# MARKETOBSERVATION \* \* \*2007 - 1

# for inland navigation in Europe



Market Observation | for inland navigation in Europe

## **Market Observation - Publication No. 5**

# Report on the situation at the end of 2007

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### **General introduction**

This 2007-1 publication is mainly devoted to analysis of the evolution in the offer and demand for transport capacity in 2006. The demand for transport capacity is based on an approach to the transport carried out on the four main European routes, by family of goods. It has to be said that full data for 2006 and 2007 is not available until quite some time after the reference period. This situation should change from 2008 onwards with the entry into force of the Regulation (EC) Nr 1365/2006 on monitoring freight transport. These regulations will have the advantage of providing harmonised data, which will therefore be more readily comparable and usable.

The approach to transport by family of goods and by main routes should make it possible to produce an analysis by industrial sector in context, with forecasts for the evolution of demand for transport capacity from a given industrial sector, taking its potential into account.

It also makes it possible to follow the evolution of the modal split of inland waterways transport compared with other modes of transport. In the present context, it is above all in the field of containers in sea and inland ports that this exercise is possible.

In this publication, the offer of transport capacity is, as usual, estimated on the basis of data on the national fleets. For the first time, it has been possible to take into account data on the fleets of most of the Danube States and the States in eastern Europe. It would appear nevertheless that it remains a somewhat delicate exercise to reach an exact estimate of the potential European fleet, in that the criteria applied are not always harmonised. It will only be possible to envisage a totally reliable view of capacity available on the European network when common bases for vessel registration have been set up.

Until this happens, monitoring new vessels constitutes a major indication of the evolution in the offer of transport capacity, particularly in a context in which break-ups remain the exception and inter-State transfers have no effect on the overall capacity available on the market. Analysis of the characteristics of the vessels brought into service provides information on the evolution of the fleet.

### Chapter 1 Analysis of demand for transport capacity

### 1. Evolution of economic growth in Europe

It is a fact that the evolution of all modes of transport is closely linked to economic development. Increased economic growth among shippers is reflected in an increase in demand for transport. As a result, despite a degree of flexibility, demand for transport depends on the growth or slowing down of the economy. It is possible to observe, however, that demand for transport sometimes reacts more quickly and may anticipate an acceleration in general economic growth. It is therefore important to observe the evolution of both the economy and transport services, on different scales and for specific sectors.

Although world economic growth began to slow down slightly in 2006, it nevertheless remained at a high level in Europe in 2007. It was above all in the United States that the slowing down was noticeable.

In July 2007, the financial markets experienced some turbulence when it transpired that lowquality mortgage loans had generated substantial losses for a good number of banks. This crisis in the property market affected the evolution of the GDP in the United States and resulted in the stagnation of consumption, which was further fuelled by high oil prices. The employment market evolved in a steady and even positive fashion, particularly in the first half of the year. External demand remained sustained in the United States because of the dollar's weakness against the euro.

The emerging economies of south-east Asia once again made this the most dynamic region, with China in the lead. China's GDP increased by 11.5% in the first half of 2007. The country's productivity is increasing strongly, and both investments and exports have seen impressive growth. 2007 was the first time Asia exported more to Europe than to the United States.

The fact that the price of oil on the world market has evolved at high levels is a consequence of the clear increase in consumption which is the result of the strong growth in the global economy (particularly in India and China). In November 2007, the price of oil reached an absolute record level. As the OECD countries are showing greater interest in bio-fuels, the OPEC countries have not deemed it worth making any new investments rapidly. As a result, the world market for oil remains structurally narrow. It has also been influenced by financial difficulties.

### Graph 1

### evolution of GDP



In the euro zone, economic growth was higher than the general world trend, particularly during the first half of 2007. According to the elements available at present, average growth in GDP of the EU-27 was 3% in 2006 and 2.9% in 2007. Domestic demand, exports and investments have been the driving forces behind this economic growth, which has progressed slightly less rapidly than during the previous periods. This slight slowing down is explained by the exchange rate between the euro and the dollar, the high level of oil prices, and the stagnation of American demand. In Europe, the services sector and to a lesser extent the industry sector continued to act as a driving force for growth. Exports out of the euro zone continued to make progress (taking advantage of trade with emerging countries), as did investment and employment. Towards the end of the year, there was an increase in inflation in the euro zone, resulting mainly from the oil bill. There are substantial regional disparities in Europe. In the new Member States such as Poland, Slovakia (production of cars) and the Baltic States, growth is substantially higher than the European average. It is accompanied by considerable movements of imports and exports. The economy of the Rhine countries also showed sustained growth, although the rate of progress was slightly less than in 2006. Compared with 2006, the growth rate was 0.1% lower in France, 0.3% lower in the Netherlands, and 0.4% lower in Germany. On 1 January 2007, the VAT rate was increased in Germany, and this had the immediate result of slowing consumption during the first half of the year. 2007 was nevertheless a globally favourable year for Europe, although it did not see the peaks of growth observed in 2006. The high level of economic growth that marked the end of the 1990s was nevertheless achieved once more.

Sources: CPB, Eurostat

### **GENERAL OBSERVATION OF QUALITY**

The economies are increasingly interdependent and are becoming networked economies, based increasingly on specific competences and services. Nevertheless the role of transport remains of capital importance and reflects the mechanisms that are characteristic of the modern international economy – alobalisation, division of labour, economies of scale, and specialisation in production. Although the cost of transport is relatively low compared with the global costs of production, these latter have been a contributing factor in the evolution. Containerisation has made the markets of western Europe more accessible for the Far East. Sea ports in Europe are consolidating their position and are continuing to expand the prospects for growth in world trade. In this context, massive investments have been made in the container market, where mechanisms are not the same as in other markets, particularly the market for bulk transport. Bulk transport in Europe features firstly constant deliveries to a small number of major customers (for example, power stations and smelting plant). The container market, however, is characterised by its complexity and the management of the logistics chain. Generally, containers are not used for raw materials but rather for finished or semi-finished products. As competition is fierce in the container market, flexibility and the integration of management in the logistics chains are essential. The goods need to be delivered exactly on time, because the manufacturing processes are being developed with an increasingly high level of precision, with shippers keen to keep stocks to a minimum, inter alia. As a result, the reliability of transport is of capital importance, as any delay represents a loss for the shipper. It is in this context that the various modes of land-based transport, including transport on inland waterways, must build up their offer of transport. On a market where competition is fierce, particularly in terms of prices, there are nevertheless ways of ensuring differentiation. While transport on inland waterways aims to continue to serve the "gateway concept", it should aim for effectiveness and meet the shippers' expectations. It is not enough to offer capacity - the flexibility and reliability of the services are also becoming increasingly important. The advantages of transport on inland waterways are well known - substantial capacity and attractive prices. But is also has disadvantages, including the frequent necessity for additional transshipment. The inland waterways transport sector increases its chances with innovation and communications systems such as the RIS. Shippers using the container market are expressing considerable interest in the immediate traceability of each part of a cargo this data constitutes the basic information for managing their operations. Paying particular attention to certain aspects such as security which improves transport conditions also helps optimise the microeconomic situation of the shippers. Other elements, beyond the sector's sphere of influence, may constitute a threat for the market share of inland waterways transport. These include reduced access to inland ports, and delays in handling at sea terminals. All this calls for constant vigilance.

### 2. Evolution of prospects for demand for transport capacity

### 2.1. OVERALL EVOLUTION OF FREIGHT TRANSPORT

As described above, world trade increased in 2006 and in 2007 in direct relation to the favourable context of the economy. Perfectly logically, it produced an increase in the transport of goods, despite the increase in oil prices. The delocalisation of production towards regions where labour is cheaper - and not only Asia - is the main reason for the growth in transport, particularly of containers. In the field of container transport, China has been the most important connection for the ports of Rotterdam (which also sees substantial intra-European traffic) and Hamburg (with 15 and 30% of volumes in 2006 respectively). China was also a destination for exports, further to its economic development (since 1999, it has seen its commercial activity increase on average by 20%). The strong growth of transport is therefore obvious in the container sector. Other openings on world markets - as a result of the breaking down of commercial barriers – will increase trade, and container traffic as a result. Thus, according to the FEFC (the authoritative federation of shipping lines), 2007 was a very favourable year (with an 18% increase in container traffic) and the prospects for 2008 look to be similar. Despite the enormous volumes available to sea shipping lines, they have difficulty in making operation profitable. The market changes constantly (take-overs, mergers, compression of expenditure). The consolidations and economies of scale produced by the concentration of the offer have been to the advantage of all the intercontinental routes. Thus observation of commercial traffic shows clearly that shippers often opt for using several ports (multi-porting) in Europe for strategic reasons, rather than selecting a main port. By choosing to dock in Europe, they influence the distribution of transshipments in the sea ports, which in turn has an impact on distribution set-ups throughout Europe.

The growth of world trade has potentially had the effect of increasing demand for transport in Europe. Transport on inland waterways, which is particularly suitable for large quantities, also profits from this. The increase in container transport is an opportunity for those countries with European ports, not only because of the volumes to be transported, but also because of the associated logistics of enhancing the value of the goods and the resulting positive impact on the offer of employment. For the EU, transport and logistics are important factors in economic development and as a result will therefore be facilitated wherever possible. On the other hand, in the policy on freight transport, external costs linked more particularly to pollution are increasingly decisive in addition to the development of volumes. Methods that make progress in this area have much better chances in the long term. However, cost and quality at present remain the determining factors in competition in the transport sector. As a rule, container transport at the national level (proximity) is mainly by road, although transport on inland waterways has managed to occupy a strong market position for international (i.e. longer) routes. The pre-requisite for river transport is obviously the existence of suitable waterways. Competition between road transport and inland waterways transport is mainly evident in the market for packages, over medium distances. One potential threat to the reliability of transport by rail and inland waterway is its vulnerability as a concentrated route. On the other hand, the roads are congested on key links in the network, which causes increasing economic losses. Rail transport has new capacity for the transport of goods in Europe as a result of the capacity released onto the network by the creation of high-speed lines for passenger transport and the improvement in the management of traffic at the national level. International interoperability,

which is sometimes lacking in freight transport by rail, is making progress.

A forecast study of transport traffic in Germany in 2025 shows that all the modes of transport will benefit from the sustained growth of freight transport, but that the major beneficiary will be road, despite all the measures aimed at promoting rail and inland waterways and the increase in distances travelled. Nevertheless, transport by rail should increase more than transport on inland waterways.

This forecast study shows that until 2025 the transported volumes between the seeports (ARA and North-See) should grow about 6.3% for the containerised goods and about 2.4% for the not containerised goods. The difference between these two growth rates will lead to an increase of the share of the containerised goods which will raise from 35.6% in 2004 to 55% in 2025.

Sources: Eurostat, Port of Rotterdam, Port of Hamburg, Planco study



Main transport flows of the inland navigation in Europe

### 2.2. Freight transport using inland waterways

### 2.2.1. Main European routes

At the European level, there are four main transport routes, shown on this map:

- the Rhine route, which represents more than 63% of the volume transported in Europe. As this is a river route developed long ago, the increase in the volume transported is relatively slow, but structural. It reflects the development of an industrial fabric that has been in existence for a long time. Only the container sector has seen sustained progress over the past decade;

Graph 2



Total Rhine transport

- the north-south route between France, Belgium and the Netherlands, which represents about 15% of volume and is in a development stage that will be further reinforced by the opening of the Seine-Nord Canal. This route has been making considerable progress, particularly for trade traffic between France, Belgium and the Netherlands. It should nevertheless be borne in mind that this progress is on the basis of volumes that are still relatively small, although their potential remains substantial;

- the east-west route in Germany, linking eastern Europe and the North Sea ports to the industrial fabric of the Ruhr, representing slightly more than 4%. This route is based mainly on trade between the Ruhr region and the area between Berlin and the Elbe, and on the river traffic for trade with the German sea ports;

- the Main-Danube route, which represents about 10% and is in a development phase at the same pace as the industrial fabric of the States bordering the Danube. Given the length of this route, most of the traffic is inter-regional or international, although not all goods are transported the entire length of the route. This aspect will be broached in the following paragraph. These routes mainly represent international traffic, apart from the east-west route, on which a large proportion of the traffic does not cross any frontiers.

2006 saw progress in traffic on the north-south route and on the Rhine, although there was a decrease in volumes transported on the east-west route and on the Danube as a whole.

### 2.2.2. Regional and inter-regional transport

### Seine Basin

The Seine Basin continued its development in 2006, with progress in the order of 5.5% of transhipped volume. The goods for which volume progressed the most were containers and products connected with construction and public works. Data for the whole of 2007 is not yet available, but it should indicate the continuation of this trend, in the light of the economic context observed.

### Belgium

In view of the structure of the Belgian river network and the relatively short distances involved, the evolution of domestic transport in Belgium may give indications as to the position of this mode of transport in the country. In view of the state of the rail network in the country, there has been an increase in the market share of transport using inland waterways compared with rail, particularly in recent years. In 2006 the volumes transported as domestic traffic on inland waterways increased by 6%, compared with just 2.7% for international traffic.

### Netherlands

The Dutch river network is even denser than Belgium's, and justifies separate analysis. Transport on inland waterways has always occupied a large share of the market. In 2006, the volumes transported by inland waterway decreased by almost 2%, while international traffic increased by about 1%. Overall, this resulted in a stagnation of volumes despite a favourable economic context and sustained transshipments in the sea ports. Along with road transport, it is without doubt rail transport that has increased its market share during the past year, particularly with the opening in 2007 of the "Betuwe Route". This trend should continue in the coming years.

### German network (excluding the Rhine)

Transport in the Elbe region was affected by the irregularity of the water conditions. There is considerable potential nevertheless, particularly for the container sector in contact with the sea ports of northern Germany, where the volumes handled continue to increase. In the present context, transport on inland waterways benefits from this since the volumes transported in this sector increased considerably in 2006, although there are still certain infrastructural hindrances, particularly upstream of Magdeburg, which has the potential to become an important hub in the future.

### Upper reaches of the Danube and Canal

In terms of transport both between the Main and the Danube via the Main-Danube Canal and on the upper reaches of the Danube, 2006 was marked by a substantial decrease in the volumes transported. This decrease was above all the result of hydrological phenomena, including the canal being blocked by ice for a long period and irregular water conditions, particularly periods of low water in the summer. It would appear that water conditions were more abundant in 2007, but at the time of the present publication the full figures for volumes were not yet available.

### 2.3. Approach to demand for transport by sector

### Preliminary remark:

For each sector served by transport on inland waterways, there is a map describing the situation of the main flows of goods transport in Europe, and the figures for evolution of the flows in 2006 compared with 2005.

### 2.3.1. Agricultural sector

### General situation of the sector

For 2008, an increase in exports of wheat is expected, in view of the low level of stocks on world markets, due to poor harvests in certain areas. In western Europe, the 2007 harvest was considered relatively satisfactory, comparable to the 2006 harvest, and this is why an increase in demand for the transport of wheat may be expected in 2008.

The transport of foodstuffs and animal feed progressed by almost 6%. This growth was mainly due to growth in the transport of oleaginous plants and cattle feed, which represents more than 80% of this market. The level of demand should remain sustained in the short term.

Transport flows generated by agricultural products



Over a six-year period (2000 – 2006), the following trends may be observed:

- a relative stagnation in the volume of wheat transported in western Europe,
- a clear decrease in the transport of fertilisers, with -28% for chemical fertilisers, resulting from the more reasonable use being made of them,
- a 30% drop in the transport of wood, which may be conjunctural, as the volumes resulting from the storm damage have now been absorbed, although at the same time supply purchasing is again beginning to keep demand buoyant (cf. evolution in 2004),
- progress of more than 6% in oleaginous plants in connection with the use of bioenergies.

The graph below shows the breakdown of market shares representing the various agricultural products.



# Types of products transported in 2006 by inland waterway in the agricultural sector in Europe

### On the Rhine

Although the transport of fertilisers stagnated in the first half of 2007, the transport of agricultural products progressed by almost 1%.

The transport of cereals, which constitutes about 80% of this category of goods, decreased slightly. The 20% drop in the transport of wheat, which represents about half this category, was not entirely offset by the increase of about 20% in the transport of barley and maize. The increase in traffic in this category was essentially due to the tripling of volumes of wood transported (which now represents 12% of this market).

### North-south

On the north-south route, the transport of agriculture-related products, which represents about 11% of all the transport on this route, stagnated in 2006. Detailed elements are not yet available for 2007, but it is expected that there will have been a slight increase in the volumes transported on this route.

### Danube

On the Danube, the transport of agriculture-related products decreased noticeably in all the States concerned. This was particularly true on the upper reaches of the Danube, where this segment represents a large proportion of the volumes transported (40 to 50%), where the decrease was the greatest (a reduction of more than 20% on the Main-Danube route).

### Elbe

This type of transport also decreased considerably on the Elbe market, as did traffic overall, mainly because of a lack of confidence on the part of shippers because of water conditions;

as a result, shippers tended to turn away from this market and use other German inland waterways less subject to low water conditions.

### 2.3.2. Iron and steel sector

### General situation of the sector

Imports of steel into Europe progressed over the first six months of 2007, in part in order to cover the requirements generated by those States which recently joined the European Union. According to professionals in the sector, there has been a pause since the third quarter of 2007. This is not, however, a result of a reduction in stocks, which had become excessive in the course of the first half of 2007. In 2007 as a whole, the German iron and steel industry achieved a new record level, with an increase of 2.5% in the production of unprocessed products.

Experts on this sector estimate that further to this period of rationalising stocks, activity in this sector should resume its previous pace in 2008, particularly under the effect of the world and European economic situation which is still favourable for this sector. There are nevertheless certain areas of uncertainty which have appeared in recent months, and these could temper this optimism somewhat. Thus it may be noted that the resumption of activity in the construction and public works sector in Europe has also contributed to keeping domestic demand buoyant in Europe. It remains to be seen how demand from this sector will evolve in the coming months, in view of credit arrangements. The European iron and steel industry also fears an increase in imports of cheap products to the detriment of European production. In the medium term, the present level of the euro is also likely to be damaging to exports.

### River transport

For transport on inland waterways, demand for transport remains high, whether for imports or exports. On the Rhine and on the Moselle, where the transport of products in connection with the iron and steel industry represents almost 25% of the volumes transported, the latter progressed by 1.9% on the Rhine and by 17% on the Moselle. During the first half of 2007, the transport of metallurgical products progressed on average by 23% by volume in comparison with the first half of 2006. The transport of ore and metallurgical scrap progressed by barely 3%. For these two categories of goods, it was transport upstream mainly resulting from the flow of imports that progressed strongly. Looked at more closely, this concerned semi-finished products such as sheet steel. The first data available on transport on inland waterways for the whole of 2007 indicates substantial rates of progress for volumes transported into and out of the sea ports (e.g. in the port of Antwerp, +11% for raw materials and +24% for metallurgical products). Demand for steel remains high in global terms, and this should ensure maintenance of demand for transport on European inland waterways in 2008.



### Transport flows generated by Iron and steel products

### Graph 4

# Types of metallurgical products transported in 2006 by inland waterway in the in Europe



### 2.3.3. Energy sector - coal

Germany is the biggest importer of coal among all the Rhine countries, and indeed among all the countries of the EU. It uses mainly coal to produce electricity, whereas other countries often use nuclear power and natural gas. Another factor is that the German iron and steel industry is the most important in the European market. Despite German domestic production, about two-thirds of the market for coal is supplied by the various European sea ports (2006: 46.6 million tonnes, 2007: about 43 million tonnes). For strategic reasons, Germany imports its coal from a number of suppliers. Poland and South Africa were already important suppliers, and recently South American and Indonesia have also seen their market shares increase. Although, according to 2006 figures, the ports of Hamburg and Le Havre play a not inconsiderable role in these imports, Rotterdam (33%) and Amsterdam (24%) are much more important, as are Antwerp (11%), Dunkirk (12%) and Hamburg (6%), although to a lesser extent. According to the data, Germany is the main destination for incoming coal (about 80%), transiting mainly through the ARA ports.

In the first half of 2007, the volumes of coal transshipped in Rotterdam decreased by 1.5 million tonnes (-11%), which was the result of a mild winter and maintenance work at a major electricity power station. There are similar reasons for the decrease (-8%) in the volumes transshipped in Antwerp (8.6 million tonnes), for data calculated over the year as a whole. Transport on inland waterways saw a reduction of 4.8% in transport into the hinterland. Contrary to the data for Antwerp, Rotterdam finally recorded progress for 2007. Incoming goods progressed by 0.9%, so that 28 million tonnes were transhipped in 2007. Transshipments in Le Havre increased by 34%, reaching the 2.4 million tonnes mark, and in Amsterdam the increase was 16%. In the hinterland, 6.8 million tonnes of coal (+19%) were transhipped in the port of Duisburg. In Hamburg, 21.7 million tonnes of ore, fertiliser and coal were transshipped, which represents a drop of 2%, and in Dunkirk the volume of coal transshipped (9.7 million tonnes) decreased by 5%.



Graph 5

20

Breakdown of coal-based products transport in 2006 by inland waterway in Europe



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**Remark:** It should be noted that between 2000 and 2006, the volume of coal transported by inland waterway in western Europe progressed by more than 23% whereas the volumes of other coal-based products decreased by about 20% over the same period.

Regarding imported coal, a distinction is drawn between coal destined for the iron and steel industry and coal destined for power stations. In 2006, coal for power stations represented most of the volume (68%). That year, inland waterways carried 45% of this volume to the German hinterland, where the final destinations are often located immediately on the Rhine. In February and April 2007, the volume of imported coal for power stations in Germany was noticeably less than in the same months in 2006, although the opposite was true for the months of June and November. Overall, Germany recorded an increase in imports of coal amounting to 2.1% in 2007. During the year, imports carried on inland waterways sometimes encountered problems because of low water, while the railway was troubled by strikes in both Germany and France.

Global energy consumption is increasing. At the global level, coal occupies a 30% share in the supply of energy (2006), and there are sufficient reserves for at least 200 years. In the long term, however, a decrease may be expected in Europe (at present coal-fired power stations are already opting for biomass co-combustion). The prospects for the coal sector remain favourable at present: demand for energy continues to rise, and the gradual closure of coal mines in Germany is reinforcing the country's dependence on imports. Moreover, the price of coal remains worthwhile compared with the price of oil, which has increased much more substantially.

Sources: Union of German coal importers, Port of Rotterdam, Port of Antwerp

### 2.3.4. Building materials

### General situation of the sector

This evolution results from the upturn in the construction and public works sector. In Germany in particular, a 5% progress in investments in this sector was expected in 2007. In fact, the activity progressed by 0.6% for construction and 6.6% for public works. At the end of 2007, however, the international economic situation, and more particularly the financial situation, leaves it doubtful whether this sector will continue its upturn in the immediate future. Greater restrictions on credit could have harmful effects on beginning work on new homes, thereby reducing demand for construction materials. Although Germany is currently enjoying a solid economic situation, the question remains open as to the evolution of public works in the other States of western Europe, particularly France. The effects of the economic situation will not however be perceptible until 2008. There is therefore a degree of uncertainty concerning the evolution of demand in this sector.

### River transport

In 2006, the transport of goods in the construction sector made notable progress on the main European routes, except on the Danube, where transport in this sector was relatively stagnant. It may be noted that the volumes transported for this sector progressed by almost 11% on the Rhine, after years of regression.

The first half of 2007 featured an increase of almost 5% in the transport of construction

materials on the Rhine. It was particularly the downstream transport of sand, gravel and cement that progressed, by 14%. It should be borne in mind that the construction materials sector represents more than 20% of the volume transported on the Rhine, the north-south route and the Mittellandkanal. In the Seine Basin area, this segment represents most of the volume transported in containers.



Graph 6

### Transportstromen gegenereerd door de bouwsector



### 2.3.5. Container transport

### General situation of the sector

Because of their uniform, solid, stackable nature, the first containers that arrived in Bremen and Rotterdam caused a mini-revolution. More than forty years on, the container has become the symbol of globalisation.

