007	2005	2006	2007	1000 t	mio TKM
		1000 t			1000000 TKM			%	
	Luxemburg	**10377**	**11395**	(*)	**342**	**381**	(*)		
0	Agricultural products	1776	2057		66	77			
1	Foodstuffs, animal fodder	784	1024		29	38			
2	Solid mineral fuels	3718	3994		138	148			
3	Oil and oil-based products	547	562		3	4			
4	Ore and pig iron for iron and steel industry	1307	1609		42	48			
5	Iron and steel products	826	946		27	31			
6	Crude and manufactured minerals, building materials	1008	870		25	25			
7	Fertilisers	318	251		9	7			
8	Chemicals	81	72		3	3			
9	Machinery, transport equipment, manufactured articles	12	10		0	0			
	Hungary	**8413**	**7327**	(*)	**2110**	**1913**	(*)		
0	Agricultural products	1987	1857		339	332			
1	Foodstuffs, animal fodder	1243	724		268	161			
2	Solid mineral fuels	328	272		90	81			
3	Oil and oil-based products	1279	855		204	124			
4	Ore and pig iron for iron and steel industry	1568	1326		582	495			
5	Iron and steel products	899	1146		276	359			
6	Crude and manufactured minerals, building materials	242	327		70	103			
7	Fertilisers	333	341		98	96			
8	Chemicals	119	133		44	50			
9	Machinery, transport equipment, manufactured articles	415	346		139	112			
	Netherlands	**317639**	**317853**	(*)	**42225**	**42311**	(*)		
0	Agricultural products	7613	7755		1105	1139			
1	Foodstuffs, animal fodder	19009	18007		2794	2647			
2	Solid mineral fuels	27647	28658		4001	4121			
3	Oil and oil-based products	56899	57995		7250	7272			
4	Ore and pig iron for iron and steel industry	36813	35697		4945	4836			
5	Iron and steel products	12052	11924		1966	1958			
6	Crude and manufactured minerals, building materials	77073	76184		8948	8891			
7	Fertilisers	5967	5608		1104	1025			
8	Chemicals	27603	27638		4076	4067			
9	Machinery, transport equipment, manufactured articles	46963	48387		6036	6355			

(*) For these countries, data from EUROSTAT are only delivered according to NST 2007

		Volumes carried			Services			Difference 06 / 07	
N°	Country	2005	2006	2007	2005	2006	2007	1000 t	mio TKM
NST	Category of good								
		1000 t			1000000 TKM			%	
	Poland	**7166**	**6609**	**(*)**	**327**	**289**	**(*)**		
0	Agricultural products	46	52		2	3			
1	Foodstuffs, animal fodder	128	44		7	3			
2	Solid mineral fuels	1774	1783		182	180			
3	Oil and oil-based products	62	14		1	0			
4	Ore and pig iron for iron and steel industry	535	367		26	13			
5	Iron and steel products	568	343		37	21			
6	Crude and manufactured minerals, building materials	3332	3389		41	44			
7	Fertilisers	342	271		16	11			
8	Chemicals	322	304		7	6			
9	Machinery, transport equipment, manufactured articles	57	42		8	8			
	Czech Republic	**1613**	**1141**	**1141**	**64**	**44**	**36**	**0,00%**	**-17,63%**
0	Agricultural products	329	234	92	11	8	3	**-60,80%**	**-65,45%**
1	Foodstuffs, animal fodder	353	241	250	10	8	7	**3,60%**	**-9,16%**
2	Solid mineral fuels	10	0	27	0	0	0		
3	Oil and oil-based products	0	0	16	0	0	0		
4	Ore and pig iron for iron and steel industry	14	16		2	1	1		**8,76%**
5	Iron and steel products	18	33		0	0	0		
6	Crude and manufactured minerals, building materials	708	481	668	31	18	19	**38,95%**	**4,92%**
7	Fertilisers	105	72	46	6	4	3	**-35,69%**	**-30,90%**
8	Chemicals	44	32	14	2	2	1	**-57,17%**	**-58,10%**
9	Machinery, transport equipment, manufactured articles	32	32	29	2	3	2	**-9,66%**	**-25,56%**
	Romania	**32845**	**29274**	**29425**	**8436**	**8157**	**8195**	**0,52%**	**0,46%**
0	Agricultural products	2731	3335	2263	1873	2286	1512	**-32,15%**	**-33,85%**
1	Foodstuffs, animal fodder	162	222	491	70	85	173	**121,29%**	**103,41%**
2	Solid mineral fuels	2988	3131	4030	690	696	966	**28,70%**	**38,84%**
3	Oil and oil-based products	146	212	343	39	50	94	**61,77%**	**87,22%**
4	Ore and pig iron for iron and steel industry	14154	10969	8517	3753	3155	2613	**-22,36%**	**-17,18%**
5	Iron and steel products	2243	1756	2257	729	554	808	**28,53%**	**45,92%**
6	Crude and manufactured minerals, building materials	9596	8939	10084	911	963	1403	**12,81%**	**45,68%**
7	Fertilisers	633	525	950	279	272	434	**80,90%**	**59,48%**
8	Chemicals	40	68	264	13	24	99	**288,51%**	**310,44%**
9	Machinery, transport equipment, manufactured articles	152	117	227	79	72	93	**94,13%**	**29,36%**

