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TO THE COUNCIL, THE EUROPEAN PARLIAMENT,  
THE ECONOMIC AND SOCIAL COMMITTEE  
AND THE COMMITTEE OF THE REGIONS

**SHAPING EUROPE'S MARITIME FUTURE**

**A CONTRIBUTION TO THE COMPETITIVENESS OF  
MARITIME INDUSTRIES**

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## **I. INTRODUCTION**

The Commission, in its Communication "An Industrial Competitiveness Policy for the European Union" (COM (94) 319) of September 1994, identified priorities for the Union's industrial policy, which are based on a close monitoring of the evolution of industrial competitiveness and on the implementation of an efficient partnership between industry and public authorities. The Commission stressed the importance of making use of instruments and policies of a horizontal nature which promote the right business environment, as opposed to sectorally defensive instruments. This approach to industrial policy has been approved by the Council and acknowledged by the Parliament.

Improving the competitiveness of its industry to raise employment is at the core of the Union's economic policy. This was set out by the Commission in its White Paper "Growth, Competitiveness, Employment" of 1993 and endorsed by the European Council in Essen in December 1994. The Commission was asked to regularly report on its efforts to improve competitiveness. It has set up a consultative group which reports twice a year on different aspects of European competitiveness ("Ciampi-Group").

The present Communication contributes to this ongoing rigorous appraisal in assessing how the Union's industrial policy can contribute to the competitiveness of maritime industries.

Not long ago this sector was considered as an "old" industry. Shipbuilding in particular was threatened with extinction in the face of global competition, which for a large part was distorted by state aid.

The Commission emphasised the importance of maritime issues for the first time in its Communication "New Challenges for Maritime Industries" of September 1991 (1). In this document the Commission defined the framework in which a coherent approach to the maritime industries should be implemented.

In 1992 the Maritime Industries Forum was created. It brings together all maritime industries (shipping, shipbuilding, marine equipment, ports, fisheries and related industries and services) and representatives of public authorities. It maintains an ongoing dialogue among all participants and develops, at its annual plenary sessions, a set of recommendations concerning priorities in the relevant policies.

The G7 States acknowledged the importance of maritime industries by including a project on the maritime information society (MARIS) in the 11 pilot projects chosen for the promotion of the information society, adopted at their meeting in Brussels in February 1995. This reflects the new dimension of industrial policy in the interest of maritime industries.

Maritime industry has, by its nature, a link to coastal regions which often are in the periphery of the Union. The foundation of the Alliance of Maritime Regional Interests in

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(1) COM (91) 335 final, 20.09.91

Europe (AMRIE), on the initiative of the European Parliament, focuses on this specific regional impact.

The Commission, by setting up the task force "Maritime Systems of the Future", identified maritime industries as a priority area for research and development promotion particularly in fields that have to be addressed at European level and are likely to have a real impact on competitiveness.

The Commission recognises the recommendations of the plenary sessions of the Maritime Industries Forum at Rotterdam (June 1994) and Bremen (June 1995).

This development clearly demonstrates that the less favourable picture the industry seemed to give in 1991 has changed remarkably. In issuing this Communication, the Commission intends to demonstrate its conviction that the maritime industries are essentially an industrial sector with a high potential for growth, development and technological improvement. Exploiting this potential will contribute to job creation across the Union.

With the present Communication, the Commission investigates the structure and situation of the European maritime industries and outlines which policy elements and initiatives it considers suitable to contribute to their industrial competitiveness. It forms a coherent picture, showing how different policies and policy tools have an effect on the wide range of economic activities in the maritime world, in order to contribute to a consistent approach of the different parties concerned. Formulating a strategy specifically concerning the Union's future shipping policy is the subject of the Commission's Communication "Maritime Strategy" (2).

## **II. THE VITAL ROLE OF MARITIME INDUSTRIES FOR THE EUROPEAN UNION**

Maritime industries must not be defined in a narrow sense, reducing it to production of ships and other marine equipment. Instead, the industry mirrors the growing importance of the service sector in Europe's economic performance. It embraces, in addition to shipbuilding, a wide range of production and services like shipping, port services, including multimodal transport operators, and the marine resources industry, including fishing, throughout Europe, with a large number of small and medium enterprises. Notably the ship repair, marine and offshore equipment sectors and the fishery industry consist of a large variety of mostly medium sized companies, which contribute to the local economies all over Europe.

The maritime industry sectors are interdependent. Safe, efficient and environmentally friendly maritime transport can only be achieved if all sectors contribute equally to these

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(2) COM(96) 81 final

goals. It is implicit that not only the construction and maintenance of a ship are to the highest standards but also the on-board equipment and operation. Furthermore, high quality ships need high quality ports and intermodal infrastructure to enhance and augment superior maritime transport.

Today, maritime industries across Europe employ over 2,5 million people making it a significant industrial sector. Over 90 % of Europe's external trade and nearly 30 % of its internal trade is carried by sea.

Europe is genuinely maritime. Thirteen of its Member States have direct access to the sea, the others, Austria and Luxembourg, are linked to the sea by inland waterways. The unique port structure along the European coast-line directly interlinks a considerable part of the European territory. With the accession of Finland and Sweden, the role of transport by sea has grown in importance. Further prospects offer the Euro-Mediterranean co-operation and the association and prospective accession of Poland and the Baltic States.

A considerable number of maritime regions are located in the less prosperous Member States. It is therefore essential to ensure that these regions fully benefit from the efforts which are undertaken to improve the competitiveness of maritime industries. Where appropriate, the Structural Funds may contribute to achieve this goal.

Given the growing congestion of land based transport modes, maritime industries, therefore, are essentially industries of the future. Their ever growing importance is, in addition, strengthened by the fact that shipping is the most economic and environmentally friendly transport mode. If pricing for transport should reflect the real costs, i.e. including those of the society, as it is discussed in the Green Paper of the Commission "Towards Fair and Efficient Pricing in Transport" of December 1995 <sup>(3)</sup>, then sea transport clearly could profit. It is, of course, necessary that safety standards are maintained, since accidents involving carriers of hazardous goods can be extremely serious <sup>(4)</sup>.

## **1. Shipbuilding**

Shipbuilding is a high technology industry, which has undergone a dramatic transformation in recent years. Including shiprepair and the offshore production, it employed, in 1994, more than 120.000 people (1985: 219.000; 1989: 144.000) <sup>(5)</sup>. Together with the equipment supply industry it covers the entire Union and, to a large extent, includes small and medium enterprises.

Shipbuilding is a global business. The European Union has, in this field, strong and weak points. Industry is facing the challenge of considerable competition from countries like

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<sup>(3)</sup> COM (95) 691 final, 20.12.95

<sup>(4)</sup> The Communication "Maritime Strategy", COM (96) 81 final, discusses the challenge of eliminating dangerous shipping

<sup>(5)</sup> AWES Countries, i.e. EU - Member States and Norway

Japan and South Korea, and, in the near future, possibly from new competitors like Central and Eastern European Countries, China and the United States. One of the major competitive disadvantages for European shipbuilders are production costs. This situation is aggravated by distortions of competition due to unfair practices in some third countries. European shipbuilders therefore need not only to further improve their productivity but also to focus on their competitive strengths, i.e. highly skilled labour and value added products like the safe, efficient and technologically complex ships. In these areas, European shipbuilders are still leading. Thereby they could manage to keep their share of the world market during the last ten years at about 20 %.

Europe's equipment supply industry was, also, successful in maintaining a highly competitive position in the world market. Marine equipment is, to some extent, composed of high technology products, e.g. for navigation and ship automation. Equipment makes up to 60/70 % of the total value of a vessel. It contributes to transport safety at sea. This is underlined by the Commission's proposal for a Council Directive establishing high safety standards for approval of Marine Equipment on which the Council has recently reached a common position <sup>(6)</sup>.

The challenge for Industry, Member States and the European Union is to maintain, and improve, this performance. Efforts must be concentrated on human resources, research and development and the exploitation of information technology, in order to retain technological leadership and fully utilise productivity improvement potentials.

The latest data available to the Commission's services show some signs of improvement in the overall market situation. There are encouraging signs of a market upturn being maintained with the prospect of a continuing need for replacement vessels due to the aging world fleet, stricter safety and environmental protection requirements and the expected boost to world trade deriving from the Uruguay Round. European demand for new ships is likely to increase with growing transport volume in the Baltic and the Mediterranean seas. There is, however, the adverse effect of substantial capacity increase in South Korea. Further capacity increases are to be expected from China and from the conversion of naval shipyards in Central and Eastern European countries and the United States.

Furthermore, European yards should consider development into new activities. Of the several hundred offshore platforms currently in use in the North Sea, a large proportion are due to be decommissioned during the next few years. Disposal of these platforms will create a major market for yards with dismantling facilities.

Apart from traditional shipbuilders, everywhere in Europe several small shipyards deserve a particular attention as potentially capable to generate new opportunities for employment. They are very active particularly in design and production of fishing and leisure boats which are directed toward very demanding potential customers, especially as far as the aspects of performance, comfort and onboard equipment are concerned. This requires continuous efforts in the acquisition and management of new design and production technologies, including the use of advanced materials. Involvement of this

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<sup>(6)</sup> COM (95) 269 final, 21.6.1995, O.J. 1995 C 218

sector, characterised by small and medium enterprises, in RTD actions either at national or at European level represents the unique opportunity to reinforce their presence on the market, enhance their competitiveness worldwide and create opportunity for new jobs.

## **2. Ship Repair**

The basic activities of a ship repair yard comprise steel work, machinery and electrical work, pipe fitting, painting. Regular and statutory maintenance account for about 75 % of the total turnover of the sector, while other activities like repair of accident damage and major conversion or reconstruction share the remainder. Conversion is more often carried out by shipyards that also have a significant new building activity, which facilitates the construction of larger sections.

Employment in the ship repair industry of the AWES-countries decreased from 42.000 persons in 1985 to 24.000 persons in 1994, down more than 40 %.

The competitive position of many EU-yards is weak due to the high overall costs. Exchange rates also constitute a competitive disadvantage. A few yards have recently been able to improve this position by changing working procedures and introducing new technologies. Application of information technology, especially of telematics, promoted by the European Union, considerably contributed to this effort.

Increased competition is expected from yards in Central and Eastern Europe. The EU-Mediterranean yards will be in competition with yards in the Black Sea countries and Turkey. In particular larger yards within the EU will be forced to increase their productivity.

## **3. Maritime Transport**

Maritime transport is essentially an international industry resulting in mobility of labour and capital and to which there are relatively few entry barriers as compared to other service sectors. As the globalisation of industry spreads, it is to be expected that the volume of shipping will grow still further. Seaborne trade has been on the increase since 1985. The importance of maritime transport is likely to further increase with intensified relations with Baltic and Mediterranean States.