The transport of containerised goods is increasing faster than global trade. Since the container may, in principle, contain any kind of product, it is used currently by nearly every market and industrial sector. On the other hand, it is a demanding market, in which punctuality and flexibility play essential roles. In view of the rate of economic growth, particularly in south-east Asia, the potential for this market remains considerable (according to prognoses, volumes are expected to triple by 2020).

Transport on inland waterways plays an important role in transporting containers into the hinterland (consumer goods), and – perhaps even more significantly – in transporting semifinished goods from central European industry to the sea ports. At the same time there is a flow of empty containers being returned. 2007 was marked overall by a slight increase in volumes, despite certain regional disparities in the market. In France, an increase of 10% was recorded for the transport of containers into the hinterland, particularly in the Seine Basin area (+30%). This increase was possible because of the increase in automobile production. An increase was also recorded in Strasbourg (where there are plans to increase the capacity for transhipping containers). In Mulhouse, however, transshipments of containers declined. Elsewhere, in Germany services per tkm of transport by inland waterway increased (+1.6%), whereas the tonnages transported decreased (-1.4%). The transport of containers first decreased (-0.6% during the first two quarters), then increased again (according to the most recent data) by 1.2% in September. By comparison, German railways carried 20% more containers in the first half of 2007 compared with the previous year.

### On the rivers

In 2006, the transport of containers on inland waterways decreased by almost 2% by volume on the Rhine and on the north-south route. The reduction continued in the first half of 2007 on the Rhine, although the volumes of goods transported in containers progressed by 9% in terms of tonnage.

This evolution is explained by an increase in the number of full containers (+3%) and a decrease of 9% in the number of empty containers being transported. In June 2007 alone, progress in the volume of full containers transported on the Rhine reached 12%. Behind this evolution lies the fact that sea ports give priority to the transshipment of full containers, which could result in empty containers accumulating at ports in the hinterland. It is possible that other modes of land-based transport may be used to transport them to the sea ports.

On the Danube, container transport is for the moment not very present, but in the Delta this kind of transport is already developing.

Source: VNF, Statistisches Bundesamt

### Transport flows generated by containers



### 2.3.6. Transport of oil-based products

The supply of oil to refineries in north-western Europe, as well as exports to the USA, mainly makes use of the ARA ports, and Rotterdam accounts for more than 50% of the market. In the refineries of Rotterdam, as in those of Antwerp and the German ports, crude oil is processed to produce petrol and diesel.

Transport on inland waterways (tanker transport) provides part of the transport from sea ports into the hinterland and transport away from the refineries in the hinterland (particularly in Germany and France) towards to sea ports. In 2006, the volume of goods in the oil sector transported by inland waterway increased by about 1%, as on the north-south route. On the Danube, however, volumes generally decreased, although this depended on the section of river under consideration. During the first half of 2007, the volume of oil-based products transported on the Rhine decreased by 8%, mainly as a result of the increase in oil prices on the market, which produced a maximum deferment of supply purchasing.

In 2007 transshipments of hydrocarbons in Germany stood at about 10% below the level of the previous year. This decrease may be explained by a drop in demand for light fuel oil following the mild winter, and the use of other alternative sources of energy (gas). The volumes of diesel and petrol transported remained stable. There have been periodic upswings in demand on the market. Thus during the second quarter there was strong demand for petrol to be transported to the USA. The price of crude oil and, as a result, the purchase prices of petrol, diesel and light fuel oil increased constantly throughout the year.

This is a global approach to the oil sector, which may give a slightly different image of the market than the above text, which refers to the detailed evolution of the various products, and also gives first impressions for 2007.

Source: Port of Rotterdam, Port of Antwerp, Mineralöl Wirtschaftsverband

Graph 7



Transport flows generated by oil products



### 2.3.7. Chemicals sector

Demand for chemicals remains sustained, both inside Europe and globally. In Europe, this demand is met by local production and by imports. The chemicals sector saw very good results in 2007, with European production increased by about 5.5%. The forecasts for 2008 are more modest, particularly because of the more uncertain general economic situation further to the events of recent months in the financial sector in the United States.

### Graph 8



### Breakdown of chemicals transported in 2006 by inland waterway in Europe

While in 2006 the transport of chemicals progressed by 1.9% on the Rhine and by 8.9% on the north-south route, it progressed on the Rhine by almost 9% in volume and by 4% in services during the first half of 2007 compared with the first half of 2006. This evolution is explained by the resumption of growth in this sector after a slight downturn in 2006.

The continuation of this increase in the volume transported in the coming months depends on the general evolution of the European economy, but at the start of 2008 the sector itself is in a growth cycle.

Transport flows generated by chemicals



### 3. Transshipments in ports and the modal split of inland waterways

### 3.1. Sea ports

Because of their strategic position and their depth, Ara and North-See ports offer good access to a part of the European market where a dense population consumes and produces intensively. In 2006, the ports between Hamburg and Le Havre saw their transshipments in tonnes increase by 5.5% and transshipments of containers, measured in TEUs, increase by 9.5%. The ports of Antwerp and Rotterdam, which are generally used as a benchmark for transport on inland waterways, made less progress. In 2007, European sea ports recorded growth across the board, with the container market once again standing out in front of the other sectors. The major sea ports (Rotterdam, Hamburg and Antwerp) saw further increases in transshipment volumes compared with 2006, particularly as the growth rate for the container sector was between 12% and 14%. Evolution was similar in all the ports. In terms of container volume, Hamburg is China's most important partner in commercial trade, and Antwerp is the most important partner of the USA and Singapore. For intra-European transport, Rotterdam holds a very strong position, particularly in relations with the United Kingdom. In other smaller - European sea ports, the growth in container volumes has sometimes been even higher. Even so, it should be borne in mind that it is easier to achieve a high percentage of growth when starting from a low figure, which is the case of Amsterdam, for instance. The large sea ports have meanwhile become much more than transport hubs; they have become industrial and port complexes incorporating handling and business activities.

	Hamburg	Bremen	Amsterdam	Rotterdam	Antwerp	Zeebrugge	Dunkirk	Le Havre	Total
2000	4248	2737	53	6094	4082	965	148	1464	19791
2001	4689	2915	48	6096	4218	876	151	1525	20518
2002	5374	2999	45	6506	4777	959	161	1720	22541
2003	6138	3191	38	7144	5445	1013	161	1980	25110
2004	7003	3469	46	8292	6064	1197	201	2150	28422
2005	8088	3735	65	9288	6488	1408	204	2058	31334
2006	8862	4450	306	9653	7018	1653	205	2137	34284
2007	9890	4912	370	10791	8176	2020	198	2638	38995

The table below describes the evolution in container volumes (TEUs) handled in these sea ports.

Source: Port of Rotterdam

Over the 7 years we may observe a 73% increase in the transshipment of containers in the main sea ports of western Europe, which corresponds to average progress of 9.6% per year. Alongside this, the volumes transported by inland waterway in Germany, a country that is located at the centre of the European river network, only progressed by about 53%, i.e. an average of 7.4% per year. This difference undoubtedly reflects a regularly declining market share for transport on inland waterways in Europe.

### ROTTERDAM

In 2006, the port of Rotterdam recorded relatively slight growth in its transshipments, limited to just +1.7%, with 378 million tonnes, mainly as a result of the increase in the volume of containers (+4.3%) and coal (+3%), whereas for example the volumes of metal ores and scrap declined. 2007 was an exceptional year for the port of Rotterdam. This leading European port transshipped more than 400 million tonnes and handled more than 10 million TEU containers. Trade with Asia is certainly a driving force for growth in the container sector, but most of the goods handled were from Europe. For 2007, taking all goods together, the volumes transshipped increased by 6.4% and incoming and outgoing containers increased by 12% and 9% respectively. The acceleration in this growth in volumes was particularly marked in the second half of 2007. Transshipments of plant oils decreased, although those of ethanol and biodiesel increased. The transport of metal ores and scrap recorded growth. The decreases only concerned crude oil (-2%) and other bulk goods (-3.5%). The port's prospects are good: according to forecasts, growth will generally be sustained over the coming years. This trend will be amplified for the containerised goods sector, which should see considerable development. This applies equally to intra-European ("short sea") traffic and to intercontinental ("deep sea") traffic. Rotterdam is beginning to reach the limits of its capacity, for both containers and dry bulk goods. The situation of dry cargo is due to the increase in imports of coal to Germany, resulting from the aradual closure of the country's mines. It has been established than an extension would be worthwhile. This is why a short-term increase in transshipment capacity has been scheduled (Delta Barge Feeder and Euromax terminals). Other investments are announced in the longer term, including the scheduled development of the Tweede Maasvlakte intended to meet the strong demand for additional transshipment capacity. Of the 1000 hectares included in the project, about 625 will be earmarked for container terminals, which represents a considerable extension. The allocation of Tweede Maasylakte plots is currently in hand and the Port of Rotterdam would like to devote most of the extension to rail and inland waterway transport. Source: Port of Rotterdam

### ANTWERP

In 2007, the volumes transshipped overall increased by 9% compared with 2006 (i.e. a arowth rate double that recorded in 2006, thereby reaching 167 million tonnes). In 2007, transshipments accounted for 182.9 million tonnes in all. The volume of containers transshipped represented 8.2 millions TEUs, i.e. an increase of 14% for this important sector (the figure for TEUs was only 7 million TEUs in 2006, and 6.5 million in 2005). This means that Antwerp remains the third most important port for containers in Europe (after Rotterdam and Hamburg). In this sector, North America is a trade partner of capital importance. The Deurganckdok with its capacity of 6.4 million TEUs is designed to cope with the strong growth expected over the coming years. Maintenance work on locks and the widening of the Escaut will ensure better accessibility for Antwerp from the sea front. Transport on inland waterways also played an important role in 2007 in carrying goods, mainly towards the Netherlands (44%), but also inland to the rest of Belgium and to Germany (24% in both cases). Transport on inland waterways accounts for the transport of about one-third of the volume of containers carried out of Antwerp into the hinterland. This mode of transport also has an important share of the market for incoming and outgoing oil-based products (30% in 2007), chemicals (14%), and containers (26%). Growth of 9% has been recorded for the transport of containers. Source: Port of Antwerp

### HAMBURG

In 2006, the volumes transshipped increased by 7.3%, with the total reaching 135 million tonnes. For containers, with 8.9 million TEUs transshipped, i.e. an increase of 10%, Hamburg again beat its own record in 2007. Total transshipments amounted to 140 million tonnes (+4.1%), including 9.9 million TEUs handled, representing progress of +11%. Although China and India are the main exporters overall, Hamburg also had a lot of commercial relations with nearer neighbours (Baltic Sea). Contrary to these very favourable results, the transshipment of bulk goods declined in 2007 by 2.4% (ore, fertiliser and coal). Hamburg has set itself the target of breaking the ceiling of 10 million TEU containers next year, hoping to overtake Rotterdam in this sector in the next ten years. The fact that the port of Hamburg is the closest to the new EU Member States in eastern Europe and that it has strong links with Russia where the economy is thriving would be major advantages for the port. One prior condition would consist of improving its access (and its depth) on the sea side. In this respect, preparations are already in hand. Since 2007, the Port of Hamburg has been quoted on the stock exchange. The financial resources released in this way are intended, inter alia, to improve the infrastructures in the container transshipment sector. Rail transport is considered to be a powerful means of decongesting the roads (18% of containers in 2007). Because of this, the Port of Hamburg has become the most important rail platform in Europe. Source: Port of Hamburg

### AMSTERDAM

The overall growth rate of transshipments in the sea ports of Amsterdam – including Zaanstad, Velzen/Ijmuiden and Beverwijk – was 1.5% in 2007, an increase from about 84.4 million tonnes to about 85.7 million tonnes. For Amsterdam alone, the figure is 4.6%. The transshipment of TEU containers increased by 370 000, i.e. +21%, after volumes more than tripled in 2006 with the opening of the new terminal. The number of empty containers transshipped also increased by 109%, reaching a figure of 55 601 TEUs. The Ceres container terminal has not yet reached half its maximum capacity (a maximum of 1 million TEUs). The transshipment of vehicles increased by 30%, from 214 685 to 279 000. Transshipments increased by about 12% in 2006, particularly because of oil-based products and containers, which progressed by 370% compared with 2005.

Source: Port of Amsterdam

### LE HAVRE

The total volume of transshipments reached 74.8 million tonnes in 2006, which represents a drop in the order of 1.6% compared with the previous year. For containers, the volume transshipped was 3% more than in 2005. The modal split of transport on inland waterways for transport into the hinterland was 7% in 2006. It was a good year for Le Havre, with 6.6% growth in transshipments overall, reaching almost 80 million tonnes, and an increase of 25% in the container sector (a total of 2.6 million TEUs). The opening of a container terminal has contributed to these impressive results. For dry bulk (coal), the results also showed an increase of almost 31%, but the transport of oil-based products recorded a decrease (temporary decrease in refining capacity).

Source: Autonomous Port of Le Havre

### BREMEN

Bremen, the German port transited by most automobiles, recorded a 6.3% increase in transshipments in 2007 compared with 2006, reaching 69 million tonnes. For containers, the

increase was 10.4% (a total of 4.9 million TEUs). Liquid bulk (a relatively small sector), on the other hand, recorded a drop of -32%. In 2006, the volumes transshipped in this port amounted to 65 million tonnes, which represents a progression of 16% compared with 2005. *Source: Bremenports* 

### DUNKIRK

In 2006, the volume of transshipments in the port of Dunkirk reached 56 million tonnes, which represents a progression of 6%. Whereas in 2006 the volume of containers transshipped increased by a further 0.5% compared with 2005, with 205 000 TEUs, Dunkirk was the exception in the ports between Hamburg and Le Havre in 2007, with container volumes down by 4% to 197 000 TEUs. Despite that, the overall volume of transshipments increased by 1% in 2007, to 57 million tonnes. *Source: Port of Dunkirk* 

ZEEBRUGGE

During 2006, the volumes transshipped amounted to 39 million tonnes, equally divided between incoming and outgoing volumes. This corresponds to a rate of progress of 12% compared with 2005. In 2007, 42.3 million tonnes were transshipped in this port, which corresponds to an increase of 7.3%. The transshipment of containers increased by 24%, to reach 2 million TEUs in 2007 (in tonnes, this represents growth of 11%). The creation of new lines is the reason for this substantial increase. The market for vehicles remains the strong point of this port, where transshipments of liquid goods has decreased. *Source: Port of Zeebrugge* 

### WILHELMSHAVEN

This is currently the third most important port in Germany by volume handled (2004: 45 million tonnes per year). It acts as a bridge to the Scandinavian countries, the new Member States of the EU and the Baltic states. The JadeWeserPort that is currently under construction, with a depth of 18 m and a wide area (170 ha), will boost container transport in the region. According to forecasts, capacity will reach 2.7 million TEUs in 2010. *Source: Port of Wilhelmshaven* 

### Main ports in Europe



### **3.2. INLAND PORTS**

Source: Internet sites of the ports, forecast data

The inland ports on the European mainland constitute a network of sites for regional transshipment that is often trimodal, generally serving several markets. For 2006, the figures for transshipments published by the inland ports showed evolutions unlike those for 2005, with for example +13% for Frankfurt and the opposite (-7%) for Basle. For the container sector, reference could be made to Frankfurt with +40% and Mulhouse-Ottmarsheim with -27%. For all the markets as a whole and all the modes of transport, 2007 was, like 2006, a year of growth. Evolution within the various partial markets may have a considerable influence on the volumes to be transported. Thus in 2007 transshipments in Liège increased by 8%, more particularly as a result of the resumption of operation of its blast furnaces. Frankfurt-am-Main recorded an increase in transshipments of coal, construction materials and recycled materials, and more particularly exports of scrap metal, in response to demand from China. Basle recorded an increase in transshipments overall (+5.3%) (more particularly for containers), even though oil-based products dropped. Karlsruhe was an exception in this context, since transshipments there fell by 10% in 2007, after recording an increase of more than 9% in 2006.

Although growth in container transport is less marked on the Rhine than in the sea ports, there are many projects under consideration aimed at increasing capacity to transship containers. In Frankfurt-am-Main, the area of the transshipment site will be increased by 4000 sq.m., taking its maximum capacity to 100 000 TEUs in 2010. The new Hanse-terminal container terminal (including a logistics centre) in Magdeburg was opened in May 2007. According to forecasts, its transshipment capacity will reach 33 000 TEUs per year. It should however be noted that
in all these cases, rail will also play an important role. The fact that the expansions do not only concern the Rhine is illustrated by the following examples. In Vienna, which recorded an increase of 23% in the volume of containers transshipped in 2007, for all modes taken together, annual capacity will be increased to 400 000 TEUs per year from the end of 2008. These volumes will essentially be divided between road and rail. To reach this capacity, the existing trimodal Wienercont. Terminal is to be modernised. The Enns trimodal logistics centre which opened in 2007 has stimulated container transport with its capacity of 250 000 TEUs per year (153 000 TEUs were transshipped in 2006, i.e. 20% more than in 2005).

#### DUISBURG

Compared with 2005, the volumes transshipped in the port of Duisburg progressed by 4.2% in 2006, giving a volume of 51.3 million tonnes. The container sector achieved a similar growth rate, reflected by a volume of 357 000 TEUs for transport on inland waterways. Transshipments in the port of Duisburg reached the level of 55 million tonnes, which corresponds to an 11% increase, to which transport by inland waterway only contributed 4%. Rail (shuttle service with Antwerp) is playing an important role in the development of the port. The transport of coal occupies a prime position here, but Duisburg is also one of the top 100 container ports in the world, recording an increase of 14% in 2007 (after more than 4% in 2006), to reach the level of 900 000 TEUs, nearly all of which has however been of benefit to rail transport. In 2007, a new container gantry was commissioned and preparatory work is in hand for a substantial new extension to capacity for the transshipment of containers and the associated logistics.

#### MANNHEIM

Compared with 2005, transshipments in the port of Mannheim fell by 1.9% to the level of 8 million tonnes in 2006. Even transshipments of containers fell by 12%, to the level of 120 000 TEUs. In 2007, however, 5% growth was recorded, for a total of 8.3 million tonnes. In this favourable context, we may observe for the second year running a drop in transshipments of containers, which fell again in 2007 by a further 10%, reaching the level of 108 066 TEUs. Although the accident in Cologne (in March 2007) caused an unexpected drop in volumes, other causes of a more structural nature have also been contributing factors. The results for 2007 are nevertheless globally the best since 1988. The commissioning of a container terminal, which will increase transshipment capacity, is intended to anticipate growth in waterway transport's share of the market. At the same time, the dock will be lengthened and the rail network extended by two additional lines.

#### COLOGNE

2006 showed a general drop in transshipments by 4.5% to 15.6 million tonnes, whereas transshipments of containers towards transport on inland waterways increased by 21% to reach the level of 114 481 TEUs. In 2007 the rate of growth in transshipments was 3.2%, i.e. a total of 11 million tonnes, 12% of which was the container sector, which transshipped 574 000 TEUs. Container transshipment capacity is also being expanded at the moment. Rail transport, which has a market share of 18% at this port, also plays an important role here.

## PARIS

With 22 million tonnes of transshipments each year, Paris is the second most important inland port in Europe in terms of volume, after Duisburg. The container terminal in Gennevilliers concentrates more particularly on container transshipments. In 2006, almost 80 000 TEUs were transshipped, which represents growth of almost 10% compared with 2005. The Paris region is anticipating 120% growth in volume over the next 15 years, which would be in keeping with the considerable extension of capacity at the port of Le Havre, and it is with this in mind that there are plans to extend the terminal in Gennevilliers. While it is intended that Gennevilliers should remain the focal point for container traffic in Paris, there are also plans to set up a network of new trimodal terminals on the outskirts of Paris.

#### BASLE

In 2006 the port of Basle saw the volume of dry goods transshipped on the river progress by 5.8%. With 88 030 TEU containers transshipped, the record achieved in 2004 (85 254 TEUs) was broken, reflecting a new growth phase. Incoming oil-based products, however, dropped back by 17.1%; this was due not only to the very high price of oil until December, but also to structural causes.

2007 was also a good year for transshipments, with a new record for containers (104 366 TEUs, i.e. an increase of 21.3% compared with 2006). More generally, transshipments in the port of Basle progressed by 5.3%, thereby reaching 7 108 230 tonnes, despite a 10% drop in demand for oil-based products. It was possible to achieve these favourable results not only because of a favourable general economic context, but also because of water conditions that may be qualified as good in relation to the figures for previous years.

# Chapter 2 Analysis of offer of transport capacity

Observation of the evolution of the offer of transport on the European market, which is measured mainly on the basis of capacity available on the market, remains a difficult exercise in view of the absence of harmonisation of the method of listing vessels and keeping national records. In the present situation it appears at first sight, in fact, that the number of vessels being scrapped is very limited, although there is no means of checking this. At the same time, certain elements are known concerning transfers with neighbouring countries and new constructions coming onto the market in the course of the year. This procedure allows, as far as possible, an update of the image of active capacity.

#### New capacity on the market

Observation of new arrivals on the market points to a clear drop in the number of new vessels commissioned in 2007 compared with 2006. This needs to be seen in context, since at the start of 2008 not all the registers have yet been updated to include registrations made at the end of 2007.

It should be noted that it is difficult, in the present administrative context, to obtain comprehensive data for most of the Rhine States and even more difficult for the Danube and eastern European States. For this reason, the data set out below refers only to the fleets of western Europe.

	-	2006	2007 (pr	ovisional)
Type of vessel	quantity	% of capacity	quantity	% of capacity
Self-propelled barge	41	100%	10	100%
0 - 1999 t	5	5.1%	1	3.7%
2000 - 2999 t	9	20.7%	2	19.2%
+ 3000 t	25	74.2%	6	77.1%
not known	3		1	
Non-motorised barge	25	100%	13	100%
0 - 1999 t	15	25.6%	1	4.2%
2000 - 2999 t	6	61.2%	10	76.3%
+ 3000 t	1	13.2%	2	19.5%
not known	4		0	
Self-propelled tanker barge	35	100%	13	100%
0 - 1999 t	7	12.7%	3	14.7%
2000 - 2999 t	7	19.2%	2	17.1%
+ 3000 t	15	68.1%	5	68.2%
not known	6		3	

## Breakdown by size of new vessels commissioned

Source: IVR + national sources

For the state of the fleet at the end of 2006, elements have been made available by the IVR which provide figures for the active fleets of most of the Danube and eastern European fleets. At the same time, the lack of data on the Dutch fleet – which accounts for more than 60% of potential dry cargo transport capacity and more than 50% of potential tanker transport in western Europe – makes it necessary to estimate these fleets.



Graph 9

It should be noted that 44 tanker vessels are expected to be commissioned in 2007, according to the professionals concerned. For the administrative reasons mentioned above it will not be possible to check this information in the next publication.

There may, however, be other explanations than the hazards of statistics for the apparent decrease in the number of new vessels.

It should indeed be borne in mind that the shipyards are working at full capacity, which justifies the order deadlines. In addition, the cost of shipbuilding has increased considerably in recent years, as the result of increased prices for steel and labour. Bank interest rates have also risen by more than one point in the space of a year. These two factors have without doubt had an effect on decisions whether to invest in new vessels, even though the market looks promising in terms of prospects for demand, particularly for the transport of dry cargo.

Apart from certain hazards in statistics, it can be seen that the western European fleet is tending to grow. Tanker transport has seen the highest rate of progress, at +5% in 2006 compared with +1.3% for dry transport.

#### Graph 10

#### **Evolution of the fleet**



Remark: In view of the fact that data for the Danube and Czech fleets only became available for the first time in 2006, this graph – which is intended to show the evolution of capacity on the market over the years – does not incorporate these elements. It will be possible to do so in future publications, when there is data available for observation over at least two years.

Remark: In the statistics in the appendices, pushed/towed barges are not included. There are still some 170 of these in western Europe, which represents about 3% of capacity, and their number continues to fall each year. Since they are not generally used very intensively, their impact on global offer appears to be negligible.

