

**MARKET OBSERVATION
FOR EUROPEAN INLAND NAVIGATION**

2005 - I



Foreword

This initial publication as part of the tool for observation of the market for inland waterway transport in Europe is the result of thinking carried out by the CCNR Secretariat in close collaboration with representatives of both the profession and the European Commission.

While its purpose is to provide a statement of the current situation of the market for inland waterway transport and its short-term prospects, we felt that it was important for this initial publication to give a brief historical overview of the evolution of the economic situation over the past three years, to provide a reference base for assessing the present and future situation. The data on freight transport set out in this publication therefore refers to the years 2002 to 2004.

Because of the complexity of the approaches necessary for obtaining an objective view of the economic situation from statistical data of varied nature and origin, we also felt it was important to describe in this initial publication the methodology applied to processing the basic data.

Methodological aspects will not be described in subsequent publications. The approaches will, however, evolve as they are gradually improved on and extended in geographical terms, in accordance with user expectations.

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General introduction

Following on from the policy of structural reorganisation applied throughout the European Union between 1989 and 1999, the professional organisations for inland waterway transport in Europe requested that a tool be set up to carry out regular monitoring of the economic environment of this mode of transport. The purpose of such monitoring is to make it possible in the near future to detect as soon as they arise any structural imbalances between the market's offer and demand for transport capacity, so that policies likely to provide a prompt remedy can be introduced.

This mission was entrusted to the Secretariat of the Central Commission for Navigation on the Rhine (CCNR) in collaboration with DG-TREN. The CCNR has been monitoring the economic situation of navigation on the Rhine for many years and therefore has experience in the matter. The professional organisations for inland waterway transport in Europe are closely and genuinely involved in compiling this observation of the market. The monitoring tool is in three main parts:

- monitoring of offer of transport capacity;
- monitoring of demand for transport capacity;
- a microeconomic analysis to assess the health of inland waterways transport companies.

There are additional elements such as the cargoes carried, the price of fuel, water conditions, and other related elements that affect inland waterway transport.

In geographical terms, this initial document on inland waterway transport in Germany, Austria, Belgium, France, the Grand Duchy of Luxembourg, the Netherlands and Switzerland. The geographical coverage of the monitoring will gradually be extended to cover all European States with inland waterways inasmuch as the data can be obtained.

For this first document, the methodology refers mainly to the situation on the Rhine, and the period under consideration runs from 2002 to 2004 (2003 for the 2001 microeconomic section). A further document will be produced at the end of 2005; this will contain initial impressions of the activity in 2005, prospects for the first few months of 2006, and microeconomic data for the 2004 financial year.

Chapter 1 : Analysis of demand of transport

A. General economic evolution

Despite a degree of flexibility, the evolution of demand for transport on the market is directly linked to that of the economy in general, such that it would appear to be unavoidable to take account of the evolution in the GDPs of the Member States covered by this study. In the context of inland waterway transport, we can also see the influence

Evolution of the GDP in %	2000	2001	2002	2003	2004	2005 (forecast)
Germany	3.1	1.0	0.1	-0.1	1.2	1.4
Austria	3.4	0.7	1.2	0.8	1.8	2.3
Belgium	3.7	0.9	0.9	1.3	2.7	2.4
France	4.2	2.1	1.1	0.5	2.1	2.0
G.D. Luxembourg	9	1.5	2.5	2.9	4.2	4.5
Netherlands	3.5	1.4	0.6	-0.9	1.2	1.2
Switzerland	3.6	1.0	0.3	-0.4	1.9	1.9
OECD area	3.9	1.1	1.6	2.2	3.6	2.9

(Source: OECD Factbook 2005)

of the evolution of the economy on the world market. Starting in 2004, the explosion of commercial trade with China, a country where GDP is growing at the rate of 9% per year, and other south-east Asian countries has had a substantial impact on the increase in transport between sea ports and the hinterland. At the same time, demand (for steel, in particular) from these countries has also contributed to GDP growth in the countries of western Europe. The evolution of overall demand for transport is on the whole more marked than that of the economy. It is therefore necessary to take into account the evolution in overall demand for transport, including all land-based modes, as described in the table below.

B. Evolution of transport of goods by land in the States

<i>in million of tons</i>	2002	2003	2004
Germany	3332,0	3360,0	3407,0
Austria	381,7	390,2	392,1
Belgium	284,2	281,9	
France	1119,7		
Netherlands	1034,2	1091,5	

(Sources: national statistics offices)

At the same time, it is necessary to examine the evolution in demand for transport using inland waterways. Comparison of these two aspects allows measurement of the evolution of the modal share of inland waterway transport. Such an evaluation can be deduced from the summary table opposite.

It must however be noted that the modal share of inland waterway transport in the States is largely dependent on the existence and the features of the river network present on its territory. In the case of inland waterway transport, meteorological phenomena such as periods of low water or the formation of ice may temporarily limit the market share of inland waterway transport. A phenomenon of this kind can be observed in 2003, when the lengthy drought in the summer limited the volume transported and services during the year in the countries of Western Europe.

C. Evolution of inland waterway transport

(summary table)

Summary table

		Volumes carried, in 1000 t			Services, in TKM		
		2002	2003	2004	2002	2003	2004
Switzerland		8356	7006	7246	58	49	49
	of which national	-	-	-	-	-	-
	of which international	8356	7006	7246	58	49	49
France		68942	65429	69059	8875	8647	9106
	of which national	28310	28880	29121	4206	4302	4429
	of which international	40632	36467	39834	4371	4005	4257
Germany		231738	219999	235861	64170	58175	63675
	of which national	55844	53419	55209	11670	10833	11296
	of which international	175894	166581	180653	52495	47322	52372
Netherlands		314007	303207	329867	40911	41031	44975
	of which national	101770	95105	105553	10407	10601	12662
	of which international	212237	208102	224314	30504	30430	32313
Belgium		135114	137756	144719	8148	8302	8675
	of which national	30473	31120	32488	2779	2831	2946
	of which international	104641	106636	112231	5369	5471	5731
Austria		12316	10741	9074	2845	2277	1747
	of which national	560	922	192	71	61	33
	of which international	11756	9819	8882	2775	2216	1714
G.D. Luxembourg		8568	9690	11180			
	of which national	-	-	-	-	-	-
	of which international	8568	9690	11180			
Overall (*)		471996	454575	484436	125007	118481	128227

NB : Transit is included in international transport

(*) transported volumes have been treated to avoid double countings,

In analysing the evolution of inland waterway transport in Europe, consideration must be given to the main corridors for goods traffic. By doing so, it is possible to analyse the modal share of inland waterway transport within the modal split of land-based transport. The purpose is not only to take a momentary measurement of the situation, but also to decide on suitable measures to promote the development of its modal share in certain geographical sectors and on certain major routes.

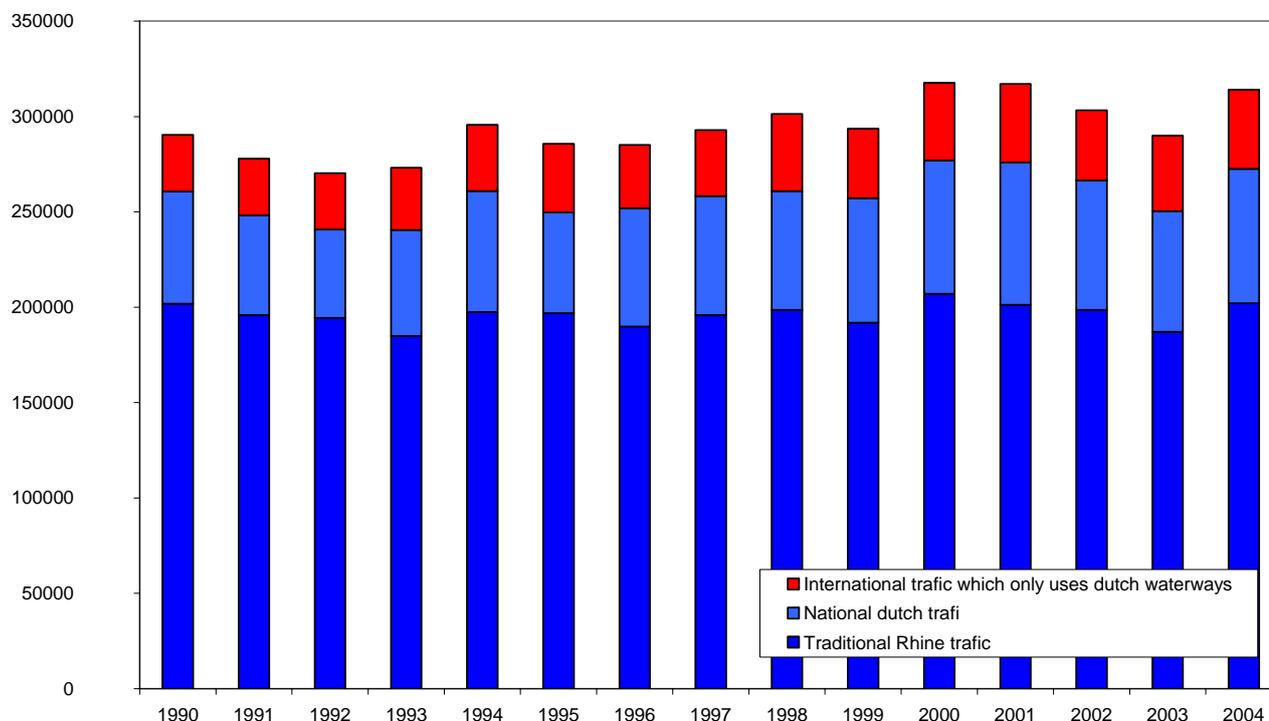
There are four transport routes to be taken into consideration, namely:

- the Rhine route, which still represents about two-thirds of all transport by inland waterway in western Europe;
- the Danube route;
- the north/south route (France, Belgium, the Netherlands);
- the east/west route, linking the Netherlands , northern Germany and Poland).

1) Traffic on the Rhine route

The CCNR has been monitoring traffic on the Rhine route since the nineteenth century; the criteria have remained constant, such that historical monitoring of this traffic is perfectly possible. A distinction is generally drawn between traditional Rhine traffic (only traffic using the German and French sections of the Rhine) and total Rhine traffic, which covers transport over the entire length of the Rhine. The evolution of these two concepts is described in the graph below.

Global Rhine traffic in 1000 tons



2) Traffic on the Danube in Germany and Austria

In addition to traffic on the Danube in Germany and Austria, this also covers traffic crossing between the Rhine and the Danube using the Main-Danube Canal. It should be noted that in 2003 the quantity of traffic crossing between the Rhine and the Danube was seriously reduced because of very poor water conditions on the Rhine, which was exceptional in comparison with 2002.

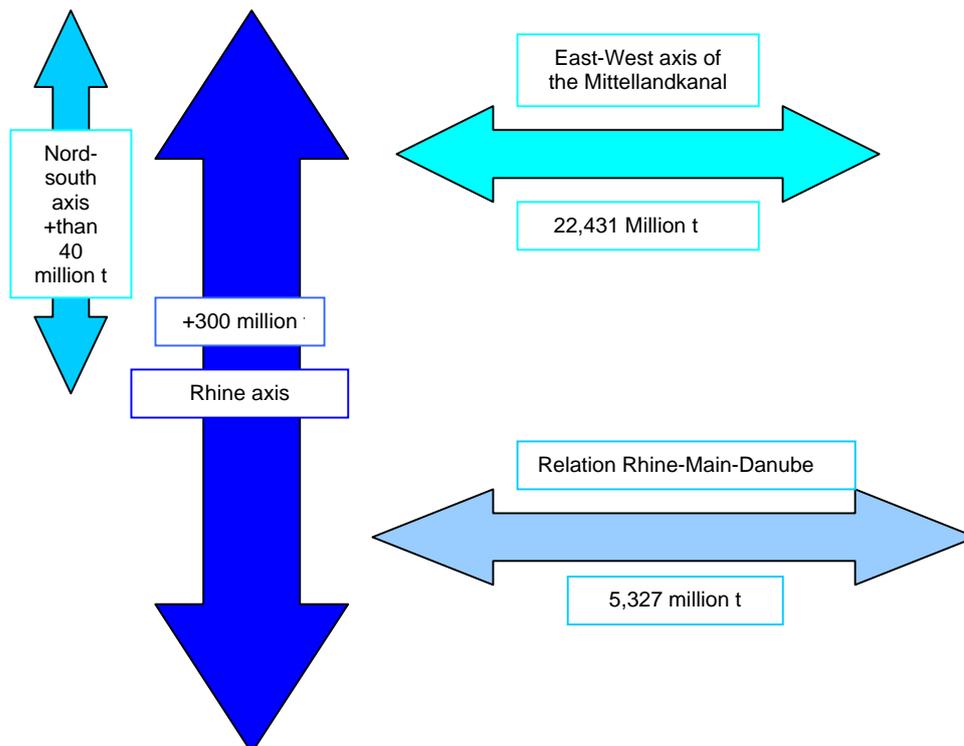
In 2004, when the economic climate and water conditions were favourable, the 5 327 million tonnes transported represented an increase of more than 16%, although the level achieved in 2002 was not reached.

3) North/south traffic

North/south traffic covers transport between France, Belgium and the Netherlands, and mainly involves traffic with sea ports. This is an area that has seen substantial development, particularly for the transport of goods in containers.

4) East/west traffic

This includes both traffic between Poland, the Czech Republic, Germany and sea ports, and German national and international traffic using the canals of northern Germany.



D. Evolution of the main categories of goods

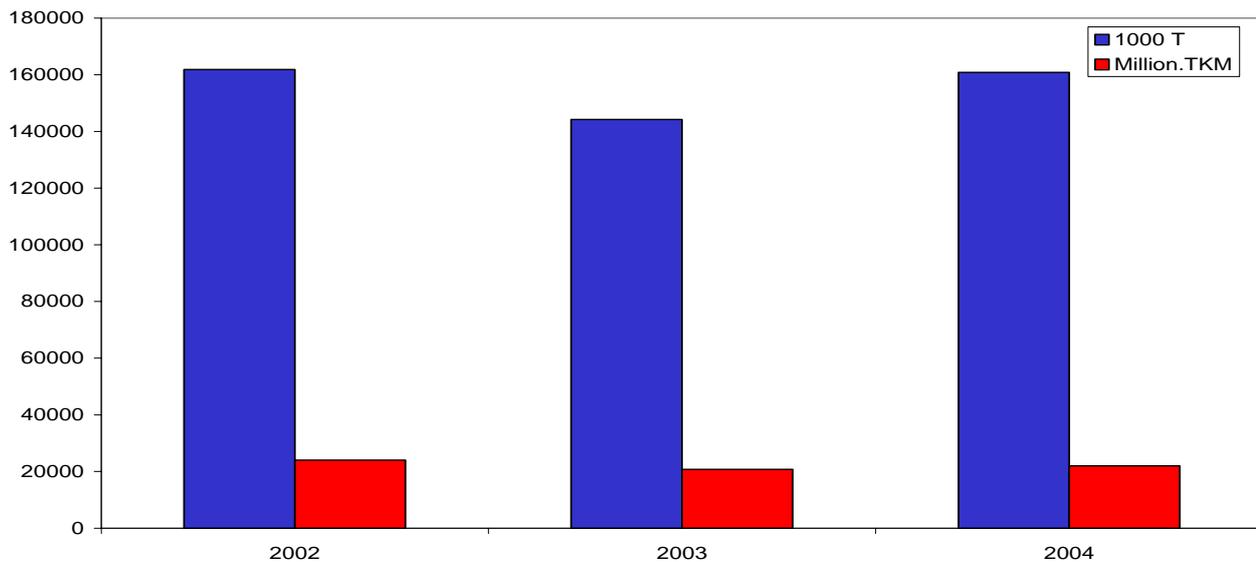
1) Agricultural products

Traditionally, agricultural products constitute the type of goods suitable for transport by inland waterway because of their volume and their packaging. They are, however, a very cyclical type of transport because of their seasonal nature. The volumes transported are also dependent on the volume of harvests (for cereals) and deliveries arriving in sea ports (for soy beans, for example).

Over the period from 2002 to 2004, the volume transported and the services provided increased by 3% and 9% respectively over the inland waterways of Europe as a whole. At the same time, the transport of fertilisers decreased by about 2.5% over the same period.

Although in France the volume transported fell by more than 13% between 2002 and 2004, this was due to the poor harvest in 2003 caused by the drought, thereby generating a smaller volume of products for export. Globally and structurally, we are in the presence of relative stability in the use of inland waterways for the transport of this type of product, because of the cost advantage and its suitability for bulk quantities.

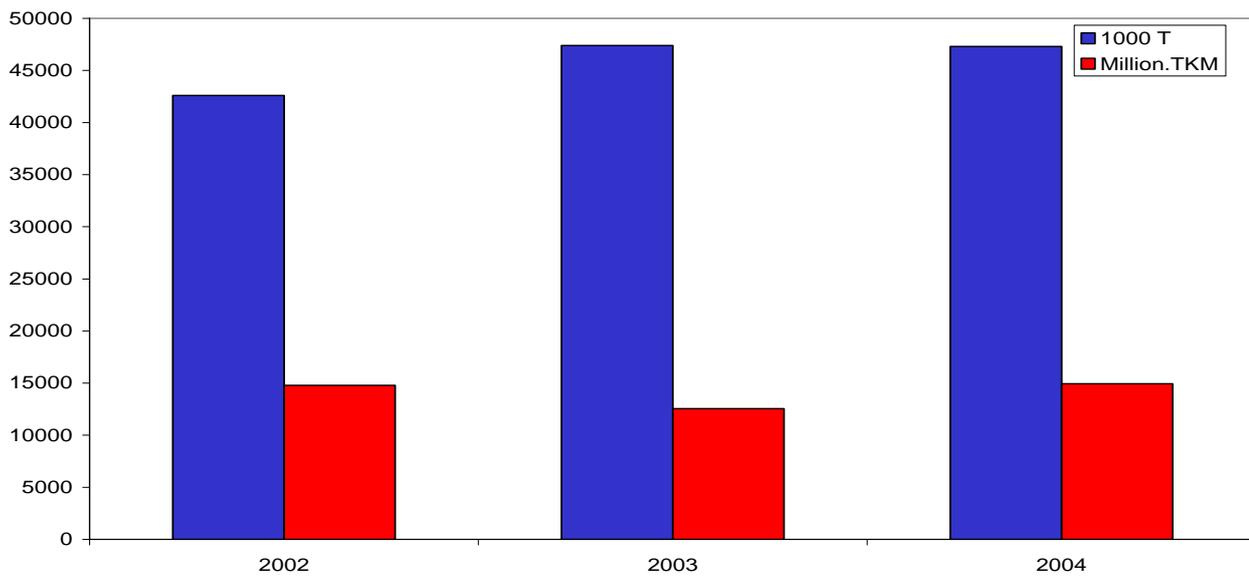
Evolution from the transports of agricultural products



2) Coal and coal products

Between 2002 and 2004 the transport of solid mineral fuels in Europe advanced by 11%; indeed the figure for the Rhine route was +12%. This evolution is due to the considerable increase in Germany's importing of coal, due partly to the country's phasing out of coalmining on its own territory which is therefore compensated by imports, and also to increased consumption of coal by the iron and steel industry and in the production of energy in power stations. The evolution of oil prices has also been a factor in the increased use of this type of energy. This situation is expected to continue in 2005 and 2006.

Evolution from the transports of coale



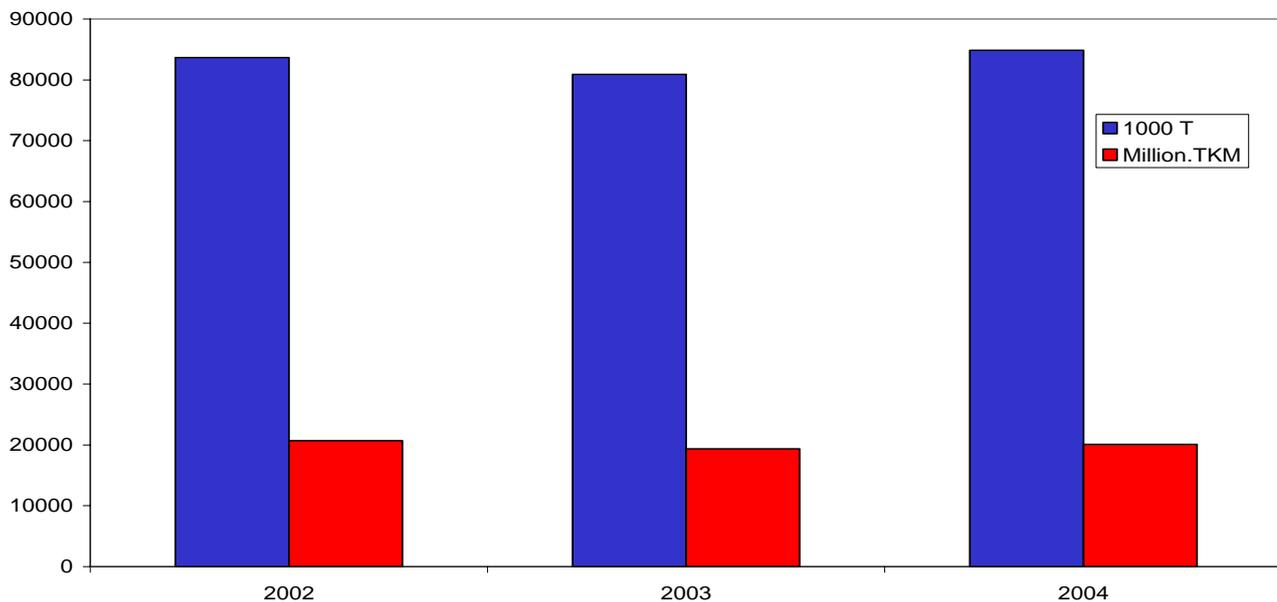
3) Oil-based products

Over the three-year period, the transport of oil-based products in the countries under consideration progressed by about 1.5%. Over the same period, European consumption of oil-based products increased by about 3%. These figures therefore reflect a smaller market share for inland waterway transport.

	2000	2001	2002	2003	2004
Consumption of oil - EU (in million tonnes)	594	600	595	608	613

The increased volume of products consumed, and therefore carried, has been absorbed by the use of pipelines.

Evolution from the transports of oil based products



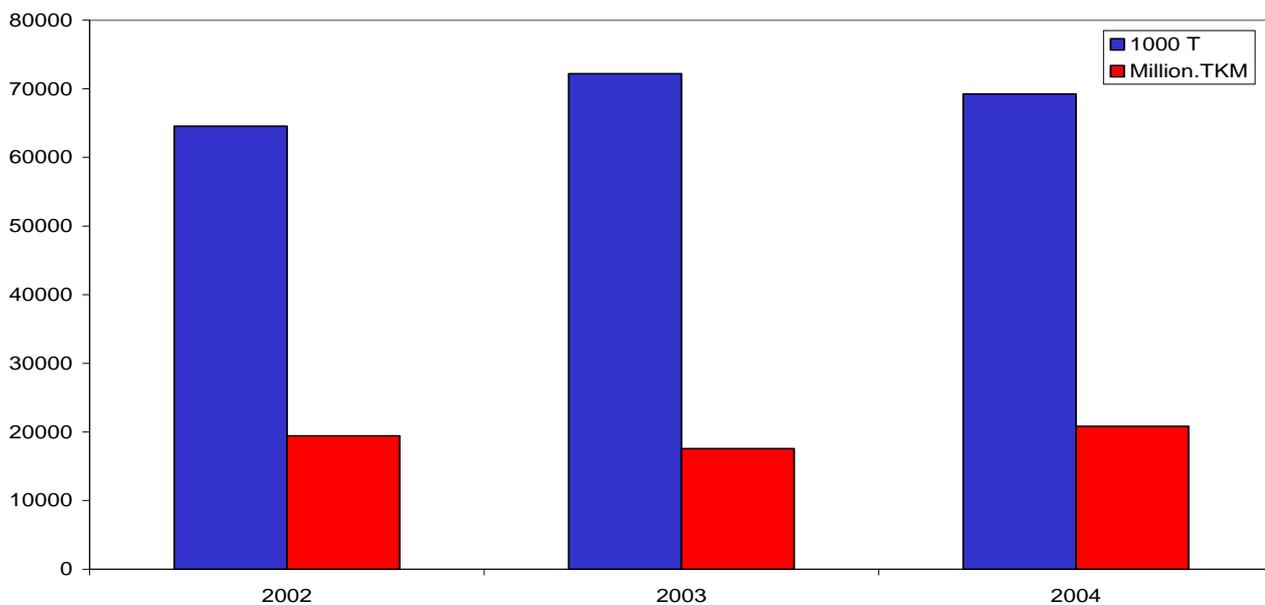
4) Iron and steel products

The volume of products related to the iron and steel industry transported increased by more than 7% in Europe between 2002 and 2004. This was because, as a result of sustained world demand, particularly from 2004 onwards, German steelworks have been operating at maximum capacity to meet demand from China and south-eastern Asia in general.