Over the last year, the Commission has undertaken a review of Community shipping policy, addressing in particular aspects of external relations, maritime safety and support measures for EC shipping (7). This will be followed by a Communication specifically concerning external relations in the field of maritime transport. In this regard, the Commission considers that it is appropriate to formulate explicitly a coherent set of objectives to be pursued and to guide the coherent development of the external action.

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(7) Communication "Maritime Strategy", COM (96) 81 final

Unlike the other transport modes in Europe, the sea still has a considerable potential for growth. At the same time, it is the least burdensome on the environment, given the use of land and the consumption of energy. Thereby it can substantially contribute to the growing transport needs of the internal market. New types of unconventional and fast ships will improve the efficiency of this transport mode. Efficiency can be further enhanced by both increased interconnection with the other transport modes and the increased use of telematics.

New shipping trade routes will also be created. Short sea shipping, in particular, offers a development potential to navigation, shipbuilding and regional ports. In July 1995, the Commission issued a Communication on the subject <sup>(8)</sup>. There appears to be considerable scope for shifting cargo from congested land modes of transport to short sea shipping. Studies undertaken so far show that the potential for increased traffic justifies action to promote short sea shipping and new investment in this mode of transport.

The Communication includes an action programme and lays down recommendations addressed at Member States, their regional and local authorities, and the maritime industries themselves. The document focuses on three main areas: the quality and efficiency of short sea shipping services, port infrastructure and efficiency, and preparing short sea shipping for a wider Europe.

In adopting the Communication the Commission intended to stimulate a general political debate on the various ideas raised. It also intends to continue consultation with the industries and maintain their involvement in this process, in particular through the Maritime Industries Forum. It will launch further initiatives if this discussion shows that they are necessary.

With regard to Maritime Safety, a Communication was adopted on "The Common Policy on Safe Seas" <sup>(9)</sup>. The action programme of the Communication and the safety directives and regulations already adopted, in particular those aimed at enhancing Port State Control and the performance of surveys organisations (classification societies), are likely to have a considerable impact on the aging world fleet <sup>(10)</sup>, in particular on the crucial sector of bulk carriers and oil and chemical tankers, an aging fleet often operated with very low maintenance.

If effectively applied these measures should lead several owners to adopt a different approach possibly having to choose between scrapping the vessels or carrying out extensive modifications. This effect could be further enhanced if safety and environmental legislation adopted internationally would be applied also to the existing fleet on the basis, of course, of a pragmatic and realistic phasing in timetable. The Communication on a "Maritime Strategy" fully develops these and other policy issues related to shipping.

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<sup>(8)</sup> The Development of Short Sea Shipping in Europe: Prospects and Challenges; COM (95) 317 final, 05.07.1995

<sup>(9)</sup> COM (93) 66 final, 24.2.1993

<sup>(10)</sup> Average ship age in 1994: 17 years



#### **4. Ports**

Ports constitute the interface between land and maritime transport. Their efficiency has direct implication to the transport chain as a whole by providing access to land networks. This efficiency can be improved through developing infrastructure, superstructure and management techniques. The Trans-European Network provides for the identification of infrastructure projects in ports and in relation to ports. The projects should provide smooth and efficient transition between maritime transport and the land transport modes. They are more relevant than seeking to identify ports of common interest which could distort competition between ports. Another challenge in the port sector is to improve measures in the administrative port procedure, technical equipment or information infrastructure.

While the Commission's objective is to improve port efficiency with a view to guarantee a level playing field in the port sector, it is important to ensure free and fair competition between ports. The task of the Commission is to supervise that the competition rules are respected in the port sector. These rules do not only apply to competition between different ports in the Community, but also to competition between different port operators within a port. In this context, various complaints are being examined.

#### **5. Marine Resources, Fishing and Energy**

The oceans of the world are a major resource for food, energy and minerals and, with its extensive coastal and offshore waters, Europe is richly endowed. However, without proper care and environmental management, any exploitation of the resources can seriously damage the marine environment to the detriment of present and future generations. This challenge offers an opportunity to the European maritime industry for technological and market leadership.

##### **a) *Energy***

In 1995, the European Union's total energy consumption was approximately 1.370 millions toe (tonnes of oil equivalent). Oil and gas demand is estimated at 61 % of energy needs. The North Sea is one of the most important oil and gas production areas in the world, but still indigenous oil and gas production covers only 35 % of the European Union oil and gas demand.

Gross inland consumption is increasing by about 1 % yearly. It is therefore very important to maximise exploitation of indigenous oil and gas reserves. The present trend in Europe is towards exploitation of marginal fields and production from deep waters. The move to production in deeper waters is setting new technical challenges for the offshore industry in the development of robotics and automated production systems. The preferred option for production in such deep waters seems to be the floating production storage and offshore loading.

b) *Fisheries and Aquaculture*

Fishing is an important sector in Europe with an employment of 290.000 fishermen in 1991 but is currently suffering from the worldwide overexploitation of most important fish stocks and a fishing fleet overcapacity. Fish consumption in Europe, notably in Northern Europe, has grown steadily. Consumers expect to have fish available. On the other hand, the stocks have to be preserved. Stock management and the balance between fishing capacities and available resources have to be improved. International guidelines on fisheries practices as well as fisheries agreements established in the mutual interest of the Union and its partners play an important role in this context.

The development of new techniques which facilitate selective and responsible fishing is a challenge for the maritime industries. Furthermore, the growing demand requires a greater contribution from aquaculture which is set to be an area of significant development in the future.

c) *Deep Sea Operations and Other Marine Resources*

The move by the offshore industry to deeper waters is leading to a greater understanding of the technology required for deep sea intervention in the future, such as for seabed exploration and mineral extraction. In addition, better management of Europe's coastal waters is an important aspect of the marine resources programme.

### **III. FIELDS OF ACTION**

The Commission, in its 1994 Communication on industrial competitiveness policy, has identified four areas which should be addressed: promotion of intangible investment, development of industrial co-operation, ensuring fair competition and modernising the role of public authorities. The present Communication assesses how action in these areas can specifically contribute to the improvement of the maritime industries' economic performance.

Furthermore, recognising the important role that small and medium enterprises are likely to play in economic growth and the creation of jobs within the European Union, the Commission is preparing the Third Multiannual Programme for Enterprises for 1997 to 2000. The programme will focus on the improvement of the competitiveness of small and medium enterprises and intends to support and encourage their Europeanisation and internationalisation. It will be addressed to all enterprises whatever sector and thereby also promote the large number of small and medium enterprises in the maritime sector.

#### **1. Promotion of Intangible Investment**

Continuous effort in research and development (R&D) is a key survival element in a competitive environment. The Commission's industrial competitiveness policy therefore is committed to the promotion of industrial R&D. So far, the support of projects related

to maritime industries has proved to be successful. As specific examples show, projects under the ESPRIT-programme helped to considerably improve the productivity of shipyards, thereby preventing them from leaving the market. These projects addressed computer aided design and production robotics.

Further efforts should focus on maritime industries being a system industry. This requires efficient communication within the network of shipbuilders, suppliers, shipowners, shippers and ports. It is an ideal field for the application of information technology. There is great potential for improving efficiency which can be exploited by making use of the possibilities offered by this technology. The Commission recognises that research on telematics in maritime transport, building upon technological advances through practical applications, has an overall positive impact on maritime transport. The RACE 1062 MARIN ABC project demonstrated for the first time the opportunities offered by advanced telecommunications in the support of multi-media teleconferencing for remote technical assistance to ocean-going ships.

It is, furthermore, evident that the subject of human resources is central to the maritime industries. This is true whether the issue is safety, where an estimated 60/80 % of accidents are due to the human factor, or competitiveness, where, unless there is a skilled workforce in Europe with the necessary maritime know-how, the various maritime industries cannot expect to survive in the intensely competitive world market where they largely operate.

In its Green Paper on innovation of December 1995 the Commission stresses the importance of the promotion of innovation and vocational training. The question of a skilled workforce is further developed in the Communication "Maritime Strategy".

a) Information and Telecommunication Technology

For the implementation of information technology, the Commission is supporting concrete projects within the Framework Programme specifically designed for maritime industries. This includes 15 ESPRIT-projects, like MUSYK to provide support for ship production planning and control and early project planning for one-of-a-kind production, and MARITIME for the concurrent development and reuse of design data during development and subsequent life cycle of a ship.

As a next step it should be analysed, to what extent these projects really contributed to the improvement of the economic performance of the sector. The Commission is preparing a communication which will describe the impact of the information society on individual industrial sectors.

The Telematics Applications Programme supports projects concerning vessel traffic management and information systems, automatic identification and integration into port information systems, computer supported co-operative resource management, open communication between all kinds of systems to establish a common control of the transport flow, telematics for managing, storing and transmitting navigational electronic charts and updates. This will help improve multimodal freight operations and promote efficient and safe vessel operation.

The MARIS (Maritime Information Society) initiative is an important tool to promote the application of information technologies throughout the maritime sector. The Commission was successful in having this initiative included in the 11 pilot projects the G7 States identified at their meeting on information technology in Brussels in February 1995. It is the only industry related project and it is a framework under which 4 sub-projects demonstrate benefits of the information technologies and telematics applications for a broad range of maritime activities.

The aim of MARTRANS is to set up a Port Logistics Information Network for providing real-time information on the movement of cargoes and vessels and the development of tracing and tracking services for cargoes and vessels. The provision of real-time information will result in a more efficient management of the logistic chain.

SAFEMAR will promote the development of a ship reporting system based on electronic data interchange (EDI) for vessels carrying dangerous or polluting goods to support the implementation of the various international conventions and resolutions. This project could result in the creation of an European integrated Vessel Traffic Management and Information System, which could also include electronic chart functionalities. SAFEMAR will allow the monitoring of compliance of ships with international regulations.

MARSOURCE will contribute to the creation of a fishery and ocean information network linking existing databases containing information on oceanography, fisheries and scientific research with the view to improving transparency in the fisheries sector, the preservation of fish stocks, more efficient marketing and enhanced availability of aquaculture products.

For highly distributive manufacturing processes like shipbuilding Information Technologies allow considerable productivity improvement by concurrent and simultaneous engineering. MARVEL is a user oriented project for intelligent manufacturing of ships, interlinking shipyards and their suppliers in a common global network. It will make trans-national and intercontinental connection easier in an environment where there is increased out-sourcing of manufacturing processes, work sharing between different producers and reliance on worldwide equipment supply.

