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

LeaderSHIP 2015

**Defining the Future of the European Shipbuilding and Repair Industry –
Competitiveness through Excellence**

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1. INTRODUCTION

1.1. The policy framework of LeaderSHIP 2015

In its Communication on “Industrial Policy in an Enlarged Europe”¹ the Commission provided an outline of the horizontal policy measures that are required to move faster towards a more competitive European economy, in particular in the light of the enlargement of the Community. Knowledge, innovation and entrepreneurship were identified as the key elements. The Communication also recognises that this horizontal approach needs to be complemented with specific sectoral approaches, based on close monitoring of the particular situation in a sector, and full stakeholder consultation, in order to arrive at the most appropriate policy mix.

Against the background of the challenges faced by industry in Europe, resulting from global developments and shifting economic patterns in Europe itself, the re-launching of the European economy has received renewed and additional attention. As part of its call for an integrated strategy for European competitiveness the European Council at its meeting of 16-17 October 2003 has called for policies to be pursued in such a way as to contribute consistently to the goal of enhancing the competitiveness of enterprises and industry. In relation to industrial policies the Council and the Commission have been urged by European leaders to address the needs of specific industrial sectors, especially the manufacturing sector, notably in view of their essential contribution to economic growth.

LeaderSHIP 2015 represents the application of this approach to shipbuilding and follows on a similar exercise already undertaken in the case of pharmaceuticals (G10 Medicines) and aerospace (STAR21).

1.2. The LeaderSHIP 2015 initiative by the European shipbuilding industry

1.2.1. Background

With the initiative “LeaderSHIP 2015” the European shipbuilding industry has started an ambitious programme to ensure its long-term prosperity in a dynamic growth market. The initiative goes back to the Council conclusions of 14 May 2001 where the Council called upon “the EU Shipbuilding industry to continue improving its competitiveness.” The aim is to improve the already existing technological leadership in selected market segments, to drive and protect innovation and know-how, to strengthen customer focus, to improve the industry structure and to move decisively to a knowledge-based production, making EU shipbuilders and marine equipment suppliers world leaders in their field by 2015.

In March 2002 the industry presented the idea of such an initiative to the President of the Commission, Romano Prodi, who responded positively and requested the Member of the Commission in charge of enterprise to set up a working structure, based on a detailed workplan. A High Level Advisory Group for LeaderSHIP 2015² was accordingly established, supported by working groups for eight key areas.

¹ COM(2002) 714 final of 11.12.2002

² The High Level Advisory Group consists of leading personalities in the field - from individual companies, industry associations and trade unions -, seven European Commissioners with responsibilities that relate to shipbuilding and two Members of the European Parliament.

1.2.2. LeaderSHIP 2015 Report

In its report³ the High Level Advisory Group for LeaderSHIP 2015 made concrete recommendations in these eight specific areas. These recommendations must now be complemented with targeted actions and the necessary strong political support in order to ensure their aim of making the optimum contribution to the competitiveness of the industries concerned.

Through LeaderSHIP 2015 the specific conditions resulting from the unique characteristics of the shipbuilding sector are taken into consideration.

In this Communication the key issues addressed by the LeaderSHIP 2015 Advisory Group are explained and assessed and policy actions are identified. These relate in particular to the key issues of an integrated approach to industrial and transport policies, increased knowledge-intensity, highly-qualified human capital, organisational changes, technological and non-technological innovation and intellectual property rights protection.

This Communication represents the start of a longer term effort to help ensure the future competitiveness of this important sector of the European manufacturing industry, which also plays a significant role in some of the countries joining the European Union. The Commission will continue to develop and implement its specific policy approach to the sector, in close co-operation with stakeholders and taking into account the responses received from Member States and the other EU institutions to the issues raised. The purpose of the Communication is to facilitate this process.

1.3. The future challenges for the European shipbuilding industry

1.3.1. Analysis

The European shipbuilding industry can look back to centuries of excellence in the design and production of ships. Being maritime through history and geography, European nations have always taken particular pride in their ability to produce sea-going vessels as this ability has allowed them to engage in global trade and to defend their vital interests.

Shipbuilding, which consists of shipyards engaging in commercial and naval shipbuilding, the marine equipment industry, the ship repair and conversion sector, as well as a wide range of knowledge providers such as universities, towing tanks, design offices and classification societies, is an essential part of Europe's industrial structure. It develops advanced technologies that offer considerable spin-offs to other sectors; it provides essential means of transport for international trade; and it supplies modern navies with technologically advanced vessels, a key requirement for effective military operations. Shipbuilding is therefore an important part of Europe's strategic economic needs.

Shipyards provide products of high complexity, requiring a multitude of skills, an outstanding degree of scientific knowledge and smart production technologies. Ships are the largest moving man-made objects and their long life cycle, combined with a high level of operational autonomy in a hostile natural environment, makes them one of the most sophisticated capital goods.

³ "LeaderSHIP 2015", Enterprise publications, October 2003

Short production series, customisation as a general principle, and global competition force shipyards to permanently search for innovative solutions with regard to design and production technologies. Due to the complexity of the product, shipyards now depend on a large number of suppliers for components, sub-systems and knowledge-based services, including those provided by specialists in the financial sector. Today's shipyards have to be seen as large scale integrators within a high technology industry whose key players are often highly specialised SMEs; they are no longer production sites of heavy industry.

Given that shipbuilding is naturally limited to coastal regions with access to deep water, a modern shipbuilding industry depends on an industrial network of companies, often described as a regional cluster. In an industrial cluster, a wide variety of companies and organisations come together, with the aim of exchanging strategic knowledge for the achievement of projects. Timing and quality of service are essential to make projects successful and profitable.

Shipbuilding is an example of an industry that displays the particular strengths and weaknesses of Europe's economic situation in a distinct sectoral environment, while at the same time addressing the key challenges, through a pro-active approach in a wide range of areas. The world shipbuilding industry has been experiencing structural and cyclical problems since the first oil crisis (which revealed the over-investment in the sector), but European yards have been able to "re-invent" themselves repeatedly in the face of adversity.

European shipbuilding has undergone massive changes since the mid 70's. Two out of three shipyards have disappeared and employment has fallen from around 460.000 shipyard workers in 1975 to about 100.000 today in newbuilding and repair (the figures for the current 15 EU Member States are 400.000 and 85.000, respectively). Output in new vessels has remained stable in the last decade at around 4,6 Mio. cgt (compensated gross tonnes) thus confirming the significant productivity increases achieved by European industry (the corresponding figure for the current 15 EU Member States is 3,5 Mio. cgt). It also demonstrates the ability of European shipbuilders to move to more sophisticated and knowledge-based products, away from the mass market where price is the dominant factor.

Today, as the LeaderSHIP 2015 report makes clear, trade distortions are at the core of the EU shipbuilding industry's most pressing problems. These distortions can only be partially offset by improved competitiveness and limit the freedom to pursue change in a more sustainable way. Therefore, the European Commission is actively pursuing actions at WTO and OECD level to remedy these problems. In the light of decreasing market shares for European shipyards, further action is required to address this situation and to safeguard manufacturing capabilities in Europe.