	2000	2001	2002	2003	2004
World production of steel	848	850	902	969	1057

As these products are intended for export, they are sent to the sea ports in the form of semi-finished goods. Conversely, the raw materials used (ore and scrap for the metal industry) are brought in by boat from these ports. This worldwide situation of sustained demand for steel is expected to continue for several years yet.

Evolution from the transports of iron and steel products



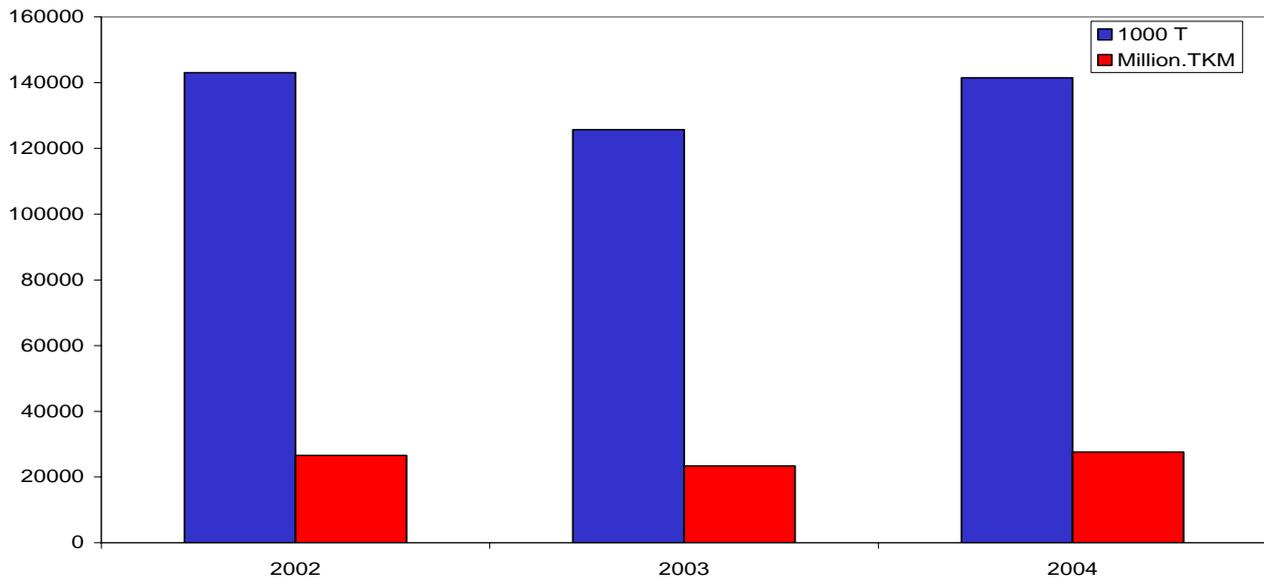
5) Building materials

The structure of transport in this sector on the Rhine has been shrinking regularly for a number of years. This is due partly to the building and public works industry suffering from difficult conditions at present, particularly in Germany, and partly also to the gradual exhaustion of sites for quarrying sand and gravel the length of the upper Rhine and the development of new quarrying sites in the North Sea.

2003 saw a real drop in transport of this type over all the inland waterways, with volume falling by more than 12%. This temporary drop is a consequence of the water conditions in 2003. When there is less freight space available on the market, the cost of transport encourages market players to keep available space available for other goods, and be prepared to defer the transport of building materials or transferring part of it to road haulage.

The volume transported in 2004 was closer to normal, but still slightly less than the figures for 2002, confirming the structural evolution towards less volume in this sector.

Evolution from the transports of building materials



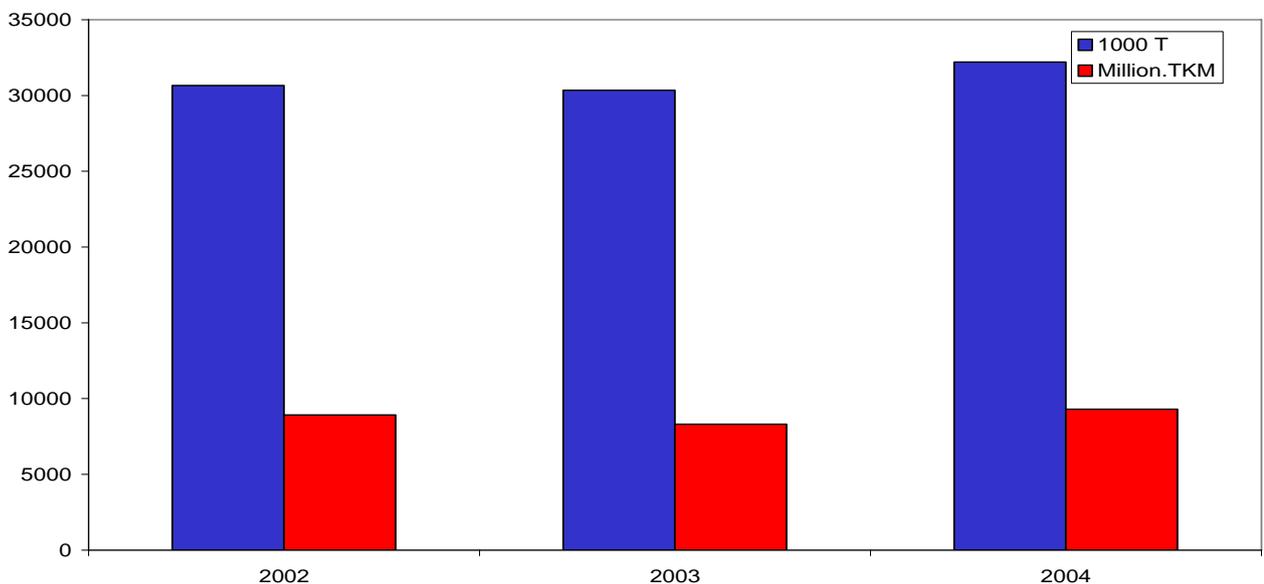
6) Chemicals

After a number of lean years in the chemical sector, the upturn that has been expected for some months began to be visible in the chemical industry in 2004. As a result the increase in transport began in 2004, and the trend is expected to continue in 2005 and even into 2006.

	2000	2001	2002	2003	2004
Chemical production – EU (index 100 in 2000)	100	102	107	109	112

In view of the security inland waterway transport offers for the transport of goods of this type, it would appear to be well placed to increase its market share in this sector. Thus in western Europe the volume of chemicals carried has progressed by 5% and the services provided has increased by 4%.

Evolution from the transports of chemical products



7) Manufactured goods and containers

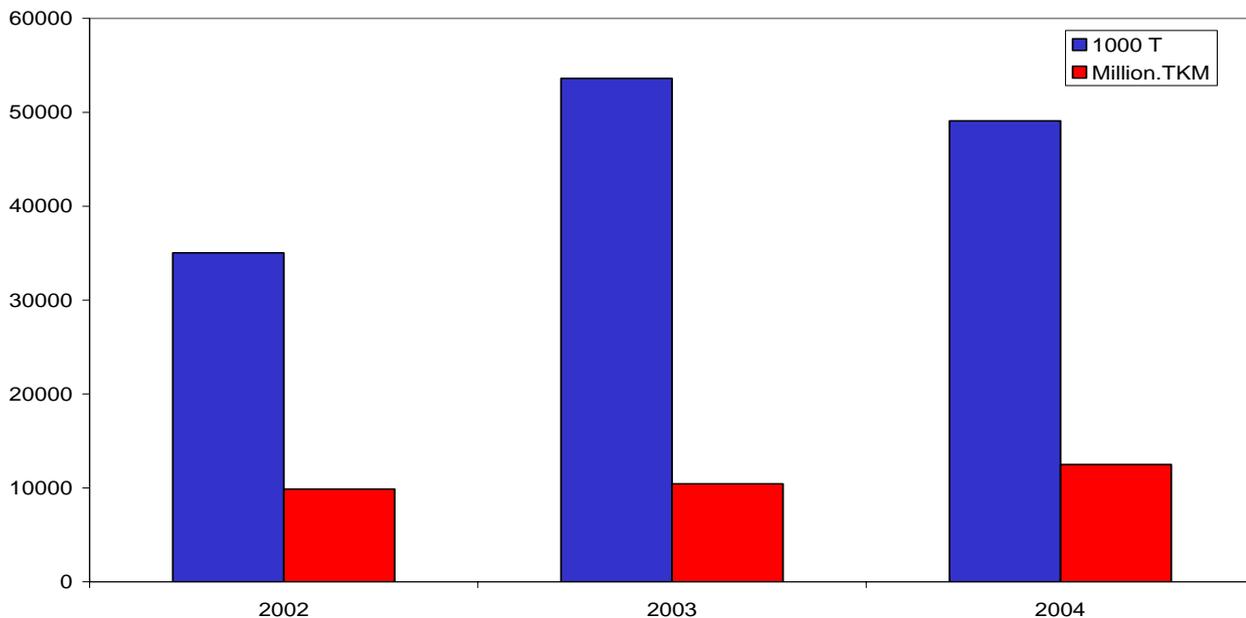
80% of the volume of this category covering the transport of manufactured goods involves the transport of containers. The transport by inland waterway of vehicles and other finished goods has increased substantially, in line with exports, and the same is true of the transport of containerised goods.

This last type of transport developed in Europe by +40% between 2002 and 2004. While the increase is more than 26% on the Rhine, where this sector has developed considerably over the past decade or more, the figure is much higher on other routes – the north/south route showed 2004 an increase of more than 35% in northern France. This high figure is above all due to the fact that this type of transport is more recent here than on the Rhine.

Moreover, there has also been an increase in containerised transport in the delta further to the creation of multi-modal platforms in the close hinterland. In general, we can also see that the increase in transshipments of containers in the delta sea ports as a result of growth in Asian countries was more than 25% between 2002 and 2004. This very rapid development has resulted in congestion that was prejudicial to the competitiveness and reliability of inland waterway transport in 2004, forcing the sea ports to do their utmost to accelerate the development of their infrastructures, increase their staff, and rationalise their operation.

This trend is expected to continue over the coming years. The market share held by inland waterway transport has been able to progress considerably for links between sea ports and their hinterland. Inland waterway transport must find ways of accompanying the very favourable evolution of demand in this sector.

Evolution from the transports of container and manufactured goods

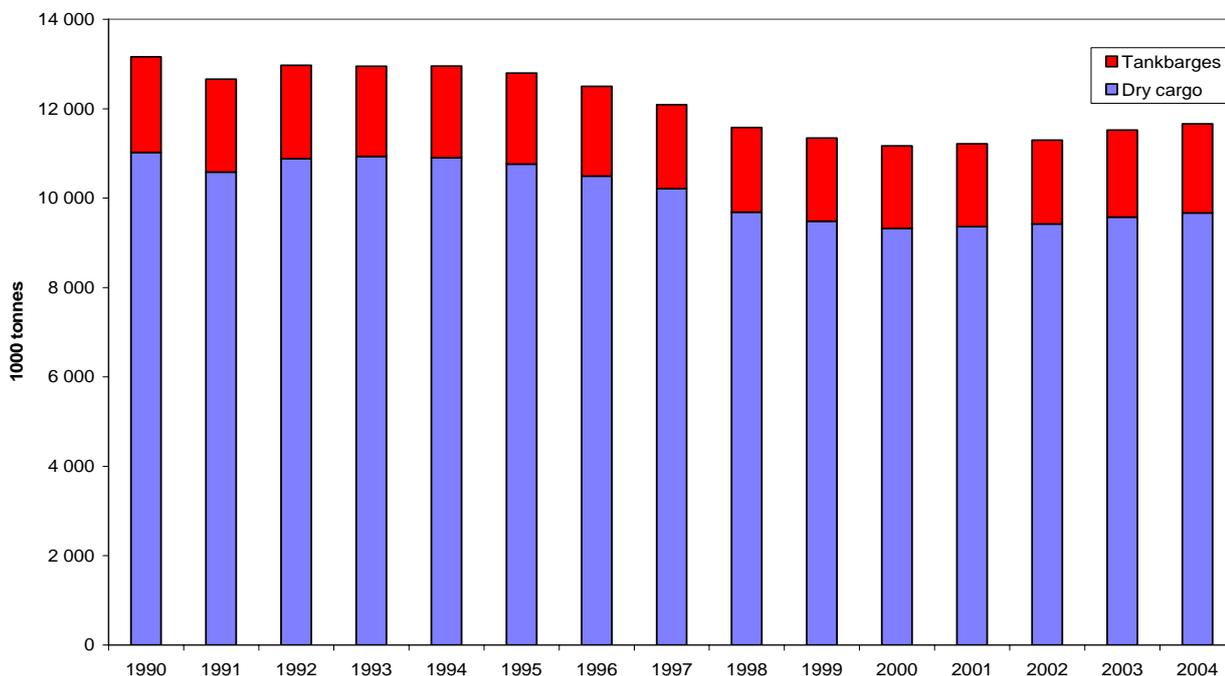


Chapter 2 - Analysis of offer of transport

A. Structure of the national fleets

Observation of the evolution of capacity on the European market and on the Rhine in particular points to a reduction in offer on the market in the course of implementation of the policy of structural reorganisation. It was more particularly between 1995 and 2000 that a substantial reduction was visible.

Evolution of the fleet



From 2001 onwards, but particularly in 2003, a clear inversion of this trend has been apparent, with the gradual change in the “old for new” rule. This trend continued in 2004, and indeed was even more apparent for tanker transport.

It should be noted that the average size of the new units on the market since 2001 is considerably larger than that of older vessels, and this element is not without its impact on the offer of transport during periods of low water. Furthermore, the operating mode of these new units (24 hours a day) means that the productivity of one recent tonne of transport is not the same as that of an earlier tonne (12 to 14 hour / day).

To measure the effect of the contribution new capacity makes to the offer of transport, it is therefore necessary to apply a weighting coefficient to new tonnage on the basis of this factor.

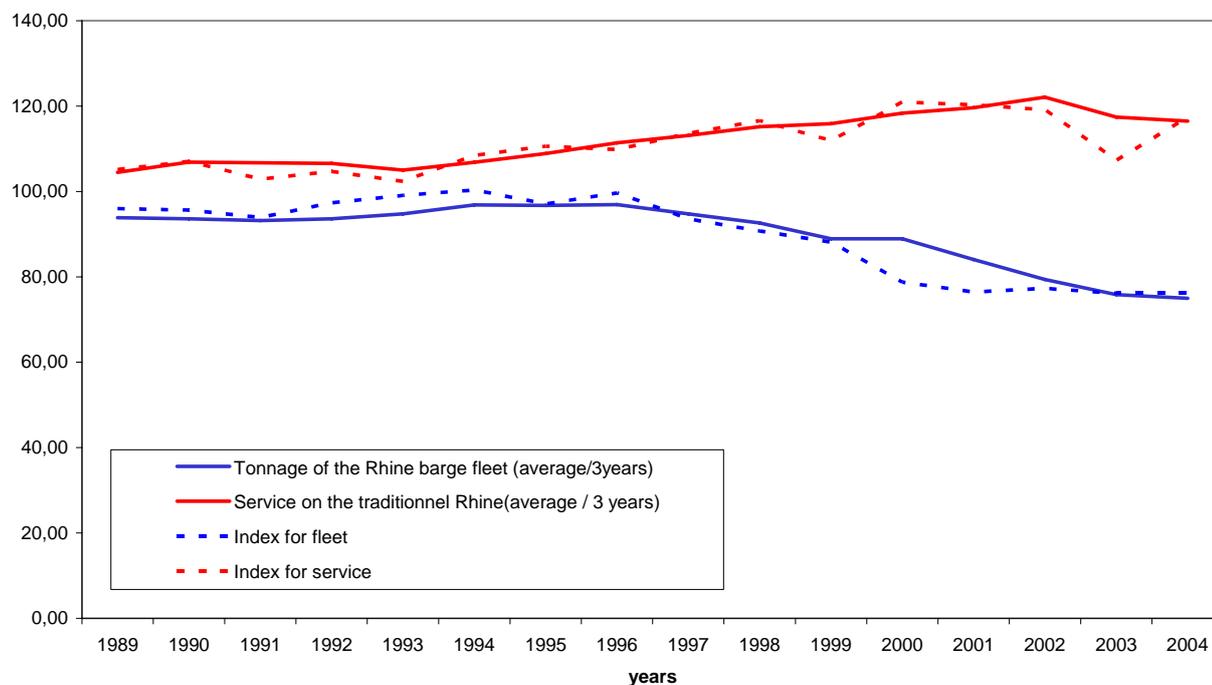
It was during the period of prolonged drought in the summer of 2003 that the value of small units became apparent. Indeed, during such periods, large-scale units cannot travel under satisfactory conditions – and at times are indeed unable to move at all – so that there is more demand for the smaller units as they can still be filled to maximum capacity, and at good rates since there is a shortage of offer. This was in fact the case on the Rhine and its tributaries. These small units are no longer being replaced by the new units at the moment, in fact, and they play a vital, irreplaceable role in serving the hinterland, throughout the entire network of canals.

B. Arrival of new transport capacity on the market

Examination of the evolution in the capacity on the market compared with that of services provided shows that while there is no major difference between the two for the transport of dry goods, the same does not apply to transport by tanker. Between 2002 and 2004, indeed, capacity on the market increased whereas the services provided in the sectors concerned have not developed in the same direction. This may well point to a trend towards the appearance of over-capacity; this trend was confirmed in 2005 in view of the volume of new transport capacity put on the market.

It is therefore recommended that investors remain prudent, and keep sight of the prospects for the evolution of demand in the sector concerned. *(The example below shows the situation on the Rhine.)*

Comparision between the of evolution of service on the traditional Rhine and the capacity of the Rhine Fleet



Chapter 3 – Navigation conditions

Water conditions

In terms of methodology, it is agreed that this factor should be considered on the basis of observation of water levels at Maxau, Kaub and Ruhrort for the Rhine and at Hofkirchen for the western part of the Danube.

The phenomenon of water conditions is not significant for the canals, but periods of ice must be taken into consideration, particularly in northern Germany. This also applies to rivers such as the Elbe and the Oder.

While the years 2002 and 2004 saw average water conditions, featuring periods of low water and short-lived seasonal flooding, 2003 may be viewed as an exception year because of the long period of drought observed during the summer, which seriously reduced inland waterway transport capacity in Europe for a number of months, particularly on the Rhine and its tributaries. This situation was exceptional in its importance and its duration, and it highlighted firstly the importance and usefulness of small units within the European fleet, and secondly the importance of the modal share of inland waterway transport which, should it fail, cannot be replaced by other land-based modes of transport in the short term, particularly for the main goods that by tradition are transported on waterways.

Chapter 4 - Microeconomic analysis

A. Procedure for the microeconomic approach

Introduction

Alongside the monitoring of the evolution of offer and demand on the market, it proved to be important to have the means of examining the conditions under which a vessel is operated. A good understanding of these elements should make it possible firstly to detect shortcomings that in the long run have results such as poor vessel maintenance, and secondly to measure the impact of a substantial variation in certain items of expenditure by carrying out simulations.

As this is a new approach as regards market observation and directly concerns vessel operators, the preparatory work leading to the setting up of this monitoring tool has been carried out in close collaboration with representatives from the main organisations involved in inland waterway transport in Europe.

To enable the reader to understand the structure and the methodology of these studies, we felt it was useful, in this initial document, to set out the ideas and reasons behind the breakdowns selected.

The microeconomic approach of this tool operates at four levels:

- 1) characteristic categories of vessels;
- 2) cost items;
- 3) compilation of an approach to income based on turnover and therefore the level of activity;
- 4) the determination of indicative ratios and indexes allowing monitoring and comparisons over time.

1) Definition of the categories of vessels to be included

In compiling this monitoring tool, the vessels used for inland waterway transport have been divided into eight categories, in order to allow the most precise approach possible as regards their characteristics not only in terms of operating costs, but also in terms of their operating mode.

a. Ordinary self-propelled barges with a capacity of between 100 and 700 tonnes

This type of vessel is frequently found on canals and is used for exchange traffic on the Rhine. The vessels are usually owned by individuals and require only a minimum two-man crew. It is therefore on this basis that we evaluate labour costs. These vessels have the highest average age, although this does not preclude intermediate restoration work which may raise their technical level. In terms of operation, these vessels usually work on the basis of 14 hours per day. It can be seen, however, that the number of vessels in this category is falling, although they still represent 21% of the market's transport capacity.

b. Ordinary self-propelled barges with a capacity of between 700 and 1500 tonnes

Vessels of this type also have a relatively high average age; they are mainly operated by individuals. They nevertheless need a crew of at least two and often operate on a daily basis of 14 hours out of 24. Their activity is not the same as that of larger vessels when water levels are low – these vessels can continue to operate and take advantage of attractive freight rates. This category of vessel currently represents approximately 45% of the market's transport capacity.

c. Ordinary self-propelled barges with a capacity of between 1500 and 2500 tonnes

This category of vessel is representative of traffic on the Rhine and on wide-gauge inland waterways. These are vessels that comply with up-to-date technical norms and are operated in an optimal fashion on a round-the-clock basis. As a result, a minimum crew of four is required. These vessels have the lowest average age of all vessels currently on the market. As such, they represent 23% of available capacity in the CCNR's member States. Their size makes these vessels heavily dependent on water conditions for operation at full capacity.

d. Ordinary self-propelled barges with a capacity of over 2500 tonnes

This category includes the most recent and the best equipped vessels in the market. They are mainly to be found on the Rhine and in the delta. They currently represent 12% of available transport capacity in the member States, and their market share is growing constantly.

e. Self-propelled tanker barges with a capacity of between 100 and 700 tonnes

This category includes only a very small number of vessels, mainly operating in Belgium and France(*); it represents 7.5% of capacity in the CCNR's member States.

f. Self-propelled tanker barges with a capacity of between 700 and 1500 tonnes

This category includes the oldest self-propelled barges with single hulls, requiring just a two-man crew. These vessels represent approximately 32% of the market's transport capacity.

g. Self-propelled tanker barges with a capacity of between 1500 and 2500 tonnes

This category is representative of the generation of self-propelled tanker barges that went into service in the 1980s and 1990s. Most have double hulls with the specific features in terms of operation and costs that this involves. They have a crew of at least four. In view of the lower average age of these vessels, differences will appear in terms of interest costs and amounts allocated to amortisation. This category represents approximately 39% of the market's transport capacity.

h. Self-propelled tanker barges with a capacity of over 2500 tonnes

This category includes the most recent vessels in the market. They mainly operate on the Rhine and in sea ports as supply vessels. Their current market share may be estimated at approximately 21%, and it is growing constantly.

(* *Vessels specialising in the transport of cement are included in this category.*)

2. Definition of cost headings to be monitored

Table 1

This table shows the data compiled by the Secretariat in order to show the relative importance of the various categories in the market and to allow monitoring of their cost structures over time. Thus it will be possible to monitor the addition of new vessels and the gradual decline of small vessels and, more importantly, incorporated in our market model.

At the foot of this table are details of the data to be taken into account in calculating the operating result. This includes the value of the vessel based on the replacement cost or the amount for which the vessel is insured.

The operating mode and the number of days also supply information that is useful when evaluating the annual result. These elements are obtained from the profession and from the insurance companies.

Table 2

This table covers the main headings for income and expenditure. The first part covers the fixed costs for keeping the vessel operational. The second part covers the variable costs directly related to the activity. The third part covers revenue and the creation of reserves.