MARIS is an open framework and relies on the active participation of industry, regions and public authorities. In 1995, first pilot applications have been encouraged. In 1996 prospects for further international co-operation will be developed. On the occasion of EXPO '98 in Lisbon first concrete results are expected to be presented.

#### b) Co-ordination of Research and Development

Technological research and development of new technologies will lead to the modernisation of shipbuilding, equipment and maritime transport, as well as the optimal exploitation of marine resources and thus improving competitiveness, safety and environmental protection. This will create the business environment to protect existing employment and to support new highly skilled labour in the maritime regions. The task force "Maritime Systems of the Future" was created in 1995 in order to promote this

development. Within the Maritime Forum industry has set up a R&D co-ordination group to provide a single interface for R&D programmes.

The task force ensures the full exploitation of the Fourth Framework Programme, the co-ordination of European and national R&D programmes in the maritime sector and eliminates overlapping between them. Thereby it will contribute to maximise the overall effectiveness of the projects selected. It evaluates and focuses on industry's needs and priorities and ensures the co-ordination of the MARIS initiative at European as well as G7 level.

The task force has already become a "one stop shop" for the maritime industry, forging links between the relevant RTD programmes and maritime companies and research centres across Europe. Together with industry the task force has already identified first industrial priorities which offer European added value. Examples are industrial and material technologies, electronic data interchange, integrated transport chains and marine resources. By bringing together all the actors in the field the Task Force will also make an important contribution to the Fifth Framework Programme. A general progress report will be published in 1996.

Six projects of the Industrial and Material Technologies Programme (IMT) of the Commission relate to maritime industries, supporting new ship concepts within the framework of short sea shipping. This will contribute to the development of economically attractive means of transport. There are, in addition, many other projects concerning formal safety assessment, adaptative control in ship manoeuvring and design and manufacturing, e.g. welding and robotics, which may have implications for the maritime industry.

Several projects of the programme "Marine Science and Technologies" as well may also have a positive impact on maritime industries. They are destined to improve the construction and operation of submarine vehicles and research platforms. Others concern the technology of remote control in a marine environment, submarine telecommunications and acoustics and the development of new tools for the study of the marine environment and pollution.

Twenty projects contributing to the enhancement of efficiency, safety and the protection of the environment in maritime transport are, in addition, supported by the R&D programme Transport. The research actions support the development of both, new logistic concepts (e.g. for short sea shipping and ports) and technological tools (e.g. Fast Waterborne Transport Systems, Vessel Traffic Management and Information Systems and Integrated Ship Control). Research is also addressing specific human element related issues, such as improved simulation procedures for training, European requirements for the implementation of the International Safety Management Code and of the Standards on Training on Certification and Watchkeeping, as well as communication in a multi-cultural environment.

### c) *Vocational Training*

The Commission's White Paper on "Growth, Competitiveness and Employment" and its document on a "Common Policy on Safe Seas" emphasised the importance of vocational

training as a key factor in combating unemployment and strengthening competitiveness. In its Green Paper on innovation the Commission identified the reinforcement of human resources as a fundamental objective for the promotion of innovation. This implies in particular the development of both formal and vocational training, ongoing training in companies, especially in small and medium enterprises, and closer links between education institutions and businesses.

The importance of human resources for the maritime sector was fully recognised by the Maritime Industries Forum. Trade Unions participated actively in the work of the Forum from the beginning. In consequence, an Inter Panel Working Group on Human Resources was set up in 1994. The group has identified priority areas, namely: the promotion of investment in vocational training, reconversion of skills, upgrading of skills of employees; the role of the human factor in maritime safety and the role and possibilities for the promotion of human resources in the Fourth Framework R&D Programme.

The LEONARDO programme of the Commission is an action programme for the implementation of a European Community vocational training policy. Its objective is to promote projects to improve quality and innovation in vocational training in Europe by trans-national pilot projects, trans-national placement and exchange programmes, and the development of knowledge and skills in the area of vocational training through surveys and analyses. The Inter Panel Working Group on Human Resources has pinpointed the LEONARDO programme as being of particular relevance for maritime industries. Industry is invited to take this opportunity and to submit proposals. Unfortunately, very few of the promoters of the sector took the opportunity to answer the 1995 call for proposals.

Within the Structural Funds which provide financial assistance for the adaptation of workers to industrial changes, the ADAPT Community initiative can provide useful support with regard to the changes that involves the maritime sector.

## **2. Development of Industrial Co-operation**

Industrial co-operation schemes are, above all, the responsibility of industry itself. However, it is necessary for public authorities to develop a dynamic approach in this area in order to establish a framework conducive to taking account of mutual interest and developing forums bringing together all concerned. Within the Union, this will contribute to the strengthening of competitiveness, outside the Union, to export promotion.

### **a) *Co-operation with Third Countries' Industries***

As far as co-operation with the industry of third countries is concerned, industrial round tables are an important tool. The Commission has set up round tables with Japan and the Baltic States which also cover maritime aspects.

The Commission undertakes to organise a forum with European and Chinese industrialists in April 1996. One of the three main subjects of the Forum will be the maritime sector. These events enable industrialists from inside and outside Europe to identify their mutual interests and to encourage the development of private initiatives.

Industrial co-operation with EU companies can contribute to industrial restructuring and modernisation in countries with economies in transition. The European Bank for Reconstruction and Development (EBRD) can play an important role to stimulate this process by providing the start-up capital to launch such co-operation in cases which promise to be economically viable but where project participants have difficulties in mobilising commercial bank support. The Commission, however, will assess on a case-by-case basis where EBRD projects are consistent with EU policy. With respect to Russia, Ukraine, the Baltic States and Poland, the Commission is closely observing the development of capacity and especially the conversion of naval shipyards and the pricing policy of the yards.

b) *Industrial Co-operation within the Union*

With respect to industrial co-operation within the Union, a sector specific round table is the Maritime Industries Forum. Since its establishment in 1992, the industry has proceeded considerably in its ongoing restructuring process. Five major companies have combined their efforts on Union level and created Euroyards. Together they develop European products, like "Eurofast", a ship designed for short sea shipping relations. "Eurocorvette", a European military vessel constructed by different European yards, is another example. Another common effort of European shipbuilders is the E3 tanker (Ecological, Economical, European), a project to remerge into the VLCC construction market.

Industrial co-operation has, of course, to respect the limits set by European competition law. The Council, recognising the importance of co-ordination of sea transport services, has granted generous group exemptions for conference agreements <sup>(11)</sup>. The Commission recently adopted a group exemption for certain types of consortium arrangements <sup>(12)</sup>. It will take all necessary steps to ensure compliance with the competition rules in this sector.

"The Oceans, a Heritage of the Future" is the focus of EXPO '98 in Lisbon. The Commission will help to organise a showcase "European Maritime Industries" in which maritime industries will play a major role. Industry is asked to contribute to this opportunity to demonstrate the importance of this sector for the European economy.

### **3. Ensuring Fair Competition**

Distortions of competition by state aid and barriers to market access in third countries are to the detriment of the competitive position of European maritime industries. The Commission in consultation with third countries seeks to eliminate such constrictions.

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(11) Regulation (EEC) n° 4056/86 of 22 December 1986, O.J. 1986 L 378/4

(12) Commission Regulation (EC) n° 870/95 of 20 April 1995 on the application of Article 85 (3) of the Treaty to certain categories of agreements, decisions and concerted practices between liner shipping companies (consortia) pursuant to Council regulation (EEC) n° 479/92, O.J. 1995 L 89/7

a) Reconsidering State Aid for Shipbuilding within the EU and Third Countries

**\* The Seventh Directive**

The Community's current policy towards aid to shipbuilding as laid down in the Seventh Directive (90/684/EEC) was introduced to respond to the fundamental structural crisis which the sector had to face in the mid eighties. The policy was based on a defensive instrument against unfair practices, mainly below cost prices fixed by the Far Eastern market leaders. It allows restructuring aids linked to reduction of capacities in order to restore a balance between supply and demand.

**\* The OECD Agreement**

The OECD Agreement Respecting Normal Competitive Conditions in the Commercial Shipbuilding and Repair Industry of 21 December 1994 will establish a level playing field for the main shipbuilding countries enabling Community shipyards to compete under fair trading conditions. The agreement has been ratified by all parties except Japan and the United States, which committed to do so by 15 June 1996 to enable the entry into force of the agreement by 15 July 1996. South Korea also ratified the agreement, and in addition its authorities have made it public that they will not bail out their shipyards if they run into difficulties due to capacity expansion.

Under the agreement all measures of support specifically provided, directly or indirectly, to commercial shipbuilding are prohibited except those expressly allowed under certain limited circumstances:

- aid for research and development: fundamental research, basic industrial research (50 % of eligible costs), applied research (35 %), development (25 %);
- social aid related to closures;
- export credits for ships in accordance with the revised OECD Understanding on Export Credits for Ships;
- domestic credits under equivalent terms and conditions.

Aid for restructuring is generally not allowed except for South Korea, Belgium, Portugal and Spain (under the "grand-father clause" and with an extreme payment deadline fixed at 31 December 1998). The Agreement can be revised after three years.

The abolition of state aid on a global level appears to be justified, as in the light of the previous experience state aid did not contribute to increase the competitiveness of European shipbuilders.

The agreement provides for an injurious pricing instrument which is specifically designated to counter price dumping which might be practised by producers of certain countries. These countries are in the process of enlarging their shipbuilding capacity. The Commission will closely monitor the competitive behaviour of third countries' industries and advocate strict application of this instrument, which will enter into force at the same time as the agreement.



### \* **The New Community Regulation**

The new regulation on aid to shipbuilding <sup>(13)</sup>, implementing the OECD Agreement, is intended to replace the Seventh Directive and to give effect to the above-mentioned provisions. These provisions will come into force upon the entry into force of the OECD Agreement with the relevant provisions of the Seventh Directive continuing to apply ad interim and until 1 October 1996 at the latest.

The regulation provides, like the Seventh Directive, for notification and monitoring arrangements so that the Commission can effectively ensure compliance with the rules and fulfil the reporting requirements under the agreement. It will be reviewed three years after the entry into force of the OECD Agreement.

At the Industry Council of 6-7 November 1995 the Council and the Commission jointly declared that, if the OECD Agreement should not come into force by 1 June 1996, the Commission will put forward appropriate proposals so that the Council could decide before 1 October 1996 on future Community rules.

The new regulation on the injurious pricing instrument <sup>(14)</sup> implements into Community law the part of the OECD Agreement on unfair practices in the shipbuilding sector. This new anti-dumping instrument can be used against shipyards established in one of the signatories of the OECD Agreement or in a non-WTO member state. It will apply from the date of entry into force of the OECD Agreement.