(*) For these countries, data from EUROSTAT are only delivered according to NST 2007

N°	Country	Volumes carried			Services			Difference 06 / 07	
NST	Category of good	2005	2006	2007	2005	2006	2007	1000 t	mio TKM
		1000 t			1000000 TKM			%	
	Slovakia	**2350**	**2252**	**8013**	**88**	**106**	**1004**	**255,80%**	**847,14%**
0	Agricultural products	164	140	55	12	11	4	**-60,70%**	**-67,69%**
1	Foodstuffs, animal fodder	145	61	87	10	5	7	**42,01%**	**45,49%**
2	Solid mineral fuels	68	111	113	6	10	12	**1,56%**	**23,09%**
3	Oil and oil-based products	634	765	875	14	35	43	**14,34%**	**22,95%**
4	Ore and pig iron for iron and steel industry	777	574	975	18	10	17	**69,89%**	**66,13%**
5	Iron and steel products	99	180	290	8	20	26	**61,23%**	**30,95%**
6	Crude and manufactured minerals, building materials	133	145	276	10	9	7	**90,07%**	**-22,35%**
7	Fertilisers	258	234	194	5	5	4	**-17,01%**	**-10,12%**
8	Chemicals	30	26	2	0	0	0	**-94,05%**	
9	Machinery, transport equipment, manufactured articles	42	16	5147	5	1	883		
	Croatia	**1446**	**1509**	**1467**	**119**	**116**	**109**	**-2,76%**	**-6,07%**
0	Agricultural products	65	15	60	4	1	3	**300,90%**	**207,11%**
1	Foodstuffs, animal fodder	115	80	27	11	7	2	**-66,62%**	**-76,07%**
2	Solid mineral fuels	102	2	17	8	0	1	**772,05%**	
3	Oil and oil-based products	178	177	144	38	38	31	**-18,77%**	**-17,92%**
4	Ore and pig iron for iron and steel industry	721	769	674	41	41	38	**-12,39%**	**-6,21%**
5	Iron and steel products	73	92	135	5	5	7	**46,78%**	**43,62%**
6	Crude and manufactured minerals, building materials	39	101	144	1	5	7	**42,65%**	**40,90%**
7	Fertilisers	132	112	99	9	8	7	**-11,65%**	**-8,33%**
8	Chemicals	13	151	166	1	10	12	**9,74%**	**16,40%**
9	Machinery, transport equipment, manufactured articles	8	10	2	1	1	0	**-81,61%**	**-83,21%**
	Total Europe 27	**498806**	**503194**	**(**)**	**137668**	**137712**	**(**)**		
0	Agricultural products	21236	20594		10944	11330			
1	Foodstuffs, animal fodder	26180	25411		10410	9144			
2	Solid mineral fuels	45646	46195		15730	15906			
3	Oil and oil-based products	85221	86255		20715	20591			
4	Ore and pig iron for iron and steel industry	57265	53021		17429	16420			
5	Iron and steel products	19876	21059		8096	8477			
6	Crude and manufactured minerals, building materials	145060	149880		26075	27290			
7	Fertilisers	11410	10696		4936	4705			
8	Chemicals	37018	37254		10175	10509			
9	Machinery, transport equipment, manufactured articles	49894	52829		13158	13340			

(-) For Slowakia, goods from category 99 have been registered for the first time in 2007.
(*) For these countries, data from EUROSTAT are only delivered according to NST 2007
(**) At present, these data cannot be calculated because of the transition to the new codification

Note:

Because of the changeover from the NSTR coding for goods to the NST 2007 system, some States have already provided the data for 2007 coded only according to the NST 2007 system.