Fixed costs

- **Personnel costs**

Although personnel costs, including social charges, for an employee on a relatively large vessel may be evaluated at between 40 000 and 60 000 euros per year, the amount is not the same for smaller vessels, which are often operated by the owner. In this case, from the accountant's point of view, personnel costs are often very low and the operating profit should be added to the operator's profit. Remuneration for the entrepreneur should also be taken into account because, although the owner operating the vessel receives remuneration for his work on board, this additional remuneration is for his activities in connection with the administration of the vessel in his capacity as owner. This involves remunerating the activities and risks incumbent on the owner in his capacity as entrepreneur that are carried out in addition to the work directly connected with navigation (administrative work, chartering, investment risks, various ancillary activities, etc). These costs should be put down to either the owner operating the vessel or to the managing body (corporation, charter agency, association of operators, etc). The purpose of this operation is to examine accounts in order to determine average values likely to supply indications as to profit capacity and investment potential.

- **Insurance**

The amount of insurance premiums, including any excesses, will be indicated by the insurance companies.

- **Other costs**

These include canal dues, pilots' fees, port taxes, etc.

The notion of **the loss of the vessel's value** covers:

- **the cost of repairs and maintenance**

The amount of expenditure on repairs and maintenance will be obtained from the central file.

- **Allocations to amortisation**

The amount allocated to amortisation depends on the residual life of vessels in that particular category.

As the vessel ages, these two concepts move in opposite directions (allocations to amortisation decrease, while the cost of repairs increases).

- **Interest charges and capital remuneration**

This information should be obtained from the banks. In the event of substantial fluctuation in interest rates, a lump-sum amount could be taken into account for simulation purposes.

Variable costs

- **Cost of diesel oil and lubricants**

This decisive element can be obtained from the profession, perhaps supplemented by information from the central file.

- **Cost of minor items**

This information cannot be obtained from the central file; it covers painting costs, etc.

- **Other costs**

This umbrella heading covers all other operating expenditure (cost of communications, port dues, pilots' fees, etc).

Once the list of costs is complete, it is possible to determine the profitability threshold by adding up the columns. This makes it possible to evaluate, for each category, the profitability and the capacity for investing effectively in order to maintain the vessel in good condition in the long term.

This table also provides information on turnover, gross result and capacity to constitute reserves. These data elements should be compared against costs from an accountant's point of view.

3. Considering income in terms of turnover and therefore the level of activity

Table 3

This table shows a number of indicators that should permit a description summarising the situation in graph form.

- **Margin on variable costs**

This is calculated by deducting the amount of variable costs from sale income.

- **Margin on variable costs / actual turnover**

This ratio should make it possible to follow the evolution of profitability over a number of years and to indicate trends.

4. Indicators allowing monitoring and comparisons over time

Table 4 - Indicators

This table shows monthly values, making it easier to understand evolutions at the microeconomic level. It is not appropriate for these to be broken down by category of vessel.

- ***Diesel oil index***

This index is based on data concerning the price of diesel oil.

- ***Freight index***

This index is drawn up using a weighted average of freight carried for important items and important relations.

- ***Load index***

The purpose of this index is to represent the possibilities for operating available transport capacity in relation to the water conditions (for the Rhine only).

B. Evaluation of the microeconomic situation over the years 2001 to 2003

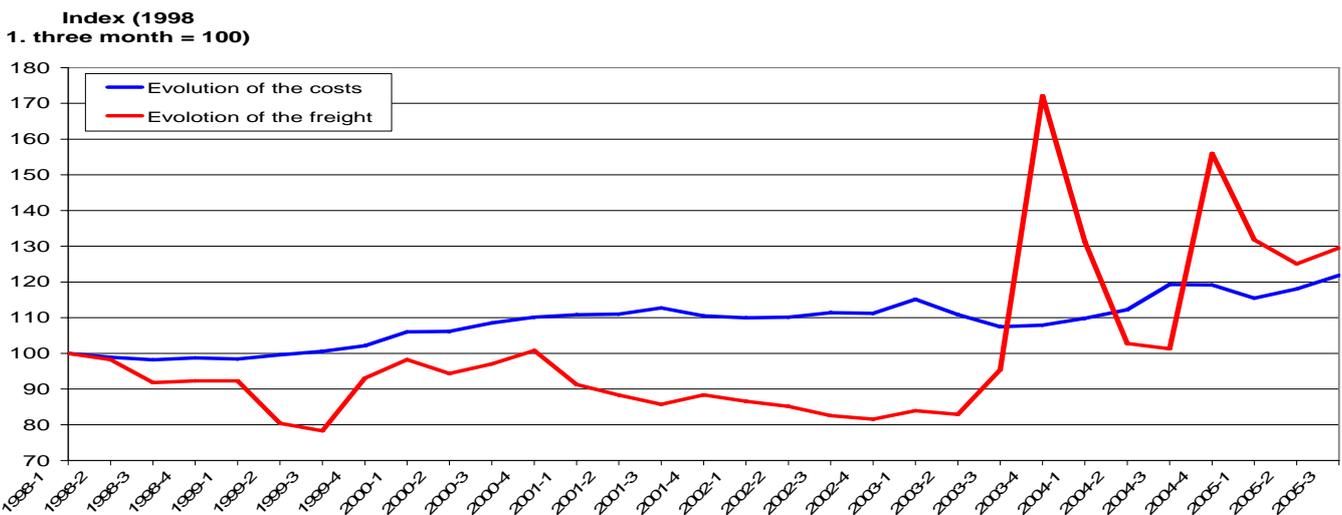
1) Freight rates

It would appear to be essential to present a reliable approach to the freight rates charged over significant routes and for given types of transport, inasmuch as it is the combination of these rates with the volumes transported, and more particularly with the services provided, that produces the figure for the turnover achieved by the vessels. This factor is therefore an important indicator in the evaluation of operating conditions in the market.

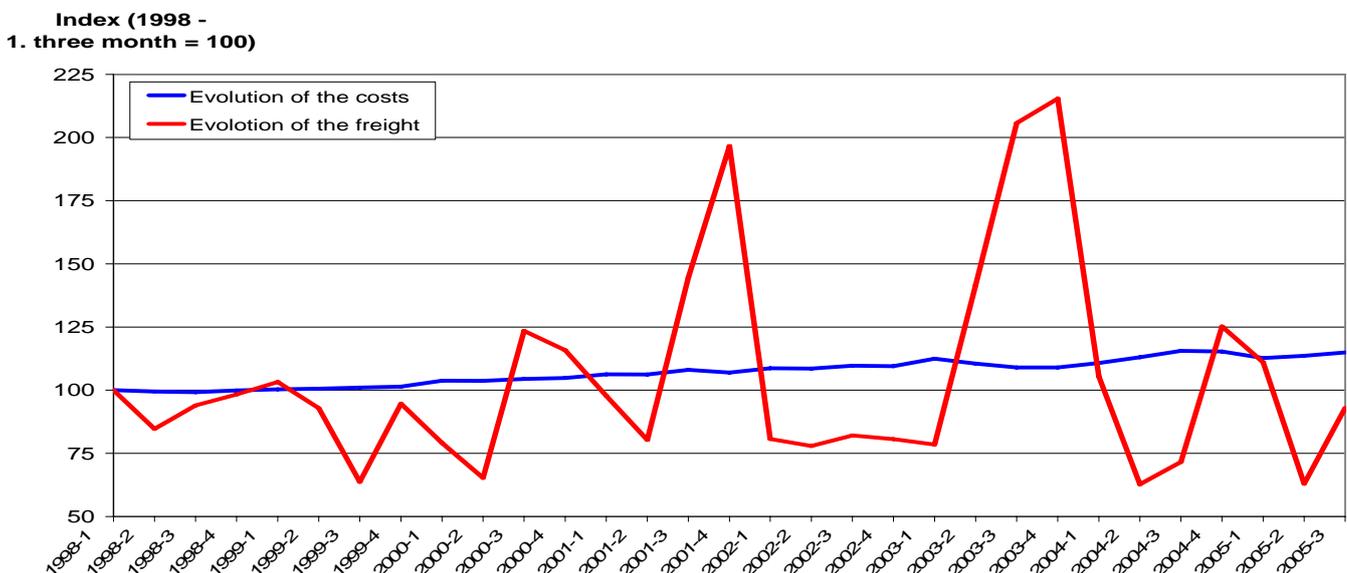
As applied here, the setting up of a realistic and reliable approach to monitoring freight rates comes up against the difficulty in accessing information that is representative, regular and reliable.

It is still necessary to consult the profession's representatives in order to determine possible sources of information and the methodology to apply. It should be possible in the next publication to present a more precise approach for monitoring freight rates on the market. Until then, we shall limit ourselves to presenting two charts drawn up by NEA that compare, in index form, the evolution of freight rates and operating costs for dry transport and tanker transport.

Market for transport of dry goods



Market for transport by tanker



2) Analysis of cost structure

The study carried out by NEA was intended to allow evaluation of the situation of undertakings in terms of the evolution of their running and operating costs; initially it covered a sample of 220 self-propelled vessels for transporting dry goods and 42 self-propelled vessels for tanker transport belonging to the Dutch fleet.

Despite the small size of this first sample analysed, it supplies indications concerning the structure of loads by type and size of vessel. This approach will be adapted as the sample examined is extended. The aim is two-fold: firstly to provide the operator with a reference enabling him to ascertain his position in relation to the segment in which he operates, and secondly to be able to follow or indeed anticipate the evolution of various items of expenditure at the same time as assessing the impact of their evolution on operation and, as appropriate, to detect the onset of a crisis situation.

For this innovative approach among market observation publications, a major difficulty was constituted by access to representative data. A number of possibilities are currently coming to the fore, and these will make it possible in the next publication to present not only elements concerning 2004 but also to extend the sample to include a larger number of vessels. From 2006 it should be possible to also include vessels belonging to the Belgian, French and German fleets, which would make it possible to take account of specific local features of operating the vessels. On the basis of this data covering the entire European market, it may be possible to forecast the evolution of costs.

The elements available to us in compiling this initial publication nevertheless enable us to note that for both dry and tanker transport there is a difference in the structure of fixed and variable costs that depends on the size of the vessel, its age, the crew it requires and its operating mode.

Thus it appears that it is among the smallest vessels (100-700 tonnes) that the average age is highest. This would appear to be logical, in that it is this type of vessel is no longer being built. On consequence, their annual depreciation rate substantially lower than of larger and on the whole much more recent vessels.

Quite logically, the proportion of expenditure on insurance and financial charges also follows this trend.

Regarding the cost of maintenance and repairs, it appears that these occupy a similar proportion of costs whether the vessel is large or small. This is due to the fact that while the small units require maintenance because of their age, the new units also need very regular maintenance because they are operated very intensively (24 hours a day).

The proportion of personnel costs falls as the size of the vessel increases.

During this period from 2001 to 2003, a clear drop in financial charges is noticeable in every category, mainly due to the fall in the banks' interest rates.

The price of fuel oil averaged approximately 29 euros in 2002; this figure is about 3 euros less than the price in 2001, which is on the whole reflected by a drop in this expenditure heading. From autumn 2002 onwards, oil prices on world markets rocketed with the prospect of war in Iraq. It was not until towards the end of the first half of 2003 that oil prices returned to a lower level, as the risk of war had been averted. In the second half of 2003, prices evolved in a fairly stable manner.

In 2004, however, they generally tended to increase, despite a short calm period towards the end of the year.

Conclusions and forecasts

In view of the period covered by this initial publication (2001-2004), it does not appear to be possible to make forecasts for 2005, which indeed will soon be over. The main aim of this first publication has therefore been to lay down markers for a series of publications that are intended to analyse the current situation and forecast the situation over coming months. Thus the publication scheduled for the end of 2005 will include forecasts for the start of 2006.

Analysis of evolution over the period 2001-2004 nevertheless permits a number of statements concerning inland waterway transport in Europe and in current evolution.

Thus the very lengthy period of low water levels during the summer of 2003 highlighted the importance of having smaller vessels in fleets during periods of low water levels, both on major inland waterways and at a time when the only units coming onto the market are in fact large vessels, for reasons of economy of scale.

This period of exceptional water conditions also made it possible to note the modal position of inland waterway transport in the market for land-based transport. This it became apparent that, in the event of the temporary partial failure of inland waterway transport, it is impossible for the other modes of transport to step in rapidly and absorb the demand for transport not covered by inland waterway transport as they are far from having sufficient flexibility and capacity to take over.

The speed with which new vessels, particularly those offering tanker transport, are being put on the market since the end of the policy of structural reorganisation and the gradual change in the "old for new" rule is such that there are fears that over-capacity may reappear. Indeed comparison of the volume of new transport capacity put on the market and the evolution of demand for tanker transport (which is stagnant, to say the least) points to the fact that an obvious gap is developing.

The substantial increase in transport using containers observed over almost a decade but which has accelerated recently offers inland waterway transport a chance to increase its market share, if it is able to respond to demand by adapting and rationalising its operation so that it can be integrated into logistics chains. While it is clear that the port organisations need to make an effort in terms of developing their infrastructures – which they are currently doing – it is also important for inland waterway transport to adapt its method of operating so that it is able to respond to demand effectively. Its activity in traditional markets such as the transport of agricultural goods and above all transport in connection with the iron and steel industry and the transport of coal and chemicals has increased between 2002 and 2004; the resulting high level is due to economic growth and more particularly to demand from the countries of south-eastern Asia. This situation is expected to continue in the coming years.

Appendices

Offer of transport capacity

Methodology

Definitions, methods and nomenclature

Concerning these statistics on the evolution of inland fleets, the CCNR has been trying for decades to determine as reliably as possible the available transport capacity in the transport market. This has always been a difficult objective to attain, as the information passed on by the member States is not always completely harmonised, despite the CCNR's adoption of a resolution on precisely this point in 2000 for the fleets of its member States.

The elements of data transmitted to the CCNR in the form of data files come from the national registers. Some of these, including France, are unfortunately still undergoing the restructuring which will make them more reliable.

To reflect the most faithful image possible of the offer of transport capacity on the market, the States only take into account those vessels that actually provided transport during the previous year, ie active vessels, or what may be regarded as the "operational" fleet because the vessels comprising the fleet have the necessary certificates to become active at any time in response to demand for transport on the market.

For the future, harmonisation aimed at taking account of the "operational" fleet is desirable, but the present state of some registers does not permit this for the time being.

In view of the small number of "chaland" barges still in the market and their negligible impact on the offer of transport capacity, they are not included in these statistics either.

When basic changes are made to statistics at the national level, as much care as possible is taken over transmitting information to ensure the possibility of using the figures in analyses. When the data for a given year is not available or is incomplete, the data elements for previous years are used as an indication so as not to leave a gap.

Table OM1 – INLAND FLEETS 2000-2004 (Summary)
BY CATEGORY OF VESSEL

Country	Ordinary self-propelled barges			Ordinary barges			Total capacity of the dry cargo fleet		
	Units no.	Tonnage t	Power kW	Units no.	Tonnage t	Power kW	Units no.	Tonnage t	Power kW
31.12.2000									
Germany	1028	1198527	516452	982	891738		2010	2090265	516452
Austria							0	0	0
Belgium	1158	971571	456941	146	359903		1304	1331474	456941
France	1126	520353	233675	611	593838		1737	1114191	233675
Luxembourg	26	26803	13096	2	5660		28	32463	13096
Netherlands	3404	3278465	1579760	751	1292402		4155	4570867	1579760
Switzerland	18	33052	20404				18	33052	20404
total	6760	6028771	2820328	2492	3143541		9252	9172312	2820328
31.12.2001									
Germany	988	1188918	506960	954	892591		1942	2081509	506960
Austria							0	0	0
Belgium	1131	982986	471275	157	380602		1288	1363588	471275
France	1129	526289	237152	625	601349		1754	1127638	237152
Luxemburg	25	26345	12969	1	2830		26	29175	12969
Netherlands	3322	3236288	1582483	759	1314625		4081	4550913	1582483
Switzerland	14	24560	15648				14	24560	15648
total	6609	5985386	2826487	2496	3191997		9105	9177383	2826487
31.12.2002									
Germany	975	1182878	508002	920	877802		1895	2060680	508002
Austria							0	0	0
Belgium	1103	997928	485124	165	382858		1268	1380786	485124
France	1152	542743	146921	609	588232		1761	1130975	146921
Luxemburg	23	23741	12093	1	2830		24	26571	12093
Netherlands	3240	3285722	1608718	772	1334681		4012	4620403	1608718
Switzerland	12	23369	14210				12	23369	14210
total	6505	6056381	2775068	2467	3186403		8972	9242784	2775068
31.12.2003									
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
31.12.2004									
Germany	950	1127796	507802	1014	949093		1964	2076889	507802
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
total	6211	6164876	2772331	2576	3432771		8787	9597647	2772331

Table OM1 – INLAND FLEETS 2000-2004 (Summary)
BY CATEGORY OF VESSEL

Country	Self-propelled tanker barges			Tanker barges			Total capacity of tanker fleet		
	Units no.	Tonnage t	Power kW	Units no.	Tonnage t	Power kW	Units no.	Tonnage t	Power kW
31.12.2000									
<i>Germany</i>	305	446043	211918	41	55352		346	501395	211918
<i>Austria</i>							0	0	0
<i>Belgium</i>	205	242262	108761	8	9144		213	251406	108761
<i>France</i>	70	51414	20734	64	90823		134	142237	20734
<i>Luxemburg</i>	27	47103	23284	2	8444		29	55547	23284
<i>Netherlands</i>	719	721217	370963	49	80666		768	801883	370963
<i>Switzerland</i>	45	102604	45210	0	0		45	102604	45210
total	1371	1610643	780870	164	244429		1535	1855072	780870
31.12.2001									
<i>Germany</i>	313	459700	222904	41	55279		354	514979	222904
<i>Austria</i>							0	0	0
<i>Belgium</i>	200	236952	108422	7	9826		207	246778	108422
<i>France</i>	65	53233	23236	69	97475		134	150708	23236
<i>Luxemburg</i>	23	38569	19313	2	8435		25	47004	19313
<i>Netherlands</i>	709	718939	369598	44	75806		753	794745	369598
<i>Switzerland</i>	40	90712	40535	0	0		40	90712	40535
total	1350	1598105	784008	163	246821		1513	1844926	784008
31.12.2002									
<i>Germany</i>	324	486517	240106	43	55888		367	542405	240106
<i>Austria</i>							0	0	0
<i>Belgium</i>	197	240981	112357	6	11838		203	252819	112357
<i>France</i>	66	54949	22953	67	95575		133	150524	22953
<i>Luxemburg</i>	21	34927	18050	2	8435		23	43362	18050
<i>Netherlands</i>	705	718258	368577	47	79646		752	797904	368577
<i>Switzerland</i>	36	85332	38109	0	0		36	85332	38109
total	1349	1620964	800152	165	251382		1514	1872346	800152
31.12.2003									
<i>Germany</i>	336	508502	258021	45	54930		381	563432	258021
<i>Austria</i>							0	0	0
<i>Belgium</i>	200	242349	114844	6	11838		206	254187	114844
<i>France</i>	71	65421	23020	65	91815		136	157236	23020
<i>Luxemburg</i>	18	30481	15720	2	8435		20	38916	15720
<i>Netherlands</i>	720	771759	354130	44	75294		764	847053	354130
<i>Switzerland</i>	31	78036	33144	0	0		31	78036	33144
total	1376	1696548	798879	162	242312		1538	1938860	798879
31.12.2004									
<i>Germany</i>	345	522619	271217	49	53280		394	575899	271217
<i>Austria</i>	5	5601		15	22055		20	27656	0
<i>Belgium</i>	217	281516	132661	6	11838		223	293354	132661
<i>France</i>	35	39234	12990	47	67418		82	106652	12990
<i>Luxemburg</i>	18	30481	15720	2	8435		20	38916	15720
<i>Netherlands</i>	746	824283	335545	43	74177		789	898460	335545
<i>Switzerland</i>	29	72860	33105	0	0		29	72860	33105
total	1395	1776594	801238	162	237203		1557	2013797	801238

**Table OM1 – INLAND FLEETS 2000-2004 (Summary)
BY CATEGORY OF VESSEL**

Country	Tugs			Pusher tugs			Total propelled vessels		
	Units no.	Tonnage t	Power kW	Units no.	Tonnage t	Power kW	Units no.	Tonnage t	Power kW
31.12.2000									
Germany	163		33776	286		107041	449		140817
Austria				10		9200	10		9200
Belgium	21		5819	59		33517	80		39336
France	3		835	196		91481	199		92316
Luxemburg	0		0	20		17609	20		17609
Netherlands	546		119435	549		241795	1095		361230
Switzerland	1		368	7		5444	8		5812
total	734		160233	1127		506087	1861		666320
31.12.2001									
Germany	158		31757	297		113817	455		145574
Austria							0		0
Belgium	22		6282	57		33557	79		39839
France	24		3580	177		88354	201		91934
Luxemburg	0		0	20		17609	20		17609
Netherlands	561		126578	555		238618	1116		365196
Switzerland	1		368	6		4120	7		4488
total	766		168565	1112		496075	1878		664640
31.12.2002									
Germany	158		31757	291		121166	449		152923
Austria							0		0
Belgium	3		655	92		44580	95		45235
France	25		3821	179		89019	204		92840
Luxemburg	3		655	92		44580	95		45235
Netherlands	525		120535	559		237739	1084		358274
Switzerland	1		368	5		1947	6		2315
total	715		157791	1218		539031	1933		696822
31.12.2003									
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
31.12.2004									
Germany	143		29234	300		135723	443		164957
Austria				10		9200	10		9200
Belgium	13		4303	112		52435	125		56738
France	24		3572	171		85101	195		88573
Luxemburg	0		0	18		15220	18		15220
Netherlands	494		103237	541		224440	1035		327677
Switzerland	1		368	5		1947	6		2315
total	675		140714	1157		523966	1832		664680

Austria: non-detailed data available only from 2004

France: no data available for tugs, pusher tugs and passenger vessels

**Table OM1 – INLAND FLEETS 2000-2004 (Summary)
BY CATEGORY OF VESSEL**

Country	Excursion vessels			Cruise vessels			Total passenger vessels		
	Units no.	Passengers no.	Power kW	Units no.	Passengers no.	Power kW	Units no.	Passengers no.	Power kW
31.12.2000									
Germany							1007	204644	234398
Austria							0	0	0
Belgium							153	0	23606
France							0	0	0
Luxemburg							6	1550	3257
Netherlands							834	48885	159919
Switzerland							39	6782	40637
total							2039	261861	461817
31.12.2001									
Germany							1044	198741	250189
Austria							0	0	0
Belgium							141	9651	21983
France							0	0	0
Luxemburg							5	1300	3092
Netherlands							853	51713	164895
Switzerland							41	7051	43796
total							2084	268456	483955
31.12.2002									
Germany	1003	194692	225043	34	3500	33636	1037	198192	258679
Austria							0	0	0
Belgium							141	9730	21647
France	303	45035		87	4640		390	49675	0
Luxemburg	5	1300	3092	0	0	0	5	1300	3092
Netherlands	739	36564	110598	166	15295	64957	905	51859	175555
Switzerland	7	2552	2875	38	4999	46921	45	7551	49796
total	2057	280143	341608	325	28434	145514	2523	318307	508769
31.12.2003									
Germany	1006	194801	227862	43	4912	47289	1049	199713	275151
Austria							0	0	0
Belgium							144	9800	21900
France	303	45035		87	4640		390	49675	0
Luxemburg	5	1300	3092	0	0	0	5	1300	3092
Netherlands	739	34877	103306	184	14464	59392	923	49341	162698
Switzerland	7	2552	2875	40	5053	48301	47	7605	51176
total	2060	278565	337135	354	29069	154982	2558	317434	514017
31.12.2004									
Germany	1012	192999	212498	47	5894	54246	1059	198893	266744
Austria							0	0	0
Belgium							149	9900	22379
France	303	45035		87	4640		390	49675	0
Luxemburg	6	1700	3636	0	0	0	6	1700	3636
Netherlands	737	35222	97820	187	14999	58447	924	50221	156267
Switzerland	6	2052	1993	39	4943	48371	45	6995	50364
total	2064	277008	315947	360	30476	161064	2573	317384	499390