#### *b) Financial Promotion of Maritime Projects*

With the implementation of the OECD Agreement and the phasing out of direct state aid to shipbuilding, the Commission is advocating the development of a new financing scheme for maritime projects in accordance with the new OECD regime. The Commission invites the EIB to create and support such an instrument.

#### *c) Uniform Application of International Rules and Standards*

The Commission, within the framework of its common policy on safe seas, has set up the basis for a European legal system designed to ensure the uniform application of international rules and standards not only for ships operating under EC flag, but also for all other ships trading to EC ports.

These measures include standards on marine equipment, a sector where EC producers are facing market access problems in Japan due to the application of Japanese requirements in addition to the international standards of the International Maritime Organisation (IMO) which have been recognised by Japan. This hampers the ability of European

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<sup>(13)</sup> Council Regulation (EC) on Aid to Shipbuilding, n° 3094/95, O.J. 1995 L 332/1

<sup>(14)</sup> Council Regulation (EC) n° 385/96 of 29 January 1996 on protection against injurious pricing of vessels, O.J. L 56 of 6 March 1996, p. 21

marine equipment manufacturers to export their products to Japan and other countries selling ships to Japan.

Manufacturers of recreational craft have a similar problem. The standards used in Japan for the inspection of pleasure boats are not compatible with the internationally recognised standards of the International Organisation for Standardisation (ISO), also subscribed to by Japan.

In the course of its ongoing negotiations with Japan on deregulation and market access problems the Commission will continue to challenge these trade barriers.

#### **4. Modernising the Role of Public Authorities**

##### *a) Development of Infrastructure*

Infrastructure related to maritime transport should be given more importance in the granting of financial assistance. In its programme to create a Trans-European Network, the Commission therefore intends to support the improvement of port and port-related infrastructure. This would make a significant contribution to promoting multimodality and to containing the negative environmental effects of the overall transport system. In addition, this programme embraces vessel traffic management and information systems to improve efficiency and safety in sea transport. The European Council of Essen in December 1994 acknowledged the importance of maritime transport and approved these projects as part of the TEN programme.

##### *b) Integrated Management of the Coastal Zones*

Coastal zones continue to undergo environmental degradation in many parts of Europe due to the interaction of human activities with the coastal environment. Whilst existing legislation and instruments in the field of coastal protection are relatively complete, it appears that they are not as effective as they could be due to the lack of co-ordination between the numerous actions influencing the development of the coast. As a consequence, the Commission prepares the launch of a demonstration programme for the integrated management of the coastal zones which will be used to test co-operation instruments and mechanisms <sup>(15)</sup>. The lessons learnt and the response will make it possible to identify possible complementary measures to be carried out at European and other levels of decision-making.

##### *c) Market Liberalisation and Reduction of Administrative Burdens*

From 1 January 1993 the Union has applied the principle of free sea cabotage <sup>(16)</sup>, giving more room for free competition in sea transport within the European Union. Cabotage

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<sup>(15)</sup> COM (95 ) 511 of 29.11.1995

<sup>(16)</sup> Regulation (EEC) 3577/92, O.J. 1992 L 364/7

allows ship owners more flexibility in their capacities and thereby contributes to the competitiveness of short sea shipping.

Within the Uruguay Round negotiations the Commission endeavours to open up the international markets of maritime transport. Since May 1994 this negotiation is conducted in Geneva.

*d) Co-operation between Industry and Commission*

Commission and industry have established intense co-operation within the Maritime Industries Forum. Launched in 1992, the Maritime Industries Forum has now achieved 5 years intensive, constructive and valuable dialogue between all parties concerned.

The Forum brings together all maritime industries (shipping, shipbuilding, marine equipment, ports, fisheries and related industries and services), trade unions, research institutes, Member States, the European Parliament, the Economic and Social Committee, representatives of Member States, Norway and the European Commission. The work of the Forum is organised and financed by industry. The Commission only provides the secretariat of the yearly plenary session.

The Forum maintains an ongoing dialogue with the Commission to exchange information and enables its members to mutually agree on priorities for industrial policy and research and development. The Forum identified such priorities as short sea shipping, marine resources, ship financing, electronic data interchange and human resources.

With respect to the social impact of maritime industrial policy, the Joint Committee on Maritime Transport, established in 1987, is assisting the Commission in the formulation and implementation of Community policy to improve and harmonise working conditions in maritime transport.

Regular direct bilateral contacts between the leading trading groups (European Shippers Council, Oil companies, chemical industries, organisations such as Intertanko, ports organisations, seafarers unions and the competent Commission's services have contributed to the setting up of a more co-operative environment, seeking to promote a quality and safety culture.

*e) Co-operation between the European Union and Central and Eastern European Countries and Mediterranean Countries.*

The international character of shipping calls for, as far as possible and where appropriate, co-operation between the EU and third countries in adjoining regions with the aim of enhancing the potential of waterborne transport. The most important of these regions in terms of shipping are the Baltic, the Black and the Mediterranean Sea areas. Partnership with the Mediterranean countries was initiated with the Euro-Mediterranean Conference in November 1995 in Barcelona. The action plan agreed at the conference includes co-operation in maritime transport.

Conferences on waterborne transport for each of the above mentioned areas have been organised by the Commission, or with Commission's support, respectively in Denmark in May 1995, in Romania in October 1993 and in Spain in April 1995. The conferences have established working groups on waterborne transport to identify areas for further co-operation in shipping and to address matters of common interest in the context of multi-annual work programmes.

As far as the Baltic Sea is concerned, the working group on waterborne transport for this region will, in the near future, adopt its work programme which will be submitted to the Conference of Baltic Sea Transport Ministers for political endorsement.

The Black Sea working party for waterborne transport adopted a three-year work programme, in September 1994, which aims at:

- developing the potential for waterborne transport, mainly short sea shipping;
- mapping out a way of integrating Black Sea ports into the European transport system and the Trans-European transport network;
- encouraging action to raise efficiency of Black Sea ports;
- developing logistical systems and improving procedures;
- developing EDI systems.

The working group for the Mediterranean had its first meeting on 21/25 September 1995, at which it approved a work programme identifying areas for co-operation in the fields of the development of waterborne transport potentials, facilitation of maritime trade, development of ports, maritime safety and pollution prevention, and logistics.

The work programmes will provide a context for the examination of proposals for Community assistance to maritime transport under the relevant Community programmes. A first project, supported by the LIFE programme, has already started with the aim of setting up a Port State Control system for the non EU Mediterranean countries. This should complement the European effort against substandard shipping.

#### **IV. CONCLUDING REMARKS**

European maritime industries are a "high-tech" industry with strong economic potential, operating on a global market. It is a "system industry". Ships and offshore devices are combining different technologies, like materials, propulsion systems, electronics, navigation and information technologies, which have to be integrated into a system in close co-operation with supply industry. The maritime sector thereby affects producers all over the Union.

Shipbuilding succeeded in keeping a relatively stable and not insignificant share of the world market in recent years. The vital role of maritime transportation is exemplified by the 90 % of external and 30 % of intra-Union trade that is carried by sea. The intra-Union trade by sea is set to expand with the promotion of short sea shipping. Environmental considerations and the increasing congestion of terrestrial transport corridors cannot fail but to advocate greater utilisation of sea trade. European maritime industries are able to

meet the challenges of today. It is vital to ensure that they retain the ability to meet those of tomorrow.

It will, however, not be possible to consolidate the market position of European maritime industries unless they strive for competitiveness, efficiency and innovation. Efficient shipbuilding and sea transport particularly require the application of information technology, which offers a high potential for improved productivity. Although it is primarily up to business to ensure that it is competitive, public authorities in turn must ensure the consistency of all the measures which could enhance industrial efficiency.

The actions discussed in the present Communication will strengthen the competitive position of maritime industries. They will support most notably coastal regions, relieve other transport modes from congestion and contribute to the improvement of the environmental situation and to sustainable exploitation of resources.

# ANNEXES

**TABLE 1 - WORLD SEABORNE TRADE AND CARGO FLEET**

	OIL AND OIL PRODUCTS				OTHER CARGO				TOTAL			
	Seaborne trade		Fleet (*)		Seaborne trade		Fleet (*)		Seaborne trade		Fleet (*)	
	'000 million tonne-miles	index '73=100	million DWT	index '73=100	'000 million tonne-miles	index '73=100	million DWT	index '73=100	'000 million tonne-miles	index '73=100	million DWT	index '73=100
1973	10217	100	234,3	100	5187	100	205,6	100	15404	100	439,9	100
1974	10621	104	275,4	118	5766	111	218,5	106	16387	106	493,9	112
1975	9730	95	313,0	134	5666	109	230,7	112	15396	100	543,7	124
1976	11149	109	343,9	147	5929	114	247,4	120	17078	111	591,3	134
1977	11403	112	356,1	152	6086	117	268,5	131	17489	114	624,6	142
1978	10546	103	353,0	151	6407	124	279,7	136	16953	110	632,7	144
1979	10497	103	350,9	150	7058	136	287,0	140	17555	114	637,9	145
1980	9239	90	348,4	149	7415	143	292,9	142	16654	108	641,3	146
1981	8193	80	342,9	146	7523	145	305,8	149	15716	102	648,7	147
1982	6282	61	322,5	138	7269	140	320,5	156	13551	88	643,0	146
1983	5558	54	301,4	129	7078	136	331,0	161	12636	82	632,4	144
1984	5648	55	285,1	122	7836	151	341,1	166	13484	88	626,2	142
1985	5157	50	257,1	110	7929	153	348,2	169	13086	85	605,3	138
1986	5905	58	249,7	107	7951	153	345,5	168	13856	90	595,2	135
1987	6016	59	245,8	105	8284	160	342,2	166	14300	93	588,0	134
1988	6510	64	248,8	106	8789	169	345,0	168	15299	99	593,8	135
1989	7276	71	255,6	109	9109	176	353,6	172	16385	106	609,2	138
1990	7821	77	262,2	112	9300	179	364,5	177	17121	111	626,7	142
1991	8287	81	270,9	116	9586	185	372,0	181	17873	116	642,9	146
1992	8597	84	276,1	118	9638	186	376,3	183	18235	118	652,4	148
1993	9166	90	280,0	120	9828	189	383,0	186	18994	123	663,0	151
1994 Est.	9310	91	275,8	118	10222	197	394,5	192	19532	127	670,3	152

