



OPINION

*ADOPTION DATE:
10 DECEMBER 2013*

The European ship maintenance, repair and conversion sector: a resilient and competitive Industry

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Co-rapporteur: Enrique Calvet Chambón*



European Economic and Social Committee





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Executive summary of the opinion (full text overleaf)

The Committee points out that despite its promising opportunities, the on-going crisis means that ship owners and Ship Maintenance, Repair and Conversion (SMRC) shipyards are facing financing bottlenecks making business conditions difficult for companies and ever greater competition from third countries. SMRC sub-sector should work closely with the maritime value chain with the aim of raising its profile and obtaining support from the EU, the Member States and regions.

The Committee believes that the following will be beneficial and useful for this sector:

- A broader and more active role for the European Investment Bank in the sector.
- The possible use of the Europe 2020 Project Bond.
- The allocation of regional funding for smart specialization.
- Extension of the framework on authorized State aid until new rules are implemented.
- The prioritization of EU RDI funding under Horizon 2020.

Given the ageing skilled workforce skill shortage amongst young people should be addressed

SMRC and newbuilding industry should carry out frequent and systematic consultations together with European Maritime Safety Agency (EMSA), with a view to ensuring that ships are safer and more environmentally-friendly and that they are monitored effectively.

New rules and requirements relating to advanced technologies and conversions associated with energy efficiency are an opportunity for SMRC. Putting International Maritime Organization (IMO) rules in practice, particularly the Ballast Water Management Convention, is of key importance for SMRC. They should be implemented in a proper and efficient way with clear expectations.

Medium-term (3 years) forecasts point to strong demand for ship recycling carried out in Europe. The SMRC sector has the facilities and human capital to carry out such projects in a not harmful way to humans or the environment. Ship recycling could be an increasingly strategic activity for European industry.

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Public hearing organised on "The European ship maintenance repair and conversion sector" EMSA - Lisbon – 16/05/2013

In the context of the preparation of this opinion the CCMI, in collaboration with the European Maritime Safety Agency, organized a public hearing aimed at drawing the attention of the various stakeholders and the other EU institutions on this specific subsector of shipbuilding.

It was based on the consideration that if the ship maintenance, repair and conversion sector exerts a strong influence in the "greening" and the safety improvement of the existing fleets in the EU and outside Europe, it is also confronted to strong competition, not always fair, in the global market.

During the event the CCMI delegation could discuss with various representatives of the sector the key issues related to this promising segment, for instance the new challenges and risks that the EU SMRC has to face in order to maintain or improve its competitiveness.

1st Panel: "A sector competitive in the world and committed to safety and sustainability"

Mr. Douwe Cunningham, Sea Europe General Secretary

Mr. Tassoni, Policy Advisor, European Maritime Safety Agency (EMSA)

Mr. Suhr, Managing Director of Ahrenkiel Shipmanagement, European Community Shipowners' Associations (ECSA)

Mr. Estrela, Head of Environmental R&D, ISQ (Instituto de Soldadura e Qualidade), presenting the Eco-refitec Project

Mr. Hehn DG Enterprise, presenting the expected impact of the programme
"LeaderSHIP 2020 – Ensuring future of shipbuilding in Europe"

2nd Panel: "The sector's social aspects; the example of Portugal and Poland"

Mr. Aszyk, Member of the Board of Remontowa Shipbuilding S.A., Gdansk/Poland

Mr. Piorek, Trade Union Representative of the Remontowa Shipbuilding – National Section of Shipbuilding Industry of NSZZ "Solidarnosc", Gdansk/Poland

Mr. Ventura de Sousa, General Secretary of AIN (Associação das Indústrias Navais)

Mr. Branco Viana, Member of Direcção Nacional FIEQUIMETAL

Presentations are available here <http://bit.ly/Xs317r>

or through



Full text of the opinion

On 14 February 2013 the European Economic and Social Committee, under Rule 29(2) of its Rules of Procedure, decided to draw up an own-initiative opinion on

The European ship maintenance, repair and conversion sector: a resilient industry, competitive in the world and committed to EU policies for sustainable growth.

The Consultative Commission on Industrial Change (CCMI), which was responsible for preparing the Committee's work on the subject, adopted its opinion on 21 November 2013. The rapporteur was Mr Krzaklewski and the co-rapporteur was Mr Calvet Chambón.