Unless the situation is adequately addressed, European shipbuilding know-how will no longer drive manufacturing activities in Europe, but would rather benefit competitors in the Far East. Today, this is already the case for very large container ships, and to a lesser extent for Liquefied Gas tankers; there is a risk that this experience could be repeated with regard to modern passenger vessels where European technology know-how has up to now largely succeeded in keeping the European industry in a leading position.

The existing market situation is heavily influenced by the strategies pursued by new competitors, attracted by the fact that shipbuilding can provide an entry gate to further industrialisation, and thereby secure their economic base. While fresh competition is always welcome, distortions of the market through unfair trading practices have to be fought with determination in the appropriate international bodies, namely WTO and OECD. Setting prices

at below cost levels in order to enter into specific market segments may be a normal commercial practice, but if done on a systematic basis could distort competition. Such distortions of competition can harm viable industrial structures, lead to the loss of employment opportunities with significant welfare costs ensuing, and affect the quality of shipping.

Similarly, treating ships not as a capital good and strategic asset but as a global commodity with a volatile price level or an instrument for gaining tax relief, will only bring short term advantages for certain shipowners and investors, but may pose longer-term problems for the sustainability of the maritime transport industry.

1.3.2. Commission position

The Commission will continue to address these problems in a determined way together with current and future Member States and industry. Trade distortions need to be eliminated, remedied and ruled out for the future. The value of ships has to be re-established to its normal level for a sustainable and efficient transport industry. At the same time measures have to be taken to ensure the future of the European shipbuilding and ship repair industry through improved competitiveness. These measures, based on the report of the LeaderSHIP 2015 High Level Advisory Group, are outlined in the following chapters.

2. ESTABLISHING A LEVEL PLAYING FIELD IN WORLD SHIPBUILDING

2.1. Analysis from the report of the LeaderSHIP Advisory Group

Commercial shipbuilding and shiprepair operate in a truly global market. This comprehensive exposure to world-wide competition and the fact that WTO trade disciplines are not in all cases suitable for application to this sector, make shipbuilding substantially different from most other manufacturing industries.

State supported strategic investments in Asia, in particular through restructuring aids, have resulted in an imbalance between supply and demand. Structural over-capacity is expected to remain a serious problem for the industry, negatively affecting the open trading environment that characterises the highly cyclical world shipbuilding market.

Accordingly, the market does not work optimally and unfair practices, in the form of injurious prices and subsidisation, are used in several countries. While a strong state aid discipline exists in the EU, no specific discipline applies at international level. Unsustainable capacity is kept in existence, leading shipyards to accept loss-making orders to fill production facilities.

Very low and declining price levels, in particular in combination with low interest rates and the continued existence of favourable tax schemes, are providing an incentive for shipowners to place new orders. However, low newbuilding prices also have a negative influence on the book value of the existing fleet that has been ordered at higher prices. While fleet renewal is certainly to be welcomed in the interest of maritime safety, a very volatile newbuilding market leads to speculation and a disconnection from the economic fundamentals of the shipping industry, namely the development of freight rates. As the consequences of over-ordering for new ships are only felt a few years down the line, the impact on the shipping market is difficult to assess, but certain indications of a future over-supply, e.g. in the container shipping sector, have already been recorded by market observers.

While most industries are effectively covered by existing multilateral trade rules, shipbuilding, due to its own characteristics, is not easily amenable to the application of those rules. In conclusion, the shipbuilding sector is practically the only industry without this type of effective protection against unfair trading practices.

2.2. Recommendations by the LeaderSHIP 2015 Advisory Group

The LeaderSHIP 2015 Advisory Group makes the following recommendations for the trade related issues:

- Continuation of the present EU trade policy approach with determination
- Full enforcement of applicable WTO rules to shipbuilding
- Development of enforceable OECD disciplines through a new shipbuilding agreement by 2005 and an unambiguous interpretation of existing rules

2.3. Commission position

The Commission welcomes these recommendations which are consistent with the policy it has pursued so far. It considers that an international shipbuilding agreement, negotiated at OECD level involving also major shipbuilding nations that are not members of that organization, should address both subsidies and injurious pricing practises. More specifically, an agreement should include provisions which make the granting of restructuring aid subject to very strict monitoring and a significant reduction in the production capacity of the benefiting shipyard. This approach is already applied in the European Community. An agreement must also provide an effective remedy in case of non-compliance with the obligations under the agreement. It is important that the People's Republic of China participates in such an agreement as Chinese yards now have a significant market share and are set for further capacity development and extension of their product range.

Also, the existing OECD Sector Understanding on export credits for ships, and related OECD-agreements, need a clear and unambiguous interpretation in order to rule out any potential market distortion and discrimination against EU shipbuilders. The Commission believes that the EU should seek a unified implementation of these rules in all signatory countries and an extension of the rules to all shipbuilding regions.

Additional elements that should lead to a level playing field in world shipbuilding have to be confirmed at WTO level, with the application of the Agreement on Subsidies and Countervailing Measures to shipbuilding. The Commission is particularly active in pursuing this path through a Dispute Settlement Procedure against the Republic of Korea.

3. IMPROVING RESEARCH, DEVELOPMENT AND INNOVATION INVESTMENT

3.1. Analysis from the report of the LeaderSHIP Advisory Group

There is wide agreement that investment in research, development and innovation (RDI) is essential for improved competitiveness. This is even more so for a specialised capital goods industry such as shipbuilding. RDI investment has to focus on both product development and production methods.

Although European shipbuilders are today already investing a significant part of their turnover in RDI, additional efforts are required to meet Community objectives in the field of research and innovation.

In this respect it is recognised that the European Community research framework programmes have increasingly supported RDI efforts of the European shipbuilding industry. This support provides particular benefits by bringing together a critical mass of European research to develop longer-term solutions which address issues concerning training, the environment, safety and competitiveness and take into account the wider commercial, environmental and regulatory perspectives. The “InterSHIP” project, being the largest integrated project supported by the Community Framework Programme under the surface transport heading, can serve as a good example.

Based on the encouraging experiences made within the Maritime Industry Forum framework and growing technological requirements, the continued focus on a long term strategic vision for shipbuilding related RDI is essential. This vision must be commensurate with the long operational life cycle of ships and should encourage the sustained active participation of all maritime stakeholders in order to address all issues (industrial, regulatory, operational etc.) within the wider shipbuilding RDI environment. Such a vision can be used to direct policy development, to allocate resources efficiently and to ensure the maximum long term benefit for the European shipbuilding industry.

A fundamental obstacle to improved RDI investment results from the application of the current Community Regulation. The Community framework for state aid for research and development has been effective to ensure EU competition rules, but, due to certain specific characteristics of the sector, the shipbuilding industry has not been able to receive adequate RDI aid from Member States. Therefore new ways and means are needed in order to encourage RDI in the sector, while ensuring full compliance with the principles of the internal market.

Possible solutions could flow from the fact that in shipbuilding a significant part of the innovation activities is integrated in the design and production process itself, while in many other industries RDI activities are carried out before series production starts. Consequently, the largest part of the product development and of the innovation activities is carried out after the signature of the sales contract.

Current operating conditions are putting a significant economic and financial burden on the EU shipbuilding industry. An increasing number of European shipbuilders operate in, and depend on, high-tech market niches, requiring continuously growing investments in RDI in order to maintain the leadership position held today.