In terms of the structure of the fleet, the average capacity of vessels (self-propelled and nonmotorised barges taken together) has increased by about 2% for dry transport and tanker transport.

This evolution in fleet structure is due to the commissioning of new vessels that are mainly large in size, whereas for tanker transport there is at present no comparable withdrawal of old vessels. For dry transport, although capacity is increasing, the number of vessels is falling. This trend may be explained by sales of small vessels to other countries outside the Rhine area and to assemblies of two vessels.

## Fleets on the Danube and in eastern Europe

Although the elements we have available allow us to estimate capacity for dry transport at about 3% of European capacity, the proportion of tanker transport capacity is very slight. It should however be noted that the Hungarian and Austrian fleets have not been taken into account because of the lack of exact data. For this reason a detailed analysis of the structure and evolution of these fleets will be included in a later publication, when it has been possible to incorporate these elements.

# Chapter 3 Water conditions

## 1. Water conditions and operating capacity

As the observation of water conditions is important in economic terms, the values are not only indicated on a daily basis and in centimetres, but are also converted into values for possible draught, determining the theoretical loading capacity. The graphs below show the figures for the scales at Kaub for the Rhine and Hofkirchen for the Danube.

For goods vessels of varying dimensions, this gives the following loading capacities according to draught.

Loading capacity according to	Draught							
vessel dimensions	1.50m	2.00m	2.50m	2.80m	3.50m			
L135.00 X W11.45	750t	1 475t	2 225t	2 600t	3 700t			
L110.00 X W11.40	600t	1 200t	1 800t	2 100t	3 000t			
L85.00 X W9.50	570t	930t	1 350t	1 350t	1 350t			
L67.00 X W8.20	420t	670t	1 000t	1 000t	1 000t			

L: length W: width Source: VBW (WESKA)

These figures show clearly the effect of water conditions on the offer of transport. Periods of low water have a greater effect on larger vessels.

## 2. Water conditions on the Rhine

Graph 11



evolution of water levels at Kaub

Source: German national hydrological institute (Bundesanstalt für Gewässerkunde)

## Number of days below draught limit

Draught	less than 240	of which less than 180
2005	72	0
2006	93	0
2007	201	0

## Indexing water levels noted at scales

To be able to compare variations in water levels recorded at the scales and variations in freights, it is necessary to index the main scale for the waterway concerned. Indexing calculations should, however, be based on quarterly values. The annual average for 2004 could be taken as the base index of 100.

At the Kaub scale, the figure for the annual average for 2004 to be used as the base index of 100 is 188 cm.

The index values may also be expressed in monthly values which may be compared with other variables.

monthly index of the water level at Kaub



Source: German national hydrology institute (Bundesanstalt für Gewässerkunde)

## Study of the situation in 2007

The water conditions on the Rhine did not indicate any period of low water in the first half of the year or at the end of the summer of 2007. There was even a short period of high water. Under these conditions, it was possible to operate transport capacity at a relatively optimum level until the summer. During the autumn, there were more important fluctuations in the water conditions. Navigation was even stopped for a few days in some sectors, before a period of low water occurred in September and continued for several weeks. At the end of the year, water conditions were very abundant. Overall, the water cycles in 2007 were the opposite of those in previous years, when there was low water during the summer and at the end of the year.

## 3. Water conditions on the upper reaches of the Danube

The method used for studying the water conditions of the upper reaches of the Danube is the same as that used for the Rhine. An index is calculated with reference to the average year of 2004.



evolution of water levels at Hofkirchen

Source: German national hydrology institute (Bundesanstalt für Gewässerkunde)

## Number of days below draught limit

Graph 13

Draught	less than 240	of which less than 180
2005	245	68
2006	206	48
2007	60	0

On the upper reaches of the Danube, where water conditions at times constitute the most important factor limiting transport on inland waterways, the water conditions in 2007 were relatively favourable for river traffic compared with 2006 and more particularly 2005. During 2007 the draught was never less than 180 cm, and it was only less than 240 cm for 20% of the year. There was no flooding prejudicial to navigation.



monthly index of the water level at Hofkirchen

Source: German national hydrology institute (Bundesanstalt für Gewässerkunde)

#### 4. Water conditions on the Elbe

The rate of flow of the Elbe depends directly on precipitation upstream. Unlike the Rhine, its flow is not fed periodically by the melting of snow and glacier ice in the Alps, and as a result its water conditions are relatively volatile, and there are frequent periods of low water that are prejudicial to navigation. This element is currently hindering the development of transport on inland waterways, with vessel operators preferring to work on the Mittellandkanal and its connected network, where transport is much more regular.

It is a feature of the Elbe that its water conditions are cyclical – they are generally sufficient, and even over-abundant, in the first half of the year, with a recurrent tendency to periods of low water in the autumn.

Water conditions in 2006 were relatively abundant, and there was even a period of high water when navigation stopped for eight days. In 2007, however, the period of low water began at the end of May and continued throughout most of the second half of the year.

**Remark:** Details are not given here for the Moselle, Main and Neckar, since their water conditions are relatively linked to those of the Rhine, of which they are tributaries.





Water levels on the Elbe at Magdeburg

# **Conclusions and forecasts**

Although overall the market for transport by inland waterway stood up well in 2006 and 2007, with significant progress in places, it has to be said that the market share is not evolving at the same rate, and more particularly that road transport remains out ahead.

Rail also seems to be developing faster than transport on inland waterways, in both the States of central and eastern Europe and the western part of Europe.

Indeed in most of the segments of bulk goods transport, such as ore, coal, construction materials and oil-based products, transport on inland waterways occupies a very strong competitive position, with market shares close to the maximum possible in view of the characteristics of the routes and occasional contracts. Improvements could still be made in these segments if the infrastructure were adapted in such a way as to allow transport on inland waterways to be fully competitive in terms of reliability, capacity and accessibility.

For other segments, the potential for waterways transport to make progress depends primarily on the efficiency of the services offered throughout the logistics chains involved. This concerns the market for agricultural and food products, chemicals and container transport.

## **Regional markets**

2006 showed progress in traffic on the north-south route and on the Rhine, while there was a decrease in volumes transported on the east-west route and on the whole of the Danube.

#### **Containers sector**

In this key sector for transport on inland waterways, 2006 and 2007 were marked by stagnation, despite a significant increase in traffic in and out of the sea ports. Near the terminals, the congestion of the interfaces between sea and river transport seems to continue. In Rotterdam in particular transport on inland waterways has to cope with unfavourable operating conditions, which are reflected in a reduced market share. Rail transport also seems to be well on the way to strengthening its competitive position, with the introduction of several new regular services, even towards "wet" destinations.

#### **Evolution of the main goods**

The development of the transport of the various types of goods carried on inland waterways varies in the different regions. While some types of transport, such as the transport of raw materials for the iron and steel industry, fell in Europe in 2006, this evolution is mainly explained by the policy of stockpiling in anticipation of a period of less demand in Europe.

Transport in connection with agriculture is cyclical, and is also linked to the policy of stockpiling and world prices. Thus the drop recorded in 2006 was followed by a period of growth in 2007.

As this was a period of general economic growth, the volumes of other types of goods carried also increased in 2006, and the provisional figures available to date indicate that this trend continued in 2007.

#### **Evolution of the fleet - new vessels**

Despite the difficulties still being encountered in the registration of fleets, the data available indicates an increase in transport capacity in western Europe that was reflected by an increase in average vessel tonnage. This increase in average tonnage is the result of investments,

reflected by the contribution made by new vessels coming onto the market or the lengthening of existing vessels. It should be borne in mind that this new capacity mostly goes hand in hand with operation of above-average intensity.

In this context, the data available shows a dynamic degree of investment in both dry transport and tanker transport. While the increase in capacity for dry transport seems to be continuing to evolve on a par with demand, tanker transport remains open to question. In this segment it is primarily a matter of replacing part of the fleet in order to meet present and future technical demands.

#### Water conditions

2006 and 2007 did not see any extreme situations in terms of water conditions. On the Rhine, transport was possible under satisfactory conditions from this point of view. On other waterways such as the Elbe and the upper reaches of the Danube, the water conditions and their irregularity continue to constitute a limiting factor for the development of transport on inland waterways.

#### General economic situation and impact on demand in 2008

In 2006 and 2007, transport on inland waterways had the benefit of an extremely favourable general economic situation in Europe. At present, despite the uncertainties caused by the disturbances in the banking sector in the United States, there is not at the moment any real sign of any slowing down in industrial activity in Europe that could be likely to potentially reduce demand for transport in 2008.



## Macro-economic elements Evolution in the growth rate of real GDP

Progress as %age	Average for 2000-2005	Evolution in GDP 2006	Evolution in GDP 2007	Forecast for 2008
EU (27)	2.1%	3.0%	2.9%	2.4%
EU 15 + Switzerland	2.0%	2.8%	2.7%	2.2%
Germany	1.0%	1.0%	2.5%	2.1%
Austria	1.8%	3.3%	3.3%	2.7%
Belgium	2.0%	2.8%	2.7%	2.1%
Bulgaria	5.3%	6.1%	6.3%	6.0%
Croatia	4.3%	4.8%	6.0%	5.0%
France	2.0%	2.0%	1.9%	2.0%
Hungary	4.5%	3.9%	2.0%	2.6%
Luxembourg	4.5%	6.1%	5.2%	4.7%
Netherlands	1.7%	3.0%	2.7%	2.6%
Poland	3.3%	6.1%	6.5%	5.6%
Czech Republic	3.8%	6.4%	5.8%	4.9%
Romania	5.1%	7.9%	6.0%	5.9%
Slovakia	4.4%	8.5%	8.7%	7.0%
Switzerland	1.1%	2.7%	2.1%	1.9%

Source: Eurostat (Forecasts are given in colour)

# Evolution in the modal split of land-based transport

NSTR	Country		Belgium	Bulgaria	Czech Republic	Germany
	Information and a second second	1000 t for 2006	165855	5947	1141	243495
Inland w	Inland waterways	% / 2004	12.71%	34.98%	-3.22%	3.24%
Total	Rail	1000 t for 2006	62185	21122	97424	346119
Iotai	Kali	% / 2004	6.38%	NS	9.66%	11.56%
	Road	1000 t for 2006	348525	151581	444610	3103203
	κοαα	% / 2004	0.51%	NS	-4.60%	5.37%
Total		1000 t for 2006	576565	178650	543175	3692817
		% / 2004	4.38%		-2.32%	5.78%

NSTR	Country		France	Luxembourg	Hungary	Netherlands
Inl	Inland waterways	1000 t for 2006	71448	11395	7327	317853
	iniana waterways	% / 2004	6.12%	1.92%	-0.39%	-0.43%
Total	Rail	1000 t for 2006	108332		46778	
Iofai	Kali	% / 2004	-7.74%	NS	2.66%	NS
	Road	1000 t for 2006	2181717	53016	257424	615303
	Roda	% / 2004	5.06%	0.03%	19.03%	0.13%
	Total	1000 t for 2006	2361497	64411	311529	933156
Iordi		% / 2004	4.42%	NS	15.73%	NS

NSTR	Country		Austria	Poland	Romania	Slovakia
	Information and a second second	1000 t for 2006	9183	6609	29274	2252
	Inland waterways	% / 2004	1.22%	-9.30%	-2.07%	-17.36%
Total	Rail	1000 t for 2006	85661	156401	51984	52447
Iofal	Kall	% / 2004	0.08%	-4.42%	-17.18%	7.57%
	Road	1000 t for 2006	358851	897415	336034	181521
	κοαα	% / 2004	26.63%	22.59%	NS	1.90%
	Tetel	1000 t for 2006	453695	1060425	417292	236220
Total		% / 2004	20.01%	17.44%	NS	2.43%

Substantial progress of volume transported on inland waterways

Above-average progress of land-based transport

Source: EUROSTAT

# Main flows of transport on inland waterways

	Map No.	1	Map No	. 2	Map No	<b>5.</b> 3	
	Total for re	oute	Agricult	ure	Iron and steel		
Sections of river or route	Volume (1000 tonnes)	%	Volume (1000 tonnes)	%	Volume (1000 tonnes)	%	
Traditional Rhine	206660	3.1	23030	-3.8	46069	1.9	
Total north-south	73899	1.4	8110	0.1	5485	-11.4	
of which Netherlands - Belgium	64784	0.8	4274	-2.5	5093	-10.8	
of which Netherlands - France	3608	13.4	2078	16.2	312	-18.3	
of which France - Belgium	5507	2.5	1758	-9.0	80	-16.9	
Mittellandkanal route	22022	-6.1	5599	6.4	1988	1.9	
Germany-Poland route	3660	-14.1	1957	-16.9	177	-18.3	
Elbe (south of Magdeburg)	9480	-12.1	2386	-11.7	370	-18.9	
Elbe (upper and middle sections)	1013	-24.5	781	-27.3	NS	N5	
Moselle (passage at Koblenz)	16170	15.2	3398	16.0	4452	17.0	
Main	18811	-4.0	4709	-13.2	1720	-12.3	
Main-Danube Canal	6240	-17.9	3037	-22.0	1353	-15.3	
Danube in Germany	7317	-19.3	2956	-27.5	1912	-5.7	
Danube in Austria	9180	-1.7	2508	-7.8	3735	3.3	
Danube in Hungary/Slovakia	9579	-11.0	3357	-32.7	3225	-3.5	
Danube in Croatia	1509	4.4	207	-35.7	861	8.4	
Danube in Romania/Bulgaria	35221	-7.6	4484	17.7	14116	-20.0	
Seine (Basin)	29969	5.5	3837	-2.0	668	21.0	
Rhône	12347	7.9	1724	-7.4	370	11.1	
<b>Po</b> (no information)							

NS: not significant

Map No. 4		Map N	o. 5	Map No	<b>b.</b> 6	Map No.	. 7	Map No	. 8
Coal		Constru	ction	Contain	ers	Oil		Chemico	als
Volume (1000 tonnes	%	Volume (1000 tonnes	%	TEUs	%	Volume (1000 tonnes)	%	Volume (1000 tonnes)	%
28343	7.6	41337	10.9	1973135	-1.9	32569	1.1	16513	1.9
4387	-0.3	16071	6.2	814925	-1.7	16742	0.7	7161	8.9
3626	-2.7	13863	3.8	766647	-2.6	15538	0.2	6858	11.0
592	72.8	290	3.5	9469	39.4	36	38.2	194	-31.
169	-48.8	1918	28.0	38809	10.0	1168	6.7	109	-5.4
2772	-10.1	4043	-9.3	77858	-8.3	3012	6.3	623	99.7
NS	NS	215	-23.8	NS	NS	1054	1.0	189	-22.
2137	-27.6	939	-7.8	17543	4.1	2165	-2.5	717	27.4
NS	NS	NS	NS	36178	56.3	NS		NS	
5317	16.5	1406	23.2	940	-51.5	1493	0.5	73.4	-10.
1824	-3.3	4224	9.8	NS	NS	4247	-3.3	1009	0.4
NS	NS	544	-1.1	NS	-36.3	197	-20.6	NS	NS
NS	NS	393	-10.3	NS	NS	401	-10.4	NS	NS
152	-14.1	930	46.5	3671	-21.1	1621	-19.1	NS	NS
383	-3.3	472	25.8	NS	NS	1621	-15.3	NS	NS
2	NS	101	159.0	NS	N5	176	-1.1	151	NS
4547	3.3	11254	-2.6	NS	NS	472	81.5	80	77.8
789	-19.1	22821	7.8	143206	17.8	642	36.4	NS	NS
1010	19.3	5350	12.1	61258	9.8	1707	-1.9	1177	15.:
					1				

Source: secretariat of the CCR

# Relative importance of the main inland waterways in Europe (in 2006)

Sections of river or route	Volume (1000 tonnes)	%age of river transport in Europe
Total Rhine	320000	63.5%
of which traditional Rhine	206660	41.0%
Total north-south	73899	14.7%
Danube in Romania/Bulgaria	35221	7.0%
Seine (Basin)	29969	5.9%
Mittellandkanal route	22022	4.4%
Main	18811	3.7%
Moselle (passage at Koblenz)	16170	3.2%
Rhône	12347	2.5%
Danube in Hungary-Slovakia	9579	1.9%
Elbe (south of Magdeburg)	9480	1.9%
Danube in Austria	9180	1.8%
Danube in Germany	7317	1.5%
Main-Danube Canal	6240	1.2%
Germany-Poland route	3660	0.7%
Danube in Croatia	1509	0.3%
Elbe (upper and middle sections)	1013	0.2%
<b>Po</b> (no information at present)		0.0%

# Offer of transport capacity

## Table MO1 – INLAND FLEETS 2003-2006 (Summary) BY CAPACITY OF VESSELS

	Ordinary	self-propel	ed barges	O	rdinary ba	rges	Total cap	acity / dry	cargo fleet
	Units	Tonnage	Power	Units	Tonnage	Power	Units	Tonnage	Power
	Nbre	t	kW	Nbre	t	kW	Nbre	t	kW
			31.12.2	2003					
Germany	955	1139124	503123	894	855735		1849	1994859	503123
Austria							0	0	0
Belgium	1099	1024409	507005	200	379695		1299	1404104	507005
France	1141	545351	235136	612	609431		1753	1154782	235136
Luxemburg	21	21340	10868	1	2830		22	24170	10868
Netherlands	3194	3380582	1570231	800	1427738		3994	4808320	1570231
Switzerland	12	23369	14210				12	23369	14210
total	6422	6134175	2840573	2507	3275429		8929	9409604	2840573
			31.12.2	2004					
Germany	956	1127341	489114	922	868215		1878	1995556	489114
Austria	5	7058		54	84807		59	91865	0
Belgium	1113	1046203	522158	223	432111		1336	1478314	522158
France	956	506196	183181	465	494245		1421	1000441	183181
Luxemburg	19	19521	9931	1	2830		20	22351	9931
Netherlands	3155	3432160	1534350	818	1468427		3973	4900587	1534350
Switzerland	13	25942	14909	1	1258		14	27200	14909
Poland							0	0	0
Czech Republic	75			227			302	0	0
Slovac Republic	27	13299	20469	204	301139		231	314438	20469
Hungary	92			360			452	0	0
total	6411	6177720	2774112	3275	3653032		9686	9830752	2774112

	Ordinary	self-propel	led barges	O	rdinary ba	rges	Total cap	acity / dry	cargo fleet
	Units	Tonnage	Power	Units	Tonnage	Power	Units	Tonnage	Power
	Nbre	t	kW	Nbre	t	kW	Nbre	t	kW
			31.12.2	005					
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
Slovac Republic	25	19932		150	222731		175	242663	0
Hungary	92			360			452	0	0
total	6111	5902205	2762087	3131	3500932		9242	9403137	2762087
			31.12.2	006					
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
Slovak Republic	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

(Data for the dutch fleet are based on an estimation by the secretariat of the CCR)

	Self-prop	oelled tanke	erbarges	Τα	nker barg	es	Total cap	pacity of ta	nker fleet
	Units	Tonnage	Power	Units	Tonnage	Power	Units	Tonnage	Power
	Nbre	t	kW	Nbre	t	kW	Nbre	t	kW
			31.12.	2003					
Germany	336	508502	258021	45	54930		381	563432	258021
Austria							0	0	0
Belgium	200	242349	114844	6	11838		206	254187	114844
France	71	65421	23020	65	91815		136	157236	23020
Luxemburg	19	32481	16760	2	8435		21	40916	16760
Netherlands	720	771759	354130	44	75294		764	847053	354130
Switzerland	31	78036	33144	0	0		31	78036	33144
total	1377	1698548	799919	162	242312		1539	1940860	799919
			31.12.	2004					
Germany	344	536556	257643	48	58402		392	594958	257643
Austria	5	5601		15	22055		20	27656	0
Belgium	217	281516	132661	6	11838		223	293354	132661
France	35	39234	12990	47	67418		82	106652	12990
Luxemburg	18	30481	15720	2	8435		20	38916	15720
Netherlands	746	824283	335545	43	74177		789	898460	335545
Switzerland	29	72860	33105	0	0		29	72860	33105
Poland							0	0	0
Czech Republic							0	0	0
Slovac							o	o	0
Republic									
Hungary							0	0	0
total	1394	1790531	787664	161	242325		1555	2032856	787664

	Self-prop	oelled tanke	erbarges	Τα	nker barg	es	Total cap	oacity of ta	nker 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
Slovac Republic	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
Slovak Republic	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

(Data for the dutch fleet are based on an estimation by the secretariat of the CCR)

		Tugs			Pusher tug	s	Tota	popelled	vessels
	Units	Tonnage	Power	Units	Tonnage	Power	Units	Tonnage	Power
	Nbre	t	kW	Nbre	t	kW	Nbre	t	kW
				31.12.200	3	1	I		
Germany	148		32556	289		126943	437		159499
Austria							0		0
Belgium	10		2575	102		48252	112		50827
France	24		3572	171		85001	195		88573
Luxemburg	10		2575	102		48252	112		50827
Netherlands	521		116222	556		232277	1077		348499
Switzerland	1		368	5		1947	6		2315
total	714		157868	1225		542672	1939		700540
				31.12.200	4				
Germany	143		29234	300		135723	443		164957
Austria				10		9200	10		9200
Belgium	13		4303	112		52435	125		56738
France	35		5908	239		126901	274		132809
Luxemburg	0		0	18		15220	18		15220
Netherlands	494		103237	541		224440	1035		327677
Switzerland	1		368	5		1947	6		2315
Poland							0		0
Czech Republic				152			152		0
Slovac Republic	1		135	45		46034	46		46169
Hungary	56			24			80		0
total	743		143185	1446		611900	2189		755085
				31.12.200	5				
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
Slovac Republic	8		6995	39		40234	47		47229
Hungary	56			24			80		0
total	716		136669	1349		582029	2065		718698

		Tugs			Pusher tug	s	Total popelled vessels		
	Units	Tonnage	Power	Units	Tonnage	Power	Units	Tonnage	Power
	Nbre	t	kW	Nbre	t	kW	Nbre	t	kW
				31.12.200	6				
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
Slovak Republic	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

(Data for the dutch fleet are based on an estimation by the secretariat of the CCR)

Austria : non detailled data avaibleonly from 2004

France : from 2004 until 2006, data about the tugs and pusher tugs provided by the french transport Ministry

# Table MO2 – INLAND FLEETS AT 31.12.2006 BY TONNAGE

	Ordin	nary self-p barges	ropelled	c	Ordinary bo	irges	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	35	4323	2801	71	8618		106	12941	2801
250 - 399 t	51	16422	9820	93	33746		144	50168	9820
400 - 649 t	40	20723	11771	337	148463		377	169186	11771
650 - 999 t	184	153943	69594	83	72831		267	226774	69594
1000 - 1499 t	374	450221	210912	106	131632		480	581853	210912
1500 - 1999 t	123	212175	92891	63	107440		186	319615	92891
2000 - 2499 t	49	107518	45517	57	132702		106	240220	45517
2500 - 2999 t	36	95934	40747	73	201412		109	297346	40747
3000 t and over	6	19496	8129	7	26443		13	45939	8129
not known	4	0	3593	11	0		15	0	3593
total	902	1080755	495775	901	863287		1803	1944042	495775
Austria (2004)					·			•	
up to 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 over							0	0	0
not known							0	0	0
total	5	7058	0	54	84807		59	91865	0