Since the two coding systems are basically different, these data have to be presented separately, depending on the coding applied. This is why the tables of goods in Tables OM5 to OM7 are incomplete.

The following tables show the data for these States for 2007. From 2008 onwards it should be possible to adopt a uniform presentation.

2007	National Transports in 1000 Tonnes	BE	FR	IT	LT	LU	HU	NL	PL	FI	UK
GT01	Products of agriculture, hunting, and forestry; fish and other fishing products	856	3122	336			1	1678	4		144
GT02	Coal and lignite; crude petroleum and natural gas	3479	2832						671		
GT03	Metal ores and other mining and quarrying products; peat; uranium and thorium	10660	17310	32	125		19	40879	2982		1593
GT04	Food products, beverages and tobacco	981	393				0	3228	20		195
GT05	Textiles and textile products; leather and leather products	1						28			
GT06	Wood and products of wood and cork (except furniture); articles of straw and plaiting materials; pulp, paper and paper products; printed matter and recorded media	218	162				3	432	1	472	8
GT07	Coke and refined petroleum products	477	3515	152	0		28	3280	0		670
GT08	Chemicals, chemical products, and man-made fibers; rubber and plastic products ; nuclear fuel	3397	1199	140				223	296		10
GT09	Other non metallic mineral products	4402	836				7	1382	0		
GT10	Basic metals; fabricated metal products, except machinery and equipment	4756	982	10				1187	27		24
GT11	Machinery and equipment n.e.c.; office machinery and computers; electrical machinery and apparatus n.e.c.; radio, television and communication equipment and apparatus; medical, precision and optical instruments; watches and clocks	26	0	26			8	0	0		
GT12	Transport equipment	13	89					11457	4		0
GT13	Furniture; other manufactured goods n.e.c.	1	1806					2			
GT14	Secondary raw materials; municipal wastes and other wastes	51	670					681			892
GT16	Equipment and material utilized in the transport of goods	480	142					13			
GT17	Goods moved in the course of household and office removals; baggage and articles accompanying travellers; motor vehicles being moved for repair; other non market goods n.e.c.	86									
GT18	Grouped goods: a mixture of types of goods which are transported together	0									
GT19	Unidentifiable goods: goods which for any reason cannot be identified and therefore cannot be assigned to groups 01-16.	7301		0				34232			4
GT20	Other goods n.e.c.	3									
TOTAL	Total national transport	**41484**	**33057**	**695**	**126**		**67**	**98702**	**4006**	**472**	**3540**

source : EUROSTAT

2007	National transport performance in mio TKM	BE	FR	IT	LT	LU	HU	NL	PL	FI	UK
GT01	Products of agriculture, hunting, and forestry; fish and other fishing products	568	1737	26		98	387	993	7		10
GT02	Coal and lignite; crude petroleum and natural gas	901	723			124	65	0	143		
GT03	Metal ores and other mining and quarrying products; peat; uranium and thorium	3150	2570	0	10	47	666	12846	48		80
GT04	Food products, beverages and tobacco	233	211			1	50	1184	2		1
GT05	Textiles and textile products; leather and leather products	0						17	0		
GT06	Wood and products of wood and cork (except furniture); articles of straw and plaiting materials; pulp, paper and paper products; printed matter and recorded media	114	153			1	8	673	5	102	0
GT07	Coke and refined petroleum products	818	1010	35	0	3	249	4106	1		24
GT08	Chemicals, chemical products, and man-made fibers; rubber and plastic products ; nuclear fuel	961	698	25		9	150	428	22		0
GT09	Other non metallic mineral products	618	204			1	30	708	3		
GT10	Basic metals; fabricated metal products, except machinery and equipment	930	880	2		36	504	2378	43		1
GT11	Machinery and equipment n.e.c.; office machinery and computers; electrical machinery and apparatus n.e.c.; radio, television and communication equipment and apparatus; medical, precision and optical instruments; watches and clocks	4	5	5		0	34	12	1		
GT12	Transport equipment	1	15				47	5557	2		0
GT13	Furniture; other manufactured goods n.e.c.	2	838				0	0			
GT14	Secondary raw materials; municipal wastes and other wastes	16	120			23	5	490			45
GT16	Equipment and material utilized in the transport of goods	201	42			0	0	1			
GT17	Goods moved in the course of household and office removals; baggage and articles accompanying travellers; motor vehicles being moved for repair; other non market goods n.e.c.	13									
GT18	Grouped goods: a mixture of types of goods which are transported together	0					13				
GT19	Unidentifiable goods: goods which for any reason cannot be identified and therefore cannot be assigned to groups 01-16.	761		0				12475			0
GT20	Other goods n.e.c.	1				1	5		0		
	Total national transport performance	**9293**	**9208**	**93**	**10**	**345**	**2212**	**41868**	**277**	**102**	**162**