**Table OM2 - INLAND FLEETS AT 31.12.2004
BY TONNAGE**

Country	Ordinary self-propelled barges			Ordinary barges			Total capacity of the dry cargo fleet		
	Units no.	Tonnage t	Power kW	Units no.	Tonnage t	Power kW	Units no.	Tonnage t	Power kW
Germany									
up to 249 t	27	4317	2806	71	8925		98	13242	2806
250 - 399 t	54	17222	10488	63	22122		117	39344	10488
400 - 649 t	46	24024	12945	402	178566		448	202590	12945
650 - 999 t	211	176247	78677	183	154840		394	331087	78677
1000 - 1499 t	404	486239	225130	95	117101		499	603340	225130
1500 - 1999 t	117	201417	89140	62	105294		179	306711	89140
2000 - 2499 t	51	112491	45165	57	132619		108	245110	45165
2500 - 2999 t	31	83142	33917	75	206199		106	289341	33917
3000 t and over	7	22697	9339	6	23427		13	46124	9339
not known	2	0	195	0	0		2	0	195
total	950	1127796	507802	1014	949093		1964	2076889	507802
Austria									
up to 249 t							0	0	0
250 - 399 t	1	364		1	259		2	623	0
400 - 649 t							0	0	0
650 - 999 t							57	91242	0
1000 - 1499 t							0	0	0
1500 - 1999 t							0	0	0
2000 - 2499 t	4	6694		53	84548		0	0	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
Belgium									
up to 249 t	4	318	1094	5	549		9	867	1094
250 - 399 t	332	120369	66107	19	6523		351	126892	66107
400 - 649 t	177	96503	49115	36	18688		213	115191	49115
650 - 999 t	184	147309	76168	10	8329		194	155638	76168
1000 - 1499 t	233	279866	140461	22	28090		255	307956	140461
1500 - 1999 t	75	123864	61664	14	25164		89	149028	61664
2000 - 2499 t	54	118993	54000	25	59600		79	178593	54000
2500 - 2999 t	37	101585	47411	55	153978		92	255563	47411
3000 t and over	17	57396	26138	37	131190		54	188586	26138
not known	0	0	0	0	0		0	0	0
total	1113	1046203	522158	223	432111		1336	1478314	522158
France									
up to 249 t	1	242	110	0	0		1	242	110
250 - 399 t	635	240324	97456	50	17176		685	257500	97456
400 - 649 t	140	69021	27093	191	95104		331	164125	27093
650 - 999 t	109	90519	31922	87	65256		196	155775	31922
1000 - 1499 t	52	63795	20306	16	19262		68	83057	20306
1500 - 1999 t	6	9608	3260	17	28668		23	38276	3260
2000 - 2499 t	6	14532	772	26	55871		32	70403	772
2500 - 2999 t	7	18155	2262	77	209659		84	227814	2262
3000 t and over	0	0	0	1	3249		1	3249	0
not known	0	0	0	0	0		0	0	0
total	956	506196	183181	465	494245		1421	1000441	183181

**Table OM2 - INLAND FLEETS AT 31.12.2004
BY TONNAGE**

Country	Ordinary self-propelled barges			Ordinary barges			Total capacity of the dry cargo fleet		
	Units no.	Tonnage t	Power kW	Units no.	Tonnage t	Power kW	Units no.	Tonnage t	Power kW
Luxemburg									
up to 249 t	0	0	0	0	0		0	0	0
250 - 399 t	3	1127	741	0	0		3	1127	741
400 - 649 t	3	1550	892	0	0		3	1550	892
650 - 999 t	3	2341	1213	0	0		3	2341	1213
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	2	4359	2030	0	0		2	4359	2030
2500 - 2999 t	0	0	0	1	2830		1	2830	0
3000 t and over	0	0	0	0	0		0	0	0
not known	0	0	0	0	0		0	0	0
total	19	19521	9931	1	2830		20	22351	9931
Netherlands									
up to 249 t	133	20538	16428	106	13424		239	33962	16428
250 - 399 t	292	97702	51052	31	10282		323	107984	51052
400 - 649 t	528	285843	141270	69	38239		597	324082	141270
650 - 999 t	763	616281	297573	34	28610		797	644891	297573
1000 - 1499 t	740	889475	410960	47	58492		787	947967	410960
1500 - 1999 t	289	490739	210831	54	92429		343	583168	210831
2000 - 2499 t	139	310771	135386	102	232605		241	543376	135386
2500 - 2999 t	145	397191	171403	224	623578		369	1020769	171403
3000 t and over	91	323620	93439	94	370768		185	694388	93439
not known	35	0	6008	57	0		92	0	6008
total	3155	3432160	1534350	818	1468427		3973	4900587	1534350
Switzerland									
up to 249 t	0	0	0	0	0		0	0	0
250 - 399 t	1	373	169	0	0		1	373	169
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	1258		2	2436	948
1500 - 1999 t	6	11445	6881	0	0		6	11445	6881
2000 - 2499 t	2	4442	2560	0	0		2	4442	2560
2500 - 2999 t	2	5198	2859	0	0		2	5198	2859
3000 t and over	1	3306	1492	0	0		1	3306	1492
not known	0	0	0	0	0		0	0	0
total	13	25942	14909	1	1258		14	27200	14909
Total									
up to 249 t	165	25415	20438	182	22898		347	48313	20438
250 - 399 t	1318	477481	226013	164	56362		1482	533843	226013
400 - 649 t	894	476941	231315	698	330597		1592	807538	231315
650 - 999 t	1274	1039391	485553	367	341583		1641	1380974	485553
1000 - 1499 t	1437	1729110	802153	181	224203		1618	1953313	802153
1500 - 1999 t	494	838660	372483	147	251555		641	1090215	372483
2000 - 2499 t	254	565588	239913	210	480695		464	1046283	239913
2500 - 2999 t	222	605271	257852	432	1196244		654	1801515	257852
3000 t and over	116	407019	130408	138	528634		254	935653	130408
not known	37	0	6203	57	0		94	0	6203
total	6211	6164876	2772331	2576	3432771		8787	9597647	2772331

**Table OM2 - INLAND FLEETS AT 31.12.2004
BY TONNAGE**

Country	Self-propelled tankerbarges			Tanker barges			Total capacity of tanker fleet		
	Units no.	Tonnage t	Power kW	Units no.	Tonnage t	Power kW	Units no.	Tonnage t	Power kW
Germany									
up to 249 t	4	696	688	4	505		8	1201	688
250 - 399 t	2	633	511	2	782		4	1415	511
400 - 649 t	4	1965	1285	13	6414		17	8379	1285
650 - 999 t	20	17151	9510	8	7071		28	24222	9510
1000 - 1499 t	166	208677	109989	2	2582		168	211259	109989
1500 - 1999 t	60	101184	51513	4	6604		64	107788	51513
2000 - 2499 t	52	115233	52324	11	24471		63	139704	52324
2500 - 2999 t	23	61902	28650	3	7851		26	69753	28650
3000 t and over	5	15178	7353	0	0		5	15178	7353
not known	9	0	9394	2	0		11	0	9394
total	345	522619	271217	49	56280		394	578899	271217
Austria									
up to 249 t							0	0	0
250 - 399 t							0	0	0
400 - 649 t							0	0	0
650 - 999 t							20	27656	0
1000 - 1499 t							0	0	0
1500 - 1999 t							0	0	0
2000 - 2499 t	5	5601		15	22055		0	0	0
2500 - 2999 t							0	0	0
3000 t and over							0	0	0
not known							0	0	0
total	5	5601	0	15	22055		20	27656	0
Belgium									
up to 249 t	35	4010	4301	0	0		35	4010	4301
250 - 399 t	19	6362	3811	0	0		19	6362	3811
400 - 649 t	30	15132	7874	0	0		30	15132	7874
650 - 999 t	9	7229	4257	1	945		10	8174	4257
1000 - 1499 t	52	64605	33822	2	2203		54	66808	33822
1500 - 1999 t	17	29581	13782	1	1970		18	31551	13782
2000 - 2499 t	27	62000	27396	0	0		27	62000	27396
2500 - 2999 t	13	36140	15803	1	2923		14	39063	15803
3000 t and over	15	56457	21615	1	3797		16	60254	21615
not known	0	0	0	0	0		0	0	0
total	217	281516	132661	6	11838		223	293354	132661
France									
up to 249 t	0	0	0	0	0		0	0	0
250 - 399 t	11	4040	1532	0	0		11	4040	1532
400 - 649 t	9	4504	1355	14	6510		23	11014	1355
650 - 999 t	1	672	257	10	8037		11	8709	257
1000 - 1499 t	2	2680	801	3	3159		5	5839	801
1500 - 1999 t	3	5088	1858	5	9033		8	14121	1858
2000 - 2499 t	4	9305	4909	3	7196		7	16501	4909
2500 - 2999 t	5	12945	2278	9	24297		14	37242	2278
3000 t and over	0	0	0	3	9186		3	9186	0
not known	0	0	0	0	0		0	0	0
total	35	39234	12990	47	67418		82	106652	12990

**Table OM2 - INLAND FLEETS AT 31.12.2004
BY TONNAGE**

Country	Self-propelled tankerbarges			Tanker barges			Total capacity of tanker fleet		
	Units no.	Tonnage t	Power kW	Units no.	Tonnage t	Power kW	Units no.	Tonnage t	Power kW
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	10	12588	6910	0	0		10	12588	6910
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	18	30481	15720	2	8435		20	38916	15720
Netherlands									
up to 249 t	224	23347	25962	1	79		225	23426	25962
250 - 399 t	29	9047	5371	1	314		30	9361	5371
400 - 649 t	58	29659	15578	4	1834		62	31493	15578
650 - 999 t	57	45823	21384	5	4323		62	50146	21384
1000 - 1499 t	108	136049	70920	6	8319		114	144368	70920
1500 - 1999 t	74	123458	55232	4	6768		78	130226	55232
2000 - 2499 t	74	162452	69261	11	24506		85	186959	69261
2500 - 2999 t	40	111369	28317	8	20940		48	132309	28317
3000 t and over	48	183079	40832	2	7094		50	190173	40832
not known	34	0	2688	1	0		35	0	2688
total	746	824283	335545	43	74177		789	898461	335545
Switzerland									
up to 249 t	0	0	0	0	0		0	0	0
250 - 399 t	0	0	0	0	0		0	0	0
400 - 649 t	0	0	0	0	0		0	0	0
650 - 999 t	0	0	0	0	0		0	0	0
1000 - 1499 t	3	3930	1894	0	0		3	3930	1894
1500 - 1999 t	1	1563	589	0	0		1	1563	589
2000 - 2499 t	3	6714	3702	0	0		3	6714	3702
2500 - 2999 t	17	44633	19748	0	0		17	44633	19748
3000 t and over	5	16020	7172	0	0		5	16020	7172
not known	0	0	0	0	0		0	0	0
total	29	72860	33105	0	0		29	72860	33105
Total									
up to 249 t	263	28053	30951	5	584		268	28637	30951
250 - 399 t	61	20082	11225	3	1096		64	21178	11225
400 - 649 t	101	51260	26092	31	14758		132	66018	26092
650 - 999 t	93	77396	35952	39	42431		132	119827	35952
1000 - 1499 t	341	428529	224336	13	16263		354	444792	224336
1500 - 1999 t	157	264530	124678	14	24375		171	288905	124678
2000 - 2499 t	162	359973	159526	25	56174		187	416147	159526
2500 - 2999 t	99	269884	97444	21	56011		120	325895	97444
3000 t and over	75	276887	78952	8	28512		83	305399	78952
not known	43	0	12082	3	0		46	0	12082
total	1395	1776594	801238	162	240203		1557	2016797	801238

**Table OM3 - INLAND FLEETS AT 31.12.2004
BY POWER**

Country	Ordinary self-propelled barges			Self-propelled tankerbarges			Total		
	Units no.	Tonnage t	Power kW	Units no.	Tonnage t	Power kW	Units no.	Tonnage t	Power kW
Germany									
Up to 49 KW	3	232	129	0	0	0	3	232	129
50 - 249 KW	97	34741	15874	5	1345	890	102	36086	16764
250 - 399 KW	231	203125	77428	20	16931	6671	251	220056	84099
400 - 999 KW	563	763722	347189	242	349313	166764	805	1113035	513953
1000 - 1999 KW	52	119861	63171	76	152169	94300	128	272030	157471
2000 - 2999 KW	2	5337	4011	1	2861	2592	3	8198	6603
3000 KW et plus	0	0	0	0	0	0	0	0	0
Not known	2	778	0	1	0	0	3	778	0
total	950	1127796	507802	345	522619	271217	1295	1650415	779019
Austria									
Up to 49 KW							0	0	0
50 - 249 KW							0	0	0
250 - 399 KW							0	0	0
400 - 999 KW							0	0	0
1000 - 1999 KW							0	0	0
2000 - 2999 KW							0	0	0
3000 KW et plus							0	0	0
Not known	5	7058		5	5601		10	12659	0
total	5	7058		5	5601		10	12659	0
Belgium									
Up to 49 KW	0	0	0	0	0	0	0	0	0
50 - 249 KW	7	124694	56086	59	13880	8615	66	138574	64701
250 - 399 KW	317	159506	82549	29	15031	8716	346	174537	91265
400 - 999 KW	268	530874	266553	82	118393	55849	350	649267	322402
1000 - 1999 KW	434	215917	107042	46	129557	57243	480	345474	164285
2000 - 2999 KW	87	15212	9928	1	4655	2238	88	19867	12166
3000 KW et plus	0	0	0	0	0	0	0	0	0
Not known	0	0	0	0	0	0	0	0	0
total	1113	1046203	522158	217	281516	132661	1330	1327719	654819
France									
Up to 49 KW	0	0	0	0	0	0	0	0	0
50 - 249 KW	536	212627	86423	15	6326	2606	551	218953	89029
250 - 399 KW	173	94436	50642	3	2513	852	176	96949	51494
400 - 999 KW	84	86237	43854	5	8927	3078	89	95164	46932
1000 - 1999 KW	2	5171	2262	5	12336	6454	7	17507	8716
2000 - 2999 KW	0	0	0	0	0	0	0	0	0
3000 KW et plus	0	0	0	0	0	0	0	0	0
Not known	161	107725	0	7	9132	0	168	116857	0
total	956	506196	183181	35	39234	12990	991	545430	196171

**Table OM3 - INLAND FLEETS AT 31.12.2004
BY POWER**

Country	Ordinary self-propelled barges			Self-propelled tankerbarges			Total bateaux propulseurs		
	Units no.	Tonnage t	Power kW	Units no.	Tonnage t	Power kW	Units no.	Tonnage t	Power kW
Luxemburg									
Up to 49 KW	0	0	0	0	0	0	0	0	0
50 - 249 KW	3	1575	628	0	0	0	3	1575	628
250 - 399 KW	4	1835	1226	0	0	0	4	1835	1226
400 - 999 KW	11	13773	6783	14	20989	9377	25	34762	16160
1000 - 1999 KW	1	2338	1294	3	6597	3695	4	8935	4989
2000 - 2999 KW	0	0	0	1	2895	2648	1	2895	2648
3000 KW et plus	0	0	0	0	0	0	0	0	0
Not known	0	0	0	0	0	0	0	0	0
total	19	19521	9931	18	30481	15720	37	50002	25651
Netherlands									
Up to 49 KW	9	4436	231	5	271	170	14	4707	401
50 - 249 KW	667	264207	111399	270	44286	34562	937	308493	145961
250 - 399 KW	796	583445	255242	72	42125	22548	868	625570	277790
400 - 999 KW	1313	1686164	795806	218	329891	151761	1531	2016055	947567
1000 - 1999 KW	215	553600	278172	92	226859	114106	307	780459	392278
2000 - 2999 KW	39	103384	89028	5	14492	12398	44	117876	101426
3000 KW et plus	1	2916	4472	0	0	0	1	2916	4472
Not known	115	234008	0	84	166359	0	199	400367	0
total	3155	3432160	1534350	746	824283	335545	3901	4256443	1869895
Switzerland									
Up to 49 KW	0	0	0	0	0	0	0	0	0
50 - 249 KW	1	373	169	0	0	0	1	373	169
250 - 399 KW	1	1978	353	0	0	0	1	1978	353
400 - 999 KW	3	5465	2457	9	18388	7012	12	23853	9469
1000 - 1999 KW	7	15501	9770	19	51014	23888	26	66515	33658
2000 - 2999 KW	1	2625	2160	1	3458	2205	2	6083	4365
3000 KW et plus	0	0	0	0	0	0	0	0	0
Not known	0	0	0	0	0	0	0	0	0
total	13	25942	14909	29	72860	33105	42	98802	48014
Total									
Up to 49 KW	12	4668	360	5	271	170	17	4939	530
50 - 249 KW	1311	638217	270579	349	65837	46673	1660	704054	317252
250 - 399 KW	1522	1044325	467440	124	76600	38787	1646	1120925	506227
400 - 999 KW	2242	3086235	1462642	570	845901	393841	2812	3932136	1856483
1000 - 1999 KW	711	912388	461711	241	578532	299686	952	1490920	761397
2000 - 2999 KW	129	126558	105127	9	28361	22081	138	154919	127208
3000 KW et plus	1	2916	4472	0	0	0	1	2916	4472
Not known	283	349569	0	97	181092	0	380	530661	0
total	6211	6164876	2772331	1395	1776594	801238	7606	7941470	3573569

**Table OM3 - INLAND FLEETS AT 31.12.2004
BY POWER**

Country	Tugs			Pusher tugs			Total propelled vessels		
	Units no.	Tonnage t	Power kW	Units no.	Tonnage t	Power kW	Units no.	Tonnage t	Power kW
Germany									
Up to 49 KW	7		271	4		165	11	0	436
50 - 249 KW	94		12511	164		23202	258	0	35713
250 - 399 KW	26		7738	34		11044	60	0	18782
400 - 999 KW	16		8714	68		40545	84	0	49259
1000 - 1999 KW	0		0	12		17603	12	0	17603
2000 - 2999 KW	0		0	4		11848	4	0	11848
3000 KW et plus	0		0	8		31316	8	0	31316
Not known	0		0	6		0	6	0	0
total	143		29234	300		135723	443	0	164957
Austria									
Up to 49 KW							0	0	0
50 - 249 KW							0	0	0
250 - 399 KW							0	0	0
400 - 999 KW							0	0	0
1000 - 1999 KW							0	0	0
2000 - 2999 KW							0	0	0
3000 KW et plus							0	0	0
Not known							0	0	0
total	0		0	10		9200	10	0	9200
Belgium									
Up to 49 KW	0		0	0		0	0	0	0
50 - 249 KW	6		856	33		5824	39	0	6680
250 - 399 KW	5		1591	36		10414	41	0	12005
400 - 999 KW	1		530	32		21697	33	0	22227
1000 - 1999 KW	1		1324	11		14500	12	0	15824
2000 - 2999 KW	0		0	0		0	0	0	0
3000 KW et plus	0		0	0		0	0	0	0
Not known	0		0	0		0	0	0	0
total	13		4301	112		52435	125	0	56736
France									
Up to 49 KW	2		70	2		69	4	0	139
50 - 249 KW	20		2292	57		9498	77	0	11790
250 - 399 KW	0		0	28		8675	28	0	8675
400 - 999 KW	2		1212	66		43166	68	0	44378
1000 - 1999 KW	0		0	17		21477	17	0	21477
2000 - 2999 KW	0		0	1		2116	1	0	2116
3000 KW et plus	0		0	0		0	0	0	0
Not known	0		0	0		0	0	0	0
total	24		3574	171		85001	195	0	88575

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

Table OM3 - INLAND FLEETS AT 31.12.2004
BY POWER

Country	Tugs			Pusher tugs			Total propelled vessels		
	Units no.	Tonnage t	Power kW	Units no.	Tonnage t	Power kW	Units no.	Tonnage t	Power kW
Luxemburg									
Up to 49 KW	0		0	0		0	0	0	0
50 - 249 KW	0		0	1		147	1	0	147
250 - 399 KW	0		0	4		1320	4	0	1320
400 - 999 KW	0		0	6		4603	6	0	4603
1000 - 1999 KW	0		0	7		9150	7	0	9150
2000 - 2999 KW	0		0	0		0	0	0	0
3000 KW et plus	0		0	0		0	0	0	0
Not known	0		0	0		0	0	0	0
total	0		0	18		15220	18	0	15220
Netherlands									
Up to 49 KW	11		383	0		0	11	0	383
50 - 249 KW	339		44267	199		32730	538	0	76997
250 - 399 KW	72		21417	147		44240	219	0	65657
400 - 999 KW	37		21735	151		92589	188	0	114324
1000 - 1999 KW	2		2111	17		21542	19	0	23653
2000 - 2999 KW	4		9324	2		5559	6	0	14883
3000 KW et plus	1		4000	7		27780	8	0	31780
Not known	28		0	18		0	46	0	0
total	494		103237	541		224440	1035	0	327677
Switzerland									
Up to 49 KW	0		0	0		0	0	0	0
50 - 249 KW	0		0	2		302	2	0	302
250 - 399 KW	1		368	1		353	2	0	721
400 - 999 KW	0		0	2		1292	2	0	1292
1000 - 1999 KW	0		0	0		0	0	0	0
2000 - 2999 KW	0		0	0		0	0	0	0
3000 KW et plus	0		0	0		0	0	0	0
Not known	0		0	0		0	0	0	0
total	1		368	5		1947	6	0	2315
Total									
Up to 49 KW	20		724	6		234	26	0	958
50 - 249 KW	459		59926	456		71703	915	0	131629
250 - 399 KW	104		31114	250		76046	354	0	107160
400 - 999 KW	56		32191	325		203892	381	0	236083
1000 - 1999 KW	3		3435	64		84272	67	0	87707
2000 - 2999 KW	4		9324	7		19523	11	0	28847
3000 KW et plus	1		4000	15		59096	16	0	63096
Not known	28		0	24		0	52	0	0
total	675		140714	1157		523966	1832	0	664680
<i>France: as a guide; data for tugs and pusher tugs at 31.12.2003</i>									

**Table OM4 - INLAND FLEETS AT 31.12.2004
BY YEAR OF CONSTRUCTION**

Country	Ordinary self-propelled barges			Ordinary barges			Total capacity of the dry cargo fleet		
	Units no.	Tonnage t	Power kW	Units no.	Tonnage t	Power kW	Units no.	Tonnage t	Power kW
Germany									
before 1930	244	231659	103661	26	8635		270	240294	103661
1930 - 1949	125	125630	56956	10	2696		135	128326	56956
1950 - 1969	419	454180	202674	136	99332		555	553512	202674
1970 - 1979	98	166418	79202	194	236215		292	402633	79202
1980 - 1989	51	121180	51514	517	458112		568	579292	51514
1990 - 1999	5	9895	4841	112	134757		117	144652	4841
2000 - 2004	7	18834	8954	4	9090		11	27924	8954
Not known	1	0	0	5	256		6	256	0
total	950	1127796	507802	1004	949093		1954	2076889	507802
Austria									
before 1930							0	0	0
1930 - 1949							0	0	0
1950 - 1969							0	0	0
1970 - 1979							0	0	0
1980 - 1989							0	0	0
1990 - 1999							0	0	0
2000 - 2004							0	0	0
Not known							0	0	0
total	5	7058		54	84807		59	91865	0
Belgium									
before 1930	113	94471	42275	3	1504		116	95975	42275
1930 - 1949	101	76621	38153	6	2502		107	79123	38153
1950 - 1969	721	515134	266097	31	41462		752	556596	266097
1970 - 1979	70	121218	54171	23	61225		93	182443	54171
1980 - 1989	42	84589	40365	81	219700		123	304289	40365
1990 - 1999	38	88293	43826	22	41723		60	130016	43826
2000 - 2004	28	65877	37271	57	63995		85	129872	37271
Not known	0	0	0	0	0		0	0	0
total	1113	1046203	522158	223	432111		1336	1478314	522158
France									
before 1930	30	18455	7394	18	9369		48	27824	7394
1930 - 1949	127	64081	27156	23	10853		150	74934	27156
1950 - 1969	604	280763	129942	174	110719		778	391482	129942
1970 - 1979	8	3899	1674	40	45535		48	49434	1674
1980 - 1989	21	19432	10410	31	49737		52	69169	10410
1990 - 1999	5	8442	3844	83	150743		88	159185	3844
2000 - 2004	1	2671	1159	17	11596		18	14267	1159
Not known	160	108453	1602	79	105693		239	214146	1602
total	956	506196	183181	465	494245		1421	1000441	183181