Est. : Estimates

(\*) As at the end of the year

Source : Fearnleys Review

**TABLE 2 - TONNAGE WITHDRAWN**

TONNAGE LAID UP				TONNAGE BROKEN UP				TONNAGE FOR STORAGE	
as at mid December	number of ships	million GT	million DWT	during	number of ships	million GT	million DWT	as at the end of December	million DWT
1980	237	5,1	8,9	1980	887	9,2	15,9	1980	12,9
1981	297	11,3	20,9	1981	824	9,8	17,5	1981	20,8
1982	1247	38,8	73,8	1982	1081	18,1	32,2	1982	13,1
1983	1409	40,9	77,6	1983	1323	20,3	36,9	1983	10,6
1984	1060	31,9	59,6	1984	1500	19,7	34,8	1984	10,5
1985	884	25,9	48,6	1985	1722	26,3	47,8	1985	9,6
1986	633	12,2	21,5	1986	1576	20,9	36,2	1986	14,6
1987	390	8,5	14,6	1987	1094	12,9	22,0	1987	11,9
1988	276	4,5	7,0	1988	812	6,1	9,9	1988	10,4
1989	200	2,6	4,0	1989	512	4,0	6,6	1989	7,9
1990	164	2,4	3,9	1990	479	3,3	5,3	1990	12,4
1991	191	2,7	4,3	1991	445	5,0	8,4	1991	6,1
1992	273	5,3	9,4	1992	603	10,7	19,8	1992	4,6
1993	227	3,6	5,8	1993	547	10,2	19,3	1993	5,3
1994	157	2,4	3,7	1994	603	13,1	24,6	1994	3,7

Sources : Institute of Shipping Economics - Bremen; Fearnleys Review - Oslo



TABLE 3 - WORLD AND COMMUNITY FLEETS

MEMBER STATES' FLEETS BY FLAG													1000 GT		
Existing fleet	As at the 1 July												As at the 31 December		
	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
BELGIUM	1810	1917	2271	2274	2407	2400	2420	2268	2118	2044	1955	314	241	218	233
DENMARK	5390	5048	5214	5115	5211	4942	4651	4873	4502	4963	5188	5871	5436	5392	5799
FRANCE	11925	11455	10771	9888	8945	8237	5936	5371	4506	4413	3832	3988	4022	4332	4348
GERMANY	8356	7708	7707	6897	6242	6177	5565	4318	3917	3967	4301	5971	5360	4979	5696
GREECE	39472	42005	40035	37478	35059	31032	28391	23560	21979	21324	20522	22753	25739	29134	30162
IRELAND	209	268	239	223	221	194	149	154	173	167	181	195	199	185	190
ITALY	11096	10641	10375	10015	9158	8843	7897	7817	7794	7009	7991	8122	7513	7030	6818
LUXEMBOURG	-	-	-	-	-	-	-	-	2	4	3	1703	1656	1327	1143
NETHERLANDS	5724	5468	5393	4940	4586	4301	4324	3908	3726	3655	3785	3872	4187	4124	4396
PORTUGAL	1356	1377	1402	1338	1571	1437	1114	1048	989	726	854	891	975	1004	884
SPAIN	8112	8134	8131	7505	7005	6256	5422	4949	4415	3962	3807	3617	2643	1752	1560
UNITED KINGDOM	27135	25419	22505	19122	15874	14344	11567	8505	8260	7646	6716	6611	5712	5683	6526
TOTAL EC	120585	119440	114043	104795	96279	88163	77436	66771	62381	59880	59135	63908	63683	65160	67755
AUSTRIA	-	-	-	-	-	-	-	-	-	-	-	-	140	160	134
FINLAND	-	-	-	-	-	-	-	-	-	-	-	-	1197	1354	1404
SWEDEN	-	-	-	-	-	-	-	-	-	-	-	-	2884	2439	2797
WORLD FLEET	419911	420835	424742	422590	418682	416269	404910	403498	403406	410481	423627	436027	445168	457915	475859
% EC / World	28,7%	28,4%	26,8%	24,8%	23,0%	21,2%	19,1%	16,5%	15,5%	14,6%	14,0%	14,7%	14,3%	14,2%	14,2%

Source : Lloyd's Register of Shipping

TABLE 4A - PRODUCTION - SHIPS COMPLETED

		FIGURES AT THE END OF THE YEAR															1000 CGT	
		1976	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	
EU	BELGIUM	139,8	129,6	95,5	83,0	173,2	102,3	124,4	45,0	25,9	46,8	35,5	71,7	21,8	97,6	5,0	65,0	
	DENMARK	560,6	382,4	343,8	329,2	338,5	355,4	444,0	350,7	194,4	277,2	287,0	305,5	350,9	414,5	354,3	307,4	
	FRANCE	672,4	267,8	443,3	353,3	356,8	357,2	164,1	145,0	207,9	63,2	198,8	114,0	171,1	182,4	65,0	103,1	
	GERMANY (1)	1468,0	672,8	1270,3	1181,5	1267,8	1164,7	1143,2	1067,0	764,7	885,0	846,5	1001,6	810,1	958,3	853,0	960,6	
	GREECE	N/A	12,8	5,2	61,8	35,7	39,8	43,8	24,7	6,6	12,3	12,5	45,5	6,3	0,0	6,6	0,0	
	IRELAND	20,3	3,0	17,0	0,0	19,2	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
	ITALY	353,9	345,5	359,2	156,2	217,0	182,3	123,8	60,9	224,8	119,9	284,5	327,6	423,9	289,2	495,3	439,5	
	NETHERLANDS	940,0	249,5	341,6	390,0	415,8	259,3	310,2	262,8	146,2	153,1	171,9	263,5	357,0	270,9	236,0	319,0	
	PORTUGAL	53,0	35,3	6,4	31,2	124,7	18,5	40,3	61,0	26,3	23,0	46,3	64,6	38,5	64,4	62,3	16,5	
	SPAIN	734,0	441,4	556,8	587,4	488,7	345,9	400,3	229,8	328,4	326,4	306,0	364,8	301,2	428,3	364,7	233,3	
	UNITED KINGDOM	985,1	458,6	243,2	394,0	319,3	305,3	164,4	141,5	162,3	113,2	157,3	144,6	170,5	139,5	148,4	139,1	
TOTAL EU		5927,1	2998,7	3682,3	3567,6	3756,7	3130,7	2958,5	2388,4	2087,5	2020,1	2346,3	2703,4	2651,3	2845,1	2591,6	2584,5	
OTHER AWES	FINLAND	N/A	371,9	407,5	440,6	503,3	419,1	282,9	260,4	145,3	262,7	321,2	379,0	211,6	210,2	191,0	122,9	
	NORWAY	N/A	323,7	342,1	447,8	278,3	175,9	222,1	162,8	181,3	155,2	79,4	157,9	248,6	311,4	203,4	194,5	
	SWEDEN	N/A	334,5	421,0	253,2	293,8	179,8	127,4	115,5	123,0	72,1	34,4	45,1	46,3	32,4	24,3	0,0	
TOTAL AWES		8285,8	4028,8	4852,9	4709,2	4832,1	3905,5	3590,9	2927,1	2537,1	2510,1	2781,3	3285,4	3157,8	3399,1	3010,3	2901,9	
JAPAN		8348,8	5207,2	5580,9	5811,1	4908,2	6951,1	6498,4	5085,4	3795,3	2952,7	3664,1	4456,0	4417,4	4379,3	4853,8	5176,9	
KOREA		349,4	445,7	512,2	880,3	985,5	1014,9	1633,3	1971,4	1193,5	1504,7	1389,2	1564,2	1729,5	1995,0	1835,3	2104,2	
CHINA		N/A	N/A	27,9	104,5	170,4	297,8	172,4	214,6	207,3	253,1	230,0	303,5	255,4	282,1	445,9	480,5	
POLAND		N/A	497,7	346,4	369,5	277,1	382,4	357,5	340,0	300,0	344,0	237,9	176,6	223,0	305,8	263,5	402,4	
ROMANIA		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	126,4	146,6	72,1	21,9		
BULGARIA		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	71,0	61,6	70,6	78,6		
USSR		N/A	424,8	599,9	504,2	475,3	689,5	274,2	170,4	44,3	56,0	226,7	481,9	365,0				
RUSSIA															21,9	156,0	95,5	
UKRAINE															118,6	153,0	209,6	
YUGOSLAVIA		N/A	170,6	224,8	220,5	217,0	237,2	281,4	188,4	3,0	230,5	327,7	293,4	239,7	20,7			
CROATIA															238,1	104,0	165,2	
REST OF WORLD		5094,2	1860,4	1696,0	1988,5	1686,7	1519,7	1360,5	1241,8	1164,5	747,3	1024,2	1095,3	940,9	1149,6	1415,2	993,3	
TOTAL WORLD		22078,2	12635,2	13841,0	14587,8	13552,3	14998,1	14168,6	12139,1	9245,0	8598,4	9881,1	11656,3	11526,1	12118,4	12379,7	12636,0	

(1) From 1990 on data includes production from Ex-GDR yards

Source: "World Shipbuilding Databank" based on data supplied by Lloyd's Maritime Information Services