	Ordir	nary self-p barges	ropelled	o	ordinary ba	rges	Total c	apacity of t cargo fleet	he dry
	Units	Tonnage	Power	Units	Tonnage	Power	Units	Tonnage	Power
	Nbre	t	kW	Nbre	t	kW	Nbre	t	kW
Belgium									
up to 249 t	4	302	1431	4	743		8	1045	1431
250 - 399 t	271	98302	55050	19	6485		290	104787	55050
400 - 649 t	152	83431	43993	34	17966		186	101397	43993
650 - 999 t	176	141316	74300	9	7594		185	148910	74300
1000 - 1499 t	241	292177	149761	24	30397		265	322574	149761
1500 - 1999 t	69	113847	57893	14	25087		83	138934	57893
2000 - 2499 t	56	124317	58659	22	52709		78	177026	58659
2500 - 2999 t	41	112129	53457	56	157398		97	269527	53457
3000 t and over	32	106681	49272	48	170250		80	276931	49272
not known	0	0	0	0	0		0	0	0
total	1042	1072502	543816	230	468629		1272	1541131	543816
France									
up to 249 t	2	403	154	0	0		2	403	154
250 - 399 t	543	205591	83389	43	14740		586	220331	83389
400 - 649 t	139	68534	26006	159	79917		298	148451	26006
650 - 999 t	109	91135	32582	93	70415		202	161550	32582
1000 - 1499 t	79	96535	27029	18	22177		97	118712	27029
1500 - 1999 t	11	17955	5057	17	28622		28	46577	5057
2000 - 2499 t	6	13068	2548	21	46437		27	59505	2548
2500 - 2999 t	3	8170	2262	73	197514		76	205684	2262
3000 t and over	0	0	0	0	0		0	0	0
not known	0	0	0	0	0		0	0	0
total	892	501391	179027	424	459822		1316	961213	179027
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	7	8557	4348	0	0		7	8557	4348
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 over	0	0	0	0	0		0	0	0
not known	0	0	0	0	0		0	0	0
total	13	12821	6689	0	0		13	12821	6689

	Ordir	nary self-p barges	ropelled	c	ordinary ba	ırges	Total c	apacity of t cargo fleet	-
	Units	Tonnage	Power	Units	Tonnage	Power	Units	Tonnage	Power
	Nbre	t	kW	Nbre	t	kW	Nbre	t	kW
Netherlands									
up to 249 t	112	16748	10927	118	13475		230	30223	10927
250 - 399 t	271	90793	45229	31	10249		302	101042	45229
400 - 649 t	500	271115	136185	66	36728		566	307843	136185
650 - 999 t	724	585983	287150	36	30696		760	616679	287150
1000 - 1499 t	672	808463	382101	41	50477		713	858940	382101
1500 - 1999 t	280	474485	219825	50	85066		330	559551	219825
2000 - 2499 t	130	291598	132549	86	194734		216	486332	132549
2500 - 2999 t	112	307502	146011	213	592788		325	900290	146011
3000 t and over	128	449904	198853	95	374082		223	823986	198853
not known	110		23974	53			163	0	23974
total	3039	3296591	1582804	789	1388295		3828	4684886	1582804
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	1178	948	1	1259		2	2437	948
							0	0	0
1500 - 2999 t	13	28874	14858	1	2080		14	30954	14858
							0	0	0
3000 t and over	2	6509	2602	0	0		2	6509	2602
not known							0	0	0
total	18	37243	18724	2	3339		20	40582	18724
Hungary									
up to 249 t							0	0	0
250 - 399 t							0	0	0
400 - 649 t							0	0	0
650 - 999 t							0	0	0
1000 - 1499 t							0	0	0
1500 - 1999 t							0	0	0
2000 - 2499 t							0	0	0
2500 - 2999 t							0	0	0
3000 t and over	92			360			452	0	0
not known							0	0	0
total	92	0	0	360	0		452	0	0

	Ordir	ary self-pi barges	ropelled	0	rdinary ba	rges	Total o	apacity of t cargo fleet	he dry
	Units	Tonnage	Power	Units	Tonnage	Power	Units	Tonnage	Power
	Nbre	t	kW	Nbre	t	kW	Nbre	t	kW
Slovac 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	8	7228	2067	0	0		8	7228	2067
1000 - 1499 t	3	3816	1736	4	4653		7	8469	1736
1500 - 1999 t	6	11239	6180	113	200473		119	211712	6180
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 over	0	0	0	0	0		0	0	0
not known	0	0	0	0	0		0	0	0
total	20	28390	13073	117	205126		137	233516	13073
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	15	13439	0	12	11655		27	25094	C
1000 - 1499 t	221	249808	746	304	405521		525	655329	746
1500 - 1999 t	38	75187	1206	84	139712		122	214899	1206
2000 - 2499 t	0	0	0	73	152519		73	152519	C
2500 - 2999 t	0	0	0	118	340855		118	340855	C
3000 t and over	0	0	0	4	20056		4	20056	0
not known	0	0	0	0	0		0	0	0
total	281	342071	1952	601	1072960		882	1415031	1952
Bulgaria									
up to 249 t	6	0	7524	55	101		61	101	7524
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	2	2324	1041	16	17209		18	19533	1041
1500 - 1999 t	4	6472	3148	0	0		4	6472	3148
2000 - 2499 t	0	0	0	0	0		0	0	0
2500 - 2999 t	0	0	0	0	0		0	0	C
3000 t and over	0	0	0	0	0		0	0	C
not known	0	0	0	3	0		3	0	0
total	15	10321	12485	153	74893		168	85214	12485

	Ordin	ary self-pi barges	ropelled	0	rdinary ba	rges	Total	capacity of t cargo fleet	-
	Units	Tonnage	Power	Units	Tonnage	Power	Units	Tonnage	Power
	Nbre	t	kW	Nbre	t	kW	Nbre	t	kW
Czech Republic						I			
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	15248		33	26707	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 over	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
Poland									
up to 249 t	0	0	0	2	0		2	0	0
250 - 399 t	0	0	0	0	0		0	0	0
400 - 649 t	38	18192	8608	3	1462		41	19654	8608
650 - 999 t	1	903	522	4	4963		5	5866	522
1000 - 1499 t	1	1051	441	0	0		1	1051	441
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 over	0	0	0	0	0		0	0	0
not known	0	0	0	2	0		2	0	0
total	40	20146	9571	11	6425		51	26571	9571
Total									
up to 249 t	161	21937	22972	354	34395		515	56332	22972
250 - 399 t	1143	413481	194716	210	73584		1353	487065	194716
400 - 649 t	891	474499	231689	665	319587		1556	794086	231689
650 - 999 t	1235	1007781	472883	321	264534		1556	1272315	472883
1000 - 1499 t	1637	1955802	797194	565	726545		2202	2682347	797194
1500 - 1999 t	532	912947	386907	341	586400		873	1499347	386907
2000 - 2499 t	261	578176	257221	313	665729		574	1243905	257221
2500 - 2999 t	192	523735	242477	533	1489967		725	2013702	242477
3000 t and over	260	582590	258856	514	590831		774	1173421	258856
not known	115	0	27699	75	0		190	0	27699
total	6427	6470948	2892614	3891	4751572		10318	11222520	2892614

	Self-pro	pelled tan	kerbarges	Т	anker barg	ges	Total ca	pacity of ta	nker fleet
	Units	Tonnage	Power	Units	Tonnage	Power	Units	Tonnage	Power
	Nbre	t	kW	Nbre	t	kW	Nbre	t	kW
Germany									
up to 249 t	12	514	6967	5	691		17	1205	6967
250 - 399 t	1	337	272	2	782		3	1119	272
400 - 649 t	4	2157	1306	13	6411		17	8568	1306
650 - 999 t	14	11748	6248	8	6773		22	18521	6248
1000 - 1499 t	164	208273	110538	3	4065		167	212338	110538
1500 - 1999 t	69	115957	59429	4	6604		73	122561	59429
2000 - 2499 t	66	146973	68312	9	20259		75	167232	68312
2500 - 2999 t	31	84418	39047	3	7851		34	92269	39047
3000 t and over	14	49269	20458	0	0		14	49269	20458
not known	0	0	0	0	0		0	0	0
total	375	619646	312577	47	53436		422	673082	312577
Austria (2004)								·	
up to 249 t							0	0	0
250 - 399 t							0	0	0
400 - 649 t							0	0	0
650 - 999 t							0	0	0
1000 - 1499 t							0	0	0
1500 - 1999 t							0	0	0
2000 - 2499 t	5	5601		15	22055		20	27656	0
2500 - 2999 t							0	0	0
3000 t and over							0	0	0
not known							0	0	0
total	5	5601		15	22055		20	27656	0
Belgium									
up to 249 t	32	3470	4127	0	0		32	3470	4127
250 - 399 t	17	5775	3516	0	0		17	5775	3516
400 - 649 t	29	14527	7537	0	0		29	14527	7537
650 - 999 t	11	8668	5062	1	945		12	9613	5062
1000 - 1499 t	50	61643	33683	2	2211		52	63854	33683
1500 - 1999 t	16	28170	13526	1	1970		17	30140	13526
2000 - 2499 t	23	52627	23254	0	0		23	52627	23254
2500 - 2999 t	13	36376	16038	1	2923		14	39299	16038
3000 t and over	27	105506	40414	0	0		27	105506	40414
not known	0	0	0	0	0		0	0	0
total	218	316762	147157	5	8049		223	324811	147157

	Self-pro	pelled tan	kerbarges	Т	anker barg	ges	Total ca	pacity of ta	nker 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	10	3687	1436	0	0		10	3687	1436
400 - 649 t	5	2347	631	10	4670		15	7017	631
650 - 999 t	1	672	257	10	8092		11	8764	257
1000 - 1499 t	2	2680	801	3	3159		5	5839	801
1500 - 1999 t	2	3299	1249	4	7273		6	10572	1249
2000 - 2499 t	4	9305	4909	8	19357		12	28662	4909
2500 - 2999 t	6	15661	2278	9	24218		15	39879	2278
3000 t and over	1	3900	0	2	6066		3	9966	0
not known	0	0	0	0	0		0	0	0
total	31	41551	11561	46	72835		77	114386	11561
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 over	2	6153	1980	2	8435		4	14588	1980
not known	0	0	0	0	0		0	0	0
total	16	27754	13838	2	8435		18	36189	13838
Netherlands									
up to 249 t	219	22897	25849	1	79		220	22976	25849
250 - 399 t	25	7981	4599	1	314		26	8295	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	93	116743	60187	5	7101		98	123844	60187
1500 - 1999 t	65	108280	66709	4	6768		69	115048	66709
2000 - 2499 t	69	151215	74035	11	24507		80	175722	74035
2500 - 2999 t	38	105614	53396	7	18392		45	124006	53396
3000 t and over	75	293060	135586	2	7274		77	300334	135586
not known	36	0	8352	2	0		38	0	8352
total	728	876504	465025	39	68241		767	944745	465025

	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	0
250 - 399 t	0	0	0	0	0	0	0	0	0
400 - 649 t	0	0	0	0	0	0	0	0	0
650 - 999 t	0	0	0	0	0	0	0	0	0
1000 - 1499 t	4	4956	2393	0	0	0	4	4956	2393
							26	62470	26687
1500 - 2999 t	25	60397	26687	1	2073	0	0	0	c
							0	0	C
3000 t and over	7	23042	9742	0		0	7	23042	9742
not known							0	0	0
total	36	88395	38822	1	2073	0	37	90468	38822
Hungary									
up to 249 t							0	0	0
250 - 399 t							0	0	0
400 - 649 t							0	0	C
650 - 999 t							0	0	0
1000 - 1499 t							0	0	0
1500 - 1999 t							0	0	C
2000 - 2499 t							0	0	C
2500 - 2999 t							0	0	(
3000 t and over							0	0	(
not known							0	0	c
total	0	0	0	0	0	0	0	0	C
Slovac Republic									
up to 249 t	0	0	0	0	0		0	0	C
250 - 399 t	0	0	0	0	0		0	0	c
400 - 649 t	1	442	234	0	0		1	442	234
650 - 999 t	0	0	0	2	1782		2	1782	C
1000 - 1499 t	1	1227	736	2	2218		3	3445	736
1500 - 1999 t	0	0	0	26	41949		26	41949	C
2000 - 2499 t	1	2000	1071	0	0		1	2000	1071
2500 - 2999 t	0	0	0	0	0		0	0	c
3000 t and over	0	0	0	0	0		0	0	(
not known	0	0	0	0	0		0	0	c
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	(
250 - 399 t	0	0	0	0	0		0	0	
400 - 649 t	0	0	0	0	0		0	0	
650 - 999 t	0	0	0	0	0		0	0	
1000 - 1499 t	0	0	0	0	0		0	0	
1500 - 1999 t	8	15544	0	0	0		8	15544	
2000 - 2499 t	1	2496	883	0	0		1	2496	88
2500 - 2999 t	0	0	0	0	0		0	0	
3000 t and over	0	0	0	0	0		0	0	
not known	0	0	0	0	0		0	0	
total	9	18040	883	0	0		9	18040	88
Bulgaria									
up to 249 t	0	0	0	0	0		0	0	
250 - 399 t	0	0	0	0	0		0	0	
400 - 649 t	0	0	0	0	0		0	0	
650 - 999 t	0	0	0	0	0		0	0	
1000 - 1499 t	0	0	0	0	0		0	0	
1500 - 1999 t	0	0	0	0	0		0	0	
2000 - 2499 t	0	0	0	0	0		0	0	
2500 - 2999 t	0	0	0	0	0		0	0	
3000 t and over	0	0	0	0	0		0	0	
not known	0	0	0	0	0		0	0	
total	0	0	0	0	0		0	0	
Czech Republic								1 1	
up to 249 t	1	0	0	0	0		1	0	
250 - 399 t	0	0	0	0	0		0	0	
400 - 649 t	0	0	0	0	0		0	0	
650 - 999 t	0	0	0	0	0		0	0	
1000 - 1499 t	0	0	0	0	0		0	0	
1500 - 1999 t	0	0	0	0	0		0	0	
2000 - 2499 t	0	0	0	0	0		0	0	
2500 - 2999 t	0	0	0	0	0		0	0	
3000 t and over	0	0	0	0	0		0	0	
not known	0	0	0	0	0		0	0	
total	1	0	0	0	0		1	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 over	0	0	0	0	0		0	0	0
not known	1	0	0	2	0		3	0	0
total	1	0	0	2	0		3	0	0
Total									
up to 249 t	264	26881	36943	6	770		270	27651	36943
250 - 399 t	53	17780	9823	3	1096		56	18876	9823
400 - 649 t	94	47532	24934	26	12506		120	60038	24934
650 - 999 t	80	64663	33197	24	19973		104	84636	33197
1000 - 1499 t	322	405383	213366	15	18754		337	424137	213366
1500 - 1999 t	187	335303	169304	40	66637		227	401940	169304
2000 - 2499 t	171	374486	174398	43	86178		214	460664	174398
2500 - 2999 t	89	244964	113407	20	53384		109	298348	113407
3000 t and over	126	480930	208180	6	21775		132	502705	208180
not known	37	0	8352	4	0		41	0	8352
total	1423	1997922	991904	187	281073		1610	2278995	991904
## Table MO3 – INLAND FLEETS AT 31.12.2006 BY YEAR OF BUILDING

	Ordi	nary self-pro barges	opelled	0	rdinary barg	es	Total	capacity of cargo flee	-
	Units	Tonnage	Power	Units	Tonnage	Power	Units	Tonnage	Power
	Nbre	t	kW	Nbre	t	kW	Nbre	t	kW
Germany									
before 1930	224	216786	96371	24	8925		248	225711	96371
1930 - 1949	119	120276	56370	10	2658		129	122934	56370
1950 - 1959	206	212996	102104	13	7801		219	220797	102104
1960 - 1969	182	211783	89949	117	86851		299	298634	89949
1970 - 1979	99	167172	83152	128	183543		227	350715	83152
1980 - 1989	45	106492	47901	476	424583		521	531075	47901
1990 - 1999	7	12265	7205	95	124477		102	136742	7205
2000 - 2006	10	27093	12723	6	14141		16	41234	12723
not known	10	5892	0	32	10308		42	16200	0
total	902	1080755	495775	901	863287		1803	1944042	495775
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		54	84807		59	91865	0
Belgium									
before 1930	101	86031	38999	3	1504		104	87535	38999
1930 - 1949	90	73658	37173	6	3279		96	76937	37173
1950 - 1959	314	230101	122419	2	679		316	230780	122419
1960 - 1969	333	250435	132054	28	37420		361	287855	132054
1970 - 1979	73	124946	58118	22	56060		95	181006	58118
1980 - 1989	41	83950	39545	81	229059		122	313009	39545
1990 - 1999	36	86999	42843	25	53108		61	140107	42843
2000 - 2006	54	136382	72665	63	87520		117	223902	72665
not known	0	0	0	0	0		0	0	0
total	1042	1072502	543816	230	468629		1272	1541131	543816

	Ordi	nary self-pr barges	opelled	0	rdinary barg	es	Total	capacity of cargo flee	•
	Units	Tonnage	Power	Units	Tonnage	Power	Units	Tonnage	Power
	Nbre	t	kW	Nbre	t	kW	Nbre	t	kW
France									-
before 1930	28	19019	7761	10	5294		38	24313	7761
1930 - 1949	111	58793	23252	17	8789		128	67582	23252
1950 - 1959	351	177804	69564	41	28590		392	206394	69564
1960 - 1969	260	137040	57471	106	61639		366	198679	57471
1970 - 1979	12	8403	2100	32	32775		44	41178	2100
1980 - 1989	28	31044	13798	19	21676		47	52720	13798
1990 - 1999	5	7864	3643	86	153993		91	161857	3643
2000 - 2006	8	7780	1159	33	34836		41	42616	1159
not known	89	53644	279	80	112230		169	165874	279
total	892	501391	179027	424	459822		1316	961213	179027
Luxemburg									
before 1930	2	1754	1252	0	0		2	1754	1252
1930 - 1949	3	3862	1735	0	0		3	3862	1735
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	c
1990 - 1999	0	0	0	0	0		0	0	c
2000 - 2006	0	0	0	0	0		0	0	C
not known	0	0	0	0	0		0	0	C
total	13	12821	6689	0	0		13	12821	6689
Netherlands									
before 1930	508	320903	149769	9	6518		517	327421	149769
1930 - 1949	269	201192	100308	8	4349		277	205541	100308
1950 - 1959	645	555092	279666	7	5976		652	561068	279666
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	210	497342		398	833861	149782
1990 - 1999	109	254125	136273	106	266429		215	520554	136273
2000 - 2006	206	512011	242725	90	199056		296	711067	242725
not known	25	17524	2909	29	12267		54	29791	2909
total	3039	3296591	1582804	789	1388295		3828	4684886	1582804

	Ordi	nary self-pro barges	opelled	0	rdinary barg	es	Total	capacity of cargo flee	
	Units	Tonnage	Power	Units	Tonnage	Power	Units	Tonnage	Power
	Nbre	t	kW	Nbre	t	kW	Nbre	t	kW
Switzerland									
before 1930	2	2881	846	0	0		2	2881	846
1930 - 1949	0	0	0	0	0		0	0	C
1950 - 1969	2	1551	1117	0	0		2	1551	1117
1970 - 1979	2	3562	1604	0	0		2	3562	1604
1980 - 1989	8	19193	8689	0	0		8	19193	868
1990 - 1999	1	2625	2160	0	0		1	2625	216
2000 - 2006	3	7431	4308	2	3339		5	10770	430
not known	0	0	0	0	0		0	0	(
							0	0	(
total	18	37243	18724	2	3339		20	40582	18724
Hungary									
before 1930							0	0	
1930 - 1949							0	0	
1950 - 1959							0	0	
1960 - 1969							0	0	
1970 - 1979							0	0	
1980 - 1989							0	0	
1990 - 1999							0	0	
2000 - 2006							0	0	
not known							0	0	
total	92	0	0	360	0		452	0	
Slovac Republic									
before 1930	0	0	0	0	0		0	0	
1930 - 1949	0	0	0	0	0		0	0	
1950 - 1959	2	2573	1030	0	0		2	2573	103
1960 - 1969	11	18565	9571	0	0		11	18565	957
1970 - 1979	2	1824	1442	12	20841		14	22665	144
1980 - 1989	0	0	0	99	173389		99	173389	
1990 - 1999	5	5428	1030	5	9009		10	14437	103
2000 - 2006	0	0	0	0	0		0	0	
not known	0	0	0	1	1887		1	1887	
total	20	28390	13073	117	205126		137	233516	1307

	Ordi	nary self-pro barges	pelled	0	rdinary barg	es	Total	capacity of cargo flee	
	Units	Tonnage	Power	Units	Tonnage	Power	Units	Tonnage	Power
	Nbre	t	kW	Nbre	t	kW	Nbre	t	kW
Romania									
before 1930	4	3295	596	0	0		4	3295	590
1930 - 1949	1	695	0	0	0		1	695	(
1950 - 1959	1	408	0	0	0		1	408	(
1960 - 1969	32	33448	0	9	10585		41	44033	(
1970 - 1979	32	51076	0	189	270009		221	321085	(
1980 - 1989	198	240755	150	303	587390		501	828145	15
1990 - 1999	13	12394	1206	100	204976		113	217370	120
2000 - 2006	0	0	0	0	0		0	0	(
not known	0	0	0	0	0		0	0	(
total	281	342071	1952	601	1072960		882	1415031	195
Bulgaria									
before 1930	1	1207	552	3	0		4	1207	55
1930 - 1949	0	0	0	0	0		0	0	(
1950 - 1959	3	2652	1997	9	3510		12	6162	199
1960 - 1969	0	0	0	44	27119		44	27119	(
1970 - 1979	1	1663	662	30	13394		31	15057	66
1980 - 1989	9	4799	9274	44	20265		53	25064	927
1990 - 1999	0	0	0	20	10605		20	10605	
2000 - 2006	1	0	0	0	0		1	0	
not known	0	0	0	3	0		3	0	(
total	15	10321	12485	153	74893		168	85214	1248
Czech Republic									
before 1930	0	0	0	0	0		0	0	(
1930 - 1949	1	632	287	2	170		3	802	28
1950 - 1959	5	2376	1792	6	2895		11	5271	179
1960 - 1969	27	19014	9206	52	15293		79	34307	920
1970 - 1979	26	30371	11858	40	14027		66	44398	1185
1980 - 1989	3	3385	2232	123	79779		126	83164	223
1990 - 1999	6	5881	3323	19	10381		25	16262	332
2000 - 2006	0	0	0	6	1444		6	1444	
not known	0	0	0	1	0		1	0	
total	68	61659	28698	249	123989		317	185648	2869

	Ordi	nary self-pr barges	opelled	0	rdinary bar	ges	Total	capacity of 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
1930 - 1949	1	903	522	0	0		1	903	522
1950 - 1959	0	0	0	0	0		0	0	0
1960 - 1969	33	16266	7718	0	0		33	16266	7718
1970 - 1979	3	1479	793	0	0		3	1479	793
1980 - 1989	1	555	296	7	4255		8	4810	296
1990 - 1999	0	0	0	1	837		1	837	0
2000 - 2006	0	0	0	0	0		0	0	0
not known	2	943	242	3	1333		5	2276	242
total	40	20146	9571	11	6425		51	26571	9571
Total									
before 1930	870	651876	296146	49	22241		919	674117	296146
1930 - 1949	595	460011	219647	43	19245		638	479256	219647
1950 - 1959	1533	1189307	581550	78	49451		1611	1238758	581550
1960 - 1969	1747	1448638	665095	529	370729		2276	1819367	665095
1970 - 1979	482	750278	332505	610	855185		1092	1605463	332505
1980 - 1989	514	810124	265138	1362	2037738		1876	2847862	265138
1990 - 1999	184	392387	199831	459	837154		643	1229541	199831
2000 - 2006	279	683266	329272	198	336997		477	1020263	329272
not known	131	85061	3430	203	222832		334	307893	3430
total	6427	6470948	2892614	3891	4751572		10318	11222520	2892614