**Table OM4 - INLAND FLEETS AT 31.12.2004
BY YEAR OF CONSTRUCTION**

Country	Ordinary self-propelled barges			Ordinary barges			Total capacity of the dry cargo fleet		
	Units no.	Tonnage t	Power kW	Units no.	Tonnage t	Power kW	Units no.	Tonnage t	Power kW
Luxemburg									
before 1930	4	2597	1659	0	0		4	2597	1659
1930 - 1949	4	4757	2264	0	0		4	4757	2264
1950 - 1969	8	6222	3271	0	0		8	6222	3271
1970 - 1979	2	3607	1443	1	2830		3	6437	1443
1980 - 1989	1	2338	1294	0	0		1	2338	1294
1990 - 1999	0	0	0	0	0		0	0	0
2000 - 2004	0	0	0	0	0		0	0	0
Not known	0	0	0	0	0		0	0	0
total	19	19521	9931	1	2830		20	22351	9931
Netherlands									
before 1930	617	399733	182721	13	5659		630	405392	182721
1930 - 1949	244	190007	93652	11	4465		255	194472	93652
1950 - 1969	1592	1427604	672613	220	170384		1812	1597988	672613
1970 - 1979	271	453476	197694	193	397500		464	850976	197694
1980 - 1989	137	272999	117726	185	427025		322	700024	117726
1990 - 1999	174	400070	214844	151	361230		325	761300	214844
2000 - 2004	120	288271	55100	45	102164		165	390435	55100
Not known	0	0	0	0	0		0	0	0
total	3155	3432160	1534350	818	1468427		3973	4900587	1534350
Switzerland									
before 1930	1	2573	699	0	0		1	2573	699
1930 - 1949	0	0	0	0	0		0	0	0
1950 - 1969	2	1551	1117	0	0		2	1551	1117
1970 - 1979	1	1713	810	0	0		1	1713	810
1980 - 1989	5	10040	5818	0	0		5	10040	5818
1990 - 1999	1	2625	2160	0	0		1	2625	2160
2000 - 2004	3	7440	4305	1	1258		4	8698	4305
Not known	0	0	0	0	0		0	0	0
total	13	25942	14909	1	1258		14	27200	14909
Total									
before 1930	1009	749488	338409	60	25167		1069	774655	338409
1930 - 1949	601	461096	218181	50	20516		651	481612	218181
1950 - 1969	3346	2685454	1275714	561	421897		3907	3107351	1275714
1970 - 1979	450	750331	334994	451	743305		901	1493636	334994
1980 - 1989	257	510578	227127	814	1154574		1071	1665152	227127
1990 - 1999	223	509325	269515	368	688453		591	1197778	269515
2000 - 2004	159	383093	106789	124	188103		283	571196	106789
Not known	166	108507	1602	84	105949		245	214402	1602
total	6211	6157876	2772331	2512	3347964		8718	9505782	2772331

**Table OM4 - INLAND FLEETS AT 31.12.2004
BY YEAR OF CONSTRUCTION**

Country	Self-propelled tankerbarges			Tanker barges			Total capacity of tanker fleet		
	Units no.	Tonnage t	Power kW	Units no.	Tonnage t	Power kW	Units no.	Tonnage t	Power kW
Germany									
before 1930	0	0	0	1	383		1	383	0
1930 - 1949	7	6286	3324	0	0		7	6286	3324
1950 - 1969	133	165782	83301	11	11318		144	177100	83301
1970 - 1979	142	230152	120984	17	31152		159	261304	120984
1980 - 1989	33	65787	30740	16	10587		49	76374	30740
1990 - 1999	19	33598	20039	3	2840		22	36438	20039
2000 - 2004	11	21014	12829	0	0		11	21014	12829
Not known	0	0	0	1	0		1	0	0
total	345	522619	271217	49	56280		394	578899	271217
Austria									
before 1930							0	0	0
1930 - 1949							0	0	0
1950 - 1969							0	0	0
1970 - 1979							0	0	0
1980 - 1989							0	0	0
1990 - 1999							0	0	0
2000 - 2004							0	0	0
Not known	5	5601		15	22055		20	27656	0
total	5	5601		15	22055		20	27656	0
Belgium									
before 1930	12	4710	2699	0	0		12	4710	2699
1930 - 1949	11	4072	2933	0	0		11	4072	2933
1950 - 1969	100	85102	42740	4	5118		104	90220	42740
1970 - 1979	38	67066	31518	2	6720		40	73786	31518
1980 - 1989	26	59367	23825	0	0		26	59367	23825
1990 - 1999	17	26122	13431	0	0		17	26122	13431
2000 - 2004	13	35077	15515	0	0		13	35077	15515
Not known	0	0	0	0	0		0	0	0
total	217	281516	132661	6	11838		223	293354	132661
France									
before 1930	0	0	0	0	0		0	0	0
1930 - 1949	2	1841	595	0	0		2	1841	595
1950 - 1969	19	13896	5473	29	33748		48	47644	5473
1970 - 1979	4	7459	2748	8	15714		12	23173	2748
1980 - 1989	3	6906	4174	0	0		3	6906	4174
1990 - 1999	0	0	0	6	10436		6	10436	0
2000 - 2004	0	0	0	0	0		0	0	0
Not known	7	9132	0	4	7520		11	16652	0
total	35	39234	12990	47	67418		82	106652	12990

**Table OM4 - INLAND FLEETS AT 31.12.2004
BY YEAR OF CONSTRUCTION**

Country	Self-propelled tankerbarges			Tanker barges			Total capacity of tanker fleet		
	Units no.	Tonnage t	Power kW	Units no.	Tonnage t	Power kW	Units no.	Tonnage t	Power kW
Luxemburg									
before 1930	0	0	0	0	0		0	0	0
1930 - 1949	0	0	0	0	0		0	0	0
1950 - 1969	3	4333	2088	0	0		3	4333	2088
1970 - 1979	8	11490	6012	1	3959		9	15449	6012
1980 - 1989	5	11635	5878	1	4476		6	16111	5878
1990 - 1999	2	3023	1742	0	0		2	3023	1742
2000 - 2004	0	0	0	0	0		0	0	0
Not known	0	0	0	0	0		0	0	0
total	18	30481	15720	2	8435		20	38916	15720
Netherlands									
before 1930	24	2161	2215	0	0		24	2161	2215
1930 - 1949	27	8215	4824	1	1218		28	9433	4824
1950 - 1969	358	202998	110037	13	13164		371	216162	110037
1970 - 1979	100	159076	64151	12	23494		112	182570	64151
1980 - 1989	60	99840	42795	7	13849		67	113689	42795
1990 - 1999	101	178702	96996	8	19618		109	198320	96996
2000 - 2004	76	173291	14527	2	2934		78	176225	14527
Not known	0	0	0	0	0		0	0	0
total	746	824283	335545	43	74277		789	898560	335545
Switzerland									
before 1930	1	3458	2205	0	0		1	3458	2205
1930 - 1949	0	0	0	0	0		0	0	0
1950 - 1969	5	7753	3885	0	0		5	7753	3885
1970 - 1979	5	13914	6450	0	0		5	13914	6450
1980 - 1989	11	29765	11642	0	0		11	29765	11642
1990 - 1999	7	17970	8923	0	0		7	17970	8923
2000 - 2004	0	0	0	0	0		0	0	0
Not known	0	0	0	0	0		0	0	0
total	29	72860	33105	0	0		29	72860	33105
Total									
before 1930	37	10329	7119	1	383		38	10712	7119
1930 - 1949	47	20414	11676	1	1218		48	21632	11676
1950 - 1969	618	479864	247524	57	63348		675	543212	247524
1970 - 1979	297	489157	231863	40	81039		337	570196	231863
1980 - 1989	138	273300	119054	24	28912		162	302212	119054
1990 - 1999	146	259415	141131	17	32894		163	292309	141131
2000 - 2004	100	229382	42871	2	2934		102	232316	42871
Not known	12	14733	0	20	29575		32	44308	0
total	1395	1776594	801238	162	240303		1557	2016897	801238

**Table OM4 - INLAND FLEETS AT 31.12.2004
BY YEAR OF CONSTRUCTION**

Country	Tugs			Pusher tugs			Total propelled vessels		
	Units no.	Tonnage t	Power kW	Units no.	Tonnage t	Power kW	Units no.	Tonnage t	Power kW
Germany									
before 1930	44		10236	22		5404	66		15640
1930 - 1949	29		5118	19		7037	48		12155
1950 - 1969	53		9989	103		33454	156		43443
1970 - 1979	11		2033	57		57229	68		59262
1980 - 1989	3		865	86		29853	89		30718
1990 - 1999	2		883	7		2474	9		3357
2000 - 2004	0		0	1		213	1		213
Not known	1		110	5		59	6		169
total	143		29234	300		135723	443		164957
Austria									
before 1930							0		0
1930 - 1949							0		0
1950 - 1969							0		0
1970 - 1979							0		0
1980 - 1989							0		0
1990 - 1999							0		0
2000 - 2004							0		0
Not known				10		9200	10		9200
total	0		0	0		9200	0		9200
Belgium									
before 1930	1		330	18		5405	19		5735
1930 - 1949	1		85	26		7961	27		8046
1950 - 1969	5		1417	29		15124	34		16541
1970 - 1979	4		2022	22		12382	26		14404
1980 - 1989	1		75	7		3565	8		3640
1990 - 1999	1		374	7		3466	8		3840
2000 - 2004	0		0	3		4532	3		4532
Not known	0		0	0		0	0		0
total	13		4303	112		52435	125		56738
France									
before 1930	14		1528	42		16006	56		17534
1930 - 1949	7		1663	25		9899	32		11562
1950 - 1969	0		381	77		43134	77		43615
1970 - 1979	3		0	20		12568	23		12568
1980 - 1989	0		0	3		572	3		572
1990 - 1999	0		0	4		2822	4		2822
2000 - 2004	0		0	0		0	0		0
Not known	0		0	0		0	0		0
total	24		3572	171		85001	195		88673

France : for information, data for push tugs and tugs at the 31.12.2003

**Table OM4 - INLAND FLEETS AT 31.12.2004
BY YEAR OF CONSTRUCTION**

Country	Tugs			Pusher tugs			Total propelled vessels		
	Units no.	Tonnage t	Power kW	Units no.	Tonnage t	Power kW	Units no.	Tonnage t	Power kW
Luxemburg									
before 1930	0		0	5		2248	5		2248
1930 - 1949	0		0	3		1699	3		1699
1950 - 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 - 2004	0		0	0		0	0		0
Not known	0		0	0		0	0		0
total	0		0	18		15220	18		15220
Netherlands									
before 1930	108		15539	104		31194	212		46733
1930 - 1949	121		20797	109		35801	230		56598
1950 - 1969	193		41193	189		69872	382		111065
1970 - 1979	46		9260	67		37019	113		47179
1980 - 1989	16		15321	42		35926	58		51247
1990 - 1999	8		926	27		14527	35		15453
2000 - 2004	2		201	3		101	5		302
Not known	0		0	0		0	0		0
total	494		103237	541		224440	1035		328577
Switzerland									
before 1930	0		0	1		563	1		563
1930 - 1949	1		368	1		353	2		721
1950 - 1969	0		0	3		1031	3		1031
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 - 2004	0		0	0		0	0		0
Not known	0		0	0		0	0		0
total	1		368	5		1947	6		2315
Total									
avant 1930	167		27633	192		60820	359		88453
1930 - 1949	159		28031	183		62750	342		90781
1950 - 1969	251		52980	402		162938	653		216018
1970 - 1979	64		13315	170		123733	234		137948
1980 - 1989	20		16261	139		70991	159		87252
1990 - 1999	11		2183	49		28629	60		30812
2000 - 2004	2		201	7		4846	9		5047
inconnues	1		110	15		9259	16		9369
total	675		140714	1157		523966	1832		665680

France : for information, data for push tugs and tugs at the 31.12.2003

**Table OM4 - INLAND FLEETS AT 31.12.2004
BY YEAR OF CONSTRUCTION**

Country	Excursion vessels			Cruise vessels			Total passenger vessels		
	Units no.	Passengers no.	Power kW	Units no.	Passengers no.	Power kW	Units no.	Passengers no.	Power kW
Germany									
before 1930	209	26079	23265	2	143	783	211	26222	24048
1930 - 1949	129	16576	17484	4	100	990	133	16676	18474
1950 - 1969	241	48514	49114	2	6	334	243	48520	49448
1970 - 1979	105	24638	23653	1	99	804	106	24737	24457
1980 - 1989	115	30701	29780	3	654	5197	118	31355	34977
1990 - 1999	167	38223	57360	13	1454	14960	180	39677	72320
2000 - 2004	40	7959	11257	22	3438	31178	62	11397	42435
Not known	6	309	585	0	0	0	6	309	585
total	1012	192999	212498	47	5894	54246	1059	198893	266744
Austria									
before 1930							0	0	0
1930 - 1949							0	0	0
1950 - 1969							0	0	0
1970 - 1979							0	0	0
1980 - 1989							0	0	0
1990 - 1999							0	0	0
2000 - 2004							0	0	0
Not known							0	0	0
total							0	0	0
Belgium									
before 1930							0	0	5816
1930 - 1949							36	0	3900
1950 - 1969							24	0	6217
1970 - 1979							32	0	958
1980 - 1989							12	0	1742
1990 - 1999							23	0	3220
2000 - 2004							16	0	526
Not known							6	0	0
total							149	9900	22379
France									
before 1930							0	0	0
1930 - 1949							0	0	0
1950 - 1969							0	0	0
1970 - 1979							0	0	0
1980 - 1989							0	0	0
1990 - 1999							0	0	0
2000 - 2004							0	0	0
Not known							0	0	0
total	303	45035		87	4640	0	390	49675	0

(*) as a guide; estimate for 2002

**Table OM4 - INLAND FLEETS AT 31.12.2004
BY YEAR OF CONSTRUCTION**

Country	Excursion vessels			Cruise vessels			Total passenger vessels		
	Units no.	Passengers no.	Power kW	Units no.	Passengers no.	Power kW	Units no.	Passengers no.	Power kW
Luxemburg									
before 1930	0	0	0	0	0	0	0	0	0
1930 - 1949	0	0	0	0	0	0	0	0	0
1950 - 1969	2	600	700	0	0	0	2	600	700
1970 - 1979	0	0	0	0	0	0	0	0	0
1980 - 1989	1	100	1156	0	0	0	1	100	1156
1990 - 1999	2	500	1044	0	0	0	2	500	1044
2000 - 2004	1	500	736	0	0	0	1	500	736
Not known	0	0	0	0	0	0	0	0	0
total	6	1700	3636	0	0	0	6	1700	3636
Netherlands									
before 1930	415	5157	38013	75	2451	10050	490	7608	48063
1930 - 1949	53	2986	7246	29	3098	10716	82	6084	17962
1950 - 1969	99	11290	17475	35	3588	12682	134	14878	30157
1970 - 1979	29	3589	5546	10	1123	8074	39	4712	13620
1980 - 1989	48	3626	7340	11	1218	4014	59	4844	11354
1990 - 1999	69	7476	19833	16	2179	9488	85	9655	29321
2000 - 2004	24	1098	2367	11	1342	3423	35	2440	5790
Not known	0	0	0	0	0	0	0	0	0
total	737	35222	97820	187	14999	58447	924	50221	156267
Switzerland									
before 1930	1	82	114	0	0	0	1	82	114
1930 - 1949	0	0	0	0	0	0	0	0	0
1950 - 1969	0	0	0	6	858	6459	6	858	6459
1970 - 1979	2	630	537	5	746	6043	7	1376	6580
1980 - 1989	2	740	754	2	143	1231	4	883	1985
1990 - 1999	1	600	588	13	1672	17651	14	2272	18239
2000 - 2004	0	0	0	12	1524	16987	12	1524	16987
Not known	0	0	0	1	0	0	1	0	0
total	6	2052	1993	39	4943	48371	45	6995	50364
Total									
before 1930	625	31318	61392	77	2594	10833	702	33912	78041
1930 - 1949	182	19562	24730	33	3198	11706	251	22760	40336
1950 - 1969	342	60404	67289	43	4452	19475	409	64856	92981
1970 - 1979	136	28857	29736	16	1968	14921	184	30825	45615
1980 - 1989	166	35167	39030	16	2015	10442	194	37182	51214
1990 - 1999	239	46799	78825	42	5305	42099	304	52104	124144
2000 - 2004	65	9557	14360	45	6304	51588	126	15861	66474
Not known	6	309	585	1	0	0	13	309	585
total	2064	277008	315947	360	30476	161064	2573	317384	499390

Table OM5 – NEW CONSTRUCTIONS AT SEPTEMBER 2005

Type of vessel	2002			2003			2004		
	Units	Tonnage	kW	Units	Tonnage	kW	Units	Tonnage	kW
Ordinary self-propelled 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 tanker barges	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
Pusher tugs	2		1276	0		0	1		992
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

Type of vessel	2005 (8 months)			total 2002 - 2005		
	Units	Tonnage	kW	Units	Tonnage	kW
Ordinary self-propelled barges	2	6197	3109	109	280313	13554 1
Ordinary barges	1	20		72	138992	
total	3	6217	3109	181	419305	13554 1
Self-propelled tanker barges	22	54511	21132	143	391232	16324 7
Tanker barges	0			6	4405	
total	22	54511	21132	149	395637	16324 7
Pusher tugs	0		0	3	0	2268
Tugs	1		129	6	0	
total	1		129	9		2268
Cruise vessels	0		0	32		24510
Excursion vessels	2		1610	13		
total	2		1610	45		24510

Source: IVR records

Demand for transport capacity

Methodology

In assessing the demand for transport, account is taken of the transport of goods on inland waterways in the national territories. It therefore includes the river part of river/sea traffic.

The traffic observed may be divided into two categories:

- national traffic, and
- international traffic.

It is measured in terms of volume transported (in tonnes or in 1000 tonnes) or in TKM (and often in millions of TKM). TKM figures are calculated as the number of kilometres covered on the inland waterways of each State.

Sources of data

Germany: Statistisches Bundesamt (Wiesbaden)

Austria: Statistik Austria (Vienna)

Belgium: Institut National Statistique (INS)

France: Voies Navigables de France (VNF)

G.D. Luxembourg: Commission de la Moselle, Port of Mertert

Netherlands: Centraal Bureau voor de Statistiek (Heren)

Switzerland: Rheinschiffahrtsgesellschaft (Basle)

The overall view of transport within the States of western Europe covered is therefore obtained by using the data supplied by each national office for the territory of that State. This means that the CCNR's Secretariat has to reprocess the data so that quantities transported internationally are not counted more than once.

In order to achieve overall figures that are representative, it is essential to have data for each of the States concerned. However, if the data from one State is not available in time to allow publication of this type of study, the Secretariat will use an estimate so that publication is not delayed.

The statistics for goods transported do not include:

- a) goods transported by goods vessels as "local traffic" within ports, except for local traffic in the ports of Duisbourg, Düsseldorf, Cologne and Frankfurt;
- b) transport by vehicles used for fishing and dredging and for carrying out hydraulic work, although they are included when the goods being carried are considered to be "commercial goods";
- c) goods intended for supplying vessels;
- d) goods carried on ferries.

The methods for listing traffic vary from one State to another. This is carried out on the basis of either port transshipments or declarations at civil engineering structures, listing points and borders.

The listing of traditional Rhine traffic on the German section of the Rhine is based on the recording of transshipments in German ports. The overall statistics on waterways traffic on the Rhine compiled by the German authorities is derived from this data from the ports.

The information on French domestic traffic and Franco-Swiss traffic on the Rhine comes from France's statistics. The transport of goods carried out exclusively on the section of the Rhine downstream of the border between Germany and the Netherlands and traffic between Dutch ports on the Rhine and Belgian ports and northern France (including sea traffic on the Rhine) are listed and recorded in the Dutch statistics. These are essentially based on listings compiled at civil engineering structures and borders.

The types of goods are differentiated using the NSTR nomenclature, which is subdivided into:

- Chapters(1 figure),
- Groups (2 figures), and
- Positions(3 figures).

On the whole, the European codes are used.

Consideration of traffic by route

To prevent the volume of goods being transported for the purposes of international trade being counted twice, care needs to be taken in considering the volumes carried on the various routes. So that volumes travelling in two or more countries are not counted twice or more, the following table should be followed; it indicates the most appropriate source to use. The indication "Others" refers to countries other than the seven taken into account geographically in this study.