While maintaining the basic concepts of the current regulatory framework and without prejudice to the competition in the internal market, the specifics of the shipbuilding industry should not be an obstacle to the application of aid intensities as used in other sectors with comparable activities. This may require clarifying the eligible expenditures including prototyping costs, and providing an incentive for the adoption of innovative technical solutions across the European shipbuilding and marine equipment industry.

In the absence of a regulatory framework that can be applied effectively European shipbuilders have less means to offer highly developed technological solutions with the remit that the development of new types of ships would no longer be cost efficient. Given the risk connected with RDI activities in general and the increasing unwillingness of financial

institutions to finance innovative projects in such circumstances, shipyards may not be able to respond to ever-higher demands coming from their customers. Revenues could decrease further from already low levels and there is a serious danger that EU shipbuilding technologies could be caught in a downward spiral in the absence of appropriate measures to foster RDI investment.

3.2. Recommendations by the LeaderSHIP 2015 Advisory Group

With regard to RDI the LeaderSHIP 2015 Advisory Group made the following specific recommendations:

- The European dimension of shipbuilding RDI should be strengthened through integrating and concentrating efforts, with the aim to create Technology Platforms. Work being undertaken within the Maritime Industries Forum should form the base for this approach.
- Shipbuilding should, in substance, enjoy the same conditions as other industries that engage in similar RDI activities.
- Aid intensities need to reflect the actual technological risks taken in all phases of design, development and production.
- New definitions, notably regarding innovation aid, need to be developed where necessary.
- RDI investment support needs to aim at enhancing European technological leadership and should reward risk taking.

3.3. Commission position

The Commission is aware of the problems raised and, by way of response, is in the process to adapt the rules applicable, in particular with regard to innovation aid. Furthermore, it will closely monitor the effects of the present conditions for Community-funded research and development in the sector and propose further adjustments if deemed necessary.

4. DEVELOPING ADVANCED FINANCING AND GUARANTEE SCHEMES

4.1. Analysis from the report of the LeaderSHIP Advisory Group

Securing financing, both for the construction phase (pre-delivery) and the operational phase of the vessel (post-delivery), is crucial for shipbuilding projects to come about. Shipbuilding financing almost always includes guarantees, either issued by private banks or state institutions.

Typically, a shipyard's annual production value exceeds its own value as a going concern, and a partly built ship is not recognised as a capital asset. With large volumes of purchased equipment, the value added by the yard's own activities amounts to the smaller part of the total contract sum, while it has to assume full liability for the entire project. Most shipowners require bank guarantees for any down payment made during the construction of the vessel, thus increasing the amount needed for the total project financing even further.

A number of commercial banks are reducing their interest in shipbuilding and hence their commitment to a vital, but volatile industry. Reduced interest will lead to less expertise, which in turn accelerates this process.

All these factors lead to growing difficulties for the arrangement of the ship financing. Although problems may differ depending on shiptype, they constitute a serious impediment to the competitiveness of EU shipbuilders.

Three issues are crucial for the financing needs of European shipyards: guarantees covering the gap between the post-delivery financing schedule and the standard mortgage based loans of commercial banks; guarantees for the pre-delivery financing of the project, covering the working capital and the refund guarantees issued by the builder's banks; and, a hedging instrument for the currency risk.

In addressing these issues, some key principles have to apply: all instruments must be self-sustained and transparent. The applicable premiums must reflect the risk that is being run. The operation of the instruments has to be efficient, decisions should be clear and predictable. Any action proposed has to be in strict compliance with EU rules. WTO and OECD regulations should be fully respected as well.

In most Member States guarantees by the export credit agency (ECA) are available to finance shipbuilding projects. However, ECAs are designed to provide loans for export orders to countries that pose a political or economic risk. No such "country risk" exists for the vast majority of the shipowners ordering at European yards. In these cases an export credit guarantee is either not available or not the appropriate answer to cover the gap between the owner's actual financing requirements and the mortgage based loans available from commercial banks.

It is therefore desirable to explore the possibility of establishing an EU-wide guarantee fund, to be operated by a European body in a manner that is compatible with the rules of the common market and the OECD principles. Premiums should reflect the quality of the ship owner, the type of ownership, the employment of the ship, the type and duration of its charter and other factors that might influence the risk level of the loan. To this end a system of a limited number of rating categories could be applied. Fees, which depend on the rating, shall ensure that the guarantee scheme complies with the OECD rules.

A common (or approximated) standard for guarantee schemes to be implemented by all EU Member States, following the key principles outlined above, could provide an alternative solution. However, the harmonisation of such financial instruments is a very difficult exercise. In any case, tools implemented should reflect practical requirements, ensuring a fast and efficient decision making process.

Concerning pre-delivery financing a similar approach could be pursued. A guarantee covering the difference between the actual cost price and the down payments made by the owner, increased by the value of the outstanding bank guarantees for down payments, is absolutely essential. In this case also, a European-wide guarantee instrument would be desirable, with common or approximated standards in EU member states as an alternative.

With regard to the management of currency risks the situation in the EU varies widely. In order to assure fair and equal conditions, an insurance covering the risks in bidding and contracting in foreign currencies seems essential. Since banks do not provide such a facility at a reasonable cost, the export credit insurance companies, covered by appropriate re-insurance,

are the obvious choice. Since the rates of exchange are largely dominated by the interest rate policy of the major currency controllers, a key role in the re-insurance of currency risks could be played by a European entity.

4.2. Recommendations by the LeaderSHIP 2015 Advisory Group

The LeaderSHIP 2015 Advisory Group gave particular attention to the issue of financing and arrived at the following recommendations:

- Explore the possibility of establishing an EU-wide guarantee fund for pre- and post-delivery financing. The alternative of harmonising standards in EU member states, in line with common market and OECD rules, could also be considered, albeit difficult to fully achieve. Any such tools have to be easily applicable.
- Export credit insurance companies, covered by appropriate re-insurance, should offer hedging instruments for currency risks.

4.3. Commission position

In the light of the above, the Commission undertakes to explore, together with industry, whether a European entity such as the European Investment Bank can take a leading role in pre- and post-delivery financing. Priority should be given to the issue of pre-delivery financing as this has shown to be the most problematic element. Post-delivery financing is normally easier to secure as the completed vessel can be used as collateral and a number of specialised banks are active in this particular field. The Commission is also prepared to explore, in co-operation with stakeholders, whether and how the re-insurance of currency risk can be achieved on a European level.

5. PROMOTING SAFER AND MORE ENVIRONMENT-FRIENDLY SHIPS

5.1. Analysis from the report of the LeaderSHIP Advisory Group

Over the last decade the European Union has increased its profile in the fields of maritime safety and protection of the marine environment by assembling a sizeable number of laws.

The EU shipbuilding and shiprepair industry has always supported the adoption of this legislation, in particular with regard to the creation of a European Maritime Safety Agency (EMSA) and the strengthening of the Port State Control regime.