source : EUROSTAT

2007	International transport in 1000 tonnes	BE	FR	IT	LT	LU	HU	NL	PL	FI	UK
GT01	Products of agriculture, hunting, and forestry; fish and other fishing products	5756	7555				2292	5369	90		
GT02	Coal and lignite; crude petroleum and natural gas	7963	4003			3344	192		1056		
GT03	Metal ores and other mining and quarrying products; peat; uranium and thorium	31407	11435			1383	1784	66209			
GT04	Food products, beverages and tobacco	3440	1158				224	6086	24		
GT05	Textiles and textile products; leather and leather products							93			
GT06	Wood and products of wood and cork (except furniture); articles of straw and plaiting materials; pulp, paper and paper products; printed matter and recorded media	976	1033					3370			
GT07	Coke and refined petroleum products	7404	6023			396	1372	24957			
GT08	Chemicals, chemical products, and man-made fibers; rubber and plastic products ; nuclear fuel	7326	2812			304	492	2082			
GT09	Other non metallic mineral products	3468	100				107	3531			
GT10	Basic metals; fabricated metal products, except machinery and equipment	6694	4757			1036	1563	12295	598		
GT11	Machinery and equipment n.e.c.; office machinery and computers; electrical machinery and apparatus n.e.c.; radio, television and communication equipment and apparatus; medical, precision and optical instruments; watches and clocks	33	49				89	69			
GT12	Transport equipment						125	36635	5		
GT13	Furniture; other manufactured goods n.e.c.	13	3141								
GT14	Secondary raw materials; municipal wastes and other wastes	152	724			820	17	2512			
GT16	Equipment and material utilized in the transport of goods	11778									
GT17	Goods moved in the course of household and office removals; baggage and articles accompanying travellers; motor vehicles being moved for repair; other non market goods n.e.c.	68									
GT18	Grouped goods: a mixture of types of goods which are transported together	2									
GT19	Unidentifiable goods: goods which for any reason cannot be identified and therefore cannot be assigned to groups 01-16.	11215						62229			
GT20	Other goods n.e.c.	7				14	30				
	Total international transport	**97789**	**42947**	**0**	**0**	**9999**	**8344**	**225439**	**2439**	**0**	**0**