	Self-pro	opelled tank	erbarges	1	fanker barg	es	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	
1930 - 1949	6	12325	3098	0	0		6	12325	309
1950 - 1959	63	81171	40290	5	3517		68	84688	4029
1960 - 1969	68	90725	43671	5	5757		73	96482	4367
1970 - 1979	145	248007	125559	17	31146		162	279153	12555
1980 - 1989	38	79028	36950	16	10584		54	89612	3695
1990 - 1999	24	48075	26363	3	2049		27	50124	2636
2000 - 2006	29	58776	36646	0	0		29	58776	3664
not known	2	1539	0	0	0		2	1539	
total	375	619646	312577	47	53436		422	673082	31257
Austria (2004)									
before 1930							0	0	
1930 - 1949							0	0	
1950 - 1959							0	0	
1960 - 1969							0	0	
1970 - 1979							0	0	
1980 - 1989							0	0	
1990 - 1999							0	0	
2000 - 2006							0	0	
not known	5	5601		15	22055		20	27656	
total	5	5601		15	22055		20	27656	
Belgium							1		
before 1930	11	4613	2558	0	0		11	4613	255
1930 - 1949	12	4016	2929	0	0		12	4016	292
1950 - 1959	46	36718	19550	0	0		46	36718	1955
1960 - 1969	48	43755	21676	4	5126		52	48881	2167
1970 - 1979	36	71627	33548	1	2923		37	74550	3354
1980 - 1989	24	52124	21015	0	0		24	52124	2101
1990 - 1999	15	21303	11261	0	0		15	21303	1126
2000 - 2006	26	82606	34620	0	0		26	82606	3462
not known	0	0	0	0	0		0	0	
total	218	316762	147157	5	8049		223	324811	14715

	Self-pro	opelled tank	erbarges	1	lanker barg	es	Total	capacity of fleet	tanker
	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	0	C
1930 - 1949	2	1841	595	0	0		2	1841	595
1950 - 1959	8	6706	2607	6	4434		14	11140	2607
1960 - 1969	7	3719	1613	17	19361		24	23080	1613
1970 - 1979	6	14521	2572	7	13214		13	27735	2572
1980 - 1989	3	6906	4174	0	0		3	6906	4174
1990 - 1999	0	0	0	6	11978		6	11978	C
2000 - 2006	0	0	0	5	12346		5	12346	C
not known	5	7858	0	5	11502		10	19360	C
total	31	41551	11561	46	72835		77	114386	11561
Luxemburg									
before 1930	0	0	0	0	0		0	0	C
1930 - 1949	0	0	0	0	0		0	0	C
1950 - 1959	2	3100	1603	0	0		2	3100	1603
1960 - 1969	0	0	0	0	0		0	0	C
1970 - 1979	7	9996	4615	1	3959		8	13955	4615
1980 - 1989	5	11635	5878	1	4476		6	16111	5878
1990 - 1999	2	3023	1742	0	0		2	3023	174
2000 - 2006	0	0	0	0	0		0	0	(
not known	0	0	0	0	0		0	0	C
total	16	27754	13838	2	8435		18	36189	13838
Netherlands									
before 1930	16	1745	1482	0	0		16	1745	1482
1930 - 1949	22	5867	3813	0	0		22	5867	3813
1950 - 1959	128	71239	39091	0	0		128	71239	39091
1960 - 1969	202	101334	57326	7	3207		209	104541	57326
1970 - 1979	96	123238	57911	14	27876		110	151114	5791
1980 - 1989	57	93655	52961	7	13749		64	107404	52961
1990 - 1999	76	138522	76127	8	19798		84	158320	76127
2000 - 2006	114	324320	176037	2	2934		116	327254	176037
not known	17	16584	277	1	677		18	17261	277
total	728	876504	465025	39	68241		767	944745	465025

	Self-pro	opelled tank	erbarges	1	fanker barg	es	Total	capacity of fleet	tanker
	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	
1930 - 1949	0	0	0	0	0		0	0	
1950 - 1959	4	6395	3223	0	0		4	6395	322
1960 - 1969	6	15526	7000	0	0		6	15526	700
1970 - 1979	12	32043	12691	0	0		12	32043	1269
1980 - 1989	10	21489	10824	0	0		10	21489	1082
1990 - 1999	4	12942	5084	1	2073		5	15015	508
2000 - 2006	0	0	0	0	0		0	0	
not known							0	0	
total	36	88395	38822	1	2073		37	90468	3882
Hungary									
before 1930									
1930 - 1949									
1950 - 1959									
1960 - 1969									
1970 - 1979									
1980 - 1989									
1990 - 1999									
2000 - 2006									
not known									
total	0		0	0		0	0	0	
Slovac Republic									
before 1930	0	0	0	0	0		0	0	
1930 - 1949	0	0	0	1	832		1	832	
1950 - 1959	0	0	0	1	1049		1	1049	
1960 - 1969	3	3669	2041	2	2587		5	6256	204
1970 - 1979	0	0	0	22	34931		22	34931	
1980 - 1989	0	0	0	0	0		0	0	
1990 - 1999	0	0	0	4	6550		4	6550	
2000 - 2006	0	0	0	0	0		0	0	
not known	0	0	0	0	0		0	0	
total	3	3669	2041	30	45949		33	49618	204

	Self-pr	opelled tank	erbarges	1	fanker barg	es	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	(
1930 - 1949	0	0	0	0	0		0	0	(
1950 - 1959	0	0	0	0	0		0	0	(
1960 - 1969	0	0	0	0	0		0	0	
1970 - 1979	1	2496	883	0	0		1	2496	88
1980 - 1989	0	0	0	0	0		0	0	
1990 - 1999	8	15544	0	0	0		8	15544	
2000 - 2006	0	0	0	0	0		0	0	
not known	0	0	0	0	0		0	0	(
total	9	18040	883	0	0		9	18040	88
Bulgaria									
before 1930	0	0	0	0	0		0	0	
1930 - 1949	0	0	0	0	0		0	0	
1950 - 1959	0	0	0	0	0		0	0	
1960 - 1969	0	0	0	0	0		0	0	
1970 - 1979	0	0	0	0	0		0	0	
1980 - 1989	0	0	0	0	0		0	0	
1990 - 1999	0	0	0	0	0		0	0	
2000 - 2006	0	0	0	0	0		0	0	
not known	0	0	0	0	0		0	0	
total	0	0	0	0	0		0	0	
Czech Republic									
before 1930	0	0	0	0	0		0	0	
1930 - 1949	0	0	0	0	0		0	0	
1950 - 1959	0	0	0	0	0		0	0	
1960 - 1969	0	0	0	0	0		0	0	
1970 - 1979	1	0	0	0	0		1	0	
1980 - 1989	0	0	0	0	0		0	0	
1990 - 1999	0	0	0	0	0		0	0	
2000 - 2006	0	0	0	0	0		0	0	
not known	0	0	0	0	0		0	0	
total	1	0	0	0	0		1	0	

	Self-pro	opelled tank	erbarges	1	fanker barg	es	Total	capacity of fleet	tanker
	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	C
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	C
2000 - 2006	0	0	0	0	0		0	0	0
not known	0	0	0	2	0		2	0	0
total	1	0	0	2	0		3	0	0
Total									
before 1930	27	6358	4040	1	383	0	28	6741	4040
1930 - 1949	42	24049	10435	1	832	0	43	24881	10435
1950 - 1959	251	205329	106364	12	9000	0	263	214329	106364
1960 - 1969	334	258728	133327	35	36038	0	369	294766	133327
1970 - 1979	305	501928	237779	62	114049	0	367	615977	237779
1980 - 1989	137	264837	131802	24	28809	0	161	293646	131802
1990 - 1999	129	239409	120577	22	42448	0	151	281857	120577
2000 - 2006	169	465702	247303	7	15280	0	176	480982	247303
not known	29	31582	277	23	34234	0	52	65816	277
total	1423	1997922	991904	187	281073	0	1610	2278995	991904

		Tugs			Pusher tug	s	Total	popelled ve	ssels
	Units	Tonnage	Power	Units	Tonnage	Power	Units	Tonnage	Power
	Nbre	t	kW	Nbre	t	kW	Nbre	t	kW
Germany									
before 1930	42		9480	19		4401	61		13881
1930 - 1949	26		4351	23		8580	49		12931
1950 - 1959	30		6027	18		5314	48		11341
1960 - 1969	24		4080	82		28740	106		32820
1970 - 1979	13		2428	57		58854	70		6128
1980 - 1989	2		705	85		30859	87		3156
1990 - 1999	2		883	6		2390	8		3273
2000 - 2006	0		0	1		213	1		213
not known	4		110	12		59	16		169
total	143		28064	303		139410	446		167474
Austria (2004)									
before 1930							0		(
1930 - 1949							0		(
1950 - 1959							0		(
1960 - 1969							0		
1970 - 1979							0		
1980 - 1989							0		
1990 - 1999							0		
2000 - 2006							0		
not known				10		9200	10		920
total				10		9200	10		920
Belgium									
before 1930	0		0	17		5357	17		535
1930 - 1949	0		0	25		7816	25		781
1950 - 1959	0		0	24		8009	24		800
1960 - 1969	0		0	17		10696	17		1069
1970 - 1979	0		0	22		11643	22		1164
1980 - 1989	0		0	6		4013	6		401
1990 - 1999	0		0	9		5065	9		506
2000 - 2006	0		0	3		4442	3		444
not known	0		0	0		0	0		
total	0		0	123		57041	123		5704

		Tugs			Pusher tug	s	Total	popelled ve	essels
	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	35		5908	242		131606	277		137514
total	35		5908	242		131606	277		137514

France : as a guide, data for tugs and pusher tugs at 31.12.2003

Luxemburg						
before 1930	0	0	4	1815	4	1815
1930 - 1949	0	0	3	1699	3	1699
1950 - 1959	0	0	0	0	0	0
1960 - 1969	0	0	1	323	1	323
1970 - 1979	0	0	4	4535	4	4535
1980 - 1989	0	0	1	1075	1	1075
1990 - 1999	0	0	4	5340	4	5340
2000 - 2006	0	0	0	0	0	0
not known	0	0	0	0	0	0
total	0	0	17	14787	17	14787
Netherlands						
before 1930	84	6492	82	22479	166	28971
1930 - 1949	109	14648	110	36163	219	50811
1950 - 1959	104	20537	89	29596	193	50133
1960 - 1969	81	14441	74	28639	155	43080
1970 - 1979	37	18524	64	32138	101	50662
1980 - 1989	20	11497	42	32312	62	43809
1990 - 1999	7	3435	10	12126	17	15561
2000 - 2006	2	480	2	1644	4	2124
not known	17	 1478	27	588	44	2066
total	461	91532	500	195685	961	287217

		Tugs			Pusher tug	IS	Total	popelled ve	essels
	Units	Tonnage	Power	Units	Tonnage	Power	Units	Tonnage	Power
	Nbre	t	kW	Nbre	t	kW	Nbre	t	kW
Suisse									
before 1930	0		0	0		0	0		0
1930 - 1949	1		368	1		353	2		721
1950 - 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
							0		0
total	1		368	1		353	2		721
Hungary									
before 1930							0		0
1930 - 1949							0		0
1950 - 1959							0		0
1960 - 1969							0		0
1970 - 1979							0		0
1980 - 1989							0		0
1990 - 1999							0		0
2000 - 2006							0		0
not known	56			24			80		0
total	56		0	24		0	80		0
Slovac Republic									
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	3		4386	1		1058	4		5444
1970 - 1979	1		1472	11		9910	12		11382
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	4		5858	33		36184	37		42042

		Tugs			Pusher tug	IS	Total	Total  popelled v    Units  Tonnage    Nbre  t    No  t    0	
	Units	Tonnage	Power	Units	Tonnage	Power	Units	Tonnage	Powe
	Nbre	t	kW	Nbre	t	kW	Nbre	t	kW
Romania									
before 1930	0		0	0		0	0		
1930 - 1949	0		0	1		0	1		
1950 - 1959	0		0	0		0	0		
1960 - 1969	0		0	4		3127	4		312
1970 - 1979	0		0	7		2106	7		210
1980 - 1989	0		0	18		0	18		
1990 - 1999	0		0	1		1764	1		176
2000 - 2006	0		0	0		0	0		
not known	0		0	0		0	0		
total	0		0	31		6997	31		699
Bulgaria									
before 1930	0		0	0		0	0		
1930 - 1949	0		0	0		0	0		
1950 - 1959	0		0	0		0	0		
1960 - 1969	0		0	3		1514	3		15
1970 - 1979	0		0	12		11738	12		117;
1980 - 1989	0		0	6		7550	6		75
1990 - 1999	0		0	3		7281	3		72
2000 - 2006	0		0	0		0	0		
not known	0		0	0		0	0		
total	0		0	24		28083	24		2808
Czech Republic									
before 1930	1		99	0		0	1		9
1930 - 1949	3		488	0		0	3		4
1950 - 1959	6		1269	0		0	6		120
1960 - 1969	8		1211	8		385	16		159
1970 - 1979	15		1419	32		3141	47		450
1980 - 1989	17		2567	76		9226	93		1179
1990 - 1999	0		0	6		1099	6		109
2000 - 2006	1		192	0		0	1		19
not known	0		0	1		21	1		:
total	51		7245	123		13872	174		211

		Tugs			Pusher tug	gs	Total	popelled ve	ssels
	Units	Tonnage	Power	Units	Tonnage	Power	Units	Tonnage	Power
	Nbre	t	kW	Nbre	t	kW	Nbre	t	kW
Poland									
before 1930	0		0	2		588	2		588
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	7		1928	7		1928
1980 - 1989	0		0	2		888	2		888
1990 - 1999	0		0	0		0	0		0
2000 - 2006	0		0	0		0	0		0
not known	0		0	2		266	2		266
total	0		0	13		3670	13		3670
Total									
before 1930	127		16071	124		34640	251		50711
1930 - 1949	139		19855	163		54611	302		74466
1950 - 1959	140		27833	131		42919	271		70752
1960 - 1969	116		24118	190		74482	303		97086
1970 - 1979	66		23843	216		135993	270		148098
1980 - 1989	39		14769	253		104109	286		111328
1990 - 1999	9		4318	43		42095	49		39132
2000 - 2006	3		672	6		6299	9		6971
not known	112		7496	318		141740	430		149236
total	751		138975	1444		636888	2171		747780

Country	Sources							
Germany	Zentrale Binnenschiffsbestandsdatei WSD Süd-West Mainz							
Austria	Bundesministerium für Verkehr, Innovation und Technologie							
Belgium	Service public fédéral Mobilité et Transports	rvice public fédéral Mobilité et Transports						
France	VNFet Ministère des Affaires Etrangères	Fet Ministère des Affaires Etrangères						
Luxemburg	Ministère des Transports – Service de la Navigation							
Netherlands	CBS in een bewerking van het CCR secretariaat	3S in een bewerking van het CCR secretariaat						
Switzerland	Rheinschifffahrtsdirektion Basel							
Poland	IVR							
Czech Republic	IVR							
Slovak Republic	Ministerstvo dopravy, pôšt a telekomunikácií							
Hungary	IVR							
Romania	IVR							
Bulgaria	IVR							

## Table MO4 - NEW BUILDINGS AT NOVEMBER 2007

		2002			2003			2004	
	Nbre	t	kW	Nbre	t	kW	Nbre	t	kW
ordinary self-prpelled barges	45	113114	56138	34	89676	41894	28	71326	34400
ordinary barges	29	37180		28	78156		14	23636	
total	74	150294	56138	62	167832	41894	42	94962	34400
Self-propelled tankerbarges	22	65548	30547	45	131455	50332	54	139718	61236
Tanker barges	2	178		1	1800		3	2427	
total	24	65726	30547	46	133255	50332	57	142145	61236
tugs	2		1276	0		0	1		992
Pusher tugs	3		11670	1		279	1		177
total	5		12946	1		279	2		1169
Cruise vessels	17		13251	10		7238	5		4021
Excursion vessels	9		4834	1		1566	1		662
total	26		18085	11		8804	6		4683

T ( )		2005			2006		6  12719    15  37264    8  18230    0  0	nal)	
Type of vessel	tons	kW	tons	kW	tons	kW	tons	kW	tons
ordinary self-prpelled barges	34	87645	27490	42	115191	28689	9	24545	7040
ordinary barges	12	11401		25	26604		6	12719	
total	46	99046	27490	67	141795	28689	15	37264	7040
Self-propelled tankerbarges	46	130860	43736	35	84808	26396	8	18230	8971
Tanker barges	2	2527		0	0		0	0	
total	48	133387	43736	35	84808	26396	8	18230	8971
tugs	0		0	0		0	0		0
Pusher tugs	0		0	0		0	0		0
total	0		0	0		0	0		0
Cruise vessels	5		6280	7	1644	4756			
Excursion vessels	5		2832	3	1959	2285	1	0	1640
total	10		9112	10		7041	1		1640

Type of vessel	tota	2002 - 2	007
	tons	kW	tons
ordinary self-prpelled barges	192	501497	195651
ordinary barges	114	189696	0
total	306	691193	195651
Self-propelled tankerbarges	210	570619	221218
Tanker barges	8	6932	0
total	218	577551	221218
tugs	3	0	2268
Pusher tugs	5	0	12126
total	8	0	14394
Cruise vessels	44	1644	35546
Excursion vessels	20	1959	13819
total	64	3603	49365

Source : IVR + national administrations

# Demande of transport capacity

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

		Vo	Volumes carried			Services			Difference 06/05	
N°	Country	2004	2005	2006	2004	2005	2006	1000 t	mio TKM	
NST	Category of good	2004	2005	2000	2004	2005	2000	1000 1	mio IKM	
		1000 t		1000000 TKM			%			

	Switzerland	Not reco	orded as a	it only cor	ncerns trai	nsport on la	ikes	
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	55210	56663	57156	11297	11695	11231	0,87%	<b>-3,97</b> %
0	Agricultural products	1635	2554	2348	521	838	728	<b>-8,07</b> %	-13,13%
1	Foodstuffs, animal fodder	3245	3441	3565	874	1014	974	3,60%	<b>-3,94</b> %
2	Solid mineral fuels	7953	7571	7324	1339	1126	1057	-3,26%	<b>-6,13</b> %
3	Oil and oil-based products	14684	14770	14245	2788	2750	2537	-3,55%	-7,75%
4	Ore and pig iron for iron and steel industry	3406	3115	3065	892	810	725	-1, <b>6</b> 1%	-10,49%
5	Iron and steel products	1256	1505	1385	530	616	538	<b>-7,97</b> %	-1 <b>2,66</b> %
6	Crude and manufactured minerals, building materials	15210	15657	17397	2780	2944	3013	11,11%	<b>2,34</b> %
7	Fertilisers	1058	1044	1012	411	403	395	-3,07%	-1, <b>99</b> %
8	Chemicals	5207	5262	5297	916	873	998	<b>0,67</b> %	14,32%
9	Machinery, transport equipment, manufactured articles	1556	1744	1518	246	321	266	-12,96%	-17,13%

		Vo	lumes carr	ied	Services			Difference 06/05	
N°	Country	2004	2005	2006	2004	2005	2006	1000 t	mio TKM
NST	Category of good	2004	2005	2000	2004	2005	2000	1000 1	mio IKM
			1000 t		10	1000000 TKM		%	

	Austria	191	356	1137	33	36	137	219,38%	280,56%
0	Agricultural products	4	9	4	1	2	1	-55,56%	-50,00%
1	Foodstuffs, animal fodder	0	2	0	0	0	0	-100,00%	
2	Solid mineral fuels	1	0	1	0	0	0		
3	Oil and oil-based products	97	136	601	21	23	125	<b>341,91%</b>	443,48%
4	Ore and pig iron for iron and steel industry	0	1	0	0	0	0	-100,00%	
5	Iron and steel products	73	85	91	9	10	11	7,06%	10,00%
6	Crude and manufactured minerals, building materials	7	111	439	1	0	0	295,50%	
7	Fertilisers	8	11	1	1	1	0	<b>-90,9</b> 1%	
8	Chemicals	0	0	0	0	0	0		
9	Machinery, transport equipment, manufactured articles	1	1	0	0	0	0		

	Belgium	35717	35409	37543	3056	3060	3169	6,03%	3,56%
0	Agricultural products	480	520	537	43	53	56	3,27%	5,66%
1	Foodstuffs, animal fodder	1237	1013	1286	65	58	74	26,95%	<b>27,59</b> %
2	Solid mineral fuels	4229	4241	3742	455	449	409	-11,77%	<b>-8,91</b> %
3	Oil and oil-based products	7861	7453	7478	561	550	550	0,34%	0,00%
4	Ore and pig iron for iron and steel industry	1845	1504	1728	202	164	181	14,89%	10,37%
5	Iron and steel products	1460	1282	2192	92	99	202	70,98%	104,04%
6	Crude and manufactured minerals, building materials	11723	11678	12224	1207	1182	1153	<b>4,68</b> %	-2,45%
7	Fertilisers	1252	1649	1585	90	102	104	-3,88%	1 <i>,</i> 96%
8	Chemicals	2262	2218	2315	176	188	197	4,37%	<b>4,79</b> %
9	Machinery, transport equipment, manufactured articles	3368	3851	4456	165	215	243	15,71%	1 <b>3,02</b> %

		Vo	lumes carr	ied		Services		Difference 06/05		
N°	Country	2004	2005	2006	2004	2005	2006	1000 t	mio TKM	
NST	Category of good	2004	2005	2000	2004	2005	2000	1000 1		
		1000 t			10	00000 TK	м	c	%	

	Bulgaria	904	1876	2000	40	67	64	6,61%	<b>-4,48</b> %
0	Agricultural products	0	1	0	0	0	0		
1	Foodstuffs, animal fodder	0	0	0	0	0	0		
2	Solid mineral fuels	31	17	39	5	3	6	1 <b>29,4</b> 1%	100,00%
3	Oil and oil-based products	0	0	0	0	0	0		
4	Ore and pig iron for iron and steel industry	1	0	0	0	0	0		
5	Iron and steel products	1	0	0	0	0	0		
6	Crude and manufactured minerals, building materials	836	1855	1961	34	64	58	5,71%	<b>-9,38</b> %
7	Fertilisers	0	0	0	0	0	0		
8	Chemicals	0	0	0	0	0	0		
9	Machinery, transport equipment, manufactured articles	35	3	0	1	0	0		

	France	27500	28936	30555	4163	4640	4645	5,60%	0,11%
0	Agricultural products	2314	2981	2753	589	811	725	-7,65%	-10,60%
1	Foodstuffs, animal fodder	458	461	562	129	130	140	<b>21,91%</b>	<b>7,69</b> %
2	Solid mineral fuels	1667	1809	1557	477	539	497	-13 <b>,93</b> %	<b>-7,79</b> %
3	Oil and oil-based products	3715	3274	3988	379	358	447	21,81%	24,86%
4	Ore and pig iron for iron and steel industry	166	161	180	37	42	48	11,80%	14, <b>29</b> %
5	Iron and steel products	262	246	273	60	59	68	10,98%	15,25%
6	Crude and manufactured minerals, building materials	16349	17066	18127	1827	1980	1954	6,22%	-1,31%
7	Fertilisers	57	84	107	19	23	32	27,38%	39,13%
8	Chemicals	1052	1035	963	286	260	252	<b>-6,96</b> %	-3,08%
9	Machinery, transport equipment, manufactured articles	1460	1819	2045	360	438	482	12,42%	10,05%

		Vo	umes carr	ied		Services		Difference 06/05	
N°	Country	2004	2005	2006	2004	2005	2006	1000 t	mio TKM
NST	Category of good	2004	2005	2000	2004	2005	2000	1000 f	mio IKM
			1000 t		10	00000 Tk	M	9	6

	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	39	54	80	5	6	8	48,15%	33,33%
0	Agricultural products	2	1	4	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	31	29	22	4	4	3	-24,14%	- <b>25,00</b> %
4	Ore and pig iron for iron and steel industry	0	0	0	0	0	0		
5	Iron and steel products	0	0	2	0	0	0		
6	Crude and manufactured minerals, building materials	6	12	40	1	1	4		
7	Fertilisers	0	0	0	0	0	0		
8	Chemicals	0	0	0	0	0	0		
9	Machinery, transport equipment, manufactured articles	0	12	12	0	1	1		