Industry holds the view that modern ships are designed and built to safely withstand the severest weather and that proper maintenance, undertaken by reliable yards, could have prevented recent ecological disasters. Unfortunately, the present situation in the shipping and shipbuilding industries is characterised by very volatile freight rates and a significant decrease of newbuilding prices over the last years. These trends risk affecting the quality of new ships and the maintenance of the existing fleet. Recent ship losses have shown significant structural as well as operational deficiencies. There is a clear trend in ship design to reduce construction and/or operating costs. It needs to be analysed to which extent such changes are compromising the integrity of the vessel and its cargo in rough weather conditions.

Against this background, a number of lines of action are required, namely the elimination of sub-standard vessels from EU waters, increased responsibilities to be faced by operators,

improved technical surveys, and a quality assessment scheme for shipyards on a world-wide level. On all of these points the EU shipbuilding industry has an essential role.

With regard to the elimination of sub-standard vessels, the shipbuilding industry can provide crucial expertise to the European Maritime Safety Agency. To this end, a joint expert committee should be established, devoted mainly to the following tasks: To assess the industrial impact of existing or pending EU legislation concerning maritime transport and, in particular, maritime safety; to analyse possible further proposals to enhance maritime safety; and to support the EU within the IMO. First efforts in this context have been undertaken within the LeaderSHIP 2015 frame.

Making operators more responsible should encourage “quality shipping” and thus provide an incentive to invest in better and safer ships. European yards are prepared to offer appropriate designs, exceeding the current minimum standards.

Promoting a more transparent, uniform, efficient and independent system of technical surveys of vessels can equally draw on the shipbuilding expertise available from the European shipbuilding industry. This is particularly true for the marine equipment industry and the knowledge providers who are world leaders in their respective fields.

Encouraging higher safety and environmental standards and providing a useful guide to shipowners, operators and surveyors indicating yards whose ships risk becoming rapidly sub-standard or suffer from high maintenance and repair costs is a long term objective to which EU shipyards can meaningfully contribute through the definition of good industry practice.

These actions should be developed at Community level, but also in the framework of the competent international for a such as the IMO.

In addition, the EU shipbuilding industry has an important role to play in increasing overall European transport safety and reducing the negative impact on the environment through Short Sea Shipping. Short Sea Shipping and European shipbuilding can provide each other with new market opportunities. Short Sea Shipping and its inter-modal integration generally require new or specially adapted vessels and advanced and flexible ship designs that are a domain of European shipyards. The comparatively smaller size of these vessels gives an advantage to domestic yards.

5.2. Recommendations by the LeaderSHIP 2015 Advisory Group

- Existing and future EU legislation has to be strictly implemented and “exported” to the international level.
- A more transparent, uniform, efficient and independent system of technical surveys of vessels has to be promoted.
- A quality assessment scheme for shipyards at world-wide level should be developed, covering newbuilding and repair.
- Maintaining and strengthening shiprepair capabilities in Europe is important to ensure a high level of transport safety and environmental protection.
- An expert committee is to be established to provide technical support to the European Commission and to EMSA.

- The great potential of Short Sea Shipping needs to be exploited through appropriate political and economic framework conditions.

5.3. Commission position

The Commission fully supports these recommendations which are in line with its existing policies in the field. With regard to Short Sea Shipping it calls upon all policy makers to fully develop and exploit this opportunity for a sustainable surface transport system across Europe through an appropriate framework, taking into consideration the specific conditions of European coastal waters and the applicable EC state aid rules.

6. A EUROPEAN APPROACH TO NAVAL SHIPBUILDING NEEDS

6.1. Analysis from the report of the LeaderSHIP Advisory Group

Naval shipbuilding is a distinct part of the European shipbuilding industry in a number of aspects. Its technology contents is even higher than the one typically found in commercial shipbuilding, the supply industry plays a very significant role and the market is composed of two very different environments – the export and the domestic markets. Naval shipbuilding has so far not been exposed to systematic unfair international competition as seen in the commercial sector, although export orders are in general subject to fierce competition between European producers. As a result profit margins are higher and many commercial shipbuilders find it desirable to complement their activities with military contracts. For the future it can be expected that globally operating shipbuilding companies would benefit from being active in both areas.

With regard to technologically advanced products, European naval yards are unmatched leaders in some areas such as conventional submarines and fast patrol boats. This is due in some measure to the strong cross-fertilisation between naval and highly competitive merchant shipbuilding, an advantage that must be exploited to the full.

However, compared to other defence sectors, European naval shipbuilding is dominated by national companies. Without increased co-operation and consolidation, European players risk being marginalized in global terms. This in turn could reduce future EU defence options. Creating strong integrated European players will assist Europe's competitiveness, also with respect to its current dominant position in international naval export markets. Three key areas merit immediate attention: industrial co-operation between yards and between yards and suppliers, access to export markets and consolidation of the industry.

Wide-ranging co-operation between yards is still hampered by diverging operational requirements from national navies. Standardisation of components and sub-systems could and should be widely enhanced, leading to considerable reduction in total ownership costs. Procurement cycles differ as well, leaving yards with an uneven workload. First experience with common programmes which have been launched with the aim of reducing costs and sharing non-recurring ones achieved encouraging results, but substantial improvements are possible.

Therefore, Member States and their navies need to agree to a minimum set of common operational requirements and a harmonisation of procurement cycles, in line with the Commission's Communication on "European Defence – Industrial and Market Issues" of

March 2003⁴. These minimum requirements should be based on the Petersberg tasks and the “Helsinki Headline Goals”. Initial efforts towards common requirements should focus on smaller surface vessels below frigate size, and should exceed this size later.

Standardisation of components and sub-systems should be based on a voluntary and systematic approach. Standardisation should to some extent also cover a joint approach to quality assurance and life cycle support. Classification societies have an important role in standardisation, building on their experience in commercial shipbuilding. The ultimate goal of these efforts must be the interoperability of systems, vessels and fleets, leading to significant reductions in ownership costs. Co-operation should be organised around a limited number of major projects, using pooled R&D resources and a single European defence equipment market.

Export markets can be quite narrow and specific. Still, these markets are key to the recovery of up-front development costs. Non-harmonised export rules in the Member States, based on different traditions and diverging geo-political objectives, lead to distortion of competition and barriers to increased industrial co-operation. The lack of full application of common market rules to intra-EU trades may have similar negative effects. Therefore, export rules (and their application and interpretation) need to be harmonised between Member States.

European naval yards primarily serve a limited national market, with a high degree of customisation and stringent and specific navy requirements. In a number of Member States naval yards are state-owned or state-controlled, although this does not rule out that commercial paradigms are employed. Considerable structural differences exist between European producers, with large state-owned entities competing in the same markets with medium-sized, privately owned yards which claim that private ownership is a pre-requisite to succeed in any consolidation effort.

6.2. Recommendations by the LeaderSHIP 2015 Advisory Group

- Joint requirements should be established to shape a number of major projects, enabling co-operation between yards and leading to inter-operability of systems, vessels and fleets.
- Member states should address the issue of harmonisation of export rules.
- Common rules to create a European market for defence equipment have to be developed, based on the Council’s request to create an intergovernmental agency in the field of defence capabilities development, research, acquisition and armaments.

6.3. Commission position

The Commission supports these recommendations which are in line with the approach developed in its Defence Communication of March 2003.