	Route	Declaring country
1	France - Germany	Germany
2	France - Belgium	France
3	France - Netherlands	Netherlands
4	France - Luxemburg	France
5	France - Switzerland	France
6	France - Austria	France
7	France - others	Germany
8	Belgium - Germany	Germany
9	Belgium - Netherlands	Netherlands
10	Belgium - Luxemburg	Germany
11	Belgium - Switzerland	Germany
12	Belgium - Austria	Germany
13	Belgium - others	Germany
14	Netherlands - Luxemburg	Netherlands
15	Netherlands - Switzerland	Netherlands
16	Netherlands - Austria	Netherlands
17	Netherlands - Germany	Germany
18	Netherlands - others	Netherlands
19	Suisse - Luxemburg	Germany
20	Suisse - Austria	Germany
21	Suisse - others	Germany
22	Germany - Luxemburg	Germany
23	Germany - Austria	Germany
24	Germany - others	Germany
25	Germany - Switzerland	Germany
26	Autriche - others	by déduction
27	Luxemburg - others	Germany

**Table OM6 – NATIONAL TRANSPORT OF GOODS
ON INLAND WATERWAYS, BY STATE**

N° NST	Country Category of goods	Volumes carried			Services			Difference 2004/2003	
		2002	2003	2004	2002	2003	2004	1000 t	million TKM
		1000 t			1000000 TKM			%	
	SWITZERLAND	Not recorded as this only concerns transport on the lakes							
0	Agricultural products								
1	Foodstuffs, animal fodder								
2	Solid mineral fuels								
3	Oil and oil-based products								
4	Ore and pig iron for iron and steel industry								
5	Iron and steel products								
6	Crude and manufactured minerals, building materials								
7	Fertilisers								
8	Chemicals								
9	Machinery, transport equipment, manufactured articles								
99	of which special transactions								
	FRANCE	28310	28880	29121	4206	4302	4429	0,83%	2,95%
0	Agricultural products	2811	3115	2699	691	757	673	-13,35%	-11,10%
1	Foodstuffs, animal fodder	555	489	460	154	135	129	-5,93%	-4,44%
2	Solid mineral fuels	1622	1595	1721	479	436	485	7,90%	11,24%
3	Oil and oil-based products	3368	3658	3715	402	415	380	1,56%	-8,43%
4	Ore and pig iron for iron and steel industry	163	276	359	39	66	90	30,07%	36,36%
5	Iron and steel products	682	548	514	141	138	132	-6,20%	-4,35%
6	Crude and manufactured minerals, building materials	17203	16767	16922	1818	1729	1844	0,92%	6,65%
7	Fertilisers	202	207	119	52	62	31	-42,51%	-50,00%
8	Chemicals	869	975	1132	213	248	302	16,10%	21,77%
9	Machinery, transport equipment, manufactured articles	835	1250	1480	217	316	363	18,40%	14,87%
99	of which special transactions	622	1045	1299	170	269	325	24,31%	20,82%
	GERMANY	55844	53419	55209	11670	10833	11296	3,35%	4,28%
0	Agricultural products	1834	2183	1595	545	614	516	-26,96%	-15,95%
1	Foodstuffs, animal fodder	3379	2933	3178	936	722	862	8,34%	19,41%
2	Solid mineral fuels	7490	7454	7953	1422	1299	1338	6,70%	3,03%
3	Oil and oil-based products	14038	13940	14684	2822	2745	2788	5,34%	1,57%
4	Ore and pig iron for iron and steel industry	3246	3128	3404	852	793	892	8,81%	12,45%
5	Iron and steel products	1411	1227	1255	494	469	529	2,32%	12,95%
6	Crude and manufactured minerals, building materials	17201	15350	15136	3071	2724	2766	-1,39%	1,54%
7	Fertilisers	1008	1014	1056	396	381	411	4,19%	7,87%
8	Chemicals	4845	4579	4979	885	829	886	8,73%	6,83%
9	Machinery, transport equipment, manufactured articles	1391	1610	1970	248	257	308	22,31%	19,96%
99	of which special transactions	1023	1327	1678	162	197	242	26,44%	22,85%

**Table OM6 – NATIONAL TRANSPORT OF GOODS
ON INLAND WATERWAYS, BY STATE**

N° NST	Country Category of goods	Volumes carried			Services			Difference 2004/2003	
		2002	2003	2004	2002	2003	2004	1000 t	million TKM
		1000 t			1000000 TKM			%	
	NEDERLAND	101770	95105	105553	10407	10601	12662	10,99%	19,44%
0	Agricultural products	2733	2392	2873	386	372	422	20,11%	13,44%
1	Foodstuffs, animal fodder	8661	6606	7023	901	816	878	6,31%	7,60%
2	Solid mineral fuels	2173	3062	3732	355	418	578	21,88%	38,28%
3	Oil and oil-based products	17106	16287	17914	1862	1940	2138	9,99%	10,21%
4	Ore and pig iron for iron and steel industry	1543	1769	2353	208	236	400	33,01%	69,49%
5	Iron and steel products	877	958	1273	123	145	225	32,88%	55,17%
6	Crude and manufactured minerals, building materials	52876	48653	52320	4547	4716	5590	7,54%	18,53%
7	Fertilisers	1551	1429	1595	327	285	329	11,62%	15,44%
8	Chemicals	5385	4882	5309	759	683	731	8,75%	7,03%
9	Machinery, transport equipment, manufactured articles	8865	9067	11161	939	990	1371	23,09%	38,48%
99	of which special transactions	8398	8368	10072	869	902	1213	20,36%	34,48%
	BELGIUM (*)	30473	31120	32488	2779	2831	2946	4,40%	4,06%
0	Agricultural products	634	640	682	51	50	53	6,55%	6,55%
1	Foodstuffs, animal fodder	1391	1468	1644	70	74	83	11,99%	11,99%
2	Solid mineral fuels	4521	4233	4465	505	473	499	5,47%	5,47%
3	Oil and oil-based products	5548	5439	5469	455	448	451	0,56%	0,56%
4	Ore and pig iron for iron and steel industry	1715	1574	1656	206	187	197	5,23%	5,23%
5	Iron and steel products	1102	1280	1378	88	121	130	7,63%	7,63%
6	Crude and manufactured minerals, building materials	10198	10771	10940	1040	1091	1108	1,57%	1,57%
7	Fertilisers	946	1114	1163	71	86	90	4,44%	4,44%
8	Chemicals	2271	2183	2496	184	176	201	14,33%	14,33%
9	Machinery, transport equipment, manufactured articles	2147	2418	2595	109	125	134	7,31%	7,31%
99	of which special transactions	883	873	937	31	31	33	7,31%	7,31%
	AUSTRIA	560	922	192	71	61	33	-79,18%	-46,13%
0	Agricultural products	4	43	4	0	6	1	-90,70%	-89,47%
1	Foodstuffs, animal fodder	1	0	1	0	0	0		
2	Solid mineral fuels	0	0	1	0	0	0		
3	Oil and oil-based products	229	161	97	49	34	21	-39,75%	-39,71%
4	Ore and pig iron for iron and steel industry	0	1	0	0	0	0		
5	Iron and steel products	164	115	73	21	14	9	-36,52%	-36,81%
6	Crude and manufactured minerals, building materials	156	572	7	1	3	1	-98,78%	-68,00%
7	Fertilisers	6	28	8	1	4	1	-71,43%	-69,44%
8	Chemicals	0	0	0	0	0	0		
9	Machinery, transport equipment, manufactured articles	0	2	1	0	0	0	-50,00%	0,00%
99	of which special transactions	0	0	0	0	0	0		

(*) the figure given for traffic in Belgium in 2004 is an estimate made by the CCNR Secretariat

**Table OM6 – NATIONAL TRANSPORT OF GOODS
ON INLAND WATERWAYS, BY STATE**

N° NST	Country Category of goods	Volumes carried			Services			Difference 2004/2003	
		2002	2003	2004	2002	2003	2004	1000 t	million TKM
		1000 t			1000000 TKM			%	
	LUXEMBURG (not significant)	0	0	0	0	0	0		
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								
99	of which special transactions								
	TOTAL	216957	209446	222563	29133	28627	31366	6,26%	9,57%
0	Agricultural products	8016	8373	7853	1674	1799	1665	-6,22%	-7,44%
1	Foodstuffs, animal fodder	13987	11496	12306	2061	1747	1952	7,04%	11,74%
2	Solid mineral fuels	15806	16344	17871	2761	2626	2901	9,35%	10,45%
3	Oil and oil-based products	40289	39485	41879	5589	5582	5777	6,06%	3,50%
4	Ore and pig iron for iron and steel industry	6667	6748	7772	1305	1282	1579	15,17%	23,10%
5	Iron and steel products	4236	4128	4493	866	887	1026	8,85%	15,63%
6	Crude and manufactured minerals, building materials	97634	92113	95325	10476	10263	11309	3,49%	10,20%
7	Fertilisers	3713	3792	3942	847	817	862	3,95%	5,42%
8	Chemicals	13370	12619	13916	2041	1936	2120	10,27%	9,50%
9	Machinery, transport equipment, manufactured articles	13238	14347	17207	1513	1688	2176	19,93%	28,93%
99	of which special transactions	10926	11613	13986	1232	1399	1813	20,43%	29,61%

**Table OM7 – INTERNATIONAL TRANSPORT OF GOODS
ON INLAND WATERWAYS, BY STATE**

N° NST	Country Category of goods	Volumes carried			Services			Difference 2004/2003	
		2002	2003	2004	2002	2003	2004	1000 t	mio TKM
		1000 t			1000000 TKM			%	
	SWITZERLAND	8356	7006	7051	58	49	49	0,64%	0,64%
0	Agricultural products	360	379	351	3	3	2	-7,39%	-7,39%
1	Foodstuffs, animal fodder	395	444	422	3	3	3	-4,95%	-4,95%
2	Solid mineral fuels	117	87	174	1	1	1	100,00%	100,00%
3	Oil and oil-based products	4316	3544	3380	30	25	24	-4,63%	-4,63%
4	Ore and pig iron for iron and steel industry	156	171	165	1	1	1	-3,51%	-3,51%
5	Iron and steel products	1158	793	833	8	6	6	5,04%	5,04%
6	Crude and manufactured minerals, building materials	505	422	478	4	3	3	13,27%	13,27%
7	Fertilisers	170	162	158	1	1	1	-2,47%	-2,47%
8	Chemicals	722	787	848	5	6	6	7,75%	7,75%
9	Machinery, transport equipment, manufactured articles	457	217	242	3	2	2	11,52%	11,52%
99	of which special transactions	152	164	195	1	1	1	18,90%	18,90%
	FRANCE	40632	36467	39834	4371	4005	4257	9,23%	6,29%
0	Agricultural products	5784	5472	5923	828	766	790	8,24%	3,13%
1	Foodstuffs, animal fodder	2268	2565	2868	259	328	350	11,81%	6,71%
2	Solid mineral fuels	4362	3553	4740	257	206	280	33,41%	35,92%
3	Oil and oil-based products	6195	5700	5526	729	650	645	-3,05%	-0,77%
4	Ore and pig iron for iron and steel industry	2796	2437	2612	214	199	226	7,18%	13,57%
5	Iron and steel products	2815	2455	2661	422	372	409	8,39%	9,95%
6	Crude and manufactured minerals, building materials	11105	8970	9359	972	771	728	4,34%	-5,58%
7	Fertilisers	948	1030	1273	132	154	203	23,59%	31,82%
8	Chemicals	1912	1872	2155	254	250	293	15,12%	17,20%
9	Machinery, transport equipment, manufactured articles	2447	2413	2717	304	309	333	12,60%	7,77%
99	of which special transactions	2256	2296	2598	281	292	316	13,15%	8,22%
	GERMANY	175894	166581	180653	52495	47322	52372	8,45%	10,67%
0	Agricultural products	8242	6945	7062	4393	3503	3391	1,68%	-3,20%
1	Foodstuffs, animal fodder	12240	11778	12284	5308	4804	5130	4,30%	6,79%
2	Solid mineral fuels	24188	23294	26154	7534	6397	7326	12,28%	14,52%
3	Oil and oil-based products	25626	23238	23926	8616	7525	7752	2,96%	3,02%
4	Ore and pig iron for iron and steel industry	33010	32099	34651	5412	5165	5875	7,95%	13,75%
5	Iron and steel products	10982	10714	11473	3309	3107	3468	7,08%	11,62%
6	Crude and manufactured minerals, building materials	30037	26832	29893	7684	6740	7931	11,41%	17,67%
7	Fertilisers	5488	5077	5369	2372	2088	2298	5,75%	10,06%
8	Chemicals	11807	11154	12137	3105	2912	3221	8,81%	10,61%
9	Machinery, transport equipment, manufactured articles	14274	15450	17704	4762	5081	5980	14,59%	17,69%
99	of which special transactions	13068	14272	16444	4483	4790	5670	15,22%	18,37%

**Table OM7 – INTERNATIONAL TRANSPORT OF GOODS
ON INLAND WATERWAYS, BY STATE**

N° NST	Country Category of goods	Volumes carried			Services			Difference 2004/2003	
		2002	2003	2004	2002	2003	2004	1000 t	mio TKM
		1000 t			1000000 TKM			%	
	NEDERLAND	212237	208102	224314	30504	30430	32313	7,79%	6,19%
0	Agricultural products	7230	7002	7571	1116	1125	1210	8,13%	7,56%
1	Foodstuffs, animal fodder	11626	11104	10643	1790	1737	1674	-4,15%	-3,63%
2	Solid mineral fuels	26336	23462	27492	3751	3452	3950	17,18%	14,43%
3	Oil and oil-based products	34470	34545	36321	4721	4900	4968	5,14%	1,39%
4	Ore and pig iron for iron and steel industry	34167	34806	37020	4561	4532	4619	6,36%	1,92%
5	Iron and steel products	7727	8492	10369	1310	1486	1777	22,10%	19,58%
6	Crude and manufactured minerals, building materials	39618	36341	38351	5651	5464	5773	5,53%	5,66%
7	Fertilisers	6325	5076	5088	1150	935	944	0,24%	0,96%
8	Chemicals	19920	19427	20115	3115	3012	3156	3,54%	4,78%
9	Machinery, transport equipment, manufactured articles	24818	27847	31344	3339	3787	4242	12,56%	12,01%
99	of which special transactions	21106	21386	20611	2722	2753	2672	-3,62%	-2,94%
	BELGIUM (*)	104641	106636	112231	5369	5471	5731	5,25%	4,75%
0	Agricultural products	4636	4853	5171	383	395	421	6,55%	6,55%
1	Foodstuffs, animal fodder	4210	4272	4784	174	187	209	11,99%	11,99%
2	Solid mineral fuels	6942	7205	7599	447	423	446	5,47%	5,47%
3	Oil and oil-based products	17850	18140	18242	610	630	634	0,56%	0,56%
4	Ore and pig iron for iron and steel industry	6878	7417	7805	727	717	754	5,23%	5,23%
5	Iron and steel products	4813	4912	5287	303	315	339	7,63%	7,63%
6	Crude and manufactured minerals, building materials	26342	26492	26908	1673	1713	1740	1,57%	1,57%
7	Fertilisers	4981	4940	5159	371	373	390	4,44%	4,44%
8	Chemicals	11109	11327	12950	370	391	447	14,33%	14,33%
9	Machinery, transport equipment, manufactured articles	16880	17078	18326	311	327	351	7,31%	7,31%
99	of which special transactions	14225	14209	15248	218	218	234	7,31%	7,31%
	AUSTRIA	11756	9819	8882	2775	2216	1714	-9,54%	-22,62%
0	Agricultural products	1332	858	692	360	230	124	-19,35%	-46,31%
1	Foodstuffs, animal fodder	1889	1610	828	573	482	198	-48,57%	-58,91%
2	Solid mineral fuels	152	69	147	36	16	33	113,04%	105,70%
3	Oil and oil-based products	2144	1846	1847	398	310	293	0,05%	-5,45%
4	Ore and pig iron for iron and steel industry	3273	2620	2827	702	548	582	7,90%	6,24%
5	Iron and steel products	1038	965	791	300	249	175	-18,03%	-29,50%
6	Crude and manufactured minerals, building materials	580	506	595	105	87	91	17,59%	5,18%
7	Fertilisers	1004	1022	958	197	197	163	-6,26%	-17,12%
8	Chemicals	98	79	76	27	21	19	-3,80%	-9,05%
9	Machinery, transport equipment, manufactured articles	246	244	121	78	76	36	-50,41%	-52,89%
99	of which special transactions	0	0	0	0	0	0		

(*) : The data about traffic in Belgium for 2004 have been estimated by the Secrétariat of the CCR

**Table OM7 – INTERNATIONAL TRANSPORT OF GOODS
ON INLAND WATERWAYS, BY STATE**

N° NST	Country Category of goods	Volumes carried			Services			Difference 2004/2003	
		2002	2003	2004	2002	2003	2004	1000 t	mio TKM
		1000 t			1000000 TKM			%	
	LUXEMBURG	8568	9690	11180	0	0	0	15,38%	
0	Agricultural products	1406	1656	1853				11,90%	
1	Foodstuffs, animal fodder	573	760	882				16,05%	
2	Solid mineral fuels	2646	3028	4029				33,06%	
3	Oil and oil-based products	308	438	480				9,59%	
4	Ore and pig iron for iron and steel industry	1464	1596	1554				-2,63%	
5	Iron and steel products	741	871	854				-1,95%	
6	Crude and manufactured minerals, building materials	1007	1064	1133				6,48%	
7	Fertilisers	213	223	333				49,33%	
8	Chemicals	42	21	50				138,10%	
9	Machinery, transport equipment, manufactured articles	168	33	12				-63,64%	
99	of which special transactions								
	TOTAL	254969	245065	261828	95572	89493	96437	6,84%	7,76%
0	Agricultural products	11747	10400	11478	7082	6022	5938	10,37%	-1,40%
1	Foodstuffs, animal fodder	17058	16001	16263	8107	7541	7564	1,64%	0,31%
2	Solid mineral fuels	28149	26848	29435	12026	10494	12036	9,64%	14,69%
3	Oil and oil-based products	43821	41746	42991	15104	14040	14315	2,98%	1,96%
4	Ore and pig iron for iron and steel industry	40118	38931	41403	11617	11162	12058	6,35%	8,02%
5	Iron and steel products	14951	14558	15590	5652	5534	6174	7,09%	11,56%
6	Crude and manufactured minerals, building materials	46818	42654	46160	16088	14778	16267	8,22%	10,07%
7	Fertilisers	7722	7063	7027	4223	3748	3999	-0,51%	6,69%
8	Chemicals	17717	17207	18293	6876	6592	7142	6,31%	8,35%
9	Machinery, transport equipment, manufactured articles	26868	29657	33188	8797	9582	10943	11,91%	14,21%
99	of which special transactions	24920	26057	27144	7705	8054	8893	4,17%	10,42%

**Table OM8 – TOTAL TRANSPORT OF GOODS
ON INLAND WATERWAYS IN THE STATES CONCERNED**

N° NST	Country Category of goods	Volumes carried			Services			Difference 2004/2003	
		2002	2003	2004	2002	2003	2004	1000 t	mio TKM
		1000 t			1000000 TKM			%	
	SWITZERLAND	8356	7006	7051	58	49	49	0,64%	0,64%
0	Agricultural products	360	379	351	3	3	2	-7,39%	-7,39%
1	Foodstuffs, animal fodder	395	444	422	3	3	3	-4,95%	-4,95%
2	Solid mineral fuels	117	87	174	1	1	1	100,00%	100,00%
3	Oil and oil-based products	4316	3544	3380	30	25	24	-4,63%	-4,63%
4	Ore and pig iron for iron and steel industry	156	171	165	1	1	1	-3,51%	-3,51%
5	Iron and steel products	1158	793	833	8	6	6	5,04%	5,04%
6	Crude and manufactured minerals, building materials	505	422	478	4	3	3	13,27%	13,27%
7	Fertilisers	170	162	158	1	1	1	-2,47%	-2,47%
8	Chemicals	722	787	848	5	6	6	7,75%	7,75%
9	Machinery, transport equipment, manufactured articles	457	217	242	3	2	2	11,52%	11,52%
99	of which special transactions	152	164	195	1	1	1	18,90%	18,90%
	FRANCE	68942	65429	69059	8875	8647	9106	5,55%	5,31%
0	Agricultural products	8595	8587	8622	1519	1524	1463	0,41%	-4,00%
1	Foodstuffs, animal fodder	2823	3054	3328	413	463	479	8,97%	3,46%
2	Solid mineral fuels	5984	5148	6461	736	643	765	25,51%	18,97%
3	Oil and oil-based products	9563	9358	9241	1131	1064	1025	-1,25%	-3,67%
4	Ore and pig iron for iron and steel industry	2959	2713	2971	253	265	316	9,51%	19,25%
5	Iron and steel products	3497	3003	3175	563	510	541	5,73%	6,08%
6	Crude and manufactured minerals, building materials	28308	25737	26281	2790	2500	2572	2,11%	2,88%
7	Fertilisers	1150	1237	1392	184	215	234	12,53%	8,84%
8	Chemicals	2781	2847	3287	467	498	626	15,45%	25,70%
9	Machinery, transport equipment, manufactured articles	3282	3745	4301	819	965	1085	14,85%	12,44%
99	of which special transactions	2878	3341	3897	451	561	681	16,64%	21,39%
	GERMANY	231746	219999	235861	64170	58175	63675	7,21%	9,45%
0	Agricultural products	10076	9128	8657	4940	4120	3905	-5,16%	-5,22%
1	Foodstuffs, animal fodder	15618	14711	15462	6245	5525	5990	5,10%	8,42%
2	Solid mineral fuels	31678	30747	34106	8955	7700	8665	10,93%	12,53%
3	Oil and oil-based products	39674	37178	38610	11440	10270	10540	3,85%	2,63%
4	Ore and pig iron for iron and steel industry	36256	35228	38055	6260	5960	6770	8,02%	13,59%
5	Iron and steel products	12393	11941	12728	3805	3580	4000	6,60%	11,73%
6	Crude and manufactured minerals, building materials	47238	42182	45029	10755	9465	10700	6,75%	13,05%
7	Fertilisers	6496	6091	6425	2770	2470	2710	5,49%	9,72%
8	Chemicals	16651	15734	17116	3990	3745	4105	8,78%	9,61%
9	Machinery, transport equipment, manufactured articles	15665	17060	19673	5010	5340	6290	15,32%	17,79%
99	of which special transactions	14091	15599	18123	4645	4985	5915	16,17%	18,66%

**Table OM8 – TOTAL TRANSPORT OF GOODS
ON INLAND WATERWAYS IN THE STATES CONCERNED**

N° NST	Country Category of goods	Volumes carried			Services			Difference 2004/2003	
		2002	2003	2004	2002	2003	2004	1000 t	mio TKM
		1000 t			1000000 TKM			%	
	NEDERLAND	314007	303207	329867	40911	41031	44975	8,79%	9,61%
0	Agricultural products	9963	9394	10444	1502	1497	1632	11,18%	9,02%
1	Foodstuffs, animal fodder	20287	17710	17666	2691	2553	2552	-0,25%	-0,04%
2	Solid mineral fuels	28509	26524	31224	4106	3870	4528	17,72%	17,00%
3	Oil and oil-based products	51576	50832	54235	6583	6840	7106		3,89%
4	Ore and pig iron for iron and steel industry	35710	36575	39373	4769	4768	5019	7,65%	5,26%
5	Iron and steel products	8604	9450	11642	1433	1631	2002	23,20%	22,75%
6	Crude and manufactured minerals, building materials	92494	84994	90671	10198	10180	11363	6,68%	11,62%
7	Fertilisers	7876	6505	6683	1477	1220	1273	2,74%	4,34%
8	Chemicals	25305	24309	25424	3874	3695	3887	4,59%	5,20%
9	Machinery, transport equipment, manufactured articles	33683	36914	42505	4278	4777	5613	15,15%	17,50%
99	of which special transactions	29504	29754	30683	3591	3655	3885	3,12%	6,29%
	BELGIUM (*)	135114	137756	144719	8148	8302	8675	5,05%	4,49%
0	Agricultural products	5270	5493	5853	434	445	474	6,55%	6,52%
1	Foodstuffs, animal fodder	5601	5740	6428	244	261	292	11,99%	11,88%
2	Solid mineral fuels	11463	11438	12064	952	896	945	5,47%	5,47%
3	Oil and oil-based products	23398	23579	23711	1065	1078	1084	0,56%	0,56%
4	Ore and pig iron for iron and steel industry	8593	8991	9461	933	904	951	5,23%	5,20%
5	Iron and steel products	5915	6192	6664	391	436	469	7,62%	7,57%
6	Crude and manufactured minerals, building materials	36540	37263	37848	2713	2804	2848	1,57%	1,57%
7	Fertilisers	5927	6054	6323	442	459	479	4,44%	4,36%
8	Chemicals	13380	13510	15446	554	567	648	14,33%	14,29%
9	Machinery, transport equipment, manufactured articles	19027	19496	20921	420	452	485	7,31%	7,30%
99	of which special transactions	15108	15082	16184	249	249	267	7,31%	7,23%
	AUSTRIA	12316	10741	9074	2845	2277	1747	-15,52%	23,28%
0	Agricultural products	1336	901	696	360	236	124	-22,75%	47,46%
1	Foodstuffs, animal fodder	1890	1610	829	573	482	198	-48,51%	58,92%
2	Solid mineral fuels	152	69	148	36	16	33	114,49%	06,25%
3	Oil and oil-based products	2373	2007	1944	446	344	314	-3,14%	-8,72%
4	Ore and pig iron for iron and steel industry	3273	2621	2827	702	548	582	7,86%	6,20%
5	Iron and steel products	1202	1080	864	320	263	185	-20,00%	29,66%
6	Crude and manufactured minerals, building materials	736	1078	602	106	89	92	-44,16%	3,37%
7	Fertilisers	1010	1050	966	197	201	164	-8,00%	18,41%
8	Chemicals	98	79	76	27	21	19	-3,80%	-9,52%
9	Machinery, transport equipment, manufactured articles	246	246	122	78	77	36	-50,41%	53,25%
99	of which special transactions	0	0	0	0	0	0		

(*) : The data about traffic in Belgium for 2004 have been estimated by the Secrétariat of the CCR

**Table OM8 – TOTAL TRANSPORT OF GOODS
ON INLAND WATERWAYS IN THE STATES CONCERNED**

N° NST	Country Category of goods	Volumes carried			Services			Difference 2004/2003	
		2002	2003	2004	2002	2003	2004	1000 t	mio TKM
		1000 t			1000000 TKM			%	
	LUXEMBURG (not significant)	8568	9690	11180	0	0	0	15,38%	
0	Agricultural products	1406	1656	1853				11,90%	
1	Foodstuffs, animal fodder	573	760	882				16,05%	
2	Solid mineral fuels	2646	3028	4029				33,06%	
3	Oil and oil-based products	308	438	480				9,59%	
4	Ore and pig iron for iron and steel industry	1464	1596	1554				-2,63%	
5	Iron and steel products	741	871	854				-1,95%	
6	Crude and manufactured minerals, building materials	1007	1064	1133				6,48%	
7	Fertilisers	213	223	333				49,33%	
8	Chemicals	42	21	50				138,10%	
9	Machinery, transport equipment, manufactured articles	168	33	12				-63,64%	
99	of which special transactions								
	TOTAL	471996	454575	484436	125007	118481	128227	6,57%	8,23%
0	Agricultural products	19764	18773	19331	8758	7825	7600	2,97%	-2,87%
1	Foodstuffs, animal fodder	31045	27502	28573	10169	9287	9514	3,89%	2,44%
2	Solid mineral fuels	43955	43193	47306	14786	13126	14937	9,52%	13,80%
3	Oil and oil-based products	84110	81231	84870	20695	19621	20093	4,48%	2,40%
4	Ore and pig iron for iron and steel industry	46789	45679	49186	12918	12446	13639	7,68%	9,58%
5	Iron and steel products	19240	18743	20096	6520	6426	7203	7,22%	12,10%
6	Crude and manufactured minerals, building materials	144452	134767	141485	26566	25041	27578	4,98%	10,13%
7	Fertilisers	11447	10855	10982	5071	4566	4861	1,17%	6,46%
8	Chemicals	31087	29826	32209	8917	8532	9291	7,99%	8,90%
9	Machinery, transport equipment, manufactured articles	40107	44006	50398	10608	11613	13511	14,53%	16,35%
99	of which special transactions	35846	37670	41130	8937	9451	10749	9,19%	13,74%