source : EUROSTAT

2007	International transport performance in mio TKM	BE	FR	IT	LT	LU	HU	NL	PL	FI	UK
GT01	Products of agriculture, hunting, and forestry; fish and other fishing products	493	935				387	797	6		
GT02	Coal and lignite; crude petroleum and natural gas	506	235			124	65		50		
GT03	Metal ores and other mining and quarrying products; peat; uranium and thorium	2042	852			47	664	9068			
GT04	Food products, beverages and tobacco	176	144				50	888	1		
GT05	Textiles and textile products; leather and leather products							14			
GT06	Wood and products of wood and cork (except furniture); articles of straw and plaiting materials; pulp, paper and paper products; printed matter and recorded media	87	118					613			
GT07	Coke and refined petroleum products	387	686			3	246	3704			
GT08	Chemicals, chemical products, and man-made fibers; rubber and plastic products ; nuclear fuel	677	393			9	150	399			
GT09	Other non metallic mineral products	240	11				28	497			
GT10	Basic metals; fabricated metal products, except machinery and equipment	571	636			36	504	2200	40		
GT11	Machinery and equipment n.e.c.; office machinery and computers; electrical machinery and apparatus n.e.c.; radio, television and communication equipment and apparatus; medical, precision and optical instruments; watches and clocks	2	5				33	12			
GT12	Transport equipment						47	4398	1		
GT13	Furniture; other manufactured goods n.e.c.	1	370								
GT14	Secondary raw materials; municipal wastes and other wastes	13	54			23	5	398			
GT16	Equipment and material utilized in the transport of goods	171									
GT17	Goods moved in the course of household and office removals; baggage and articles accompanying travellers; motor vehicles being moved for repair; other non market goods n.e.c.	6									
GT18	Grouped goods: a mixture of types of goods which are transported together	0									
GT19	Unidentifiable goods: goods which for any reason cannot be identified and therefore cannot be assigned to groups 01-16.	337						8893			
GT20	Other goods n.e.c.	1				1	5				
	Total international transport performance	**5712**	**4452**	**0**	**0**	**345**	**2206**	**31880**	**132**	**0**	**0**

source : EUROSTAT

2007	Total Transport in 1000 Tonnes	BE	FR	IT	LT	LU	HU	NL	PL	FI	UK
GT01	Products of agriculture, hunting, and forestry; fish and other fishing products	6612	10677	336		2617	2293	7047	93		144
GT02	Coal and lignite; crude petroleum and natural gas	11442	6835			3344	192	3	1727		
GT03	Metal ores and other mining and quarrying products; peat; uranium and thorium	42067	28745	32	125	1383	1803	107088	3187		1593
GT04	Food products, beverages and tobacco	4421	1550			26	224	9313	44		195
GT05	Textiles and textile products; leather and leather products	3						121	9		
GT06	Wood and products of wood and cork (except furniture); articles of straw and plaiting materials; pulp, paper and paper products; printed matter and recorded media	1194	1195			20	23	3802	88	472	8
GT07	Coke and refined petroleum products	12177	9538	152	0	396	1400	28237	14		670
GT08	Chemicals, chemical products, and man-made fibers; rubber and plastic products ; nuclear fuel	10723	4011	140		304	492	2305	587		10
GT09	Other non metallic mineral products	7869	936			37	115	4913	49		
GT10	Basic metals; fabricated metal products, except machinery and equipment	11450	5739	10		1036	1563	13482	625		24
GT11	Machinery and equipment n.e.c.; office machinery and computers; electrical machinery and apparatus n.e.c.; radio, television and communication equipment and apparatus; medical, precision and optical instruments; watches and clocks	59	50	26		2	98	69	11		
GT12	Transport equipment	98	92				125	48092	9		0
GT13	Furniture; other manufactured goods n.e.c.	14	4946				1	2			
GT14	Secondary raw materials; municipal wastes and other wastes	203	1394			820	17	3193			892
GT16	Equipment and material utilized in the transport of goods	12259	296			0	0	13			
GT17	Goods moved in the course of household and office removals; baggage and articles accompanying travellers; motor vehicles being moved for repair; other non market goods n.e.c.	154									
GT18	Grouped goods: a mixture of types of goods which are transported together	2					34				
GT19	Unidentifiable goods: goods which for any reason cannot be identified and therefore cannot be assigned to groups 01-16.	18516		0				96461			4
GT20	Other goods n.e.c.	10				14	30		2		
	Total Transport	**139273**	**76004**	**695**	**126**	**9999**	**8410**	**324141**	**6444**	**472**	**3540**