At its 494th plenary session, held on 10 and 11 December 2013(meeting of 10 December), the European Economic and Social Committee adopted the following opinion by 163votes in favour, 3 against and 4 abstentions.

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1. Conclusions and recommendations

- 1.1 The ship maintenance, repair and conversion sector (SMRC) is strategically important to Europe and its sustainable development, since it plays a key role in areas such as environmental protection, transport, security and energy efficiency.
- 1.2 The EESC believes that, on account of its advanced technical know-how, the current network of SMRC shipyards in the EU is well prepared and capable of meeting the growing demand for sustainable development, technology, innovation, workers' skills and shipyard equipment.
- 1.3 According to the Committee, opportunities for the sector are emerging despite the difficult economic climate. These relate to the enlargement of the world fleet and the increasing proportion of older ships, and in particular to the growing demand for conversion and modernisation due to environmental, energy and climate requirements. In the immediate term, this involves the growing demand for energy-efficient vessels, the operation and development of offshore wind energy facilities and extraction of natural resources from the sea.
- 1.4 In the medium to long term, the opening up of Arctic sea routes and deep-sea mining provide further opportunities for the sector.

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- 1.5 The Committee points out that despite these promising opportunities, the on-going crisis means that shipowners and SMRC shipyards are still facing financing bottlenecks, for example, access to credit and thus difficult business conditions for companies. A further challenge is maintaining a critical mass for the sector.
- 1.6 In order to address this, the SMRC sub-sector should work closely with the maritime value chain with the aim of raising its profile and obtaining support from the EU, the Member States and regions, given the existence of ever greater competition from third countries.
- 1.6.1 The Committee believes that the following will be beneficial and useful for this sector:
- A broader and more active role for the EIB in the sector within the framework of EIB objectives to support European industrial policy: this also concerns SMEs from the SMRC sector, where the EIB and the EIF have significant indirect scope for action;
 - The organisation of workshops with the participation of the EIB, the European Commission and industry stakeholders (these workshops are proposed in the LeaderSHIP 2020 initiative), and measures to explore EIB financing opportunities;
 - The possible use of the Europe 2020 Project Bond Initiative in areas relating to transport and energy; the allocation of regional funding (including funding relating to "smart specialisation") to the maritime sector; decision by the Commission - which must be taken by the end of 2013 - on extending the framework on authorised State aid for the shipbuilding sector until the proposal and entry into force of new rules on both the general RDI framework and regional aid, which taken together should play the role of the current framework in future; steps should be taken to ensure that the expiry of the framework and its replacement with new rules does not produce new financial bottlenecks and every effort should be made to compensate the SMRC sector for the economic damage this may cause;
 - The prioritisation of EU RDI funding under Horizon 2020 (which is to be a continuation of the Waterborne technology platform) for focused maritime projects with demonstration elements and innovation potential (including PPP for research purposes).
- 1.7 The EESC points out that although workers in the EU's SMRC sector have adequate skills, they should be continually assessed and updated. These measures should be supported as a matter of priority, for example within the framework of the LeaderSHIP 2020 initiative. There is a real risk of a loss of critical mass in this sector, given the ageing skilled workforce.
- 1.8 According to the EESC, generating interest in the sector among new and younger workers should be a main concern and this should be linked to measures aimed at improving the sector's image. This should be associated with financial support for schools and universities with specialisations covering SMRC.
- 1.9 The Committee believes that the Commission, together with the social partners and other stakeholders (using the concept of the sector council on skills, for example), should draw up a

plan for the continual adaptation of skills to the new tasks of the SMRC sector, covering among other things off-shore facilities (platforms, wind farms, etc.), harbours, new technical floating units, facilities and ships for LNG bunkering, etc. This requires monitoring of skills, the permanent advancement of training and promotion of mobility within Europe.