		Vo	lumes carr	ied		Services		Difference 06/05		
N°	Country	2004	2005	2006	2004	2005	2006	1000 t	mio TKM	
NST	Category of good	2004	2005	2006	2004	2005	2006	1000 f	mio IKM	
			1000 t		10	00000 TK	M	9	%	

	Netherlands	102924	92007	90182	12590	10425	10060	-1, <b>98</b> %	-3,50%
0	Agricultural products	2872	1298	1370	422	176	187	5,55%	<b>6,25</b> %
1	Foodstuffs, animal fodder	7021	6817	6364	878	898	841	<b>-6,65</b> %	<b>-6,35</b> %
2	Solid mineral fuels	3731	2732	2721	578	412	402	-0,40%	<b>-2,43</b> %
3	Oil and oil-based products	17913	19407	19702	2138	2300	2264	1,52%	-1,57%
4	Ore and pig iron for iron and steel industry	2353	1619	1425	400	240	219	-11, <b>98</b> %	<b>-8,75</b> %
5	Iron and steel products	1247	1064	1271	222	157	189	19,45%	20,38%
6	Crude and manufactured minerals, building materials	51458	41433	38681	5569	3953	3626	<b>-6,64</b> %	<b>-8,27</b> %
7	Fertilisers	1595	1271	1049	329	258	217	-17,47%	<b>-15,89</b> %
8	Chemicals	5308	5512	4994	731	736	664	-9,40%	<b>-9,78</b> %
9	Machinery, transport equipment, manufactured articles	9426	10854	12605	1323	1295	1451	16,13%	1 <b>2,05</b> %

	Poland	23705	4466	4460	243	185	184	-0,13%	-0,54%
0	Agricultural products	6	5	2	0	0	0	-60,00%	
1	Foodstuffs, animal fodder	2	5	14	0	0	1	180,00%	
2	Solid mineral fuels	596	682	728	125	121	126	<b>6,74</b> %	4,13%
3	Oil and oil-based products	39	62	15	0	1	0	<b>-75,81</b> %	
4	Ore and pig iron for iron and steel industry	11636	261	106	63	12	1	- <b>59,39</b> %	<b>-91,67</b> %
5	Iron and steel products	1433	71	40	8	6	4	-43,66%	-33,33%
6	Crude and manufactured minerals, building materials	9908	3004	3207	32	34	41	6,76%	<b>20,59</b> %
7	Fertilisers	52	52	74	6	1	2	42,31%	100,00%
8	Chemicals	14	276	255	4	4	4	<b>-7,61</b> %	0,00%
9	Machinery, transport equipment, manufactured articles	19	48	19	5	6	5	-60,42%	-1 <b>6,67</b> %

		Vo	lumes carr	ied		Services		Difference 06/05		
N°	Country	2004	2005	2006	2004	2005	2006	1000 t	mio TKM	
NST	Category of good	2004	2005	2000	2004	2005	2000	1000 1	mio IKM	
			1000 t		10	00000 Tk	(M	9	6	

	Czech Republic	620	685	418	25	30	15	<b>-38,98</b> %	-50,00%
0	Agricultural products	4	21	1	0	1	0	<b>-95,24</b> %	
1	Foodstuffs, animal fodder	5	0	1	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	1	0	0	1	0		
5	Iron and steel products	6	0	0	0	0	0		
6	Crude and manufactured minerals, building materials	566	643	414	24	28	15	-35,61%	-46,43%
7	Fertilisers	39	14	1	1	0	0	<b>-92,86</b> %	
8	Chemicals	0	0	1	0	0	0		
9	Machinery, transport equipment, manufactured articles	0	6	0	0	0	0		

	Romania	24717	27335	23552	4409	5117	4881	-13,84%	<b>-4,61</b> %
0	Agricultural products	281	575	653	71	0	200	13,57%	
1	Foodstuffs, animal fodder	51	104	203	10	33	74	<b>95,19</b> %	124,24%
2	Solid mineral fuels	1284	1837	2371	230	357	479	<b>29,07</b> %	34,17%
3	Oil and oil-based products	39	23	9	7	5	7	<b>-60,87</b> %	40,00%
4	Ore and pig iron for iron and steel industry	11636	13119	9817	2700	3306	2716	-25,17%	-1 <b>7,85</b> %
5	Iron and steel products	1433	1862	1537	460	438	428	-17,45%	-2,28%
6	Crude and manufactured minerals, building materials	9908	9332	8580	900	822	829	<b>-8,06</b> %	0,85%
7	Fertilisers	52	434	287	19	142	109	-33,87%	-23,24%
8	Chemicals	14	32	59	3	8	23	84,38%	187,50%
9	Machinery, transport equipment, manufactured articles	19	17	36	9	6	16	111, <b>76</b> %	166,67%

		Vo	lumes carr	ied	Services			Difference 06/05		
N°	Country	2004	2005	2006	2004	2005	2006	1000 t	mio TKM	
NST	Category of good	2004	2005	2000	2004	2005	2000	1000 1	mio IKM	
		1000 t			1000000 TKM			q	6	

	Slovac Republic	106	103	94	5	5	3	-8,74%	-40,00%
0	Agricultural products	3	9	4	1	0	0	-55,56%	
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	103	94	90	4	5	3	<b>-4,26</b> %	-40,00%
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	0	39	39	-3,08%	0,00%
0	Agricultural products	9	4		0	0	-55,56%	
1	Foodstuffs, animal fodder	0	0		0	0		
2	Solid mineral fuels	0	0		0	0		
3	Oil and oil-based products	173	170		38	38	-1,73%	0,00%
4	Ore and pig iron for iron and steel industry	0	0		0	0		
5	Iron and steel products	0	0		0	0		
6	Crude and manufactured minerals, building materials	13	15		1	1	15,38%	0,00%
7	Fertilisers	0	0		0	0		
8	Chemicals	0	0		0	0		
9	Machinery, transport equipment, manufactured articles	0	0		0	0		

		Vo	lumes carr	ied		Services		Difference 06/05		
N°	Country	2004	2005	2006	2004	2005	2006	1000 t	mio TKM	
NST	Category of good	2004	2005	2000	2004	2005	2006	1000 f	mio IKM	
		1000 t			10	000000 Tł	ŚM	9	6	

0	Agricultural products	7602	7975	7678	1649	2078	1898	-3,72%	-8,66%
1	Foodstuffs, animal fodder	12019	11843	11994	1957	2133	2103	1,28%	-1,41%
2	Solid mineral fuels	19492	18890	18483	3208	3007	2978	-2,15%	<b>-0,96</b> %
3	Oil and oil-based products	44379	45154	46058	5897	5992	5932	2,00%	-1,00%
4	Ore and pig iron for iron and steel industry	19898	19780	16322	4294	4575	3888	-17,48%	-15,02%
5	Iron and steel products	5854	6113	6790	1380	1386	1441	11,07%	<b>3,97</b> %
6	Crude and manufactured minerals, building materials	109456	100885	101 160	12380	11012	10696	0,27%	<b>-2,87</b> %
7	Fertilisers	4290	4559	4116	875	931	858	-9,72%	<b>-7,84</b> %
8	Chemicals	14065	14335	13885	2116	2068	2139	-3,14%	3,43%
9	Machinery, transport equipment, manufactured articles	15882	18354	20692	2110	2283	2463	12,74%	7,88%

	Total Europe 27	252937	247888	247178	35866	35465	34396	<b>-0,29</b> %	-3,01%
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### Table MO6 – INTERNATIONAL TRANSPORT OF GOODS ON INLAND WATERWAYS, BY STATE

		Vo	lumes carr	ied		Services		Difference 06/05		
N°	Country	0004	0005	2006	2004	2005	2006	1000 .	TIZAA	
NST	Category of good	2004	4 2005	2000	2004	2005	2006	1000 t	mio TKM	
		1000 t			10	00000 Tk	M	9	6	

	Switzerland	7246	7259	6750	51	57	53	- <b>7,0</b> 1%	-7,74%
0	Agricultural products	351	221	299	2	2	3	<b>35,29</b> %	35,00%
1	Foodstuffs, animal fodder	422	404	418	3	3	3	3,47%	3,00%
2	Solid mineral fuels	174	98	145	1	1	1	<b>47,96</b> %	<b>47,00</b> %
3	Oil and oil-based products	3380	3607	3028	24	29	24	-16,05%	-16,00%
4	Ore and pig iron for iron and steel industry	165	107	157	1	1	1	<b>46,73</b> %	47,00%
5	Iron and steel products	833	753	862	6	6	6	14,48%	6,00%
6	Crude and manufactured minerals, building materials	478	552	454	3	4	3	-17,75%	-17,75%
7	Fertilisers	158	185	161	1	2	2	-12,97%	-13,00%
8	Chemicals	848	899	774	6	7	6	-13,90%	-14,00%
9	Machinery, transport equipment, manufactured articles	437	433	452	3	2	2	<b>4,39</b> %	<b>4,39</b> %

	Germany	180651	180103	186339	52371	52401	52745	3,46%	0,66%
0	Agricultural products	7194	8653	8442	3432	4442	4446	<b>-2,44</b> %	0,09%
1	Foodstuffs, animal fodder	12636	12334	11076	5239	5217	4253	-10,20%	<b>-18,48%</b>
2	Solid mineral fuels	26155	26134	28685	7327	7439	7605	9,76%	2,23%
3	Oil and oil-based products	23932	24055	24894	7754	7909	8065	3,49%	1, <b>97</b> %
4	Ore and pig iron for iron and steel industry	34751	32731	32899	5904	5491	5440	0,51%	<b>-0,93</b> %
5	Iron and steel products	11694	11705	12444	3514	3320	3506	6,31%	5,60%
6	Crude and manufactured minerals, building materials	30214	28535	32352	8047	7274	8261	13,38%	13,57%
7	Fertilisers	5369	5067	4759	2298	2189	2032	<b>-6,08</b> %	-7,17%
8	Chemicals	13923	14725	14788	3856	4047	4223	0,43%	4,35%
9	Machinery, transport equipment, manufactured articles	14783	16164	16000	5000	5073	4914	-1,01%	-3,13%

		Vo	lumes carr	ied	Services			Difference 06/05		
N°	Country	2004	2005	2006	2004	2005	2006	1000 t	mio TKM	
NST	Category of good	2004	2005	2000	2004	2005	2000	1000 1	mio IKM	
		1000 t			1000000 TKM			q	6	

	Austria	8881	8980	8046	1714	1715	1700	-10,40%	<b>-0,87</b> %
0	Agricultural products	692	937	880	124	197	232	<b>-6,08</b> %	17,77%
1	Foodstuffs, animal fodder	828	887	707	198	221	177	<b>-20,29</b> %	<b>-19,91</b> %
2	Solid mineral fuels	147	177	151	33	30	33	-14,69%	10,00%
3	Oil and oil-based products	1847	1866	1021	293	253	136	-45,28%	-46,25%
4	Ore and pig iron for iron and steel industry	2826	3040	2841	582	631	601	<b>-6,55</b> %	-4,75%
5	Iron and steel products	791	491	803	175	93	190	63,54%	104,30%
6	Crude and manufactured minerals, building materials	595	524	493	91	87	79	-5,92%	<b>-9,20</b> %
7	Fertilisers	958	874	916	163	146	176	<b>4,81</b> %	20,55%
8	Chemicals	76	62	35	19	17	10	-43,55%	-41,18%
9	Machinery, transport equipment, manufactured articles	121	122	199	36	40	66	<b>63</b> ,11%	65,00%

	Belgium	111436	124988	128312	5336	5506	5740	<b>2,66</b> %	4,25%
0	Agricultural products	4922	4533	5082	378	395	458	12,11%	15 <b>,95</b> %
1	Foodstuffs, animal fodder	4011	4696	4470	183	214	215	<b>-4,81</b> %	0,47%
2	Solid mineral fuels	9430	9187	8870	546	462	481	-3,45%	4,11%
3	Oil and oil-based products	18240	20862	20935	553	602	592	0,35%	<b>-1,66</b> %
4	Ore and pig iron for iron and steel industry	8582	8105	6756	588	506	442	- <b>16,64</b> %	-1 <b>2,65</b> %
5	Iron and steel products	6436	7901	7946	350	382	454	0,57%	18,85%
6	Crude and manufactured minerals, building materials	26429	28776	30774	1677	1749	1843	<b>6,94</b> %	5,37%
7	Fertilisers	4271	4450	4662	351	359	372	4,76%	3,62%
8	Chemicals	11260	12662	13824	370	384	405	9,18%	5,47%
9	Machinery, transport equipment, manufactured articles	17855	23816	24993	340	453	478	<b>4,94</b> %	5,52%

		Vo	lumes carr	ied		Services		Difference 06/05		
N°	Country	2004	2005	2006	2004	2005	2006	1000 t	mio TKM	
NST	Category of good	2004	2005	2000	2004	2005	2000	1000 1	mio IKM	
		1000 t			1000000 TKM			q	6	

	Bulgaria	3503	3395	3947	658	690	721	16,26%	<b>4,49</b> %
0	Agricultural products	270	144	235	16	17	6	63,19%	<b>-64,71</b> %
1	Foodstuffs, animal fodder	71	118	149	3	5	8	<b>26,27</b> %	60,00%
2	Solid mineral fuels	1617	1426	1376	336	318	285	-3,51%	-10,38%
3	Oil and oil-based products	25	114	260	1	5	35	128,07%	600,00%
4	Ore and pig iron for iron and steel industry	522	598	563	164	199	182	-5,85%	-8,54%
5	Iron and steel products	657	648	828	90	96	131	27,78%	<b>36,46</b> %
6	Crude and manufactured minerals, building materials	62	99	355	13	19	54	258,59%	184, <b>2</b> 1%
7	Fertilisers	22	19	18	5	3	3	-5,26%	0,00%
8	Chemicals	39	32	12	7	7	1	-62,50%	-85,71%
9	Machinery, transport equipment, manufactured articles	218	197	151	23	21	16	-23,35%	<b>-23,81</b> %

	France	39825	39411	40893	4258	4266	4360	3,76%	2,20%
0	Agricultural products	5923	5946	6412	790	780	821	<b>7,84</b> %	<b>5,26</b> %
1	Foodstuffs, animal fodder	2868	2823	2892	350	363	357	2,44%	-1 <i>,</i> 65%
2	Solid mineral fuels	4738	4301	4657	280	257	299	<b>8,28</b> %	16,34%
3	Oil and oil-based products	5526	6440	5361	646	753	620	-16,75%	<b>-17,66</b> %
4	Ore and pig iron for iron and steel industry	2612	2350	2620	226	219	243	11, <b>49</b> %	10,96%
5	Iron and steel products	2654	2585	2984	409	378	432	15,44%	14, <b>29</b> %
6	Crude and manufactured minerals, building materials	9359	8859	9892	728	740	824	11 <i>,</i> 66%	11,35%
7	Fertilisers	1273	1371	1221	203	193	170	-10,94%	-11, <b>92</b> %
8	Chemicals	2155	1941	2019	293	255	269	4,02%	<b>5,49</b> %
9	Machinery, transport equipment, manufactured articles	2717	2795	2835	333	328	325	1,43%	<b>-0,9</b> 1%

		Vol	umes carri	ied		Services	;	Difference 06/05			
N°	Country	2004	2005	2006	2004	2005	2006	1000 t	mio TKM		
NST	Category of good	2004	2004 2005		2005 2006		2004	2005	2000	1000 1	mio IKM
		1000 t			1	000000 T	км	9	/o		

	Luxemburg	11180	10377	11395	368	342	381	9,81%	11,40%
0	Agricultural products	1853	1776	2057	69	66	77	15,82%	16,67%
1	Foodstuffs, animal fodder	882	784	1024	33	29	38	<b>30,61</b> %	31,03%
2	Solid mineral fuels	4029	3718	3994	148	138	147	7,42%	6,52%
3	Oil and oil-based products	480	547	562	2	3	4	2,74%	33,33%
4	Ore and pig iron for iron and steel industry	1554	1307	1609	46	42	48	<b>23</b> ,11%	14, <b>29</b> %
5	Iron and steel products	855	826	946	29	27	31	14,53%	14,81%
6	Crude and manufactured minerals, building materials	1133	1008	870	29	25	26	-13,69%	4,00%
7	Fertilisers	332	318	250	10	9	7	-21,38%	-22,22%
8	Chemicals	50	81	73	2	3	3	<b>-9,88</b> %	0,00%
9	Machinery, transport equipment, manufactured articles	12	12	10	0	0	0	-16,67%	

	Hungary	7317	8359	7247	1899	2105	1905	-13,30%	<b>-9,50</b> %
0	Agricultural products	894	1986	1853	173	339	333	-6,70%	-1,77%
1	Foodstuffs, animal fodder	1291	1243	724	271	268	161	-41,75%	<b>-39,93</b> %
2	Solid mineral fuels	329	328	272	83	90	81	-1 <b>7,07</b> %	-10,00%
3	Oil and oil-based products	909	1251	834	136	200	121	-33,33%	<b>-39,50</b> %
4	Ore and pig iron for iron and steel industry	1435	1568	1326	513	583	495	-15,43%	-15,09%
5	Iron and steel products	1263	899	1143	366	276	359	27,14%	30,07%
6	Crude and manufactured minerals, building materials	288	229	287	63	69	98	25,33%	42,03%
7	Fertilisers	449	333	341	138	98	96	2,40%	<b>-2,04</b> %
8	Chemicals	89	119	133	32	44	50	11,76%	13,64%
9	Machinery, transport equipment, manufactured articles	370	403	334	124	138	111	-17,12%	-19,57%

		Volumes carried    2004  2005  2006			Services	;	Difference 06/05				
N°	Country	2004	2005	2006	2004	2005	2006	1000 t	mio TKM		
NST	Category of good	2004	2004 2005		2005 2006		2004	2005	2000	1000 1	mio IKM
		1000 t			1	000000 T	км	9	6		

	Netherlands	216295	225631	227671	30502	31799	32250	0,90%	1,4 <b>2</b> %
0	Agricultural products	7004	6315	6385	1097	929	952	1,11%	<b>2,48</b> %
1	Foodstuffs, animal fodder	9677	12193	11643	1433	1895	1806	-4,51%	<b>-4,70</b> %
2	Solid mineral fuels	26335	24915	25936	3798	3589	3718	4,10%	<b>3,59</b> %
3	Oil and oil-based products	35589	37492	38293	4851	4951	5008	2,14%	1,15%
4	Ore and pig iron for iron and steel industry	36344	35194	34272	4530	4706	4617	<b>-2,62</b> %	-1 <i>,</i> 89%
5	Iron and steel products	10266	10988	10653	1659	1808	1769	-3,05%	<b>-2,16</b> %
6	Crude and manufactured minerals, building materials	35203	35640	37504	5022	4995	5264	5,23%	5, <b>39</b> %
7	Fertilisers	4750	4695	4559	837	846	809	<b>-2,90</b> %	<b>-4,37</b> %
8	Chemicals	19365	22091	22644	2957	3340	3403	2,50%	1,89%
9	Machinery, transport equipment, manufactured articles	31762	36108	35782	4318	4740	4904	<b>-0,90</b> %	3,46%

	Poland	2286	2701	2148	127	141	105	<b>-20,47</b> %	-25,53%
0	Agricultural products	17	41	51	1	2	3	<b>24,39</b> %	<b>50,00</b> %
1	Foodstuffs, animal fodder	117	123	29	7	7	2	<b>-76,42</b> %	-71,43%
2	Solid mineral fuels	843	1092	1055	53	62	52	<b>-3,39</b> %	-16,13%
3	Oil and oil-based products	0	0	0	0	0	0		
4	Ore and pig iron for iron and steel industry	325	274	261	18	14	13	-4,74%	-7,14%
5	Iron and steel products	366	497	302	23	30	16	-39,24%	<b>-46,67</b> %
6	Crude and manufactured minerals, building materials	248	329	182	7	8	4	<b>-44,68</b> %	-50,00%
7	Fertilisers	290	289	197	13	14	10	-31,83%	-28,57%
8	Chemicals	53	47	48	2	2	2	2,13%	0,00%
9	Machinery, transport equipment, manufactured articles	27	9	23	3	2	3	155,56%	50,00%

		Vo	lumes carri	ed		Services		Difference 06/05		
N°	Country	2004	2005	2006	2004	2005	2006	1000 t	mio TKM	
NST	Category of good	2004	2005		2004	2005	2000	1000 f	mio IKM	
			1000 t			000000 TK	M	ç	%	

	Czech Republic	558	929	721	22	34	29	<b>-22,39</b> %	-14,71%
0	Agricultural products	22	307	232	1	11	8	-24,43%	-27,27%
1	Foodstuffs, animal fodder	277	354	241	9	10	8	-31, <b>92</b> %	-20,00%
2	Solid mineral fuels	19	10	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	1	13	16	0	1	1	23,08%	0,00%
5	Iron and steel products	12	18	33	0	0	1	83,33%	
6	Crude and manufactured minerals, building materials	58	66	65	2	3	3	-1,52%	0,00%
7	Fertilisers	95	91	71	6	5	4	- <b>21,98</b> %	-20,00%
8	Chemicals	52	44	31	2	2	2	- <b>29,55</b> %	0,00%
9	Machinery, transport equipment, manufactured articles	22	26	32	2	2	2	23,08%	0,00%

	Romania	5177	5510	5721	2546	3121	3277	3,83%	5,00%
0	Agricultural products	1291	2155	2681	885	1676	2087	24,41%	24,52%
1	Foodstuffs, animal fodder	115	58	20	83	37	11	-65,52%	-70,27%
2	Solid mineral fuels	927	1151	761	246	333	216	-33,88%	-35,14%
3	Oil and oil-based products	59	122	203	18	34	44	<b>66,39</b> %	<b>29,4</b> 1%
4	Ore and pig iron for iron and steel industry	1681	1035	1152	630	446	439	11,30%	-1,57%
5	Iron and steel products	445	382	219	321	291	126	-42,67%	-56,70%
6	Crude and manufactured minerals, building materials	308	265	359	127	89	134	35,47%	50,56%
7	Fertilisers	261	199	237	204	137	163	19,10%	18,98%
8	Chemicals	4	8	8	2	5	1	0,00%	-80,00%
9	Machinery, transport equipment, manufactured articles	86	135	81	30	73	56	-40,00%	-23,29%

		Vo	lumes carr	ied		Services		Difference 06/05		
N°	Country	2004	2005	2006	2004	2005	2006	1000 t	mio TKM	
NST	Category of good	2004	2005	2000	2004	2005	2000	1000 f		
		1000 t			10	00000 TK	.W	9	6	

	Slovac Republic	2619	2247	2158	86	82	98	-3,96%	<b>19,51%</b>
0	Agricultural products	133	154	136	8	11	11	-11, <b>69</b> %	0,00%
1	Foodstuffs, animal fodder	174	145	61	11	10	5	- <b>57,93</b> %	-50,00%
2	Solid mineral fuels	46	68	111	4	6	10	63,24%	<b>66,67</b> %
3	Oil and oil-based products	836	634	765	14	14	35	20,66%	150,00%
4	Ore and pig iron for iron and steel industry	879	778	574	20	18	10	<b>-26,22</b> %	-44,44%
5	Iron and steel products	146	99	180	16	8	20	81,82%	150,00%
6	Crude and manufactured minerals, building materials	45	39	55	3	5	1	41,03%	-80,00%
7	Fertilisers	304	258	234	6	5	5	<b>-9,30</b> %	0,00%
8	Chemicals	25	30	26	0	0	0	-13,33%	
9	Machinery, transport equipment, manufactured articles	31	42	16	4	5	1	-61 <i>,</i> 90%	-80,00%

	Croatia	1251	1320	0	81	63	5,52%	-22,22%
0	Agricultural products	55	12		3	1	-78,18%	<b>-66,67</b> %
1	Foodstuffs, animal fodder	115	80		11	7	-30,43%	-36,36%
2	Solid mineral fuels	102	2		8	0	-98,04%	
3	Oil and oil-based products	6	5		0	0	-16,67%	
4	Ore and pig iron for iron and steel industry	721	769		42	41	<b>6,66</b> %	<b>-2,38</b> %
5	Iron and steel products	73	92		5	5	26,03%	0,00%
6	Crude and manufactured minerals, building materials	26	86		1	0	230,77%	
7	Fertilisers	132	113		9	8	-14,39%	-11,11%
8	Chemicals	13	151		1	0		
9	Machinery, transport equipment, manufactured articles	8	10		1	1	25,00%	0,00%