**Table OM9 – EXCHANGES OF GOODS BETWEEN COUNTRIES
ON INLAND WATERWAYS, BY STATE**

N° NST	Relations Category of goods	Volumes carried			Difference 2004/2003 %
		2002	2003	2004	
		1000 t			
	France - Germany	8073	6995	7048	0,76%
0	Agricultural products	848	802	853	6,36%
1	Foodstuffs, animal fodder	806	1106	1120	1,27%
2	Solid mineral fuels	158	78	75	-3,85%
3	Oil and oil-based products	938	977	932	-4,61%
4	Ore and pig iron for iron and steel industry	718	527	546	3,61%
5	Iron and steel products	475	433	398	-8,08%
6	Crude and manufactured minerals, building materials	3431	2558	2521	-1,45%
7	Fertilisers	240	250	284	13,60%
8	Chemicals	423	253	305	20,55%
9	Machinery, transport equipment, manufactured articles	36	11	14	27,27%
99	of which special transactions	3	4	6	50,00%
	France - Belgium	7769	7474	9846	31,74%
0	Agricultural products	976	1091	1390	27,41%
1	Foodstuffs, animal fodder	490	534	742	38,95%
2	Solid mineral fuels	1362	942	1505	59,77%
3	Oil and oil-based products	468	601	470	-21,80%
4	Ore and pig iron for iron and steel industry	623	614	848	38,11%
5	Iron and steel products	804	764	1176	53,93%
6	Crude and manufactured minerals, building materials	1509	1537	1847	20,17%
7	Fertilisers	287	330	425	28,79%
8	Chemicals	424	307	322	4,89%
9	Machinery, transport equipment, manufactured articles	826	754	1121	48,67%
99	of which special transactions	802	743	1092	46,97%
	France - Netherlands	10162	9674	10601	9,58%
0	Agricultural products	2602	1980	2175	9,85%
1	Foodstuffs, animal fodder	451	562	541	-3,74%
2	Solid mineral fuels	2667	2253	2576	14,34%
3	Oil and oil-based products	798	720	774	7,50%
4	Ore and pig iron for iron and steel industry	772	851	812	-4,58%
5	Iron and steel products	275	273	272	-0,37%
6	Crude and manufactured minerals, building materials	1554	1863	2079	11,59%
7	Fertilisers	318	307	372	21,17%
8	Chemicals	497	588	689	17,18%
9	Machinery, transport equipment, manufactured articles	228	277	311	12,27%
99	of which special transactions	122	176	217	23,30%

**Table OM9 – EXCHANGES OF GOODS BETWEEN COUNTRIES
ON INLAND WATERWAYS, BY STATE**

N° NST	Relations Category of goods	Volumes carried			Difference 2004/2003 %
		2002	2003	2004	
		1000 t			
	France - Luxemburg	194	260	220	-15,38%
0	Agricultural products	2	0	0	
1	Foodstuffs, animal fodder	1	1	1	
2	Solid mineral fuels	0	0	0	
3	Oil and oil-based products	0	0	0	
4	Ore and pig iron for iron and steel industry	2	2	6	200,00%
5	Iron and steel products	8	7	2	-71,43%
6	Crude and manufactured minerals, building materials	180	250	210	-16,00%
7	Fertilisers	1	0	1	
8	Chemicals	0	0	0	
9	Machinery, transport equipment, manufactured articles	0	0	0	
99	of which special transactions	0	0	0	
	France - Switzerland	860	871	968	11,14%
0	Agricultural products	33	49	75	53,06%
1	Foodstuffs, animal fodder	3	4	6	50,00%
2	Solid mineral fuels	0	0	0	
3	Oil and oil-based products	143	223	155	-30,49%
4	Ore and pig iron for iron and steel industry	2	0	0	
5	Iron and steel products	1	5	14	180,00%
6	Crude and manufactured minerals, building materials	670	581	716	23,24%
7	Fertilisers	1	3	0	
8	Chemicals	3	1	2	
9	Machinery, transport equipment, manufactured articles	4	5	0	
99	of which special transactions	4	5	5	
	France - Austria	22	26	9	-65,38%
0	Agricultural products	0	11	1	-90,91%
1	Foodstuffs, animal fodder	0	1	0	
2	Solid mineral fuels	0	0	0	
3	Oil and oil-based products	0	0	0	
4	Ore and pig iron for iron and steel industry	0	0	0	
5	Iron and steel products	13	0	8	
6	Crude and manufactured minerals, building materials	0	0	0	
7	Fertilisers	9	1	0	
8	Chemicals	0	0	0	
9	Machinery, transport equipment, manufactured articles	0	13	0	
99	of which special transactions	0	13	0	

**Table OM9 – EXCHANGES OF GOODS BETWEEN COUNTRIES
ON INLAND WATERWAYS, BY STATE**

N° NST	Relations Category of goods	Volumes carried			Difference 2004/2003 %
		2002	2003	2004	
		1000 t			
	France - others	71	65	80	23,08%
0	Agricultural products	1	0	36	
1	Foodstuffs, animal fodder	0	5	4	-20,00%
2	Solid mineral fuels	0	1	0	
3	Oil and oil-based products	0	0	0	
4	Ore and pig iron for iron and steel industry	4	0	11	
5	Iron and steel products	53	57	13	-77,19%
6	Crude and manufactured minerals, building materials	0	0	0	
7	Fertilisers	12	0	13	
8	Chemicals	0	0	0	
9	Machinery, transport equipment, manufactured articles	1	2	3	50,00%
99	of which special transactions	0	0	0	
	Belgium - Germany	26312	25965	27303	5,15%
0	Agricultural products	1115	894	908	1,57%
1	Foodstuffs, animal fodder	876	786	804	2,29%
2	Solid mineral fuels	1571	1479	1860	25,76%
3	Oil and oil-based products	5047	5049	4416	-12,54%
4	Ore and pig iron for iron and steel industry	784	822	1119	36,13%
5	Iron and steel products	2631	3296	3054	-7,34%
6	Crude and manufactured minerals, building materials	4490	3936	4746	20,58%
7	Fertilisers	2107	1600	1509	-5,69%
8	Chemicals	3447	3050	3220	5,57%
9	Machinery, transport equipment, manufactured articles	4244	5053	5667	12,15%
99	of which special transactions	3994	4809	5461	13,56%
	Belgium - Netherlands	55995	57323	60247	5,10%
0	Agricultural products	904	1327	1781	34,21%
1	Foodstuffs, animal fodder	2626	2198	1886	-14,19%
2	Solid mineral fuels	3121	3082	3689	19,70%
3	Oil and oil-based products	12425	13404	14544	8,50%
4	Ore and pig iron for iron and steel industry	4542	4784	3985	-16,70%
5	Iron and steel products	986	1441	1541	6,94%
6	Crude and manufactured minerals, building materials	14810	13206	13441	1,78%
7	Fertilisers	1202	966	797	-17,49%
8	Chemicals	4991	5184	5348	3,16%
9	Machinery, transport equipment, manufactured articles	10388	11731	13235	12,82%
99	of which special transactions	9847	9470	8542	-9,80%

**Table OM9 – EXCHANGES OF GOODS BETWEEN COUNTRIES
ON INLAND WATERWAYS, BY STATE**

N° NST	Relations Category of goods	Volumes carried			Difference 2004/2003 %
		2002	2003	2004	
		1000 t			
	Belgium - Luxemburg	528	633	651	2,84%
0	Agricultural products	0	0	0	
1	Foodstuffs, animal fodder	0	0	0	
2	Solid mineral fuels	0	0	5	
3	Oil and oil-based products	361	311	344	10,61%
4	Ore and pig iron for iron and steel industry	41	116	152	31,03%
5	Iron and steel products	17	74	50	-32,43%
6	Crude and manufactured minerals, building materials	9	52	12	-76,92%
7	Fertilisers	74	80	88	10,00%
8	Chemicals	0	0	0	
9	Machinery, transport equipment, manufactured articles	26	0	0	
99	of which special transactions	26	0	0	
	Belgium - Switzerland	4988	4480	4222	-5,76%
0	Agricultural products	250	186	228	22,58%
1	Foodstuffs, animal fodder	287	197	174	-11,68%
2	Solid mineral fuels	27	54	25	-53,70%
3	Oil and oil-based products	1168	1426	914	-35,90%
4	Ore and pig iron for iron and steel industry	20	2	2	0,00%
5	Iron and steel products	671	269	484	79,93%
6	Crude and manufactured minerals, building materials	201	99	159	60,61%
7	Fertilisers	125	93	112	20,43%
8	Chemicals	9	14	9	-35,71%
9	Machinery, transport equipment, manufactured articles	2230	2140	2115	-1,17%
99	of which special transactions	2230	2140	2115	-1,17%
	Belgium - Austria	483	466	484	3,86%
0	Agricultural products	96	71	4	-94,37%
1	Foodstuffs, animal fodder	89	22	17	-22,73%
2	Solid mineral fuels	10	0	0	
3	Oil and oil-based products	15	1	11	
4	Ore and pig iron for iron and steel industry	8	4	0	
5	Iron and steel products	165	268	373	39,18%
6	Crude and manufactured minerals, building materials	21	22	13	-40,91%
7	Fertilisers	31	33	30	-9,09%
8	Chemicals	8	4	6	50,00%
9	Machinery, transport equipment, manufactured articles	40	41	30	-26,83%
99	of which special transactions	34	34	27	-20,59%

**Table OM9 – EXCHANGES OF GOODS BETWEEN COUNTRIES
ON INLAND WATERWAYS, BY STATE**

N° NST	Relations Category of goods	Volumes carried			Difference 2004/2003 %
		2002	2003	2004	
		1000 t			
	Belgium - others	821	384	370	-3,65%
0	Agricultural products	153	24	6	-75,00%
1	Foodstuffs, animal fodder	222	119	59	-50,42%
2	Solid mineral fuels	64	20	22	10,00%
3	Oil and oil-based products	23	3	0	-100,00%
4	Ore and pig iron for iron and steel industry	45	15	22	46,67%
5	Iron and steel products	249	151	220	45,70%
6	Crude and manufactured minerals, building materials	16	7	8	14,29%
7	Fertilisers	25	11	12	9,09%
8	Chemicals	8	3	0	-100,00%
9	Machinery, transport equipment, manufactured articles	16	31	21	-32,26%
99	of which special transactions	7	15	17	13,33%
	Netherlands - Luxemburg	386	265	423	59,62%
0	Agricultural products	8	0	0	
1	Foodstuffs, animal fodder	0	0	1	
2	Solid mineral fuels	30	27	0	
3	Oil and oil-based products	130	122	12	-90,16%
4	Ore and pig iron for iron and steel industry	9	3	190	
5	Iron and steel products	32	34	84	147,06%
6	Crude and manufactured minerals, building materials	90	36	31	-13,89%
7	Fertilisers	55	39	42	7,69%
8	Chemicals	0	0	32	
9	Machinery, transport equipment, manufactured articles	32	4	31	
99	of which special transactions	0	0	3	
	Netherlands - Switzerland	8761	7835	7473	-4,62%
0	Agricultural products	413	335	261	-22,09%
1	Foodstuffs, animal fodder	624	868	906	4,38%
2	Solid mineral fuels	251	232	359	54,74%
3	Oil and oil-based products	5414	3987	3617	-9,28%
4	Ore and pig iron for iron and steel industry	36	29	85	193,10%
5	Iron and steel products	886	741	661	-10,80%
6	Crude and manufactured minerals, building materials	249	267	234	-12,36%
7	Fertilisers	106	122	120	-1,64%
8	Chemicals	72	87	62	-28,74%
9	Machinery, transport equipment, manufactured articles	710	1167	1168	0,09%
99	of which special transactions	702	1160	1168	0,69%

**Table OM9 – EXCHANGES OF GOODS BETWEEN COUNTRIES
ON INLAND WATERWAYS, BY STATE**

N° NST	Relations Category of goods	Volumes carried			Difference 2004/2003 %
		2002	2003	2004	
		1000 t			
	Netherlands - Austria	3180	2486	3191	28,36%
0	Agricultural products	214	151	25	-83,44%
1	Foodstuffs, animal fodder	403	415	413	-0,48%
2	Solid mineral fuels	67	6	3	-50,00%
3	Oil and oil-based products	202	68	121	77,94%
4	Ore and pig iron for iron and steel industry	1775	1389	1726	24,26%
5	Iron and steel products	76	75	106	41,33%
6	Crude and manufactured minerals, building materials	233	281	549	95,37%
7	Fertilisers	30	24	101	320,83%
8	Chemicals	10	3	6	100,00%
9	Machinery, transport equipment, manufactured articles	170	74	141	90,54%
99	of which special transactions	164	73	141	93,15%
	Netherlands - Germany	105462	102750	111644	8,66%
0	Agricultural products	2230	2148	1963	-8,61%
1	Foodstuffs, animal fodder	6727	6615	6764	2,25%
2	Solid mineral fuels	17848	17589	19053	8,32%
3	Oil and oil-based products	13164	11931	13228	10,87%
4	Ore and pig iron for iron and steel industry	28522	27911	30008	7,51%
5	Iron and steel products	2991	3351	3609	7,70%
6	Crude and manufactured minerals, building materials	18063	17037	18854	10,67%
7	Fertilisers	1570	1547	1719	11,12%
8	Chemicals	7479	7339	8006	9,09%
9	Machinery, transport equipment, manufactured articles	6868	7282	8440	15,90%
99	of which special transactions	6456	6765	7897	16,73%
	Netherlands - others	978	1046	996	-4,78%
0	Agricultural products	65	55	152	176,36%
1	Foodstuffs, animal fodder	630	412	461	11,89%
2	Solid mineral fuels	16	16	24	50,00%
3	Oil and oil-based products	12	90	52	-42,22%
4	Ore and pig iron for iron and steel industry	58	17	33	94,12%
5	Iron and steel products	33	60	89	48,33%
6	Crude and manufactured minerals, building materials	12	84	77	-8,33%
7	Fertilisers	26	45	43	-4,44%
8	Chemicals	11	32	28	-12,50%
9	Machinery, transport equipment, manufactured articles	115	235	37	-84,26%
99	of which special transactions	107	226	30	-99,49%

**Table OM9 – EXCHANGES OF GOODS BETWEEN COUNTRIES
ON INLAND WATERWAYS, BY STATE**

N° NST	Relations Category of goods	Volumes carried			Difference 2004/2003 %
		2002	2003	2004	
		1000 t			
	Switzerland - Luxemburg	0	0	0	
0	Agricultural products	0	0	0	
1	Foodstuffs, animal fodder	0	0	0	
2	Solid mineral fuels	0	0	0	
3	Oil and oil-based products	0	0	0	
4	Ore and pig iron for iron and steel industry	0	0	0	
5	Iron and steel products	0	0	0	
6	Crude and manufactured minerals, building materials	0	0	0	
7	Fertilisers	0	0	0	
8	Chemicals	0	0	0	
9	Machinery, transport equipment, manufactured articles	0	0	0	
99	of which special transactions	0	0	0	
	Switzerland - Austria	0	0	0	
0	Agricultural products	0	0	0	
1	Foodstuffs, animal fodder	0	0	0	
2	Solid mineral fuels	0	0	0	
3	Oil and oil-based products	0	0	0	
4	Ore and pig iron for iron and steel industry	0	0	0	
5	Iron and steel products	0	0	0	
6	Crude and manufactured minerals, building materials	0	0	0	
7	Fertilisers	0	0	0	
8	Chemicals	0	0	0	
9	Machinery, transport equipment, manufactured articles	0	0	0	
99	of which special transactions	0	0	0	
	Switzerland - others	0	0	0	
0	Agricultural products	0	0	0	
1	Foodstuffs, animal fodder	0	0	0	
2	Solid mineral fuels	0	0	0	
3	Oil and oil-based products	0	0	0	
4	Ore and pig iron for iron and steel industry	0	0	0	
5	Iron and steel products	0	0	0	
6	Crude and manufactured minerals, building materials	0	0	0	
7	Fertilisers	0	0	0	
8	Chemicals	0	0	0	
9	Machinery, transport equipment, manufactured articles	0	0	0	
99	of which special transactions	0	0	0	

**Table OM9 – EXCHANGES OF GOODS BETWEEN COUNTRIES
ON INLAND WATERWAYS, BY STATE**

N° NST	Relations Category of goods	Volumes carried			Difference 2004/2003 %
		2002	2003	2004	
		1000 t			
	Germany - Luxembourg	845	630	564	-10,48%
0	Agricultural products	1	0	1	
1	Foodstuffs, animal fodder	5	0	0	
2	Solid mineral fuels	51	58	0	
3	Oil and oil-based products	318	268	247	-7,84%
4	Ore and pig iron for iron and steel industry	16	8	13	62,50%
5	Iron and steel products	432	281	291	3,56%
6	Crude and manufactured minerals, building materials	8	7	7	0,00%
7	Fertilisers	12	6	3	-50,00%
8	Chemicals	2	2	2	0,00%
9	Machinery, transport equipment, manufactured articles	0	0	0	
99	of which special transactions	0	0	0	
	Germany - Austria	1035	1401	1472	5,07%
0	Agricultural products	242	212	385	81,60%
1	Foodstuffs, animal fodder	120	157	190	21,02%
2	Solid mineral fuels	3	1	2	
3	Oil and oil-based products	32	80	66	-17,50%
4	Ore and pig iron for iron and steel industry	96	300	260	-13,33%
5	Iron and steel products	23	68	40	-41,18%
6	Crude and manufactured minerals, building materials	108	122	135	10,66%
7	Fertilisers	400	445	382	-14,16%
8	Chemicals	0	2	5	150,00%
9	Machinery, transport equipment, manufactured articles	11	14	7	-50,00%
99	of which special transactions	5	4	5	25,00%
	Germany - Switzerland	1724	1231	1516	23,15%
0	Agricultural products	28	14	18	28,57%
1	Foodstuffs, animal fodder	30	26	18	-30,77%
2	Solid mineral fuels	12	2	3	50,00%
3	Oil and oil-based products	930	539	854	58,44%
4	Ore and pig iron for iron and steel industry	154	154	129	-16,23%
5	Iron and steel products	279	190	181	-4,74%
6	Crude and manufactured minerals, building materials	100	133	129	-3,01%
7	Fertilisers	24	25	33	32,00%
8	Chemicals	113	91	91	0,00%
9	Machinery, transport equipment, manufactured articles	54	57	60	5,26%
99	of which special transactions	10	10	11	10,00%

**Table OM9 – EXCHANGES OF GOODS BETWEEN COUNTRIES
ON INLAND WATERWAYS, BY STATE**

N° NST	Relations Category of goods	Volumes carried			Difference 2004/2003 %
		2002	2003	2004	
		1000 t			
	Germany - Switzerland	9169	7316	5671	-22,48%
0	Agricultural products	788	625	334	-46,56%
1	Foodstuffs, animal fodder	1391	962	890	-7,48%
2	Solid mineral fuels	819	947	86	-90,92%
3	Oil and oil-based products	339	248	288	16,13%
4	Ore and pig iron for iron and steel industry	341	370	113	-69,46%
5	Iron and steel products	3123	2222	2419	8,87%
6	Crude and manufactured minerals, building materials	847	495	275	-44,44%
7	Fertilisers	536	616	465	-24,51%
8	Chemicals	141	177	79	-55,37%
9	Machinery, transport equipment, manufactured articles	844	654	722	10,40%
99	of which special transactions	364	277	333	20,22%
	Luxemburg - others	170	90	67	-25,56%
0	Agricultural products	0	0	0	
1	Foodstuffs, animal fodder	0	0	0	
2	Solid mineral fuels	0	0	0	
3	Oil and oil-based products	0	0	0	
4	Ore and pig iron for iron and steel industry	161	86	67	-22,09%
5	Iron and steel products	9	4	0	
6	Crude and manufactured minerals, building materials	0	0	0	
7	Fertilisers	0	0	0	
8	Chemicals	0	0	0	
9	Machinery, transport equipment, manufactured articles	0	0	0	
99	of which special transactions	0	0	0	
	Austria - others	7052	5464	6842	25,22%
0	Agricultural products	779	425	918	116,00%
1	Foodstuffs, animal fodder	1277	1016	1270	25,00%
2	Solid mineral fuels	72	62	148	138,71%
3	Oil and oil-based products	1894	1698	1946	14,61%
4	Ore and pig iron for iron and steel industry	1393	927	1287	38,83%
5	Iron and steel products	772	551	518	-5,99%
6	Crude and manufactured minerals, building materials	217	81	117	44,44%
7	Fertilisers	543	520	489	-5,96%
8	Chemicals	79	70	81	15,71%
9	Machinery, transport equipment, manufactured articles	26	114	68	-40,35%
99	of which special transactions	43	133	74	-44,36%

**Table OM9 – EXCHANGES OF GOODS BETWEEN COUNTRIES
ON INLAND WATERWAYS, BY STATE**

N° NST	Relations Category of goods	Volumes carried			Difference 2004/2003 %
		2002	2003	2004	
		1000 t			
	Total	255040	245130	261908	6,84%
0	Agricultural products	11748	10400	11514	10,71%
1	Foodstuffs, animal fodder	17058	16006	16267	1,63%
2	Solid mineral fuels	28149	26849	29435	9,63%
3	Oil and oil-based products	43821	41746	42991	2,98%
4	Ore and pig iron for iron and steel industry	40122	38931	41414	6,38%
5	Iron and steel products	15004	14615	15603	6,76%
6	Crude and manufactured minerals, building materials	46818	42654	46160	8,22%
7	Fertilisers	7734	7063	7040	-0,33%
8	Chemicals	17717	17207	18293	6,31%
9	Machinery, transport equipment, manufactured articles	26869	29659	33191	11,91%
99	of which special transactions	24920	26057	27144	4,17%

Container traffic on the main routes (in TEUs)

1) Rhine route – evolution of transshipments in the main Rhine ports

<i>Rhine traffic</i>	Total	Incoming			Outgoing		
		Total	empty	loaded	Total	empty	loaded
Lower Rhine							
01	393750	182950	90663	92287	210800	48767	162033
02	444783	211157	102666	108491	233626	49578	184048
03	537779	260870	127330	133540	276909	70132	206777
04	613685	295794	145695	150099	317891	75169	242722
Evolution (2004 / 2003)	14,11	13,39	14,42	12,40	14,80	7,18	17,38
Middle Rhine							
01	592150	295895	162095	133800	296255	36947	259308
02	649625	316482	179607	136875	333143	38998	294145
03	696486	339560	185248	154312	356926	40303	316623
04	862395	426193	242824	183369	436202	45346	390856
Evolution (2004 / 2003)	23,82	25,51	31,08	18,83	22,21	12,51	23,45
Upper Rhine							
01	210966	108340	69670	38670	102626	20730	81896
02	227935	115112	78382	36730	112823	19994	92829
03	246451	120911	78878	42033	125540	21533	104007
04	292628	138218	93240	44978	154410	21815	132595
Evolution (2004 / 2003)	18,74	14,31	18,21	7,01	23,00	1,31	27,49
Total 01	1196866	587185	322428	264757	609681	106444	503237
Total 02	1322343	642751	360655	282096	679592	108570	571022
Total 03	1480716	721341	391456	329885	759375	131968	627407
Total 04	1768708	860205	481759	378446	908503	142330	766173
Evolution (2004 / 2003)	19,45	19,25	23,07	14,72	19,64	7,85	22,12