- 1.10 A comprehensive set of principles and rules (environmental protection, security, ports, rules on transport, assembly, recycling) has a crucial impact on the way in which the sector functions and on demand for its services. In light of this, the EESC believes that the SMRC and newbuilding industry should carry out frequent and systematic consultations together with EMSA, with a view to ensuring that ships are safer and more environmentally-friendly and that they are monitored effectively.
- 1.11 According to the EESC, the collection of new rules and requirements relating to advanced technologies should not be regarded as harmful or problematic for the sector, but rather as an opportunity. In this regard, SMRC and newbuilding yards and the steel manufacturing sector should work together more closely to achieve better results. The Committee calls for DG MOVE to take into account the SMRC sector in its strategic policy developments (including on the matter of short-sea shipping).

The EESC believes that, in accordance with medium-term (3 year) forecasts pointing to strong demand for ship recycling carried out in Europe, the SMRC sector has the facilities to carry out such projects. It also has the human capital to meet requirements for recycling of ships that is not harmful to humans or the environment. At the same time, account is being taken in the sector of the fact that this is a new and different form of activity, with sensitive aspects and requiring a careful approach. The Committee believes that ship recycling will be an increasingly strategic activity for European industry.

- 1.12 According to the Committee, the key short-term objectives, which require public support with a view to financing conversions in the EU's SMRC sector, are the installation of cleaners and systems for the treatment of ballast water (this may affect up to 65 000 ships around the world according to the Lloyd's Register), and conversions associated with energy efficiency (including installation of LNG-powered engines, installation of facilities for LNG bunkering at sea and heat recovery systems as well as modernisation units for slow steaming, etc.).
- 1.13 The Committee firmly believes that the SMRC industry is of huge importance to the respective European naval fleets and that this subject should be included in other EESC opinions on the armaments sector.
- 1.14 The EESC believes that putting IMO rules in practice, particularly the Ballast Water Management Convention, is of key importance for the sector. This convention should therefore be implemented in a proper and efficient way with clear expectations.

2. Introduction

The European ship maintenance, modernisation and repair industry - SMRC

- 2.1 Shipbuilding encompasses all enterprises involved in the construction, maintenance, conversion and repair of all types of ships and other relevant maritime structures. The abbreviated name for maintenance, repair and conversion yards is SMRC. Classification surveys also come under this area of activity. Such shipyards exist in 16 EU countries and employ around 50 to 55 thousand people (the average figure for the 2007-2011 period).
- 2.2 The SMRC sector is a specific segment of the shipbuilding industry. This sector is growing in importance with the expansion of the global fleet and maritime (and inland waterway) transport, and with the development of ship technologies and increased requirements for water transport in the area of sustainable development.
- 2.3 The EU currently enjoys a strong position in this sector. Its current share of the global market is around 35%, which shows that the sector is strategic for Europe. This position should be maintained and even enhanced with a view to ensuring a high level of safety in maritime transport and establishing rigorous environmental and energy efficiency standards.

Profile of the SMRC sector

- 2.4 The SMRC sector differs from the newbuilding sector in many respects. SMRC is divided into the following sub-sectors: ship repair, maintenance and modernisation as well as conversion.
- 2.5 Maintenance and repair is usually a short-term operation. A ship is in a dry dock for most of the time and on average remains there for around 10 to 12 days.
- 2.6 The planning of repair work is relatively straightforward and shipyards can influence the shipowner's choice of shipyard. Unplanned repairs which take place following system, mechanical or structural failure must be carried out by the closest possible shipyard. In such cases, it is difficult to influence the shipowner's decision.
- 2.7 According to a 2008 OECD report¹, choosing the appropriate ship repair yard has become crucially important for shipowners, who often have to decide between a financially attractive low-cost option and the need to ensure reliability and technological sophistication. The most important factors for deciding where a ship will be repaired are usually: cost, length of time for repairs (including deviation cost) and, to a lesser extent, the type of technology used.

¹ *The interaction between the ship repair, ship conversion and shipbuilding industries report, C/WP6(2008)6c.*

- 2.8 In order to achieve economies of scale, newbuilding and ship repair are being linked-up in various locations around the world. Countries which are leaders in the shipbuilding industry usually separate the activities of newbuilding and SMRC yards in order to strengthen the concentration of the workforce and boost productivity.

In some EU countries (e.g. Poland, Germany, the Netherlands) and in India there are functional and corporate links between newbuilding and SMRC yards. This model appears to function effectively in these countries through the use of joint departments and facilities (and other organisational units²) for both types of shipyard, while at the same time taking advantage of the diverse portfolio of products and orders and minimising the risks resulting from the economic slowdown.