		Vo	lumes carr	ied		Services		Difference 06/05	
N°	Country	2004 2005	2006	2004	2005	2006	1000 4		
NST	Category of good	2004	2005	2000	2004	2005	2000	1000 t	mio TKM
		1000 t			10	)00000 Tk	M	%	

0	Agricultural products	12393	13261	12916	6974	8866	9432	<b>-2,60</b> %	6,38%
1	Foodstuffs, animal fodder	12893	14336	13416	7821	8277	7041	-6,42%	-14, <b>93</b> %
2	Solid mineral fuels	28157	26756	27712	12854	12723	12929	3,57%	1,62%
3	Oil and oil-based products	37283	40067	40196	14268	14723	14659	0,32%	-0,43%
4	Ore and pig iron for iron and steel industry	39380	37485	36699	13222	12853	12533	-2,10%	<b>-2,49</b> %
5	Iron and steel products	13084	13763	13763	6951	6710	7037	0,00%	<b>4,87</b> %
6	Crude and manufactured minerals, building materials	43806	44176	48721	15809	15063	16594	10,29%	10,16%
7	Fertilisers	6977	6977	6580	4234	4006	3846	<b>-5,69</b> %	<b>-3,99</b> %
8	Chemicals	20684	22683	23369	7541	8106	8370	3,02%	<b>3,26</b> %
9	Machinery, transport equipment, manufactured articles	25574	31540	32137	10214	10876	10876	1 <i>,</i> 89%	0,00%

	Total Europe 27	240231	251044	255509	99888	102203	103317	1,78%	1, <b>09</b> %
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#### Table MO7 – TOTAL TRANSPORT OF GOODS ON INLAND WATERWAYS, BY STATE

		Volumes	carried	Services				Difference 06/05		
N°	Country	2004 2005		2006	2004	2005	2006	1000 t	mio TKM	
NST	Category of good	2004	04 2005	2000	2004	2005	2000	1000 1	mio IKM	
		100	t 00		10000	DO TKM		%		

	Switzerland	7246	7259	6750	51	57	53	- <b>7,0</b> 1%	-7,74%
0	Agricultural products	351	221	299	2	2	3	35,29%	35,00%
1	Foodstuffs, animal fodder	422	404	418	3	3	3	3,47%	3,00%
2	Solid mineral fuels	174	98	145	1	1	1	47,96%	47,00%
3	Oil and oil-based products	3380	3607	3028	24	29	24	-16,05%	-16,00%
4	Ore and pig iron for iron and steel industry	165	107	157	1	1	1	46,73%	47,00%
5	Iron and steel products	833	753	862	6	6	6	14,48%	6,00%
6	Crude and manufactured minerals, building materials	478	552	454	3	4	3	-17,75%	-17,75%
7	Fertilisers	158	185	161	1	2	2	-1 <b>2,97</b> %	-13,00%
8	Chemicals	848	899	774	6	7	6	-13,90%	-14,00%
9	Machinery, transport equipment, manufactured articles	437	433	452	3	2	2	<b>4,39</b> %	4,39%

	Germany	235861	236767	243495	63669	64096	63975	<b>2,84</b> %	<b>-0,19</b> %
0	Agricultural products	8829	11207	10791	3953	5280	5174	<b>-3,7</b> 1%	<b>-2,01%</b>
1	Foodstuffs, animal fodder	15881	15775	14641	6114	6231	5227	<b>-7,19</b> %	<b>-16,11%</b>
2	Solid mineral fuels	34109	33705	36009	8665	8565	8662	<b>6,84</b> %	1,13%
3	Oil and oil-based products	38618	38825	39138	10542	10659	10602	0,81%	-0,53%
4	Ore and pig iron for iron and steel industry	38157	35846	35964	6797	6301	6164	0,33%	- <b>2,17</b> %
5	Iron and steel products	12950	13210	13828	4044	3936	4044	4,68%	2,74%
6	Crude and manufactured minerals, building materials	45423	44192	49750	10827	10219	11273	12,58%	10,31%
7	Fertilisers	6427	6111	5771	2709	2591	2427	-5,56%	-6,33%
8	Chemicals	19129	19987	20085	4772	4920	5222	<b>0,49</b> %	6,14%
9	Machinery, transport equipment, manufactured articles	16338	17909	17518	5246	5394	5180	<b>-2,18</b> %	<b>-3,97</b> %

		Volumes	carried	Services				Difference 06/05		
N°	Country	2004	2005	2006	2004	2005	2006	1000 t	mio TKM	
NST	Category of good	2004	2005	2000	2004	2005	2000	1000 f	mio IKM	
		100	1000 t		1000000 TKM				6	

	Austria	9072	9336	9183	1747	1753	1837	-1,64%	<b>4,79</b> %
0	Agricultural products	696	945	884	124	199	232	<b>-6,46</b> %	16,58%
1	Foodstuffs, animal fodder	828	889	707	198	221	177	<b>-20,47</b> %	<b>-19,91</b> %
2	Solid mineral fuels	148	177	153	33	30	34	-13,56%	13,33%
3	Oil and oil-based products	1944	2004	1622	315	277	260	-19,06%	<b>-6,14</b> %
4	Ore and pig iron for iron and steel industry	2827	3041	2841	582	631	602	<b>-6,58</b> %	-4,60%
5	Iron and steel products	863	575	894	184	103	201	55,48%	95,15%
6	Crude and manufactured minerals, building materials	602	635	930	92	87	79	<b>46,46</b> %	<b>-9,20</b> %
7	Fertilisers	966	885	918	164	148	176	3,73%	18, <b>92</b> %
8	Chemicals	76	62	35	19	17	10	-43,55%	-41,18%
9	Machinery, transport equipment, manufactured articles	122	123	199	36	40	66	61, <b>79</b> %	65,00%

	Belgium	147151	160397	165855	8392	8566	8909	3,40%	4,00%	
0	Agricultural products	5402	5053	5619	422	448	514	11, <b>20</b> %	14,73%	
1	Foodstuffs, animal fodder	5249	5709	5756	248	272	289	0,82%	6,25%	
2	Solid mineral fuels	13658	13430	12612	1001	910	890	<b>-6,09</b> %	<b>-2,20</b> %	
3	Oil and oil-based products	26101	28314	28413	1113	1152	1142	0,35%	<b>-0,87</b> %	
4	Ore and pig iron for iron and steel industry	10427	9609	8485	789	671	622	-11, <b>70</b> %	- <b>7,30</b> %	
5	Iron and steel products	7896	9182	10137	442	482	657	10,40%	36,31%	
6	Crude and manufactured minerals, building materials	38152	40454	42998	2884	2930	2996	<b>6,29</b> %	2,25%	
7	Fertilisers	5522	6100	6247	441	461	476	2,41%	3,25%	
8	Chemicals	13522	14880	16139	546	572	602	8,46%	<b>5,24</b> %	
9	Machinery, transport equipment, manufactured articles	21222	27666	29449	506	668	721	6,44%	7,93%	
		Volumes	carried	Services				Difference 06/05		
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N°	Country	2004	2005	2006	2004	2005	2006	1000 t	mio TKM	
NST	Category of good	2004	2005	2000	2004	2005	2000	1000 f	mio IKM	
		1000 t		1000000 TKM				q	6	

	Bulgaria	4406	5270	5947	697	757	785	12,85%	3,70%
0	Agricultural products	270	146	235	16	17	6	<b>60,96</b> %	<b>-64,71</b> %
1	Foodstuffs, animal fodder	71	118	149	3	5	8	<b>26,27</b> %	60,00%
2	Solid mineral fuels	1647	1441	1416	340	321	291	-1,73%	<b>-9,35</b> %
3	Oil and oil-based products	25	114	260	1	5	35	128,07%	600,00%
4	Ore and pig iron for iron and steel industry	523	598	563	163	199	181	-5,85%	<b>-9,05</b> %
5	Iron and steel products	657	648	828	90	96	132	27,78%	37,50%
6	Crude and manufactured minerals, building materials	898	1954	2315	48	83	112	18,47%	34,94%
7	Fertilisers	22	19	18	5	3	3	-5,26%	0,00%
8	Chemicals	39	32	12	7	7	1	-62,50%	-85,71%
9	Machinery, transport equipment, manufactured articles	254	200	151	24	21	16	-24,50%	<b>-23,81</b> %

	France	67325	68347	71448	8420	8905	9005	4,54%	1,12%
0	Agricultural products	8237	8927	9165	1378	1590	1547	<b>2,67</b> %	<b>-2,70</b> %
1	Foodstuffs, animal fodder	3326	3285	3454	479	494	497	5,14%	0,61%
2	Solid mineral fuels	6405	6110	6215	757	796	796	1, <b>72</b> %	0,00%
3	Oil and oil-based products	9240	9714	9349	1025	1111	1066	-3,76%	-4,05%
4	Ore and pig iron for iron and steel industry	2778	2511	2800	263	261	291	11,51%	11 <b>,49</b> %
5	Iron and steel products	2916	2831	3256	469	436	501	15,01%	14, <b>9</b> 1%
6	Crude and manufactured minerals, building materials	25708	25925	28018	2555	2720	2779	<b>8,07</b> %	2,17%
7	Fertilisers	1331	1455	1328	222	216	202	-8,73%	<b>-6,48</b> %
8	Chemicals	3207	2975	2982	579	515	520	0,24%	<b>0,97</b> %
9	Machinery, transport equipment, manufactured articles	4177	4614	4881	693	766	806	5, <b>79</b> %	<b>5,22</b> %

		Vo	lumes carri	ied		Services		Difference 06/05		
N°	Country	2004 2005	2006	2004	2005	2006	1000 t	mio TKM		
NST	Category of good	2004	2005	2000	2004	2005	2000	1000 f	mio IKM	
		1000 t			10	00000 TK	M	9	6	

	Luxemburg	11180	10377	11395	370	342	381	<b>9,81</b> %	11,40%
0	Agricultural products	1853	1776	2057	69	66	77	15,82%	<b>16,67</b> %
1	Foodstuffs, animal fodder	882	784	1024	33	29	38	30,61%	31,03%
2	Solid mineral fuels	4029	3718	3994	149	138	148	7,42%	7,25%
3	Oil and oil-based products	480	547	562	2	3	4	2,74%	33,33%
4	Ore and pig iron for iron and steel industry	1554	1307	1609	47	42	48	<b>23,11%</b>	14, <b>29</b> %
5	Iron and steel products	855	826	946	29	27	31	14,53%	14,81%
6	Crude and manufactured minerals, building materials	1133	1008	870	29	25	25	-13,69%	0,00%
7	Fertilisers	332	318	251	10	9	7	-21,07%	-22,22%
8	Chemicals	50	81	72	2	3	3	-11,11%	0,00%
9	Machinery, transport equipment, manufactured articles	12	12	10	0	0	0	-1 <b>6,67</b> %	

	Hungary	7356	8413	7327	1904	2110	1913	-12,91%	<b>-9,34</b> %
0	Agricultural products	896	1987	1857	173	339	332	-6,54%	<b>-2,06</b> %
1	Foodstuffs, animal fodder	1292	1243	724	271	268	161	-41,75%	<b>-39,93</b> %
2	Solid mineral fuels	328	328	272	83	90	81	-1 <b>7,07</b> %	-10,00%
3	Oil and oil-based products	940	1279	855	140	204	124	-33,15%	-39,22%
4	Ore and pig iron for iron and steel industry	1435	1568	1326	514	582	495	-15,43%	-14,95%
5	Iron and steel products	1263	899	1146	365	276	359	27,47%	30,07%
6	Crude and manufactured minerals, building materials	294	242	327	64	70	103	35,12%	47,14%
7	Fertilisers	449	333	341	138	98	96	2,40%	<b>-2,04</b> %
8	Chemicals	89	119	133	32	44	50	11 <i>,</i> 76%	<b>13,64</b> %
9	Machinery, transport equipment, manufactured articles	370	415	346	124	139	112	-16,63%	-19,42%

		Vo	lumes carr	ied		Services		Difference 06/05		
N°	Country	2004	2005	2006	2004	2005	2006	1000 t	mio TKM	
NST	Category of good	2004	2004 2005	2000	2004	2005	2000	1000 1	mio i km	
		1000 t			10	00000 TK	(M	ç	6	

	Netherlands	319219	317639	317853	43092	42225	42311	0,07%	0,20%
0	Agricultural products	9876	7613	7755	1519	1105	1139	1, <b>87</b> %	3,08%
1	Foodstuffs, animal fodder	16698	19009	18007	2311	2794	2647	-5,27%	<b>-5,26</b> %
2	Solid mineral fuels	30067	27647	28658	4376	4001	4121	3,66%	3,00%
3	Oil and oil-based products	53503	56899	57995	6989	7250	7272	1 <i>,</i> 93%	0,30%
4	Ore and pig iron for iron and steel industry	38695	36813	35697	4930	4945	4836	-3,03%	<b>-2,20</b> %
5	Iron and steel products	11513	12052	11924	1881	1966	1958	-1,06%	<b>-0,41</b> %
6	Crude and manufactured minerals, building materials	86661	77073	76184	10591	8948	8891	-1,15%	<b>-0,64</b> %
7	Fertilisers	6345	5967	5608	1166	1104	1025	-6,02%	-7,16%
8	Chemicals	24673	27603	27638	3688	4076	4067	0,13%	-0,22%
9	Machinery, transport equipment, manufactured articles	41188	46963	48387	5641	6036	6355	3,03%	<b>5,28</b> %

	Poland	7297	7166	6609	370	327	289	-7,77%	-11, <b>62</b> %
0	Agricultural products	23	46	52	1	2	3	13,04%	50,00%
1	Foodstuffs, animal fodder	119	128	44	7	7	3	-65,63%	-57,14%
2	Solid mineral fuels	1440	1774	1783	177	182	180	0,51%	-1,10%
3	Oil and oil-based products	39	62	14	0	1	0	-77,42%	
4	Ore and pig iron for iron and steel industry	817	535	367	81	26	13	-31,40%	-50,00%
5	Iron and steel products	482	568	343	30	37	21	-39,61%	-43,24%
6	Crude and manufactured minerals, building materials	3539	3332	3389	38	41	44	1,71%	7,32%
7	Fertilisers	519	342	271	20	16	11	-20,76%	-31,25%
8	Chemicals	275	322	304	7	7	6	-5,59%	-14, <b>29</b> %
9	Machinery, transport equipment, manufactured articles	44	57	42	9	8	8	-26,32%	0,00%

		Vo	lumes carr	ied		Services		Difference 06/05		
N°	Country	2004 2005	2006	2004	2005	2006	1000 t	mio TKM		
NST	Category of good	2004	2005	2000	2004	2005	2000	1000 1	mio i km	
		1000 t			10	00000 Tk	(M	0	6	

	Czech Republic	1179	1613	1141	48	64	44	<b>-29,26</b> %	-31,25%
0	Agricultural products	27	329	234	1	11	8	-28,88%	<b>-27,27</b> %
1	Foodstuffs, animal fodder	283	353	241	9	10	8	-31,73%	-20,00%
2	Solid mineral fuels	19	10	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	1	14	16	0	2	1	14, <b>29</b> %	-50,00%
5	Iron and steel products	18	18	33	0	0	0	83,33%	
6	Crude and manufactured minerals, building materials	623	708	481	27	31	18	-32,06%	- <b>41,94</b> %
7	Fertilisers	134	105	72	7	6	4	-31,43%	-33,33%
8	Chemicals	52	44	32	2	2	2	-27,27%	0,00%
9	Machinery, transport equipment, manufactured articles	22	32	32	2	2	3	0,00%	50,00%

	Romania	29893	32845	29274	6955	8436	8157	-10,87%	-3,31%
0	Agricultural products	1572	2731	3335	956	1873	2286	22,12%	22,05%
1	Foodstuffs, animal fodder	165	162	222	93	70	85	37,04%	21,43%
2	Solid mineral fuels	2211	2988	3131	476	690	696	<b>4,79</b> %	<b>0,87</b> %
3	Oil and oil-based products	98	146	212	25	39	50	45,21%	28,21%
4	Ore and pig iron for iron and steel industry	13316	14154	10969	3330	3753	3155	-22,50%	-15, <b>93</b> %
5	Iron and steel products	1879	2243	1756	781	729	554	-21,71%	-24,01%
6	Crude and manufactured minerals, building materials	10216	9596	8939	1028	911	963	<b>-6,85</b> %	5,71%
7	Fertilisers	312	633	525	223	279	272	-1 <b>7,06</b> %	-2,51%
8	Chemicals	18	40	68	4	13	24	70,00%	<b>84,62</b> %
9	Machinery, transport equipment, manufactured articles	106	152	117	39	79	72	-23,03%	<b>-8,86</b> %

		Va	lumes carri	ed		Services		Differen	ce 06/05
N°	Country	2004	2005	2006	2004	2005	2006	1000 t	mio TKM
NST	Category of good	2004	2005	2000	2004	2005	2000	1000 f	mio i km
		1000 t			1000000 TKM			ç	%

	Slovac Republic	2725	2350	2252	91	88	106	-4,17%	20,45%
0	Agricultural products	136	164	140	9	12	11	-14,63%	-8,33%
1	Foodstuffs, animal fodder	174	145	61	11	10	5	- <b>57,93</b> %	-50,00%
2	Solid mineral fuels	46	68	111	4	6	10	63,24%	<b>66,67</b> %
3	Oil and oil-based products	836	634	765	14	14	35	20,66%	150,00%
4	Ore and pig iron for iron and steel industry	879	777	574	20	18	10	- <b>26,13</b> %	-44,44%
5	Iron and steel products	146	99	180	16	8	20	81,82%	150,00%
6	Crude and manufactured minerals, building materials	148	133	145	7	10	9	9,02%	-10,00%
7	Fertilisers	304	258	234	6	5	5	<b>-9,30</b> %	0,00%
8	Chemicals	25	30	26	0	0	0	-13,33%	#DIV/0!
9	Machinery, transport equipment, manufactured articles	31	42	16	4	5	1	-61,90%	-80,00%

	Croatia	1446	1509	119	116	4,36%	-2,52%
0	Agricultural products	65	15	4	1	<b>-76,92</b> %	-75,00%
1	Foodstuffs, animal fodder	115	80	11	7	-30,43%	-36,36%
2	Solid mineral fuels	102	2	8	0	<b>-98,04</b> %	
3	Oil and oil-based products	178	177	38	38	-0,56%	0,00%
4	Ore and pig iron for iron and steel industry	721	769	41	41	<b>6,66</b> %	0,00%
5	Iron and steel products	73	92	5	5	26,03%	0,00%
6	Crude and manufactured minerals, building materials	39	101	1	5	158,97%	400,00%
7	Fertilisers	132	112	9	8	-15,15%	-11,11%
8	Chemicals	13	151	1	10		
9	Machinery, transport equipment, manufactured articles	8	10	1	1	25,00%	0,00%

		Volumes carried   2004 2005 2006			Services			Difference 06/05		
Ν	Country	2004	2005	2006	2004	2005	2006	1000 4		
NS	T Category of good	2004	2005	2006	2004	2005	2006	1000 t	mio TKM	
			1000 t		1000000 TKM			9	%	

0	Agricultural products	19995	21236	20594	8623	10944	11330	-3,02%	3,53%
1	Foodstuffs, animal fodder	24912	26180	25411	9777	10410	9144	<b>-2,94</b> %	-1 <b>2</b> ,16%
2	Solid mineral fuels	47649	45646	46195	16063	15730	15906	1, <b>20</b> %	1,1 <b>2</b> %
3	Oil and oil-based products	81661	85221	86255	20165	20715	20591	1, <b>2</b> 1%	-0,60%
4	Ore and pig iron for iron and steel industry	59278	57265	53021	17515	17429	16420	<b>-7,41</b> %	-5, <b>79</b> %
5	Iron and steel products	18938	19876	21059	8330	8096	8477	5,95%	4,71%
6	Crude and manufactured minerals, building materials	153262	145060	149880	28189	26075	27290	3,32%	<b>4,66</b> %
7	Fertilisers	11268	11410	10696	5109	4936	4705	-6,26%	<b>-4,68</b> %
8	Chemicals	34749	37018	37254	9658	10175	10509	0,64%	3,28%
9	Machinery, transport equipment, manufactured articles	41457	49894	52829	12324	13158	13340	5,88%	1 <b>,38</b> %

	Total Europe 27	493169	498806	503194	135753	137668	137712	0,88%	0,03%
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# Table MO8 : Evolution in transport of containers in the various geographic sectors

# Transport of containers on the Rhine (in TEUs)

Years	Total	Rhine	e – downstrea	n	Rhine – upstream				
		Total	empty	loaded	Total	empty	loaded		
			Total for the	traditional Rhi	ne				
Rheinfelde	n Emmerich								
2003	1541996	806501	119078	687423	735495	405396	330099		
2004	1810669	957730	122601	835129	852939	489520	363419		
2005	1960870	1025033	164259	860774	935837	536631	399200		
2006	1935023	999765	109888	889877	935258	531729	403529		
	-1.32%	<b>-2.47</b> %	-33.10%	3.38%	-0.06%	-0.91%	1.08%		
			Upp	er Rhine					
Rheinfelde	n 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		
	6.28%	<b>6.67</b> %	<b>24.89</b> %	4.41%	5.85%	<b>0.79</b> %	11.74%		
Strasbourg	g Neuburgweie	r							
2003	238171	122526	13520	109006	115645	68974	4667		
2004	291488	155710	12524	143186	135778	85372	50406		
2005	272092	144547	13598	130949	127545	75277	52268		
2006	263573	140608	17647	122961	122965	66927	56038		
	-3.13%	-2.73%	<b>29.78</b> %	-6.10%	<b>-3.59</b> %	-11. <b>09</b> %	7.21%		
Neuburgw	reier Mannheim	I							
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		
	-2.02%	-3.89%	-7.71%	-3.52%	0.01%	0.12%	-0.21%		

	Middle Rhine											
Mannheim	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					
	-3.80% -7.40% -43.88% -1.08% 0.21% 0.73% -0.54%											

Bingen Lül	sdorf					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										
	-4.73%	<b>-7.09</b> %	-42.45%	-1.28%	<b>-2.11%</b>	<b>-2.62</b> %	-1 <b>.32</b> %										

Years	Total	Rhii	ne – downstre	am		Rhine – upstre	am
		Total	empty	loaded	Total	empty	loaded
			Lov	wer 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
	-2.23%	-3.71%	-41.1 <b>9</b> %	2.92%	-0.60%	-1.32%	0.36%
Orsoy Er	nmerich						
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
	<b>-0.48</b> %	<b>-0.49</b> %	-25.45%	3.27%	-0.47%	-1.89%	1.40%

Source: St BA, Wiesbaden

# North-south transport (in TEUs)

	Total		Imports			Exports	
North-south transport	Iotal	Total	empty	loaded	Total	empty	loaded
Belgium / Netherlands							
04	720378	376957			343421		
05	833200	466649			366551		
06	814708	433210			381298		
Evolution (2006 / 2005)	<b>-2,22</b> %	-7,17%			4,02%		
France / Belgium							
04	32050	14787	10089	4698	17263	3509	13754
05	35292	16181	10913	5268	19111	3470	15641
06	38809	17441	9587	7854	21368	5986	15382
Evolution (2006 / 2005)	<b>9,97</b> %	<b>7,79</b> %	-12,15%	<b>49,09</b> %	11,81%	<b>72,51%</b>	-1,66%
France / Netherlands							
04	4498	1949	911	1038	2549	814	1735
05	4785	2349	1040	1309	2436	789	1647
06	8493	4596	807	3789	3897	2070	1827
Evolution (2006 / 2005)	<b>77,49</b> %	<b>95,66</b> %	-22,40%	189,46%	<b>59,98</b> %	162,36%	10,93%
Total 04	756926	393693			363233		
Total 05	873277	485179			388098		
Total 06	862010	455247			406563		
Evolution (2006 / 2005)	<b>-1,29</b> %	<b>-6,17</b> %			<b>4,76</b> %		