Establishing a common market for defence equipment, including the setting up of a joint procurement agency, is key. In that respect, following the European Council in Thessaloniki in June 2003, the Member States and the European Institutions are actively preparing the creation of a European Defence Agency in 2004. This agency will operate in the field of defence capabilities development, research, acquisition and armaments. Open to participation

⁴ COM(2003) 113 final of 11.3.2003

by all Member States, this agency will aim, inter alia, at strengthening the European defence industrial and technological base and creating a competitive European defence equipment market throughout the promotion of European co-operative programmes. The successful achievements of that Agency in implementing numerous programmes involving enough participants to reach economies of scale, have the potential to enable and stimulate the necessary industrial consolidation, including in the naval shipbuilding sector. However, any state aid granted to naval shipyards must not be transferred to commercial shipbuilding operations.

7. PROTECTION OF INTELLECTUAL PROPERTY RIGHTS (IPR)

7.1. Analysis from the report of the LeaderSHIP Advisory Group

The competitiveness of the European shipbuilding and marine equipment industry can only be maintained and improved through innovative vessel concepts, optimised sub-systems and sophisticated design, production and planning methods. This “intellectual property” in the wider sense has therefore to be protected against competitors who offer very similar or even completely pirated products without the need to recover research and development costs. Unfortunately, the extent of product piracy in the sector is not known and evidence is largely anecdotal. Therefore a thorough and inventive approach is required to address the problem.

Knowledge-driven technology is created at a very early stage in the relationship between yards and their suppliers. Yards have a need to disclose detailed technical requirements and solutions to their suppliers in order to safely calculate the project both under technical and commercial terms. Shipyards also have to share their knowledge with classification societies, which perform a variety of functions. The relationship between yards and shipowners is equally characterised by a direct and broad exchange of knowledge-based details of the vessel. Finally, yards are co-operating closely with universities and other experts, especially in the field of computer aided design, computer integrated manufacturing and other IT components, in order to exploit R&D results and hereby disclose relevant shipyard know how. As a result, yards are facing a permanent risk of violation of their and third parties’ intellectual property rights.

Today, copyrights, registered designs, trademarks and patents are the main instruments to protect intellectual property rights. Additional measures are non-disclosure and specific collaboration agreements, although the “one-off” features often found in shipbuilding projects can make such agreements costly and appear less rewarding.

In order to exploit these existing instruments to the full, yards and suppliers need to become more aware of the threats to their know how and the resulting competitive disadvantages. The establishment of knowledge databases could become a central activity for European yards to reach this objective. These databases should not only cover specific vessel characteristics and components, they should also indicate key people and important specific customer-supplier relations. Knowledge databases would help to form an IPR-entity that could be charged to safeguard and protect European shipbuilding knowledge. It would provide yards and suppliers with information on the internationally available knowledge (documented and non-documented) on specific vessel components, the requirements of an IPR protection of specific technical solutions, the existing patents in the relevant technical fields, the technological position of competitors, and the potential exposure of yards and suppliers to product piracy and other threats.

Due to their comparatively long validity and their international recognition, patents are still an essential instrument which European shipbuilders need to exploit to the largest possible extent, including in the countries of their main competitors. In addition shipowners should be prevented from operating ships carrying devices on board built in violation of existing patents. However, the complex and truly globalized shipbuilding market contrasts with the current international framework for the protection of patents, established in 1925 and never changed substantially since then. Today, many of the rules laid down then appear anachronistic and unjustified. A re-examination of the current framework which does not allow national authorities to take measures against a ship, carrying a device built in violation of a patent, calling at a port where such patent is registered and protected, could give yards the right tool to protect their inventions and innovations, boosting the investments in research and development and stimulating yards' interest in acquiring patents.

7.2. Recommendations by the LeaderSHIP 2015 Advisory Group

- The existing instruments for IPR protection (copyrights, registered designs, trademarks, patents, non-disclosure and specific collaboration agreements) need to be exploited to the full.
- Knowledge data bases for shipbuilding, containing information about the state of the art, existing patents, the specific competitive situation for certain products and solutions, and key knowledge holders, should be built and run by dedicated IPR entities.
- International patent rules applicable to shipbuilding need to be examined and possibly strengthened.

7.3. Commission position

The Commission believes that the recommendations should be pursued. It will follow its part and calls upon industry to exploit existing IPR rules and create the appropriate data bases, the potential of which should be explored through further study and expert examination.

8. SECURING THE ACCESS TO A SKILLED WORKFORCE

8.1. Analysis from the report of the LeaderSHIP Advisory Group

In its Lisbon strategy the Commission has given particular attention to the question of skills and life-long learning. For any manufacturing sector, but for shipbuilding in particular, it is of high importance to retain qualified staff and attract young people. Shipbuilding, like other maritime sectors, suffers from a negative image that creates serious problems in this respect.

While the decentralisation of competence in the areas of education and training limits the scope for top-down initiatives at EU level, there should be room for support to activities carried out jointly by organisations interested in promoting know-how.

The EU already promotes the exchange and development of knowledge among research workers and between the research sector and industry. The principal instrument for that purpose is the Marie Curie programme, which supports training abroad and the transfer of knowledge through fellowships at post graduate to post doctoral level. The maritime industry can benefit from this support to train researchers within the industry, enable the development

of commercial research knowledge, transfer research knowledge to the industry and to facilitate exchange of knowledge between industry and academia.

Initiatives that could be developed at EU level may also relate to the creation of centres for post-graduates, with research and teaching activities, or to the creation of regional centres of excellence in which both companies and educational institutions would participate. This set-up could facilitate exchanges of students, transfer of knowledge, diffusion of good practices and the recognition of qualifications throughout the EU. It would also help to develop exchanges of experiences between technical staff in the maritime sector.

The evolution of the industry towards a structure with a few major companies and many subcontractors increasingly requires new managerial attitudes to foster adaptability and innovation. Management needs to strengthen its ability to run firms based on project-related roles rather than on statically organised functions. This approach would be a vehicle for the social and technical innovations required to enable the industry to keep offering high quality employment in the longer term.

As the first in the metal sector, shipbuilding has now formally established a committee for the sectoral social dialogue, recognised by the Commission in line with its Communication on social dialogue and in accordance with Art. 138 of the Treaty. This welcome development might lead to joint undertakings and to agreements as regards skills and social innovation in the broadest sense, in particular concerning the adaptability of workers and firms to change, and the implementation of lifelong learning strategies.

Independent of the approach chosen, four concrete key aspects need addressing: Training of managers; promoting exchanges of shipbuilding specialists; supporting the development of skills; and, an appropriate communication policy to attract skilled blue and white collar staff.

Management training should be offered both in a regional and international context. Interaction needs to be organised between senior and junior managers. The exchange of knowledge, including to a certain extent standardisation thereof, is important. Finally, management training should include knowledge of EU policies and regulations.

Technical, management and research staff in the shipbuilding industry, including equipment manufacturers and services, should have the opportunity to work and learn elsewhere in the EU. The same applies to students and teachers on various levels.

A specific EU platform where employers and employees meet, e.g. within the framework of the sectoral social dialogue, could promote the development of skills and social innovation adjusted to regional needs.