- 2.9 The market realities of the sector

- 2.10 In recent decades, the term "always young" has been used in literature to describe the development of the SMRC sector. Strong growth of the international fleet from 660m DWT in 1990 to 1468m DWT in 2011 has been a source of parallel growth in opportunities for the SMRC industry. World annual turnover in this sector was estimated to be around USD 12bn at the end of 2010³.

- 2.11 Turnover in the European ship repair sector amounted to EUR 3.16bn in 2010 (peaking at EUR 4bn in 2008). Appendix 1 shows ship repair yard turnover in various European countries between 2006 and 2010.

- 2.12 The European SMRC sector was doing quite well before the crisis. Since 2010, shipowners have cut expenditure or postponed orders in an attempt to lower their costs. In the second half of 2010, they managed to make up for losses, as evidenced by the fact that waiting times for repair work went up again (from one week to three weeks).

- 2.13 There are SMRC yards all around the world. Although Asian shipyards carry out ship repairs at a lower cost (on account of low labour costs), many shipowners choose more expensive shipyards because they are able to offer shorter lead times (thereby avoiding deviation costs) and more sophisticated know-how.

Conversion and Modernisation in SMRC yards

- 2.14 In some respects, the conversion and modernisation process is more similar to newbuilding than to repair and maintenance work. Ship conversion usually takes longer than conventional

² See footnote 1.

³ *CESA Annual Report 2010–2011.*

repair work. The actions involved in ship conversion can be described as a production process.

- 2.15 According to Sea Europe⁴, ship conversion is closer to the activities of newbuilding yards in terms of timescales, but conversion requires a completely different approach that involves flexibility. This ensures that changes can be made to the work plan in accordance with the client's requirements, and the specific nature of the ship earmarked for conversion.
- 2.16 Shortly before the crisis, the market for shipyards carrying out conversion work was very good. However, the number of orders began falling in 2009, with the biggest drop occurring in early 2010. At that time, most order books for conversion work were empty. The situation improved somewhat in the second half of 2010. At present, however, many ship owners are restricting orders for conversion because of financial challenges.
- 2.17 Recently, repairs, conversions and the modernisation of off-shore auxiliary vessels and floating facilities (including drilling platforms) have played an increasingly important role. Given the high costs of new vessels of this kind (and off-shore floating facilities) and long waiting times for their delivery (even up to four years), ship owners are opting to convert existing off-shore units and floating facilities. In Europe, however, there is a strong temptation to use cheaper foreign shipyards to carry out such conversions.

3. **Analysis of the competitiveness of the European SMRC sector**

- 3.1 Research and analysis of the competitiveness of the SMRC sector in the EU was recently carried out under the ECO REFITEC⁵ research programme, within the framework of the Seventh Research Framework Programme. The results of this research can be found in appendix 2.

4. **European and international legislation with an impact on the SMRC sector (source material^{6 7 8})**

- 4.1 At international level, there have been no discussions on multilateral agreements on competitiveness (under the auspices of the WTO), which could have an impact on the SMRC sector. The chances of reaching such an agreement in the short term are rather slim.

4 Since 2012, the Community for European Shipyards Associations (CESA) and the European Marine Equipment Council (EMEC) have formed a European Ships and Maritime Equipment Association called SEA Europe.

5 *Eco innovative refitting technologies and processes for shipbuilding industry promoted by European Repair Shipyards* – Project co-funded by the European Commission within the Seventh Framework Programme (2007-2013).

6 See footnote 5.

7 See footnote 3.

8 See footnote 1.

- 4.2 At bilateral level, the EU has negotiated trade agreements, which have an indirect impact on competitiveness, with the USA, Canada, Japan and South Korea, but their impact on the SMRC sector is rather minimal.

At European level, EU legislation includes the Framework on State aid to Shipbuilding. Under this framework, the Commission may authorise innovation and regional aid for shipyards or, in the case of export credits, aid to shipowners. Regarding the SMCR sector, this framework concerns the aid for ship repair and conversion in the case of regional and innovation aid and aid for ship conversion exclusively in the case of export credits.

- 4.2.1 The current framework has been in force since 1 January 2012 and is valid for two years. The Commission predicts that, after this period, it will be possible to integrate the shipbuilding framework into the future version of the EU guidelines for State aid for research and innovation and for regional aid, because currently both the general EU framework and the more specific newbuilding framework are being reviewed.