Sources: CBS, VNF

# National transport of containers (in TEUs)

	Total	empty	loaded
Netherlands			
04	706289		
05	745981		
06	816234		
Evolution (2006 / 2005)	+9,3%		
Germany			
04	171812	68832	102980
05	203709	97521	106188
06	182076	80488	101588
Evolution (2006 / 2005)	-10,6%	-17,5%	-4,3%
France			
(Rhône basin) 04	46412		-
05	55807		-
06	61258		
Evolution (2006 / 2005)	9,8%		-
(Seine basin) 04	86358		-
05	121584		-
06	143206		
Evolution (2006 / 2005)	17,8%	-	-
(northern canals) 04	58146		-
05	61709		-
06	69751		
Evolution (2006 / 2005)	13,0%	-	-

Sources: St BA, CBS, VNF

# Table MO9 : GOODS TRANSPORT ON THE RHINE

				1000 to	onnes			Difference 06/05			
N°	Relations	2005			2006				en %		
NST	Catégoriy of goods										
		amont	aval	total	amont	aval	total	amont	aval	total	

	RHEINFELDEN- STRASBOURG	9169	4293	13462	9454	4825	14278	3,11	12,38	6,06
0	Agricultural products	238	72	310	334	77	411	40,67	7,09	32,87
1	Foodstuffs, animal fodder	545	17	562	519	15	534	-4,83	-10,77	-5,01
2	Solid mineral fuels	206	7	212	251	8	259	21,88	19,66	21,81
3	Oil and oil-based products	3811	194	4004	3649	182	3832	-4,24	-5,83	-4,31
4	Ore and pig iron for iron and steel industry	117	19	136	179	32	211	52,68	67,10	54,72
5	Iron and steel products	698	64	761	808	75	883	15,89	17,32	16,01
6	Crude and manufactured minerals, building materials	1178	1507	2685	1144	1946	3090	-2,86	29,12	15,09
7	Fertilisers	181	14	195	184	5	189	1,40	-62,55	-3,25
8	Chemicals	120	87	207	108	28	136	-10,03	-67,77	-34,23
9	Machinery, transport equipment, manufactured articles	1035	1181	2216	1135	1239	2374	9,65	4,92	7,13
99	of which special transactions	1042	1132	2173	1143	1217	2360	9,77	7,52	8,60

	STRASBOURG- NEUBURGWEIER	12463	14246	26709	11666	14998	26664	-6,39	5,28	-0,17
0	Agricultural products	366	1472	1838	429	1330	1759	17,34	-9,63	-4,26
1	Foodstuffs, animal fodder	836	430	1266	798	435	1233	-4,50	1,21	-2,56
2	Solid mineral fuels	264	8	272	325	12	337	23,01	56,07	23,94
3	Oil and oil-based products	5070	1128	6198	4101	1254	5355	-19,12	11,19	-13,61
4	Ore and pig iron for iron and steel industry	1685	170	1855	1689	247	1936	0,25	45,49	4,40
5	Iron and steel products	861	697	1558	998	502	1499	15,92	-28,06	-3,76
6	Crude and manufactured minerals, building materials	672	8396	9068	583	9355	9939	-13,26	11,43	9,60
7	Fertilisers	457	66	523	455	52	507	-0,39	-21,06	-3,00
8	Chemicals	916	214	1130	905	217	1122	-1,22	1,75	-0,66
9	Machinery, transport equipment, manufactured articles	1336	1666	3002	1383	1592	2976	3,51	-4,40	-0,88
99	of which special transactions	1334	1585	2919	1381	1549	2930	3,50	-2,30	0,35

				1000 to	onnes			Diffe	Difference 06/05		
N°	Relations		2005			2006			<b>en</b> %		
NST	Catégoriy of goods										
		amont	aval	total	amont	aval	total	amont	aval	total	

	NEUBURGWEIER- MANNHEIM	28620	26562	55182	28289	27419	55709	-1,16	3,23	0,95
0	Agricultural products	486	1634	2120	688	1495	2183	41,63	-8,51	2,98
1	Foodstuffs, animal fodder	1774	893	2667	1666	955	2621	-6,11	6,98	-1,73
2	Solid mineral fuels	5761	18	5779	5058	38	5096	-12,20	110,95	-11,82
3	Oil and oil-based products	9149	3620	12769	8471	3875	12347	-7,41	7,06	-3,31
4	Ore and pig iron for iron and steel industry	1764	459	2223	1763	431	2194	-0,04	-6,05	-1,28
5	Iron and steel products	1131	700	1831	1367	502	1869	20,90	-28,27	2,09
6	Crude and manufactured minerals, building materials	1662	12281	13943	1920	13302	15222	15,58	8,31	9,18
7	Fertilisers	950	598	1549	938	587	1525	-1,30	-1,94	-1,55
8	Chemicals	3284	1265	4549	3811	1299	5110	16,05	2,67	12,33
9	Machinery, transport equipment, manufactured articles	2659	5094	7754	2606	4936	7542	-2,00	-3,11	-2,73
99	of which special transactions	2633	4765	7399	2576	4645	7221	-2,19	-2,52	-2,40

	MANNHEIM-BINGEN	40058	27978	68036	38812	28102	66914	-3,11	0,45	-1,65
0	Agricultural products	520	3432	3953	750	3062	3812	44,07	-10,78	-3,56
1	Foodstuffs, animal fodder	4109	1832	5941	3496	1550	5046	-14,92	-15,41	-15,07
2	Solid mineral fuels	7448	35	7483	6857	37	6894	-7,94	5,72	-7,87
3	Oil and oil-based products	12069	3047	15116	11472	3216	14688	-4,95	5,56	-2,83
4	Ore and pig iron for iron and steel industry	2460	568	3028	2258	504	2763	-8,20	-11,16	-8,76
5	Iron and steel products	1524	1065	2588	1804	814	2618	18,42	-23,56	1,15
6	Crude and manufactured minerals, building materials	2548	9023	11572	2404	10170	12575	-5,65	12,71	8,67
7	Fertilisers	1393	1177	2570	1396	1205	2600	0,18	2,35	1,17
8	Chemicals	4278	1266	5544	4843	1323	6166	13,21	4,51	11,22
9	Machinery, transport equipment, manufactured articles	3708	6532	10240	3532	6220	9752	-4,76	-4,77	-4,77
99	of which special transactions	3663	6160	9823	3478	5884	9362	-5,03	-4,49	-4,69

				1000 to	onnes			Diffe	Difference 06/05			
N°	Relations		2005			2006			<b>en</b> %			
NST	Catégoriy of goods											
		amont	aval	total	amont	aval	total	amont	aval	total		

	BINGEN-LULSDORF	50028	31811	81838	49807	33114	82922	-0,44	4,10	1,32
0	Agricultural products	465	5177	5643	703	4945	5648	51,15	-4,49	0,10
1	Foodstuffs, animal fodder	3746	2487	6233	3080	2368	5448	-17,78	-4,78	-12,59
2	Solid mineral fuels	11901	108	12009	11877	147	12024	-0,20	35,79	0,12
3	Oil and oil-based products	14652	2392	17044	14030	2514	16544	-4,25	5,11	-2,94
4	Ore and pig iron for iron and steel industry	4164	637	4801	4209	751	4960	1,07	17,94	3,31
5	Iron and steel products	1895	2692	4586	2155	2738	4893	13,71	1,72	6,67
6	Crude and manufactured minerals, building materials	3275	8587	11862	3414	10077	13491	4,24	17,34	13,73
7	Fertilisers	1654	1068	2723	1625	1140	2765	-1,77	6,69	1,55
8	Chemicals	4228	1247	5475	4864	1316	6180	15,02	5,57	12,87
9	Machinery, transport equipment, manufactured articles	4046	7415	11462	3851	7119	10970	-4,82	-4,00	-4,29
99	of which special transactions	3995	7036	11031	3794	6775	10569	-5,02	-3,71	-4,19

	LULSDORF-ORSOY	107565	51282	158846	109259	53886	163146	1,58	5,08	2,71
0	Agricultural products	779	5309	6087	1040	5083	6124	33,60	-4,25	0,59
1	Foodstuffs, animal fodder	5127	3390	8517	4580	3257	7837	-10,67	-3,92	-7,99
2	Solid mineral fuels	22158	471	22629	23891	590	24481	7,82	25,40	8,18
3	Oil and oil-based products	21730	5396	27126	20847	5913	26760	-4,06	9,57	-1,35
4	Ore and pig iron for iron and steel industry	30113	1536	31649	30244	1684	31929	0,44	9,63	0,88
5	Iron and steel products	4400	5886	10286	4797	5988	10785	9,03	1,72	4,85
6	Crude and manufactured minerals, building materials	7194	10601	17796	7522	13196	20718	4,56	24,47	16,42
7	Fertilisers	1792	1147	2939	1713	1217	2929	-4,43	6,12	-0,32
8	Chemicals	8013	5573	13586	8607	5408	14015	7,41	-2,96	3,16
9	Machinery, transport equipment, manufactured articles	6258	11973	18231	6018	11551	17570	-3,83	-3,52	-3,63
99	of which special transactions	6024	10999	17023	5754	10771	16525	-4,47	-2,07	-2,92

				1000	tonnes			Diffe	erence 06	/05
N°	Relations		2005			2006			en %	
NST	Catégoriy of goods									
		amont	aval	total	amont	aval	total	amont	aval	total

	ORSOY-EMMERICH	107031	57434	164465	110615	61382	171997	3,35	6,87	4,58
0	Agricultural products	915	5434	6349	1183	5212	6395	29,22	-4,08	0,72
1	Foodstuffs, animal fodder	6024	3647	9671	5587	3512	9099	-7,25	-3,70	-5,92
2	Solid mineral fuels	23949	586	24535	26428	661	27089	10,35	12,72	10,41
3	Oil and oil-based products	18305	3826	22131	18631	4411	23042	1,78	15,30	4,12
4	Ore and pig iron for iron and steel industry	30039	1365	31404	30037	1419	31456	-0,01	3,96	0,17
5	Iron and steel products	4506	5503	10009	5040	5620	10660	11,84	2,13	6,50
6	Crude and manufactured minerals, building materials	7401	18615	26017	7489	22398	29887	1,18	20,32	14,88
7	Fertilisers	2077	1374	3451	2029	1370	3400	-2,29	-0,29	-1,49
8	Chemicals	7348	4952	12300	7888	4771	12659	7,34	-3,65	2,92
9	Machinery, transport equipment, manufactured articles	6466	12131	18597	6303	12007	18310	-2,52	-1,02	-1,54
99	of which special transactions	6223	11373	17596	6008	11292	17301	-3,45	-0,71	-1,68

	RHEINFELDEN- EMMERICH	123798	76681	200479	126562	80097	206659	2,23	4,45	3,08
0	Agricultural products	1312	6861	8173	1404	6215	7619	7,01	-9,42	-6,78
1	Foodstuffs, animal fodder	6821	4668	11489	6509	4704	11213	-4,57	0,77	-2,40
2	Solid mineral fuels	25679	666	26345	27562	780	28342	7,33	17,12	7,58
3	Oil and oil-based products	24794	7407	32201	24645	7924	32569	-0,60	6,98	1,14
4	Ore and pig iron for iron and steel industry	31503	1938	33441	31528	2165	33693	0,08	11,71	0,75
5	Iron and steel products	5208	6579	11787	5776	6600	12376	10,91	0,32	5,00
6	Crude and manufactured minerals, building materials	9923	27348	37271	10083	31254	41337	1,61	14,28	10,91
7	Fertilisers	2509	1772	4281	2432	1765	4197	-3,07	-0,40	-1,96
8	Chemicals	9481	6718	16199	10207	6307	16514	7,66	-6,12	1,94
9	Machinery, transport equipment, manufactured articles	6568	12724	19292	6416	12383	18799	-2,31	-2,68	-2,56
99	of which special transactions	6316	11686	18002	6101	11542	17643	-3,40	-1,23	-1,99

			1000 2005					Diffe	erence 06	/05
N°	Relations		2005			2006			en %	
NST	Catégoriy of goods									
		amont	aval	total	amont	aval	total	amont	aval	total

	RHEINFELDEN- STRASBOURG	363	107	470	389	112	501	7,12	5,31	6,71
0	Agricultural products	12	3	15	14	4	18	10,86	29,94	14,67
1	Foodstuffs, animal fodder	21	1	22	20	0	21	-5,39	-17,57	-5,69
2	Solid mineral fuels	8	0	8	10	5	15	21,92	1856,72	79,07
3	Oil and oil-based products	201	11	212	216	6	222	7,59	-50,28	4,55
4	Ore and pig iron for iron and steel industry	5	1	5	7	1	8	50,89	58,01	51,87
5	Iron and steel products	28	2	31	32	6	38	15,07	141,50	25,17
6	Crude and manufactured minerals, building materials	36	37	74	33	40	73	-8,99	7,24	-0,75
7	Fertilisers	7	0	7	7	0	7	2,15	-100,00	-3,61
8	Chemicals	5	5	9	5	2	7	4,96	-55,83	-25,23
9	Machinery, transport equipment, manufactured articles	40	46	86	45	48	93	12,21	4,38	8,02
99	of which special transactions	41	44	85	45	47	92	9,17	7,75	8,44

	STRASBOURG- NEUBURGWEIER	691	688	1379	651	722	1373	-5,73	4,86	-0,45
0	Agricultural products	18	73	91	24	66	90	32,30	-9,33	-1,10
1	Foodstuffs, animal fodder	47	21	68	44	21	66	-4,68	1,01	-2,92
2	Solid mineral fuels	15	0	16	19	1	20	23,04	54,76	23,92
3	Oil and oil-based products	282	54	336	230	60	291	-18,28	12,14	-13,41
4	Ore and pig iron for iron and steel industry	96	7	102	96	7	103	0,21	5,48	0,56
5	Iron and steel products	49	40	89	57	29	86	16,11	-27,79	-3,48
6	Crude and manufactured minerals, building materials	36	386	421	30	434	464	-16,44	12,52	10,06
7	Fertilisers	24	3	28	24	3	27	-0,43	-22,90	-3,18
8	Chemicals	48	11	59	47	11	58	-1,14	-3,83	-1,65
9	Machinery, transport equipment, manufactured articles	76	94	170	79	91	170	4,12	-3,34	0,00
99	of which special transactions	76	89	165	79	88	167	4,13	-1,07	1,33

			2005					Diffe	erence 06	/05
N°	Relations		2005			2006			en %	
NST	Catégoriy of goods									
		amont	aval	total	amont	aval	total	amont	aval	total

	NEUBURGWEIER- MANNHEIM	1326	1514	2840	1318	1588	2905	-0,67	4,88	2,29
0	Agricultural products	28	125	154	38	114	151	32,23	-9,25	-1,56
1	Foodstuffs, animal fodder	78	38	116	76	38	114	-2,56	-0,38	-1,84
2	Solid mineral fuels	138	1	139	140	1	141	1,20	20,20	1,38
3	Oil and oil-based products	487	266	752	451	285	736	-7,44	7,39	-2,21
4	Ore and pig iron for iron and steel industry	133	15	148	133	15	148	-0,12	3,66	0,26
5	Iron and steel products	79	57	135	94	41	134	18,92	-28,60	-1,02
6	Crude and manufactured minerals, building materials	66	710	777	65	793	857	-2,70	11,63	10,40
7	Fertilisers	43	10	53	43	9	51	-0,79	-11,26	-2,78
8	Chemicals	110	25	135	116	32	148	5,39	28,20	9,62
9	Machinery, transport equipment, manufactured articles	164	267	431	164	260	424	0,03	-2,65	-1,63
99	of which special transactions	164	250	413	164	246	409	-0,19	-1,53	-1,00

	MANNHEIM-BINGEN	2857	2029	4887	2790	2072	4862	-2,34	2,09	-0,50
0	Agricultural products	43	206	249	62	184	247	44,55	-10,46	-0,91
1	Foodstuffs, animal fodder	217	102	319	190	91	281	-12,45	-10,14	-11,71
2	Solid mineral fuels	584	2	586	524	2	526	-10,34	35,03	-10,20
3	Oil and oil-based products	882	239	1120	827	257	1084	-6,18	7,69	-3,22
4	Ore and pig iron for iron and steel industry	151	45	196	144	41	185	-4,72	-8,18	-5,51
5	Iron and steel products	128	64	192	152	46	198	18,77	-27,41	3,37
6	Crude and manufactured minerals, building materials	152	681	832	149	770	918	-1,94	13,08	10,35
7	Fertilisers	99	70	169	97	71	168	-1,56	1,74	-0,19
8	Chemicals	323	107	429	375	113	488	16,33	5,53	13,65
9	Machinery, transport equipment, manufactured articles	278	516	794	269	496	765	-3,33	-3,81	-3,64
99	of which special transactions	275	484	759	265	468	733	-3,64	-3,41	-3,49

				10000	000 ткм			Diffe	/05	
N°	Relations		2005			2006			en %	
NST	Catégoriy of goods									
		amont	aval	total	amont	aval	total	amont	aval	total

	BINGEN-LULSDORF	6079	3731	9810	5978	3826	9804	-1,66	2,56	-0,06
0	Agricultural products	59	589	648	91	550	641	54,53	-6,61	-1,05
1	Foodstuffs, animal fodder	512	292	804	420	267	687	-17,89	-8,77	-14,57
2	Solid mineral fuels	1350	9	1359	1311	12	1323	-2,90	40,28	-2,62
3	Oil and oil-based products	1825	316	2141	1731	329	2061	-5,13	4,12	-3,77
4	Ore and pig iron for iron and steel industry	443	72	514	435	76	512	-1,67	6,77	-0,50
5	Iron and steel products	218	244	462	254	236	490	16,80	-3,65	5,98
6	Crude and manufactured minerals, building materials	378	974	1353	385	1148	1533	1,70	17,82	13,31
7	Fertilisers	204	144	348	202	153	356	-0,65	6,51	2,32
8	Chemicals	572	167	739	655	176	832	14,62	5,54	12,56
9	Machinery, transport equipment, manufactured articles	520	923	1442	493	878	1371	-5,11	-4,85	-4,95
99	of which special transactions	513	873	1386	486	833	1319	-5,34	-4,58	-4,86

	LULSDORF-ORSOY	7356	4658	12013	7411	4914	12325	0,75	5,50	2,59
0	Agricultural products	65	625	690	95	599	694	46,41	-4,17	0,61
1	Foodstuffs, animal fodder	540	328	868	460	309	769	-14,82	-5,91	-11,45
2	Solid mineral fuels	1629	23	1652	1633	28	1661	0,21	25,52	0,56
3	Oil and oil-based products	1914	441	2355	1899	499	2397	-0,81	13,15	1,80
4	Ore and pig iron for iron and steel industry	812	88	900	825	103	928	1,64	17,05	3,15
5	Iron and steel products	291	357	648	326	368	694	11,86	3,25	7,12
6	Crude and manufactured minerals, building materials	602	1065	1667	622	1314	1936	3,31	23,33	16,10
7	Fertilisers	212	131	343	207	139	347	-2,04	6,39	1,18
8	Chemicals	699	467	1167	779	464	1243	11,35	-0,66	6,54
9	Machinery, transport equipment, manufactured articles	591	1133	1724	565	1091	1656	-4,33	-3,73	-3,93
99	of which special transactions	581	1060	1641	554	1030	1584	-4,55	-2,85	-3,45

				10000	ооо ткм			Diffe	/05	
N°	Relations		2005			2006			en %	
NST	Catégoriy of goods									
		amont	aval	total	amont	aval	total	amont	aval	total

	ORSOY-EMMERICH	7417	3697	11114	7650	3949	11599	3,14	6,80	4,36
0	Agricultural products	61	370	432	81	358	439	32,32	-3,41	1,65
1	Foodstuffs, animal fodder	393	204	597	357	189	546	-9,17	-7,27	-8,52
2	Solid mineral fuels	1676	37	1713	1837	41	1878	9,61	11,51	9,65
3	Oil and oil-based products	1269	237	1506	1292	283	1575	1,77	19,83	4,61
4	Ore and pig iron for iron and steel industry	2147	94	2240	2152	98	2250	0,25	5,05	0,45
5	Iron and steel products	308	388	696	342	397	740	11,06	2,43	6,26
6	Crude and manufactured minerals, building materials	469	1093	1562	477	1333	1810	1,80	21,96	15,91
7	Fertilisers	138	89	228	135	90	225	-2,10	0,82	-0,96
8	Chemicals	503	329	832	539	313	851	7,10	-4,86	2,38
9	Machinery, transport equipment, manufactured articles	453	857	1310	438	846	1284	-3,38	-1,29	-2,01
99	of which special transactions	436	803	1239	418	795	1213	-4,24	-1,02	-2,15

	RHEINFELDEN-EMMERICH	26089	16424	42513	26187	17183	43369	0,37	4,62	2,01
0	Agricultural products	287	1991	2278	405	1874	2279	40,98	-5,85	0,05
1	Foodstuffs, animal fodder	1808	986	2794	1568	916	2484	-13,27	-7,12	-11,10
2	Solid mineral fuels	5400	72	5473	5472	92	5564	1,33	26,91	1,67
3	Oil and oil-based products	6860	1563	8423	6646	1719	8366	-3,12	10,03	-0,68
4	Ore and pig iron for iron and steel industry	3786	320	4106	3793	343	4135	0,17	6,95	0,70
5	Iron and steel products	1101	1152	2253	1258	1123	2380	14,19	-2,54	5,64
6	Crude and manufactured minerals, building materials	1739	4946	6686	1760	5831	7591	1,21	17,89	13,55
7	Fertilisers	727	448	1175	716	465	1182	-1,43	3,88	0,59
8	Chemicals	2259	1110	3369	2516	1111	3626	11,38	0,02	7,63
9	Machinery, transport equipment, manufactured articles	2122	3835	5957	2054	3709	5763	-3,23	-3,28	-3,26
99	of which special transactions	2086	3603	5688	2010	3506	5516	-3,63	-2,67	-3,02

## 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.

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.

**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 CEMT Danube Commission Moselle Commission

### National administrations

Statistisches Bundesamt (Germany) WSD Süd-West (Germany) WSD Ost (Germany) Bundesanstalt für Gewässerkunde (Germany) Bundesamt für Güterverkehr (Germany) CBS (Netherlands) Voies Navigables de France (France) Statistic Austria (Austria) Via Donau (Austria) Institut National Statistique (Belgium) Service public fédéral Mobilité and Transports (Belgium)

### Economic institutes and consultants

Institut pour le Transport par Batellerie (Belgium) NEA Consulting P J K International b. v. Planco

#### Inland waterways transport organisations

IVR (Netherlands) CBRB (Netherlands) EBU ESO VBW

### Industrial organisations

Mineralölwirtschaftsverband BDI CEFIC Fédération Française de l'Acier Fertilizer Industry Association Hauptverband der deutschen Bauindustrie International Iron and Steel Institute Verein der deutschen Kohleimporteure Stahl Online

#### Ports

Port of Antwerp Port of Rotterdam Port of Amsterdam

# **Realised by**

### **Groups** experts

H. FEIERABEND (RF CONSULTING GmbH) H. SPITZER (EBU) H. VELDMAN (OEB) H. GIERKE (BAG)

### **European Commission**

Mr DIETER (Administrator)

#### Layout

Bitfactory Willem Buytewechstraat 40 3024 BN Rotterdam (Netherlands)

### **CCNR Secretariat**

Mr VAN DER WERF (Project Manager) Mr WEBER (Administrator) Ms GEROLT (Secretariat) Mr LAUGEL (Printer)

Contact: jp.weber@ccr-zkr.org

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