**TABLE 4B - PRODUCTION - SHIPS COMPLETED**

		FIGURES AT THE END OF THE YEAR														MARKET SHARES	
		1978	1979	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
EU	BELGIUM	0,8%	1,0%	0,7%	0,6%	1,3%	0,7%	0,9%	0,4%	0,3%	0,5%	0,4%	0,6%	0,2%	0,8%	0,0%	0,5%
	DENMARK	2,5%	3,0%	2,5%	2,3%	2,5%	2,4%	3,1%	2,9%	2,1%	3,2%	2,9%	2,6%	3,0%	3,4%	2,9%	2,4%
	FRANCE	3,0%	2,1%	3,2%	2,4%	2,6%	2,4%	1,2%	1,2%	2,2%	0,7%	2,0%	1,0%	1,5%	1,5%	0,5%	0,8%
	GERMANY (1)	0,8%	5,3%	9,2%	8,1%	9,4%	7,8%	8,1%	8,8%	8,3%	10,3%	8,6%	8,6%	7,0%	7,9%	6,9%	7,6%
	GREECE	N/A	0,1%	0,0%	0,4%	0,3%	0,3%	0,3%	0,2%	0,1%	0,1%	0,1%	0,4%	0,1%	0,0%	0,1%	0,0%
	IRELAND	0,1%	0,0%	0,1%	0,0%	0,1%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%
	ITALY	1,6%	2,7%	2,6%	1,1%	1,6%	1,2%	0,9%	0,5%	2,4%	1,4%	2,9%	2,8%	3,7%	2,4%	4,0%	3,5%
	NETHERLANDS	4,3%	2,0%	2,5%	2,7%	3,1%	1,7%	2,2%	2,2%	1,6%	1,8%	1,7%	2,3%	3,1%	2,2%	1,9%	2,5%
	PORTUGAL	0,2%	0,3%	0,0%	0,2%	0,9%	0,1%	0,3%	0,5%	0,3%	0,3%	0,5%	0,6%	0,3%	0,5%	0,5%	0,1%
	SPAIN	3,3%	3,5%	4,0%	4,0%	3,6%	2,3%	2,8%	1,9%	3,6%	3,8%	3,1%	3,1%	2,6%	3,5%	2,9%	1,8%
	UNITED KINGDOM	4,5%	3,6%	1,8%	2,7%	2,4%	2,0%	1,2%	1,2%	1,8%	1,3%	1,6%	1,2%	1,5%	1,2%	1,2%	1,1%
TOTAL EU		23,8%	23,7%	26,6%	24,5%	27,7%	20,9%	20,9%	19,7%	22,6%	23,5%	23,7%	23,2%	23,0%	23,5%	20,9%	20,5%
OTHER AWES	FINLAND	N/A	2,9%	2,9%	3,0%	3,7%	2,8%	2,0%	2,1%	1,6%	3,1%	3,3%	3,3%	1,8%	1,7%	1,5%	1,0%
	NORWAY	N/A	2,6%	2,5%	3,1%	2,1%	1,2%	1,6%	1,3%	2,0%	1,8%	0,8%	1,4%	2,2%	2,6%	1,6%	1,5%
	SWEDEN	N/A	2,6%	3,0%	1,7%	2,2%	1,2%	0,9%	1,0%	1,3%	0,8%	0,3%	0,4%	0,4%	0,3%	0,2%	0,0%
TOTAL AWES		37,5%	31,5%	35,1%	32,3%	35,7%	26,0%	25,3%	24,1%	27,4%	29,2%	28,1%	28,2%	27,4%	28,0%	24,3%	23,0%
JAPAN		37,8%	41,2%	40,3%	39,8%	36,2%	46,3%	45,9%	41,9%	41,1%	34,3%	37,1%	38,2%	38,3%	36,1%	39,2%	41,0%
KOREA		1,6%	3,5%	3,7%	6,0%	7,3%	6,8%	11,5%	16,2%	12,9%	17,5%	14,1%	13,4%	15,0%	16,5%	14,8%	16,7%
CHINA		N/A	N/A	0,2%	0,7%	1,3%	2,0%	1,2%	1,8%	2,2%	2,9%	2,3%	2,6%	2,2%	2,3%	3,6%	3,8%
POLAND		N/A	3,9%	2,5%	2,5%	2,0%	2,5%	2,5%	2,8%	3,2%	4,0%	2,4%	1,5%	1,9%	2,5%	2,1%	3,2%
ROMANIA		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1,1%	1,2%	0,6%	0,2%
BULGARIA		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0,6%	0,5%	0,6%	0,6%
USSR		N/A	3,4%	4,3%	3,5%	3,5%	4,6%	1,9%	1,4%	0,5%	0,7%	2,3%	4,1%	3,2%			
RUSSIA															0,2%	1,3%	0,8%
UKRAINE															1,0%	1,2%	1,7%
YUGOSLAVIA		N/A	1,4%	1,6%	1,5%	1,6%	1,6%	2,0%	1,6%	0,0%	2,7%	3,3%	2,5%	2,1%	0,2%		
CROATIA															2,0%	0,8%	1,3%
REST OF WORLD		23,1%	14,7%	12,3%	13,6%	12,4%	10,1%	9,6%	10,2%	12,6%	8,7%	10,4%	9,4%	8,2%	9,5%	11,4%	7,9%
TOTAL WORLD		100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%

(1) From 1980 on data includes production from Ex-GDR yards

Source : "World Shipbuilding Databank" based on data supplied by Lloyd's Maritime Information Services

TABLE 50 - NEW ORDERS

		FIGURES AT THE END OF THE YEAR															1000 CGT	
		1976	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	
EU	BELGIUM	75,0	53,8	81,4	43,3	58,7	69,5	26,8	43,2	34,0	52,0	101,7	71,4	75,1	14,0	18,4	53,9	
	DENMARK	317,1	284,6	296,6	250,6	428,9	405,2	86,0	305,9	219,2	205,3	192,4	596,4	265,9	246,6	390,4	331,9	
	FRANCE	63,6	556,4	333,0	175,9	136,4	106,5	262,5	132,4	60,5	204,6	165,9	136,2	327,9	35,0	226,6	240,0	
	GERMANY (1)	726,1	613,0	1249,9	1239,9	1236,9	1072,9	1228,2	1297,1	872,4	877,6	1400,6	875,6	559,1	858,9	1029,0	1034,1	
	GREECE	N/A	82,4	4,5	10,3	4,6	7,4	29,4	5,1	6,5	6,1	5,0	0,8	8,9	8,7	7,2	0,0	
	IRELAND	19,2	1,3	18,2	1,3	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
	ITALY	301,5	231,2	144,7	243,2	57,1	68,2	257,4	229,0	408,7	172,3	564,8	413,1	380,5	134,9	511,2	344,6	
	NETHERLANDS	626,4	373,3	365,2	309,0	237,3	248,4	269,8	137,0	91,9	356,2	236,3	277,1	296,7	211,0	305,2	342,9	
	PORTUGAL	73,0	30,7	55,5	27,8	36,0	30,6	1,2	29,5	78,1	33,1	69,6	79,6	8,3	1,5	5,7	43,6	
	SPAIN	297,0	737,5	675,2	323,9	222,1	92,2	197,6	258,5	421,7	453,8	274,1	487,8	74,8	127,5	359,9	404,0	
UNITED KINGDOM	627,6	350,2	410,8	301,5	150,4	107,6	224,4	112,0	116,5	124,2	209,2	205,1	172,6	119,8	65,5	38,8		
TOTAL EU		3126,5	3314,4	3635,0	2926,7	2568,4	2208,5	2583,3	2549,7	2309,5	2485,2	3219,6	3143,1	2169,8	1757,9	2919,1	2883,7	
OTHER AWES	FINLAND	N/A	523,9	502,5	221,1	135,4	389,5	158,0	202,2	637,7	108,0	63,0	256,7	139,4	178,7	515,1	276,7	
	NORWAY	N/A	381,6	408,7	156,4	108,8	208,2	129,9	136,4	139,2	112,1	398,8	190,9	118,1	165,0	231,8	262,9	
	SWEDEN	N/A	205,4	359,3	184,5	278,4	34,0	16,1	59,2	71,4	13,2	110,1	3,8	4,3	23,5	1,0	0,0	
TOTAL AWES		4659,5	4425,3	4905,5	3488,7	3091,0	2840,2	2887,3	2947,5	3157,8	2718,5	3791,5	3594,5	2431,6	2125,1	3687,0	3423,3	
JAPAN		7337,5	6708,3	5823,1	4859,4	7389,1	6040,0	4440,0	3431,6	3120,5	3360,7	5879,7	6116,4	4433,0	3268,3	4681,4	6688,4	
KOREA		325,4	939,3	893,3	1001,5	2147,1	1180,9	806,5	1352,4	1942,6	1203,0	1671,4	2169,2	2278,1	1085,3	3672,6	3083,0	
CHINA	N/A	N/A	233,0	119,6	285,9	179,9	204,0	321,5	263,8	330,6	258,5	387,4	429,7	585,0	436,5	547,4		
POLAND	N/A	208,4	146,0	133,3	489,8	417,1	270,3	321,4	302,6	218,4	209,5	218,4	295,9	434,5	191,2	678,9		
ROMANIA	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	550,4	57,0	149,6	140,2		
BULGARIA	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	109,9	45,8	41,5	63,9		
USSR	N/A	12,1	24,0	68,4	N/A	2,9	N/A	N/A	N/A	N/A	92,6	214,1	209,1	83,6				
RUSSIA														254,6	358,3	170,2		
UKRAINE														105,9	290,5	396,7		
YUGOSLAVIA	N/A	242,3	76,8	320,0	123,8	75,0	329,6	447,3	130,8	306,9	478,5	322,6	127,4					
CROATIA														129,0	153,4	270,4		
REST OF WORLD		3659,9	1822,0	1951,4	1542,3	1323,4	1041,7	1383,7	660,4	822,0	895,2	1061,1	1285,9	1175,4	729,6	864,0	1285,9	
TOTAL WORLD		15982,3	14357,7	14053,1	11533,2	14850,1	11777,7	10321,4	9482,1	9740,1	9125,9	13564,3	14303,5	11915,0	8820,1	14526,0	16753,3	

(1) From 1990 on data includes new orders from Ex-GDR yards

Source : "World Shipbuilding Databank" based on data supplied by Lloyd's Maritime Information Services