A publicity campaign at EU level could help to stress the importance of preserving and further developing the shipbuilding and ship-repair industry. Regional publicity campaigns could be added to strengthen the effect of the EU-wide campaign, in order to achieve the Lisbon goals in the shipbuilding sector.

8.2. Recommendations by the LeaderSHIP 2015 Advisory Group

- Programmes for shipbuilding-specific management training need to be developed and established.
- New skill requirements need to be analysed and addressed, ideally through a sectoral social dialogue.

- Exchange of staff and know how needs to be organised on all levels, from shop floor to academia.
- A publicity campaign, showing the vitality and sustainability of the shipbuilding industry, has to be implemented.
- Regional centres of excellence could provide crucial input for the realisation of the above recommendations.

8.3. Commission position

The Commission agrees with these recommendations and calls upon the parties concerned to follow them up actively. The Commission has already established a sectoral social dialogue committee which in its view should serve as the focal point for the relevant activities.

9. BUILDING A SUSTAINABLE INDUSTRY STRUCTURE

9.1. Analysis from the report of the LeaderSHIP Advisory Group

A viable industry structure has to be at the core of any effort to improve the competitiveness of the EU shipbuilding and ship repair industry. In the area of newbuilding, competitors in the Far East are much more concentrated, with only a handful of large companies dominating the scene in Korea and Japan. In Europe, shipyards have also been reorganised into larger groups, comprising of a number of production facilities, but there are more than 30 major yards remaining as independent companies and there are numerous smaller yards engaging in the production of fishing vessels and the like. In the repair sector the fragmentation is even more pronounced. Also with regard to naval shipbuilding more concentration seems desirable in order to achieve synergies and limit problems with regard to R&D spending, market standing or access to finance.

Considerations on the future structure of the European shipbuilding industry therefore need to cover all areas of activities, from the construction of all types of merchant and naval vessels, to repair and conversion projects, to the manufacturing of key components and systems, as all these activities are closely linked. Security considerations establish clear needs for certain shipbuilding capabilities, with regard to both commercial shipping and defence related tasks. Maintenance and repair capabilities are certainly to be regarded as indispensable due to safety requirements and the topographic nature of Europe.

The cornerstones for a healthy and sustainable development of the industry world-wide are reasonable investments meeting the actual market demands. Economically less efficient facilities should exit from the market and investments should concentrate on segments where sufficient returns can be achieved.

Great market volatility and the cyclical nature of the industry force shipyards to meet contradicting objectives: In order to optimise productivity, yards have to specialise; in order to be able to weather market volatility and business cycles, yards should diversify. The comparatively smaller size of European yards can be a competitive advantage when specialising in certain products. At the same time, market volatility constitutes a serious threat to highly specialised yards: Declining demand in specific market segments may force a specialised yard to engage in alternative products for which it is less well suited, and to team up with other yards.

On company level, structural changes are on-going. They relate particularly to the relationship between yard and suppliers, but consolidation through mergers and acquisitions is also on the horizon. In the future, the relationship between yards and suppliers will evolve towards project partnerships, moving away from the traditional customer-supplier relation. Recent developments in the market indicate that this evolution may dramatically accelerate if efforts to merge a number of naval yards, eventually under the lead of a key marine equipment producer, are successful. As some of the yards involved are also engaged in commercial shipbuilding, a powerful entity, comprising all major shipbuilding activities, could emerge.

Great diversity of yards and products exists in Europe, particularly when the situation in the future EU member states is taken into account as well. The total employment in merchant shipbuilding in the accession countries is about 20% higher than in the combined EU 15, while production output is only slightly above a quarter of the EU 15 reference figure. With still much lower labour costs, shipyards in accession countries focus on a different product portfolio. The different sets of competitive advantages already foster extensive co-operation between yards in current and future EU member states. However, this cannot conceal the fact that the EU enlargement process will increase the necessity for an overall industrial consolidation in Europe. Past experience of fundamental restructuring processes, such as in East Germany, indicates that policies are not yet optimised in this respect. Industrial restructuring needs to put stronger emphasis on commercial investors who provide additional know how and better market access. Where yard closures have become unavoidable, these should be undertaken and supported with the view to create new investments.

The future policy for the sector should be reviewed without bias and with a clear understanding of consequences. Two extreme paths, both undesirable, illustrate the possible pitfalls. The absence of specific measures and policies for shipbuilding could result in the disappearance of merchant shipbuilding in Europe within less than a decade and a serious impediment to the construction of a European defence identity. On the other hand, protectionism, as experience shows elsewhere, for example in the USA, will inevitably result in an irreversible loss of competitiveness in commercial shipbuilding and extremely high procurement costs for naval ships.

9.2. Recommendations by the LeaderSHIP 2015 Advisory Group

- Non-action is not an option, neither is protectionism: The EU of the 25 must further develop its policy approach to the sector, in line with its principles on industrial policies.
- A consolidation process among European producers should be facilitated, providing incentives to remove less efficient production capacity and thereby freeing resources for new investments.
- The current closure aid rules in the EU should be scrutinised with the view to facilitate a more pro-active approach, based on the idea of “aid to consolidation”.

9.3. Commission position

The Commission believes that further consolidation, respecting competition rules, can generate benefits at all levels of activity, commercial and naval shipbuilding, and ship repair. However, this is primarily the responsibility of industry and in matters of defence Member States have a key role also. The Commission is ready to offer its knowledge and experience to facilitate the process.

10. CONCLUSIONS

The Commission acknowledges the substantial work undertaken in the framework of the LeaderSHIP 2015 initiative and endorses the approach to improve sectoral competitiveness through an intensive dialogue between stakeholders. It invites the other European institutions to closely examine the issues raised and, in line with their commitment to support the manufacturing industries in Europe, to co-operate with the Commission in developing specific sectoral responses that are suited to boost industrial competitiveness and to take action on aspects that fall within their competences. More specifically, the Commission wishes to stress the following aspects:

- The important strategic dimension of shipbuilding and shiprepair for Europe should be recognised by Member States, with regard to defence needs, the trade in raw materials and manufactured goods for import and export, employment opportunities and the retaining of know-how. The important role of the marine equipment industry in the production of merchant and naval vessels should receive particular attention.
- WTO rules, in particular those relating to subsidies and countervailing measures, need to be used to help establish a level playing field.
- Enforceable disciplines need to be brought about as soon as possible and by 2005 at the latest, through a new international shipbuilding agreement, as well as the clear interpretation of existing OECD rules on export credits. Any such agreement should also include the People's Republic of China. Member States are called upon to continue their steadfast support for the goals pursued by the Community in the current OECD negotiations.
- Regarding investment in innovation, state aid rules will be further adapted to the specific conditions of the European shipbuilding industry. Member States are called upon to adjust their support measures to the new rules.
- The need to explore whether a European entity such as the European Investment Bank can take a leading role in pre- and post-delivery financing for shipbuilding projects. Priority should be given to the issue of pre-delivery financing as this has shown to be the most problematic element. The Commission is open to exploring in co-operation with stakeholders whether and how the re-insurance of currency risk can be achieved on a European level.
- Together with Community institutions and Member States, the European shipbuilding industry should play an important role in the improvement of maritime safety and environmental protection through providing technical expertise to the relevant bodies, through the development of high quality products that exceed the current minimum standards and through the establishment of good industry practice, in particular concerning ship repair works. The latter could take the form of a quality assessment scheme for shipyards on a world-wide level.
- Additional market opportunities for EU shipyards could result from Short Sea Shipping and intermodal integration which require new or specially adapted vessels and transport concepts. EU policy makers in the Council and the Parliament are called upon to support the Commission in its efforts to facilitate this modal shift.