4.3 **Existing rules ratified by IMO members which are creating fresh opportunities for the SMRC sector**

4.4 **The Ballast Water Management Convention**

- 4.4.1 The Ballast Water Management Convention solves the problem of the transfer of invasive marine species between different maritime areas through the release of ballast water transported by ships. The entry into force of the convention was planned for early 2014.

- 4.4.2 The impact of the convention on the SMRC sector will be very significant because many ships will need to be modernised and/or converted, which may affect up to 65 000 vessels around the world according to the Lloyd's Register.

- 4.4.3 Other potential effects of this convention for SMRC shipyards are, first and foremost, the risks arising from the use and storage of new chemicals and increased legal requirements concerning their use.

4.5 **MARPOL convention (Annex VI) - prevention of air pollution from ships**

- 4.5.1 This convention, which entered into force in 2013, seeks to reduce air pollution from ships, in particular SOx and NOx.

- 4.5.2 In order to avoid unnecessary restrictions on the maritime industry, Annex VI to the convention stipulated that emissions may be lowered by using alternative fuels or by adopting gas cleaning technologies.

4.5.3 The convention creates opportunities for SMRC shipyards, since technologies limiting emissions will need to be installed on board ships included in existing fleets. Potential risks for shipyards installing environmentally-friendly devices include a growing dependence on the suppliers of devices and the need for certain investments in shipyards.

4.6 **Ship recycling convention**

4.6.1 This convention seeks to ensure that the risk to the environment, health and safety during the recycling of ships is kept at an acceptable level.

4.6.2 As a result of the provisions in the convention, ship owners must be fully informed about all materials which are used during maintenance, repair and conversion and make sure that unwanted materials are never used in shipyards. This can create additional opportunities to secure new specialised orders for EU shipyards with a high level of know-how.

4.7 Ship recycling will become an increasingly strategic activity geared towards providing and supplying, for example, scrap and other raw materials for manufacturing sectors in the EU (steel, aluminium, copper), with a view to reducing both the direct and indirect environmental impact and preventing unacceptable working and social conditions.

5. **Proposals and guidelines for the SMRC sector in the LeaderSHIP 2020 initiative and in the current work of the shipbuilding industry sectoral dialogue committee**

5.1 The SMRC sector and related industries should take account of the opportunities and possibilities for EIB financing through increased loan activities by the bank. EIB measures should be promoted and examined, mainly for projects relating to "green shipping", renewable offshore energy and conversions. It is proposed that DG ENT organise "workshops" as a matter of priority, in order to explore the prospect of EIB support in greater detail.

5.2 The Member States and coastal regions should examine the possibility of allocating Structural Funds to diversify technology in the maritime industry, in connection with new market sectors. This particularly relates to regional strategies for smart specialisation.

5.3 As regards potential long-term EU financing, the European Commission should examine the possibility of measures to finance the construction and modernisation of ships. The Member States, financial operators, the maritime technology industry and other stakeholders should review the availability of market guarantees.

5.4 The shipbuilding industry (including SMRC), in cooperation with the European Commission, the Member States or regions should be included in research activities, through the use of public-private-partnerships (PPP) among other things, taking full account of the structure of maritime sectors and relevant State aid principles.

- 5.4.1 The EESC agrees with the basic point of the LeaderSHIP 2020 initiative that in order to meet the general PPP objectives for the shipbuilding sector, there needs to be a strong commitment to research programmes. As regards short-term goals, the SMRC sector's sustainable competitiveness should without question be underpinned by appropriate measures to promote innovation in businesses.
- 5.5 The EESC supports the inclusion of the shipbuilding industry sectoral dialogue committee in the work on defining and implementing policies under the LeaderSHIP 2020 initiative. Currently, the special role of the committee should involve implementing that part of the initiative relating to the better identification and comparability of qualifications and skills with a view to ensuring the sector's long-term prosperity.
- 5.6 The EESC looks forward to seeing positive progress by the dialogue committee in connection with social standards in the European newbuilding and SMRC sector.

Brussels, 10 December 2013.

The President
of the
European Economic and Social Committee

Henri Malosse



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