TABLE 5B - NEW ORDERS

		FIGURES AT THE END OF THE YEAR														MARKET SHARES		
		1976	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	
EU	BELGIUM	0,5%	0,4%	0,6%	0,4%	0,4%	0,6%	0,3%	0,5%	0,3%	0,6%	0,7%	0,5%	0,6%	0,2%	0,1%	0,3%	
	DENMARK	2,0%	2,0%	2,1%	2,2%	2,9%	3,4%	0,8%	3,2%	2,3%	2,2%	1,4%	4,2%	2,2%	2,8%	2,7%	2,3%	
	FRANCE	0,4%	3,9%	2,4%	1,5%	0,9%	0,9%	2,5%	1,4%	0,6%	2,2%	1,2%	1,0%	2,8%	0,4%	1,6%	1,4%	
	GERMANY (1)	4,5%	4,3%	8,9%	10,8%	8,3%	9,1%	11,9%	13,7%	9,0%	9,6%	10,3%	6,1%	4,7%	9,7%	7,1%	6,2%	
	GREECE	N/A	0,6%	0,0%	0,1%	0,0%	0,1%	0,3%	0,1%	0,1%	0,1%	0,0%	0,0%	0,1%	0,1%	0,0%	0,0%	
	IRELAND	0,1%	0,0%	0,1%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%
	ITALY	1,9%	1,6%	1,0%	2,1%	0,4%	0,6%	2,5%	2,4%	4,2%	1,9%	4,2%	2,9%	3,2%	1,5%	3,5%	2,1%	
	NETHERLANDS	3,9%	2,6%	2,6%	2,7%	1,6%	2,1%	2,6%	1,4%	0,9%	3,9%	1,7%	1,9%	2,5%	2,4%	2,1%	2,0%	
	PORTUGAL	0,5%	0,2%	0,4%	0,2%	0,2%	0,3%	0,0%	0,3%	0,8%	0,4%	0,5%	0,6%	0,1%	0,0%	0,0%	0,3%	
	SPAIN	1,9%	5,1%	4,8%	2,8%	1,5%	0,8%	1,9%	2,7%	4,3%	5,0%	2,0%	3,4%	0,6%	1,4%	2,5%	2,4%	
	UNITED KINGDOM	3,9%	2,4%	2,9%	2,6%	1,0%	0,9%	2,2%	1,2%	1,2%	1,4%	1,5%	1,4%	1,4%	1,4%	0,5%	0,2%	
TOTAL EU		19,6%	23,1%	25,9%	25,4%	17,3%	18,8%	25,0%	26,9%	23,7%	27,2%	23,7%	22,0%	18,2%	19,9%	20,1%	17,2%	
OTHER AWES	FINLAND	N/A	3,6%	3,6%	1,9%	0,9%	3,3%	1,5%	2,1%	6,5%	1,2%	0,5%	1,8%	1,2%	2,0%	3,5%	1,7%	
	NORWAY	N/A	2,7%	2,9%	1,4%	0,7%	1,8%	1,3%	1,4%	1,4%	1,2%	2,9%	1,3%	1,0%	1,9%	1,7%	1,6%	
	SWEDEN	N/A	1,4%	2,6%	1,6%	1,9%	0,3%	0,2%	0,6%	0,7%	0,1%	0,8%	0,0%	0,0%	0,3%	0,0%	0,0%	
TOTAL AWES		29,2%	30,8%	34,9%	30,2%	20,8%	24,1%	28,0%	31,1%	32,4%	29,8%	28,0%	25,1%	20,4%	24,1%	25,4%	20,4%	
JAPAN		45,9%	46,7%	41,4%	42,1%	49,8%	51,3%	43,0%	35,2%	32,0%	36,8%	43,3%	42,8%	37,2%	37,1%	32,2%	39,9%	
KOREA		2,0%	6,5%	6,4%	8,7%	14,5%	10,0%	7,8%	14,3%	19,9%	13,2%	12,3%	15,2%	19,1%	12,3%	25,3%	18,4%	
CHINA		N/A	N/A	1,7%	1,0%	1,9%	1,5%	2,0%	3,4%	2,7%	3,6%	1,9%	2,7%	3,6%	6,6%	3,0%	3,3%	
POLAND		N/A	1,5%	1,0%	1,2%	3,3%	3,5%	2,6%	3,4%	3,1%	2,4%	1,5%	1,5%	2,5%	4,9%	1,3%	4,1%	
ROMANIA		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	4,6%	0,6%	1,0%	0,8%	
BULGARIA		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0,9%	0,5%	0,3%	0,4%	
USSR		N/A	0,1%	0,2%	0,6%	N/A	0,0%	N/A	N/A	N/A	1,0%	1,6%	1,5%	0,7%				
RUSSIA															2,9%	2,5%	1,0%	
UKRAINE															1,2%	2,0%	2,4%	
YUGOSLAVIA		N/A	1,7%	0,5%	2,8%	0,8%	0,6%	3,2%	4,7%	1,3%	3,4%	3,5%	2,3%	1,1%				
CROATIA															1,5%	1,1%	1,6%	
REST OF WORLD		22,9%	12,7%	13,9%	13,4%	8,9%	8,8%	13,4%	7,0%	8,4%	9,8%	7,8%	9,0%	9,9%	8,3%	5,9%	7,7%	
TOTAL WORLD		100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	

(1) From 1980 on data includes new orders from Ex-GDR yards

Source : "World Shipbuilding Databank" based on data supplied by Lloyd's Maritime Information Services

**TABLE 6 - TREND OF NEW ORDERS BY TYPE OF VESSEL**

		OIL TANKERS		BULK CARRIERS		CARGO SHIPS		NON CARGO VESSELS		TOTAL	
		1000 CGT	%	1000 CGT	%	1000 CGT	%	1000 CGT	%	1000 CGT	%
1977	WORLD	790,6		1783,2		8497,3		2969,8		14040,9	
	EU	30,9	3,9	75,1	4,2	1764,4	20,8	670,5	22,6	2540,9	18,1
1978	WORLD	1185,4		534,6		6163,8		1912,7		9795,5	
	EU	56,2	4,7	23,6	4,4	1341,3	21,8	591,5	30,9	2012,6	20,5
1979	WORLD	3364,8		2744,9		5148,4		2949,8		14207,9	
	EU	168,1	5,0	466,5	17,0	1172,6	22,8	747,6	25,3	2554,8	18,0
1980	WORLD	2960,2		4325,3		4780,1		2291,9		14357,5	
	EU	273,7	9,2	425,9	9,8	1023,4	21,4	740,8	32,3	2463,8	17,2
1981	WORLD	1166,7		4934,9		4967,9		2433,0		13502,5	
	EU	75,1	6,4	487,9	9,9	1342,7	27,0	606,4	24,9	2512,1	18,6
1982	WORLD	662,6		2335,3		5679,9		2135,4		10813,2	
	EU	70,3	10,6	197,5	8,5	1093,2	19,2	628,0	29,4	1989,0	18,4
1983	WORLD	1682,1		5370,3		5910,8		1886,9		14850,1	
	EU	92,3	5,5	110,7	2,1	1039,9	17,6	380,9	20,2	1623,8	10,9
1984	WORLD	1176,2		3890,6		4742,2		1956,8		11765,8	
	EU	179,3	15,2	165,6	4,3	944,2	19,9	448,8	22,9	1737,9	14,8
1985	WORLD	470,1		3918,4		5299,9		2039,2		11777,6	
	EU	15,3	3,3	152,8	3,9	1029,7	19,4	459,3	22,0	1657,1	14,1
1985	WORLD	575,4		2454,5		5138,8		2152,4		10321,1	
	EU	18,0	3,1	154,9	6,3	1033,5	20,1	769,6	35,8	1976,0	19,1
1986	WORLD	1199,7		1296,0		4208,4		2778,0		9482,1	
	EU	0,0	0,0	108,0	8,3	768,6	18,3	704,7	25,4	1581,3	16,7
1987	WORLD	1404,6		1033,2		4899,7		2402,7		9740,2	
	EU	107,5	7,7	45,3	4,4	1128,1	23,0	690,1	28,7	1971,0	20,2
1988	WORLD	781,8		2164,5		3985,6		2194,0		9125,9	
	EU	116,7	14,9	0,0	0,0	1095,5	27,5	1048,1	47,8	2260,3	24,8
1989	WORLD	1943,6		2483,1		6798,4		2339,3		13564,4	
	EU	219,9	11,3	70,8	2,9	1454,3	21,4	1008,8	43,1	2753,8	20,3
1990	WORLD	4127,9		1639,0		6530,2		2006,5		14303,6	
	EU	542,6	13,1	207,0	12,6	1541,0	23,6	852,0	42,5	3142,6	22,0
1991	WORLD	1917,9		2218,0		6507,9		1271,3		11915,0	
	EU	215,3	11,2	207,5	9,4	1387,4	21,3	359,8	28,3	2169,9	18,2
1992	WORLD	1209,4		1761,3		4313,9		1535,7		8820,3	
	EU	236,0	19,5	0,0	0,0	923,0	21,4	599,1	39,0	1758,1	19,9
1993	WORLD	1600,6		3859,6		7022,9		2043,1		14526,2	
	EU	112,5	7,0	232,7	6,0	1534,1	21,8	1039,9	50,9	2919,2	20,1
1994	WORLD	1475,6		5599,7		7559,6		2118,6		16753,5	
	EU	76,3	5,2	178,5	3,2	1501,5	19,9	1127,6	53,2	2883,9	17,2

Remarks : From 1986 EU including Spain and Portugal; from 1990 EU including Ex-GDR

Source : World Shipbuilding Databank based on data supplied by Lloyd's Maritime Information Services

TABLE 7A - ORDER BOOK

		FIGURES AT THE END OF THE YEAR															1000 001
		1976	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
EU	BELGIUM	277,0	331,7	311,5	261,1	143,7	136,1	62,1	60,0	75,0	82,0	147,7	154,4	213,4	116,8	132,0	117,7
	DENMARK	923,5	652,4	618,9	603,9	707,7	692,2	442,1	429,8	473,9	459,6	589,7	927,7	876,6	674,3	689,4	595,7
	FRANCE	1770,4	1193,7	1138,2	978,5	598,6	263,3	382,7	371,2	234,5	379,9	361,9	397,2	556,8	410,3	563,7	677,5
	GERMANY (1)	2113,3	950,9	1082,0	1177,7	1178,1	959,4	1118,9	1281,7	1426,3	1429,2	1974,0	1955,0	1529,9	1471,4	1600,3	1591,0
	GREECE	N/A	240,6	245,4	191,4	146,1	137,4	119,9	102,8	121,5	116,8	113,6	69,1	73,0	42,3	43,7	103,7
	IRELAND	43,9	17,8	19,3	20,0	2,1	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
	ITALY	1036,2	639,8	427,3	480,4	356,3	195,5	345,5	465,8	864,8	904,2	1188,6	1298,4	1190,9	1036,4	1039,8	1023,7
	NETHERLANDS	917,1	493,7	551,7	498,8	308,8	331,6	300,3	195,6	141,8	365,1	414,5	443,4	387,5	321,5	385,1	441,8
	PORTUGAL	N/A	191,2	240,4	258,4	124,1	138,3	94,0	67,0	108,3	114,0	155,7	181,6	153,1	95,5	45,5	75,9
	SPAIN	N/A	1769,5	1754,0	1325,3	967,4	690,5	491,5	527,7	635,6	837,7	853,7	1004,1	757,2	476,4	475,2	683,1
	UNITED KINGDOM	1989,4	615,0	768,9	714,1	506,1	292,3	352,5	325,4	369,7	317,1	376,5	418,9	413,6	411,5	321,4	212,4
TOTAL EU		9070,8	7096,3	7157,6	6509,6	5039,0	3836,6	3709,5	3827,0	4451,4	5005,6	6175,9	6849,8	6152,0	5057,9	5313,0	5512,5
OTHER	FINLAND	N/A	1144,3	1139,5	1023,8	710,3	642,2	544,4	483,9	991,0	962,9	652,1	589,4	494,3	467,1	791,2	990,8
AWES	NORWAY	N/A	589,3	670,3	371,9	185,6	229,8	148,1	146,8	136,9	114,3	422,8	463,6	381,8	284,3	370,6	411,4
	SWEDEN	N/A	703,8	646,3	494,9	494,5	267,8	181,7	137,5	93,8	39,0	115,3	64,3	23,9	23,7	0,4	0,4
TOTAL AWES		15839,2	9533,7	9613,7	8400,2	6429,4	4976,4	4583,7	4595,2	5673,1	6121,8	7366,1	7967,1	7052,0	5833,0	6475,2	8355,1
JAPAN		12093,8	7297,8	7457,7	6640,2	8477,9	8221,5	5915,2	3915,9	2918,5	3473,9	5696,5	7494,7	7621,8	6482,7	6255,6	8000,0
KOREA		7943,2	1320,3	1711,1	1854,9	2898,4	3223,1	2578,7	1909,2	2639,1	2342,7	2813,1	3500,7	3922,7	3012,2	4792,5	5867,1
CHINA		N/A	N/A	260,9	298,3	493,5	433,2	486,5	547,0	647,3	809,8	681,0	813,6	942,0	1235,7	1257,4	1261,6
POLAND		N/A	1634,6	1459,0	1174,6	1143,1	1272,1	1018,1	1041,6	1251,6	1131,3	1080,1	1136,6	999,7	1124,6	1013,7	993,5
ROMANIA		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	912,6	766,0	860,5	943,7
BULGARIA		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	237,0	224,0	142,2	148,6
USSR		N/A	N/A	128,9	92,7	53,9	42,8	N/A	N/A	N/A	74,1	248,5	343,1	360,4			
	RUSSIA														465,4	778,9	867,0
	UKRAINE														237,9	426,0	701,6
YUGOSLAVIA		N/A	760,7	626,7	699,9	492,6	455,4	545,9	840,0	751,4	861,9	1011,4	1046,9	893,3	133,3	N/A	N/A
	CROATIA														532,2	510,7	466,0
REST OF WORLD		3693,0	5045,1	5105,6	4570,7	4129,7	3448,0	3435,8	2796,8	2675,0	2857,9	3071,2	3343,5	3003,2	2601,8	2279,7	2797,4
TOTAL WORLD		39569,2	25592,2	26363,6	23731,5	24118,5	22072,5	18563,9	15645,7	16556,0	17673,4	21967,9	25646,2	25937,7	22648,8	24792,4	28956,6