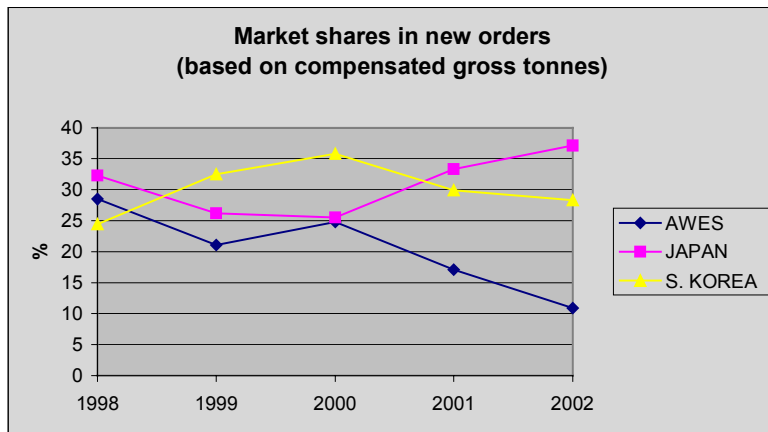
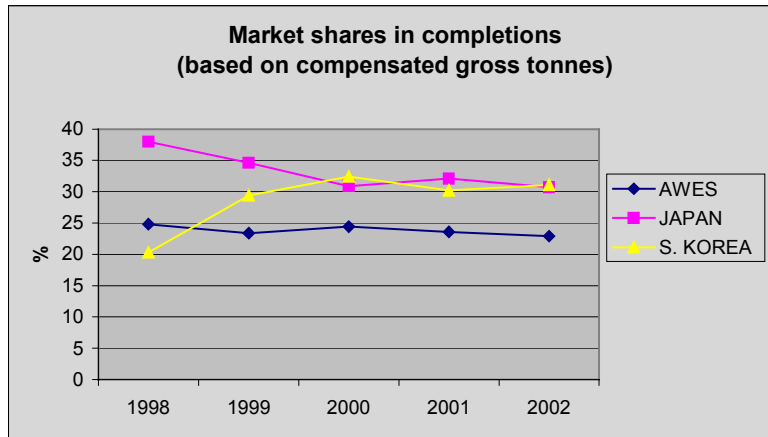
- The need for Member States and their navies to agree to a minimum set of common operational requirements and a harmonisation of procurement cycles, in line with the Commission’s Communication on “European Defence – Industrial and Market Issues” of March 2003. These minimum requirements should be based on the Petersberg tasks and the “Helsinki Headline Goals”. Co-operation between yards should be organised around a limited number of major projects, using pooled R&D resources and a single European defence equipment market, while respecting EC competition rules.
- Export rules (and their application and interpretation) for naval vessels and their components need to be harmonised between Member States.
- Establishing a common market for defence equipment, including the setting up of a joint procurement agency, would foster industrial consolidation in the longer term, and consistent with its approach set out in its Communication, the Commission will give its full support to relevant actions towards the achievement of this goal.
- The extent of the problems regarding intellectual property right infringements in the shipbuilding sector will be further explored. Based on the outcome, new approaches to the protection of intellectual property rights have to be considered. First ideas relate to the creation of a comprehensive knowledge database, whose feasibility should be studied, and a re-examination of applicable patent law which appears outdated and inappropriate.
- With regard to skills and training four issues require immediate attention: training of managers with the aim to strengthen the ability to run firms based on project-related roles; promoting exchanges of specialists with the objective to facilitate the transfer of knowledge, the diffusion of good practices and the recognition of qualifications throughout the EU; supporting the development of skills, in particular concerning the adaptability of workers and firms to change, and the implementation of lifelong learning strategies; and, a communication policy to attract skilled blue and white collar staff. It is proposed to develop targeted activities in all these areas, ideally through the social dialogue that has been established for the sector. Actions should take place on regional and EU-wide level.
- The need to maintain a supportive policy approach to the sector, in line with its goals to ensure industrial competitiveness. A consolidation process among European producers, respecting EC competition rules, would improve industrial competitiveness by providing incentives to remove less efficient production capacity and thereby freeing resources for new investments. Greater co-operation between naval defence and shipbuilding resources in Europe, built on a number of leading companies in the areas of commercial and naval shipbuilding and marine equipment, can also contribute to the improvement of competitiveness.

ANNEX

The European Shipbuilding and Ship Repair Industry – Key Data

The information provided here is based on data presented in the AWES annual report for 2002. AWES is the association of European Shipbuilders and Shiprepairers, with members in Norway, Finland, Poland, Germany, the Netherlands, Denmark, Great Britain, France, Spain, Portugal, Italy, Croatia, Greece and Romania. All data refer to AWES and cover shipbuilding and ship repair activities only. Figures for the marine equipment industry are not included.

1. Market shares

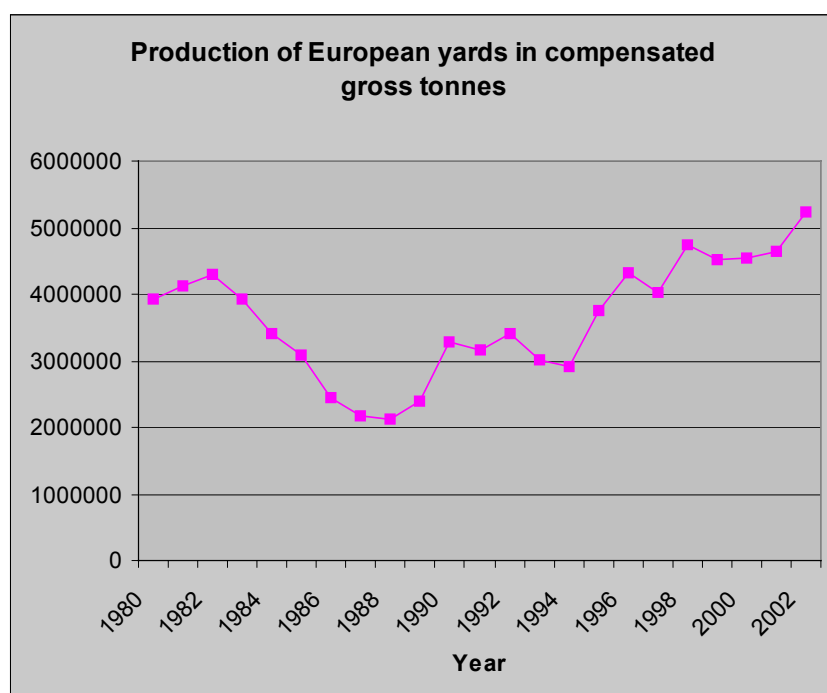


In terms of completions, i.e. tonnage delivered during the periods in question, European producers were able to maintain their share until 2002. Korea increased output, but rather to the detriment of Japan. The completions in 2002 reflect orders that were taken in 2-3 years earlier, and it should be noted that towards the end of 2000 order intake for European yards increased due to the abolition of operating aid. In terms of new orders, the situation changed after the end of 2000: European order intake decreased while Japan recovered due to strong domestic demand. The combination of the graphs shows that European producers did not participate in the increased ordering activity since 2000 to the same extent as their main competitors, but are still busy in the completion of past orders. The failure to maintain an important share in new orders has many reasons: The decline in cruise ship orders (a mainstay of European production) after the events of 11 September 2001, the aggressive pricing policies of Korean yards, in particular with regard to Liquefied Natural Gas tankers (another stronghold of European yards), the emergence of China as a major shipbuilding nation, the strong domestic demand in Japan that is traditionally inaccessible for non-Japanese producers and the surge in orders for oil tankers (a very simple shiptype whose production is no longer relevant for European yards), following the latest European maritime safety legislation.