source : EUROSTAT

2007	Total transport performance in mio TKM	BE	FR	IT	LT	LU	HU	NL	PL	FI	UK
GT01	Products of agriculture, hunting, and forestry; fish and other fishing products	568	1737	26		98	387	993	7		10
GT02	Coal and lignite; crude petroleum and natural gas	901	723			124	65	0	143		
GT03	Metal ores and other mining and quarrying products; peat; uranium and thorium	3150	2570	0	10	47	666	12846	48		80
GT04	Food products, beverages and tobacco	233	211			1	50	1184	2		1
GT05	Textiles and textile products; leather and leather products	0						17	0		
GT06	Wood and products of wood and cork (except furniture); articles of straw and plaiting materials; pulp, paper and paper products; printed matter and recorded media	114	153			1	8	673	5	102	0
GT07	Coke and refined petroleum products	818	1010	35	0	3	249	4106	1		24
GT08	Chemicals, chemical products, and man-made fibers; rubber and plastic products ; nuclear fuel	961	698	25		9	150	428	22		0
GT09	Other non metallic mineral products	618	204			1	30	708	3		
GT10	Basic metals; fabricated metal products, except machinery and equipment	930	880	2		36	504	2378	43		1
GT11	Machinery and equipment n.e.c.; office machinery and computers; electrical machinery and apparatus n.e.c.; radio, television and communication equipment and apparatus; medical, precision and optical instruments; watches and clocks	4	5	5		0	34	12	1		
GT12	Transport equipment	1	15				47	5557	2		0
GT13	Furniture; other manufactured goods n.e.c.	2	838				0	0			
GT14	Secondary raw materials; municipal wastes and other wastes	16	120			23	5	490			45
GT16	Equipment and material utilized in the transport of goods	201	42			0	0	1			
GT17	Goods moved in the course of household and office removals; baggage and articles accompanying travellers; motor vehicles being moved for repair; other non market goods n.e.c.	13									
GT18	Grouped goods: a mixture of types of goods which are transported together	0					13				
GT19	Unidentifiable goods: goods which for any reason cannot be identified and therefore cannot be assigned to groups 01-16.	761		0				12475			0
GT20	Other goods n.e.c.	1				1	5		0		
	Total transport performance	**9293**	**9208**	**93**	**10**	**345**	**2212**	**41868**	**277**	**102**	**162**

source : EUROSTAT

Tabelle MO8: Transport of containers in the various geographic sectors
National transport of containers (in TEUs)

	Total	empty	loaded
Netherlands			
05	746981		
06	816234		
07	822820		
Evolution (2007 / 2006)	**0,81%**		
Germany			
05	203709	97521	106188
06	182076	80488	101588
07	185343	78792	106551
Evolution (2007 / 2006)	**1,79%**	**-2,11%**	**4,89%**
France			
(Bassin du Rhône) 05	55807	-	-
06	61258		
07	67055		
Evolution (2007 / 2006)	**9,46%**	-	-
(Bassin de la Seine) 05	121584	-	-
06	143206		
07	185008		
Evolution (2007 / 2006)	**29,19%**	-	-
(Canaux du nord) 05	61709	-	-
06	69751	-	-
07	71103		
Evolution (2007 / 2006)	**1,94%**	-	-

source: St BA, CBS, VNF

North-south transport (in TEUs)

	Total	Imports			Exports		
North-south transport		**Total**	**empty**		**Total**	**empty**	
Belgium / Netherlands							
05	833200	466649			366551		
06	814708	433210			381298		
07	853057	438605			414452		
Evolution (2007 / 2006)	**4,71%**	**1,25%**			**8,70%**		
France / Belgium							
05	35292	16181	10913	5268	19111	3470	15641
06	38809	17441	9587	7854	21368	5986	15382
07	40002	18402	8843	9559	21600	5963	15637
Evolution (2007 / 2006)	**3,07%**	**5,51%**	**-7,76%**	**21,71%**	**1,09%**	**-0,38%**	**1,66%**
France / Netherlands							
05	4785	2349	1040	1309	2436	789	1647
06	8493	4596	807	3789	3897	2070	1827
07	11878	6585	620	5965	5293	3530	1763
Evolution (2007/ 2006)	**39,86%**	**43,28%**	**-23,17%**	**57,43%**	**35,82%**	**70,53%**	**-3,50%**
Total 05	873277	485179			388098		
Total 06	862010	455247			406563		
Total 07	904937	463592			441345		
Evolution (2007 / 2006)	**4,98%**	**1,83%**			**8,56%**		

source: CBS, VNF

Table MO9: Transport of containers on the Rhine (in TEUs) (from the German-Dutch border to Basle)