2) Delta region and north – south traffic

<i>Traffic in the Delta</i>	Total
Belgium / Netherlands	
03	801460
04	823135
Evolution (2004 / 2003)	2,70
France / Netherlands	
03	14753
04	16953
Evolution (2004 / 2003)	14,91
Total 03	816213
Total 04	840088
Evolution (2004 / 2003)	2,93

3) National container traffic, in TEUs

Country		Total
Netherlands		
	01	651885
	02	670189
	03	694324
	04	873399
	Evolution (2004 / 2003)	25,79%
Germany		
	01	111577
	02	123567
	03	145150
	04	171812
	Evolution (2004 / 2003)	18,37%
France		
	(Rhône basin) 01	10530
	02	21387
	03	32644
	04	47000
	Evolution (2004 / 2003)	43,98%
	(Seine basin) 01	38446
	02	37500
	03	67137
	04	82620
	Evolution (2004 / 2003)	23,06%
	(Northern canals) 01	48221
	02	35752
	03	43788
	04	58146
	Evolution (2004 / 2003)	32,79%

Micro-economic data

Self-propelled barges – transport of dry goods

Tonnage class	400 +/- 300 t 100-700 tons		
	2001	2002	2003
Sample observed			
Number of vessels	22	17	9
Average tonnage	566	561	615
Average year of construction	1957	1957	1959
Operational hours per year (ave.)	3604	3599	3500
Average value of vessel	€ 196 515	€ 194 156	€ 217 660
Cost headings	Proportion of costs	Evolution of costs 2002/2001	Evolution of costs 2003/2002
Labour costs	51,65%	8,12%	-9,07%
Insurance	2,60%	-1,20%	12,11%
Allocations to amortisation	9,09%	-1,18%	12,76%
Repairs and maintenance	6,89%	5,23%	7,76%
Other costs	7,72%	3,59%	8,42%
Financial charges	6,80%	-3,30%	-14,23%
Total fixed costs per year	84,75%	5,22%	-3,88%
Fuel	13,58%	1,08%	-6,00%
Other variable costs	1,66%	-0,68%	7,20%
Total variable costs per year	15,25%	0,90%	-4,62%
Total costs	100,00 %	4,54%	-3,99%

Tonnage class	1100 +/- 400 t 700-1500 tons		
	2001	2002	2003
Sample observed			
Number of vessels	90	98	72
Average tonnage	1061	1069	1068
Average year of construction	1960	1961	1962,25
Operational hours per year (ave.)	3718	3690	3701
Average value of vessel	€ 510 276	€ 519 876	€ 523 851
Cost headings	Proportion of costs	Evolution of costs 2002/2001	Evolution of costs 2003/2002
Labour costs	34,96%	3,27%	7,73%
Insurance	3,92%	1,88%	0,76%
Allocations to amortisation	13,49%	1,39%	0,38%
Repairs and maintenance	5,41%	6,07%	3,80%
Other costs	6,51%	4,62%	3,29%
Financial charges	10,29%	-0,29%	-22,91%
Total fixed costs per year	74,57%	2,62%	0,82%
Fuel	23,60%	-5,73%	4,60%
Other variable costs	1,83%	0,97%	-0,07%
Total variable costs per year	25,43%	-5,26%	4,25%
Total costs	100,00 %	0,55%	1,67%

Tonnage class	2000 +/- 500 t		
	1500-2500 tons		
Sample observed	2001	2002	2003
Number of vessels	46	55	45
Average tonnage	1873	1872	1849
Average year of construction	1980	1980	1981
Operational hours per year (ave.)	3847	3854	3787
Average value of vessel	€ 1 171 785	€ 1 172 718	€ 1 164 990
Cost headings	Proportion of costs	Evolution of costs 2002/2001	Evolution of costs 2003/2002
Labour costs	31,38%	8,63%	0,96%
Insurance	5,75%	0,08%	-0,66%
Allocations to amortisation	16,16%	0,20%	-2,07%
Repairs and maintenance	5,82%	-31,71%	3,00%
Other costs	6,33%	4,03%	2,38%
Financial charges	15,15%	-2,05%	-24,00%
Total fixed costs per year	80,59%	0,21%	-4,51%
Fuel	16,87%	-11,29%	-4,86%
Other variable costs	2,54%	-0,08%	-2,04%
Total variable costs per year	19,41%	-9,93%	-4,48%
Total costs	100,00 %	-1,87%	-4,50%

Tonnage class	3000 +/- 500 t		
	2500-3500 tons		
Sample observed	2001	2002	2003
Number of vessels	21	23	22
Average tonnage	2820	2827	2825
Average year of construction	1987	1987	1988
Operational hours per year (ave.)	4229	4252	4287
Average value of vessel	€ 2 054 362	€ 2 059 093	€ 2 063 436
Cost headings	Proportion of costs	Evolution of costs 2002/2001	Evolution of costs 2003/2002
Labour costs	27,58%	8,50%	7,68%
Insurance	6,59%	0,23%	0,21%
Allocations to amortisation	16,58%	0,40%	-1,47%
Repairs and maintenance	4,36%	5,78%	3,80%
Other costs	5,76%	4,25%	3,30%
Financial charges	17,35%	-1,90%	-23,33%
Total fixed costs per year	78,22%	3,05%	-2,65%
Fuel	18,60%	5,64%	-3,41%
Other variable costs	3,18%	0,37%	-0,11%
Total variable costs per year	21,78%	4,86%	-2,94%
Total costs	100,00 %	3,44%	-2,71%

Self-propelled barges – transport by tanker

Tonnage class	400 +/- 300 t 100 - 700 tons		
	2001	2002	2003
Sample observed			
Number of vessels	2	2	2
Average tonnage	478	478	478
Average year of construction	1965	1965	1965
Operational hours per year (ave.)	3500	3500	3500
Average value of vessel	€ 222 668	€ 222 668	€ 222 668
Cost headings	Proportion of costs	Evolution of costs 2002/2001	Evolution of costs 2003/2002
Labour costs	46,96%	6,79%	4,84%
Insurance	3,51%	0,00%	0,00%
Allocations to amortisation	9,05%	0,00%	0,00%
Repairs and maintenance	5,50%	5,59%	3,86%
Other costs	10,74%	4,05%	3,36%
Financial charges	6,79%	-2,13%	-23,49%
Total fixed costs per year	82,54%	4,45%	1,37%
Fuel	15,59%	70,82%	7,79%
Other variable costs	1,87%	0,00%	0,00%
Total variable costs per year	17,46%	59,93%	7,04%
Total costs	100,00%	11,78%	2,44%

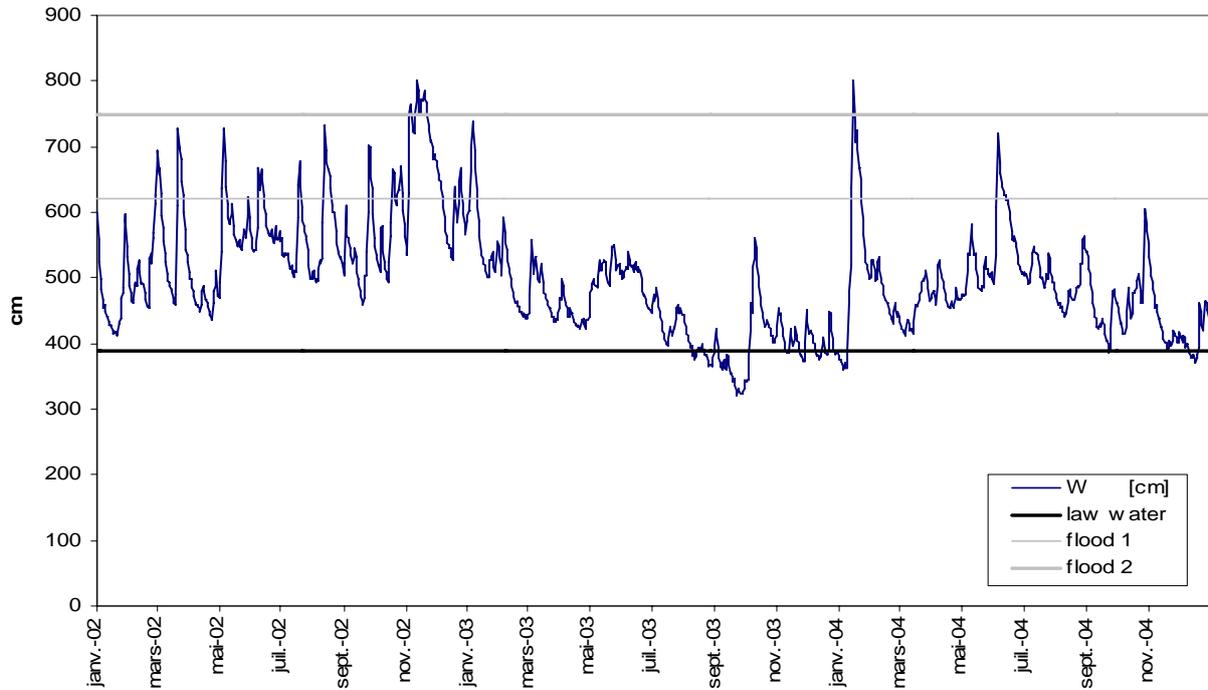
Tonnage class	1100 +/- 400 t 700-1500 tons		
	2001	2002	2003
Sample observed			
Number of vessels	12	12	10
Average tonnage	1498	1498	1239
Average year of construction	1966	1966	1966
Operational hours per year (ave.)	5250	5250	5350
Average value of vessel	€ 696 146	€ 696 146	€ 729 047
Cost headings	Proportion of costs	Evolution of costs 2002/2001	Evolution of costs 2003/2002
Labour costs	57,31%	5,32%	5,79%
Insurance	3,83%	0,00%	4,73%
Allocations to amortisation	9,88%	0,00%	4,73%
Repairs and maintenance	4,23%	5,59%	6,97%
Other costs	7,13%	4,05%	6,06%
Financial charges	7,39%	-2,13%	-19,88%
Total fixed costs per year	89,75%	3,72%	3,46%
Fuel	8,70%	-11,66%	-0,47%
Other variable costs	1,55%	0,00%	3,17%
Total variable costs per year	10,25%	-10,04%	0,09%
Total costs	100,00%	2,17%	3,13%

Tonnage class	2000 +/- 500 t 1500-2500 tons		
	2001	2002	2003
Sample observed			
Number of vessels	8	10	13
Average tonnage	1819	1811	1808
Average year of construction	1983	1981	1987
Operational hours per year (ave.)	5625	5700	5500
Average value of vessel	€ 1 408 420	€ 1 368 339	€ 1 506 277
Cost headings	Proportion of costs	Evolution of costs 2002/2001	Evolution of costs 2003/2002
Labour costs	47,85%	10,42%	-3,47%
Insurance	5,36%	-2,85%	10,08%
Allocations to amortisation	10,98%	-0,87%	-5,32%
Repairs and maintenance	4,26%	5,17%	3,68%
Other costs	6,90%	3,68%	3,19%
Financial charges	10,33%	-4,91%	-15,78%
Total fixed costs per year	85,68%	5,22%	-3,54%
Fuel	12,73%	-18,89%	12,47%
Other variable costs	1,59%	-0,41%	-0,19%
Total variable costs per year	14,32%	-17,01%	10,92%
Total costs	100,00 %	1,73%	-1,69%

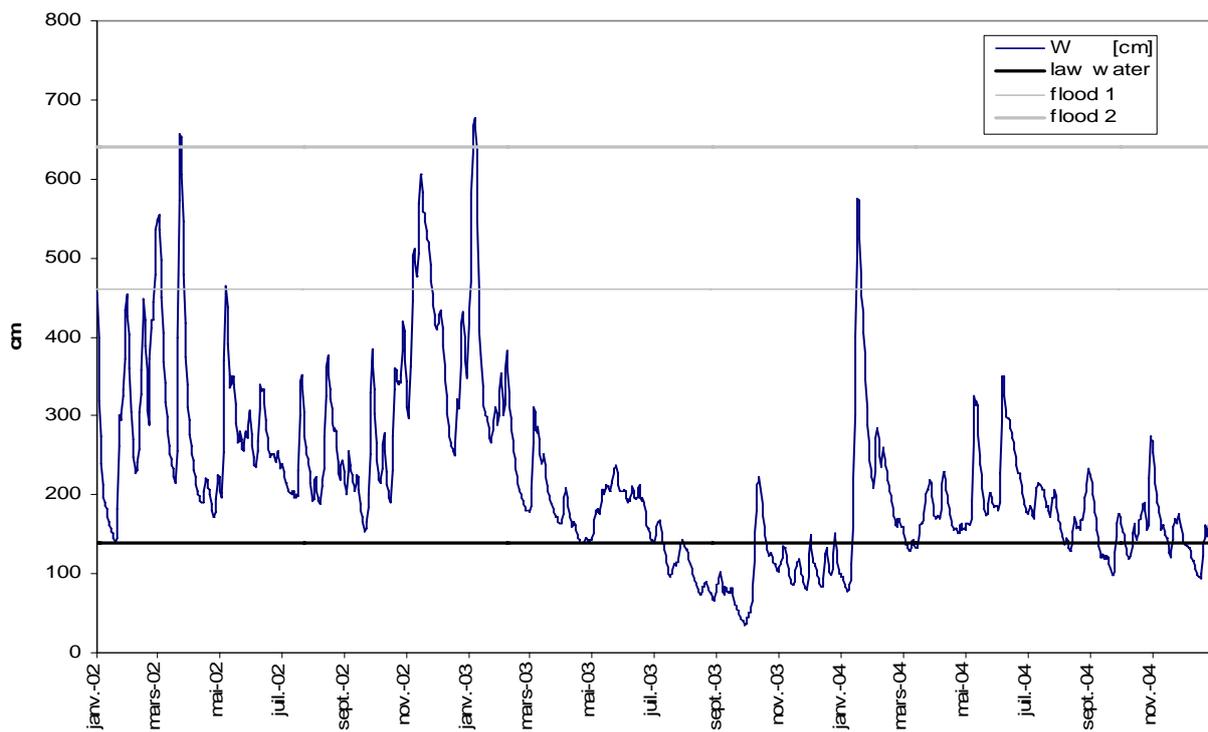
Tonnage class	3000 +/- 500 t 2500-3500 tons		
	2001	2002	2003
Sample observed			
Number of vessels	2	3	5
Average tonnage	3035	2973	2830
Average year of construction	1995	1988	1997
Operational hours per year (ave.)	6000	6000	6000
Average value of vessel	€ 3 068 941	€ 2 769 563	€ 2 944 040
Cost headings	Proportion of costs	Evolution of costs 2002/2001	Evolution of costs 2003/2002
Labour costs	42,92%	6,79%	4,84%
Insurance	7,35%	-9,76%	6,30%
Allocations to amortisation	11,89%	5,67%	-13,84%
Repairs and maintenance	4,51%	3,53%	-0,93%
Other costs	7,07%	2,13%	-1,13%
Financial charges	14,23%	-11,68%	-18,68%
Total fixed costs per year	87,99%	1,21%	-2,32%
Fuel	10,31%	-7,30%	-7,40%
Other variable costs	1,71%	-2,00%	-4,73%
Total variable costs per year	12,01%	-6,57%	-7,01%
Total costs	100,00 %	0,21%	-2,88%

Hydraulicité

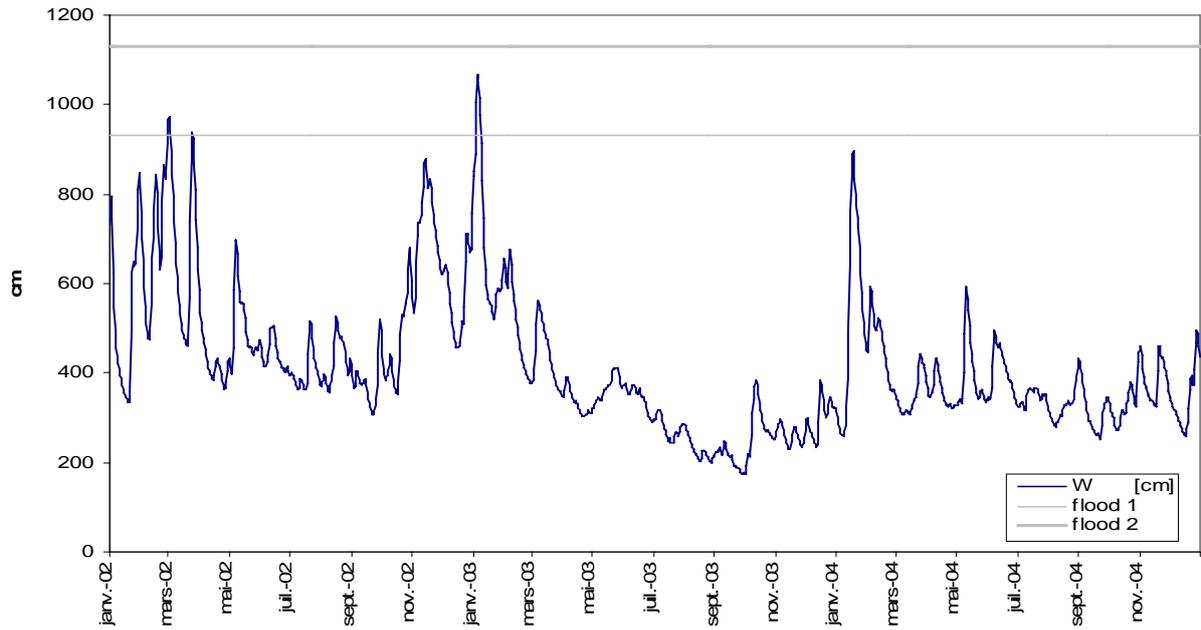
Water levels at Maxau in 2002, 2003 et 2004



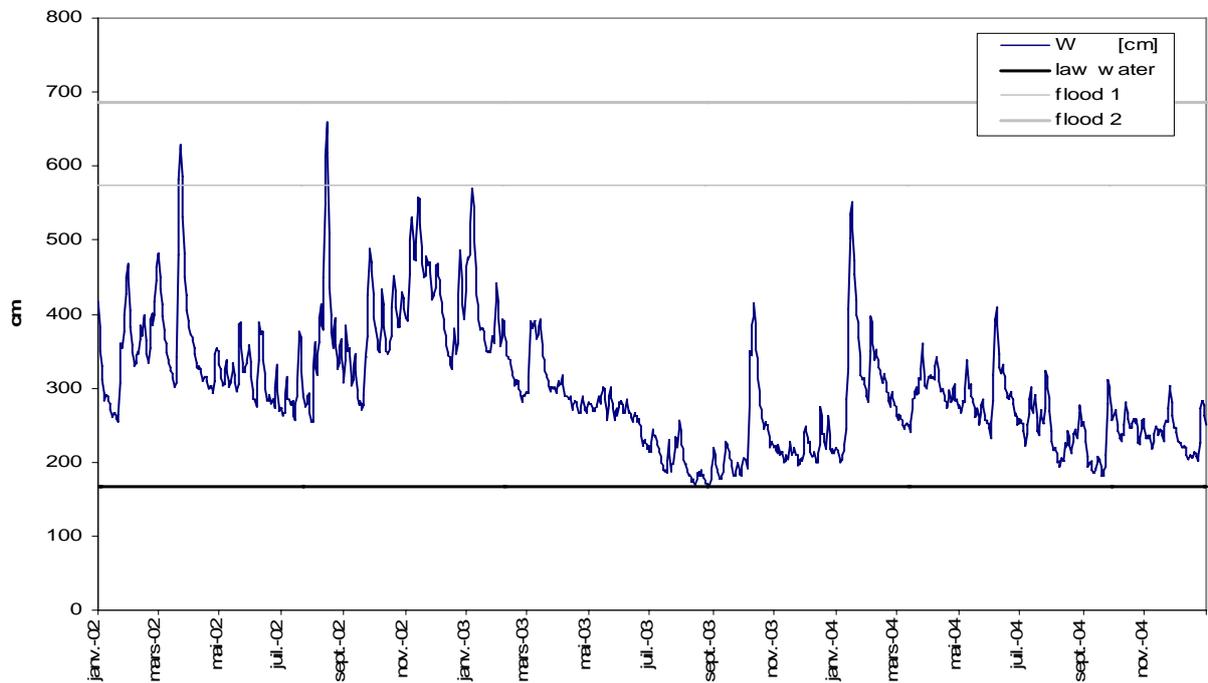
Water levels at Kaub in 2002,2003 et 2004



Water levels at Ruhrort in 2002, 2003 et 2004



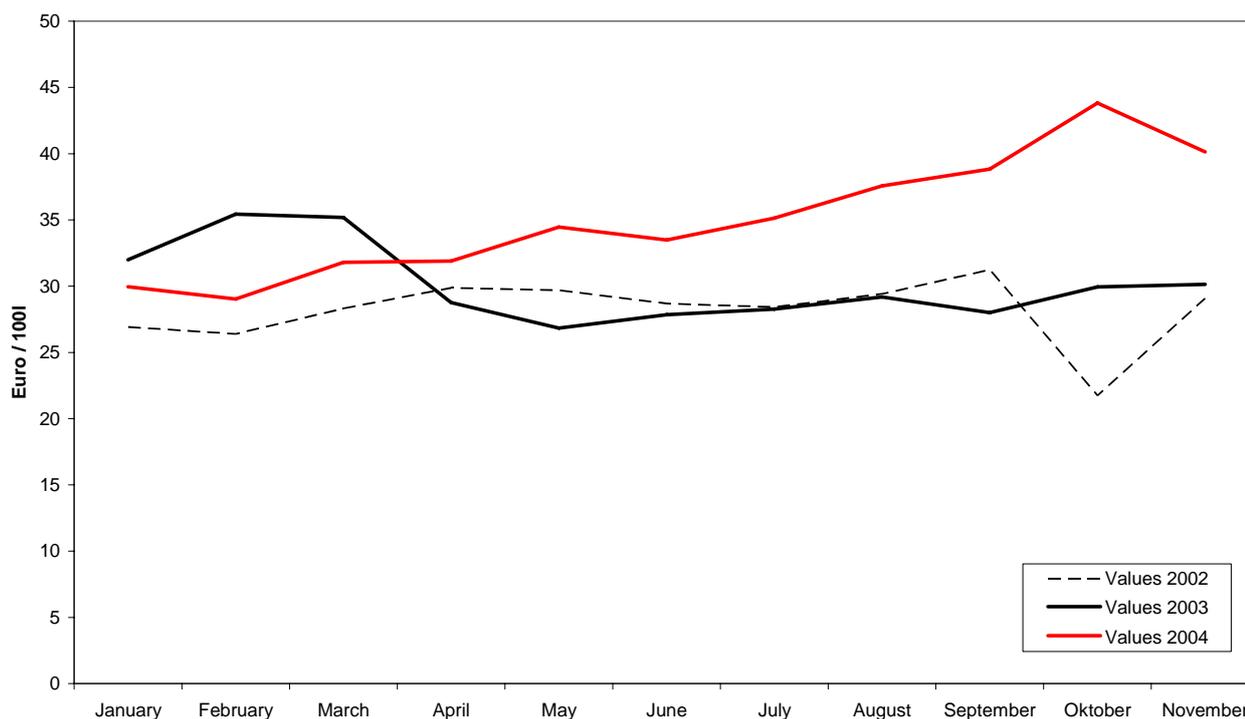
Water levels at Hofkirchen in 2002, 2003, 2004



Reference levels

	Maxau (Rhine)	Kaub (Rhine)	Ruhrort (Rhine)	Hofkirchen (Danube)
Low water	390	140		166
Flood 1	620	460	930	575
Flood 2	750	640	1130	687

Evolution of price of fuel oil



Inland waterways transport network in the States concerned (in km)

As a guide; situation in 1993.
Source: UN/ECE

Country	Regional network	International network	Total
Germany	1465	4826	6291
Austria	7	351	358
Belgium	677	836	1513
France	3988	1829	5817
Luxemburg	0	37	37
Netherlands	2648	2398	5046
Switzerland	0	21	21