(1) From 1980 on data includes order book from Ex-GDR yards

Source : "World Shipbuilding Databank" based on data supplied by Lloyd's Maritime Information Services

TABLE 7B - ORDER BOOK

		FIGURES AT THE END OF THE YEAR														MARKET SHARES		
		1976	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	
EU	BELGIUM	0,7%	1,3%	1,2%	1,1%	0,6%	0,6%	0,3%	0,4%	0,5%	0,5%	0,7%	0,6%	0,8%	0,5%	0,5%	0,4%	
	DENMARK	2,3%	2,5%	2,3%	2,5%	2,9%	3,1%	2,4%	2,7%	2,9%	2,6%	2,7%	3,6%	3,4%	3,0%	2,6%	2,1%	
	FRANCE	4,5%	4,7%	4,3%	4,1%	2,5%	1,2%	2,1%	2,4%	1,4%	2,1%	1,6%	1,5%	2,1%	1,8%	2,3%	2,3%	
	GERMANY (1)	5,3%	3,7%	4,1%	5,0%	4,9%	4,3%	6,0%	8,2%	8,6%	8,1%	9,0%	7,6%	5,9%	6,5%	6,5%	5,5%	
	GREECE	N/A	0,9%	0,9%	0,8%	0,6%	0,6%	0,6%	0,7%	0,7%	0,7%	0,5%	0,3%	0,3%	0,2%	0,2%	0,4%	
	IRELAND	0,1%	0,1%	0,1%	0,1%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%
	ITALY	2,6%	2,5%	1,6%	2,0%	1,5%	0,9%	1,9%	3,0%	5,2%	5,1%	5,4%	5,1%	4,6%	4,6%	4,2%	3,6%	
	NETHERLANDS	2,3%	1,9%	2,1%	2,1%	1,3%	1,5%	1,6%	1,3%	0,9%	2,1%	1,9%	1,7%	1,5%	1,4%	1,6%	1,5%	
	PORTUGAL	N/A	0,7%	0,9%	1,1%	0,5%	0,6%	0,5%	0,4%	0,7%	0,6%	0,7%	0,7%	0,6%	0,4%	0,2%	0,3%	
	SPAIN	N/A	6,9%	6,7%	5,6%	4,0%	3,1%	2,6%	3,4%	3,8%	4,7%	3,9%	3,9%	2,9%	2,1%	1,9%	2,3%	
UNITED KINGDOM	5,0%	2,4%	2,9%	3,0%	2,1%	1,3%	1,9%	2,1%	2,2%	1,8%	1,7%	1,6%	1,6%	1,6%	1,3%	0,7%		
TOTAL EU		22,9%	27,7%	27,1%	27,4%	20,9%	17,4%	20,0%	24,5%	26,9%	28,3%	28,1%	26,7%	23,7%	22,3%	21,4%	19,0%	
OTHER AWES	FINLAND	N/A	4,5%	4,3%	4,3%	2,9%	2,9%	2,9%	3,1%	6,0%	5,4%	3,0%	2,3%	1,9%	2,1%	3,2%	3,3%	
	NORWAY	N/A	2,3%	2,5%	1,6%	0,8%	1,0%	0,8%	0,9%	0,8%	0,6%	1,9%	1,8%	1,5%	1,3%	1,5%	1,4%	
	SWEDEN	N/A	2,8%	2,5%	2,1%	2,1%	1,2%	1,0%	0,9%	0,6%	0,2%	0,5%	0,3%	0,1%	0,1%	0,0%	0,0%	
TOTAL AWES		40,0%	37,3%	36,5%	35,4%	26,7%	22,5%	24,7%	29,4%	34,3%	34,6%	33,5%	31,1%	27,2%	25,8%	26,1%	23,8%	
JAPAN		30,6%	28,5%	28,3%	28,0%	35,2%	37,2%	31,9%	25,0%	17,6%	19,7%	25,9%	29,2%	29,4%	28,6%	25,2%	27,6%	
KOREA		20,1%	5,2%	6,5%	7,8%	12,0%	14,6%	13,9%	12,2%	15,9%	13,3%	12,8%	13,6%	15,1%	13,3%	19,3%	20,3%	
CHINA		N/A	N/A	1,0%	1,3%	2,0%	2,0%	2,6%	3,5%	3,9%	4,6%	3,1%	3,2%	3,6%	5,5%	5,1%	4,4%	
POLAND		N/A	6,4%	5,5%	4,9%	4,7%	5,8%	5,5%	6,7%	7,6%	6,4%	4,9%	4,4%	3,9%	5,0%	4,1%	3,4%	
ROMANIA		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	3,5%	3,4%	3,5%	3,3%	
BULGARIA		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0,9%	1,0%	0,6%	0,5%	
USSR		N/A	N/A	0,5%	0,4%	0,2%	0,2%	N/A	N/A	N/A	0,4%	1,1%	1,3%	1,4%				
RUSSIA															2,1%	3,1%	3,1%	
UKRAINE															1,1%	1,7%	2,4%	
YUGOSLAVIA		N/A	3,0%	2,4%	2,9%	2,0%	2,1%	2,9%	5,4%	4,5%	4,9%	4,6%	4,1%	3,4%	0,6%	N/A	N/A	
CROATIA															2,3%	2,1%	1,6%	
REST OF WORLD		9,3%	19,7%	19,4%	19,3%	17,1%	15,6%	18,5%	17,9%	16,2%	16,2%	14,0%	13,0%	11,6%	11,5%	9,2%	9,7%	
TOTAL WORLD		100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	

(1) From 1980 on data includes order book from Ex-GDR yards

Source : "World Shipbuilding Databank" based on data supplied by Lloyd's Maritime Information Services

of



**TABLE A - EMPLOYMENT IN THE CONSTRUCTION OF NEW VESSELS IN THE EUROPEAN UNION**

	NUMBER OF EMPLOYEES																	
	1975	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
BELGIUM	7467	6614	6259	6523	6347	4680	4104	4060	3923	2995	2548	2270	2307	2377	2418	2391	1655	1650
DENMARK	16630	12000	9000	11400	11350	11800	11200	10300	10200	7000	7000	7300	7900	8400	8600	9300	7300	9000
FRANCE (1)	32500	25300	23000	22200	22200	21600	21000	16940	15053	13700	8940	6950	6800	6800	6100	6040	5280	5010
GERMANY	46939	31113	27059	24784	26521	27600	25956	22183	22260	19184	12875	14845	14732	15297 (5)	27763 (6)	28146 (6)	24143 (6)	22834
GREECE	2316	N/A	N/A	2672	3393	2900	2812	2000	2000	1709	1621	1855	1535 (4)	550	0	0	0	0
IRELAND	869	840	750	750	762	892	550	0	0	0	0	0	0	0	0	0	0	0
ITALY	25000	20000	19000	18000	16500	13750	12800	12800	12000	11570	9500 (3)	8428 (3)	9675 (3)	9940 (6)	8299 (9)	8200 (10)	7100 (11)	8270
NETHERLANDS (2)	22662	17540	14540	13100	13100	12900	11250	10330	6235	5400	3500	3500	3900	3900	4000	4000	4000	4000
PORTUGAL	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	5370	5087	5020	4412	4245	3945	3820	3520	3150	1032
SPAIN	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	18000	18000	17300	14000	12550	11940	11440	10735	10025	9400
UNITED KINGDOM	54550	41050	31200	24600	25345	25000	20486	14655	14200	12500	11500	9000	6494	6126 (7)	5934	5820	4565	4170
TOTAL EU	209933	154457	131117	124229	125518	121012	110168	93268	109242	96145	79904	72460	69733	68875	78424	77152	67993	68937

(1) From 1986 on the figure covers jobs in new shipbuilding and naval and para-naval building (conversion, naval vessels and off-shore).

Figures for the preceding years using the same method are: 1975 - 32500, 1980 - 23700, 1985 - 17700.

(2) From 1975 to 1984 including naval dockyards estimated to be: 1975 - 1800, 1978 and 1979 - 3200, 1980 - 3400, 1981 and 1982 - 3200, 1983 and 1984 - 2800

(3) 2780 unemployed should be added to 1987's figure, 2850 to 1988's figure and 2581 to 1989's figure.

Of these 2000 represent a structural over capacity for whom no new jobs can be found

(4) Includes naval building

(5) Excluding jobs in Ex-GDR's yards

(6) Of which 1833 currently inactive

(7) Revised figure

(8) Including 11700 jobs in Ex-GDR's yards in 1991, 12441 jobs in 1992 and 9000 in 1993

(9) 1321 unemployed should be added to this figure, representing a structural over capacity, whose elimination is foreseen during 1992

(10) 700 unemployed should be added to this figure, representing a structural over capacity, for whom re employment is not foreseen

(11) 1160 currently inactive should be added to this figure

Table compiled from national sources

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