Year	Total	Rhine – downstream			Rhine – upstream		
		Total	empty	loaded	Total	empty	loaded
Total for the traditional Rhine							
Rheinfelden Emmerich							
2003	1541996	806501	119078	687423	735495	405396	330099
2004	1810669	957730	122601	835129	852939	489520	363419
2005	1960870	1025033	164259	860774	935837	536631	399206
2006	1935023	999765	109888	889877	935258	531729	403529
2007	1968958	1030018	121614	908404	938940	503465	435475
Entw.	**1,75%**	**3,03%**	**10,67%**	**2,08%**	**0,39%**	**-5,32%**	**7,92%**
Upper Rhine							
Rheinfelden Strasbourg							
2003	191520	94122	12561	81561	97398	55871	41527
2004	211926	108702	10440	98262	103224	59939	43285
2005	200346	106106	11697	94409	94240	50637	43603
2006	212934	113179	14608	98571	99755	51035	48720
2007	220721	111227	18039	93188	109494	50271	59223
Entw.	**3,66%**	**-1,72%**	**23,49%**	**-5,46%**	**9,76%**	**-1,50%**	**21,56%**
Strasbourg Neuburgweier							
2003	238171	122526	13520	109006	115645	68974	46671
2004	291488	155710	12524	143186	135778	85372	50406
2005	272092	144547	13598	130949	127545	75277	52268
2006	263573	140608	17647	122961	122965	66927	56038
2007	279155	145555	22100	123455	133600	66360	67240
Entw.	**5,91%**	**3,52%**	**25,23%**	**0,40%**	**8,65%**	**-0,85%**	**19,99%**
Neuburgweier Mannheim							
2003	659638	344219	28293	315926	315419	200356	115063
2004	804327	424978	26749	398229	379349	251620	127729
2005	826591	428997	38740	390257	397594	260807	136787
2006	809905	412291	35753	376538	397614	261109	136505
2007	806707	425241	39792	385449	381466	229570	151896
Entw.	**-0,39%**	**3,14%**	**11,30%**	**2,37%**	**-4,06%**	**-12,08%**	**11,28%**

Year	Total	Rhine – downstream			Rhine – upstream		
		Total	empty	loaded	Total	empty	loaded
Middle Rhine							
Mannheim Bingen							
2003	861153	446949	41005	405944	414204	232784	181420
2004	1043002	551059	45002	506057	491943	289128	202815
2005	1092998	575468	85004	490464	517530	304494	213036
2006	1051485	532874	47705	485169	518611	306729	211882
2007	1037694	536546	50070	486476	501148	267976	233172
Entw.	**-1,31%**	**0,69%**	**4,96%**	**0,27%**	**-3,37%**	**-12,63%**	**10,05%**
Bingen Lülsdorf							
2003	929011	490904	45938	444966	438107	246487	191620
2004	1149006	612931	50789	562142	536075	316625	219450
2005	1230759	646390	91203	555187	584369	353477	230892
2006	1172605	600549	52483	548066	572056	344205	227851
2007	1167369	610671	55641	555030	556698	302490	254208
Entw.	**-0,45%**	**1,69%**	**6,02%**	**1,27%**	**-2,68%**	**-12,12%**	**11,57%**
Lower Rhine							
Lulsdorf Orsoy							
2003	1414998	738026	96592	641434	676972	365096	311876
2004	1686072	888651	100939	787712	797421	450111	347310
2005	1847298	969068	145651	823417	878230	498795	379435
2006	1806059	933077	85656	847421	872982	492189	380793
2007	1817409	952054	92764	859290	865355	458543	406812
Entw.	**0,63%**	**2,03%**	**8,30%**	**1,40%**	**-0,87%**	**-6,84%**	**6,83%**
Orsoy Emmerich							
2003	1485675	772369	103117	669252	713306	384474	328832
2004	1745474	912949	105183	807766	832525	470112	362413
2005	1885195	972788	127207	845581	912407	517699	394708
2006	1876188	968057	94828	873229	908131	507914	400217
2007	1917945	999996	107323	892673	917949	485217	432732
Entw.	**2,23%**	**3,30%**	**13,18%**	**2,23%**	**1,08%**	**-4,47%**	**8,12%**

source: St BA, Wiesbaden

Glossary

20-foot Equivalent Units (TEUs): Unit of measurement for registering containers according to their dimensions and for the description of the capacity of container vessels and terminals. One ISO 20-foot container (20 feet long and 8 feet wide) corresponds to 1 TEU.