2. Employment and production

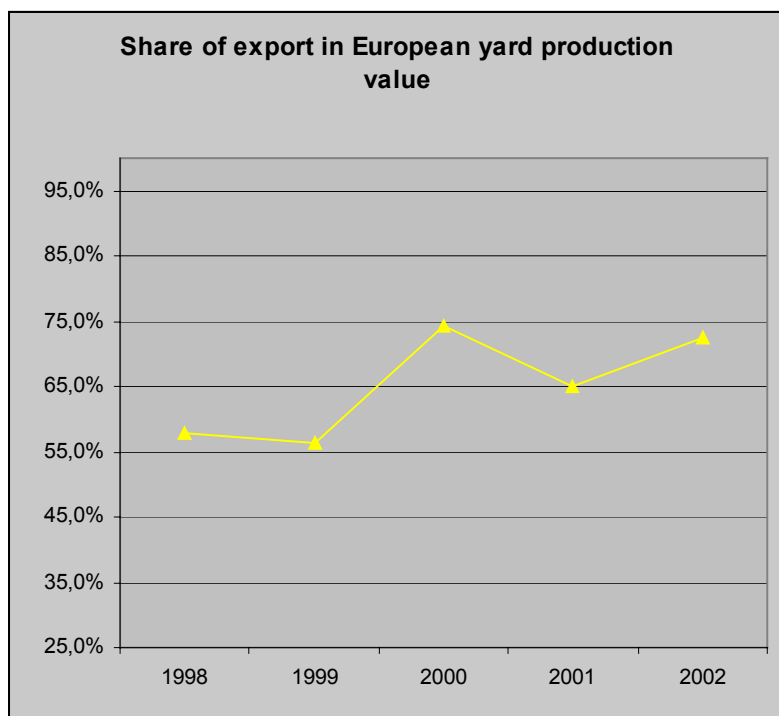
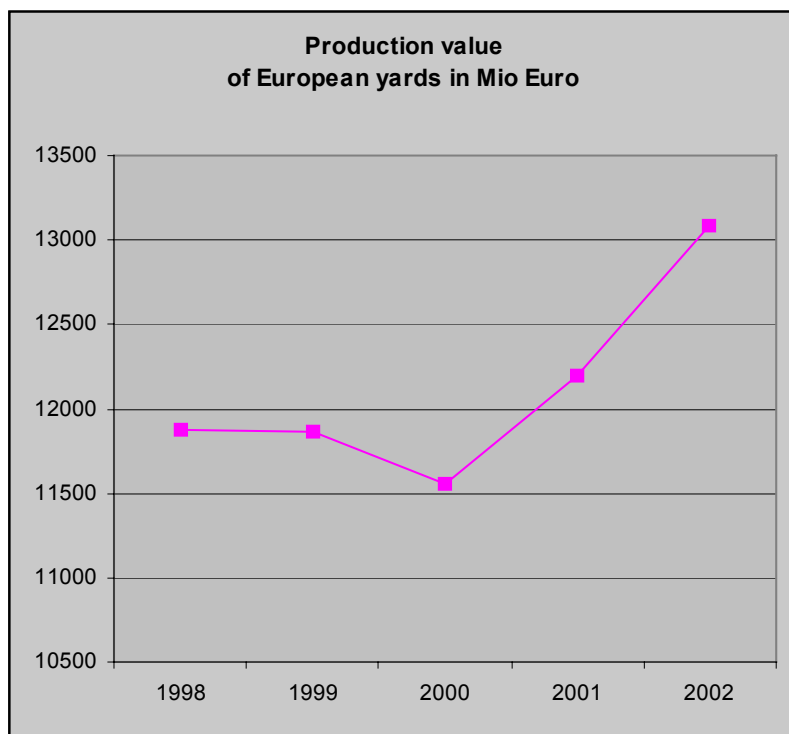
WORKFORCE IN EUROPEAN SHIPBUILDING AND SHIP REPAIR

Country	1975		2002		Drop in percent	
	Total	Newbuilding	Total	Newbuilding	Total	Newbuilding
BELGIUM	10245	6586	0	0	100%	100%
CROATIA			10957	8464		
DENMARK	18900	15300	3360	2820	82%	82%
FINLAND	18000	17000	6150	6000	66%	65%
FRANCE	40354	24938	6800	5200	83%	79%
GERMANY	105988	71598	23300	16800	78%	77%
GREECE	10159	2316	3000	750	70%	68%
IRELAND	1633	1427	0	0	100%	100%
ITALY	36260	21460	13438	9606	63%	55%
NETHERLANDS	39850	20850	9000	3800	77%	82%
NORWAY	29000	16500	5266	3707	82%	78%
POLAND			20132	15073		
PORTUGAL	17100	7000	2350	1284	86%	82%
ROMANIA	47000	27800	20400	19100	57%	31%
SPAIN			7876	6234		
SWEDEN	31500	25000			100%	100%
UNITED KINGDOM	55999	48272	7000	2500	87%	95%
TOTAL	461988	306047	139029	101338	70%	67%



The available information shows that employment in European shipbuilding has decreased by nearly 70% since 1975, with a number of countries ending all shipbuilding activities for good. At the same time output remained at a very high level, with a further increase since 2001 when cruise ship orders placed before 11 September 2001 came up for delivery. The reasons for this dramatic productivity increase are new improved production methods, the closure of many less efficient yards and a significant shift in the production portfolio, from standard shiptypes such as tankers and bulk carriers to sophisticated vessels such as cruise ships. It should, however, be noted that deductions on competitiveness of the industry are notoriously difficult to make due to the cyclical nature of the business, the interaction with the highly volatile shipping industry, technological developments regarding new shiptypes and massively increased ship sizes, wide-spread trade distortions and the nature of shipbuilding with long delays between ordering and delivery and an extremely diverse range of products that makes direct comparisons between competitors problematic.

3. Production value and export share



In line with the information provided under 2. the above graph (top) shows the development in production value for European shipyards since 1998. In particular the completion of a large number of cruise ships has contributed to the increase in production value since 2000, a fact that is also reflected in the share of exports (i.e. orders for foreign accounts) which reach nearly 75% of the entire production value.