ARA ports: Abbreviation for the three major European ports of Amsterdam, Rotterdam and Antwerp.

Downstream navigation: navigation downriver

Downstream: Refers to the part of an inland waterway located between a given point and the embouchure or confluence.

Draught: Height of the immerged part of a vessel; thus draught affects the loading level.

Dry hold: Used for the transport of dry cargo.

Econometric ratio: Estimated ratio between two or more values (e.g. production of steel, transport on inland waterways, imports of coal, etc.) on the basis of statistical data, using electronic calculation procedures. This estimate is used in making forecasts.

Electric steel: Electric steel is produced by melting down scrap metal using electric arc technology.

Freight: Refers to goods being transported or the price of transport.

Handling: Transshipment of goods from one means of transport to another.

Hold: Compartment covering the larger part of a commercial vessel, for the storage of cargo to be transported.

Inland navigation / inland waterways transport: Transport of goods or persons on board a vessel intended for transport on a given network of inland waterways.

Inland waterway: Navigable inland waterways that may be used with a normal load by vessels with a minimum deadweight of 50 tonnes. Inland waterways include navigable rivers, lakes and canals.

Offer of transport or of capacity: Total loading capacity of the available fleet, expressed in tonnes.

Oxygen steel: Steel produced from iron ore and coal using blast-furnace technology, passing through a number of stages (injection of oxygen, etc).

Production/yield: The notion of production/yield as used in this publication is intended to define in index form the activity of inland waterways transport, taking into account a given level of demand and the freight rates applied on the market.

River/sea transport: Transport of goods on board a river/sea vessel (seagoing vessel designed for use on inland waterways), carried out entirely or partly on the inland waterways network.

Service: Refers to the service of the transport of goods, expressed in tonnes/kilometre.

Tanker hold: Used for the transport of cargo in tankers.

Tonnes/kilometre (Tkm): Unit of measurement for transport services, corresponding to the transport of one tonne over one kilometre of an inland waterway. Determined by multiplying the volume carried in tonnes by the distance travelled in kilometres.

Transshipment: Unloading of a cargo from one seagoing freight vessel and loading onto another seagoing freight vessel, even if the cargo has remained on land for any length of time before the transport continues.

Upstream navigation: Navigation travelling upstream.

Upstream: Refers to the part of an inland waterway located between a given point and the source.

Water conditions: Height of the water in a river or canal, in cm.

Sources of information

International organisations
Eurostat
ECMT
Danube Commission
International Monetary Fund (IMF)
Moselle Commission
OECD

National authorities
Bundesanstalt für Gewässerkunde (Germany)
Bundesamt für Güterverkehr (Germany)
CBS, Centraal Bureau voor de Statistiek (Netherlands)
EnergieNed (Netherlands)
Institut National Statistique (Belgium)
MEEDDAT/DGEC (Ministry of Ecology, Energy, Sustainable Development, and Regional Development / Directorate-General for Energy and the Climate) (France)
Statistisches Bundesamt (Germany)
Statistics Austria (Austria)
Ministry of Mobility and Transport (Belgium)
Ministry of the Economy, SMBs, the Middle Classes, and Energy (Belgium)
Umweltbundesamt (Germany)
Voies Navigables de France - VNF (France)
Via Donau (Austria)
WSD Süd-West (Germany)
WSD-OST (Germany)

Private organisations
Arbeitgeberverband der Deutschen Binnenschifffahrt (ADB)
Institut pour le Transport par Batellerie (ITB)
Institut für Seeverkehrswirtschaft und Logistik (ISL)
NEA Consulting
NHR (Nationale Havenraad)
P J K International b. v.
IG River Advice, Basle
Planco
Hader&Hader

Inland navigation organisations
IVR
CBRB
EUNF
OEB
VBW

Industrial organisations
BDI
Belgian Steel Federation (GSV)
CEFIC
Eurofer (European Confederation of Iron and Steel Industries)
Euracoal (European Association for Coal and Lignite)
Fédération Française de l'Acier
Fertilizer Industrie Union
Hauptverband der deutschen Bauindustrie

International Iron and Steel Institute
Mineralölwirtschaftsverband (MWV)
Verein der deutschen Kohleimporteure (VDKI)
Wirtschaftsvereinigung Stahl

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