European Maritime Champions An endangered species by 2020?

Sustainable employment, innovation and growth!

MIF Plenary Session

European Maritime Day 2010

19-21 May 2010, Gijón-Asturias / Spain

Green Technologies for Greener, Cleaner and Safer Future

Dr Stelios Kyriacou (Chairman - EMECrid)



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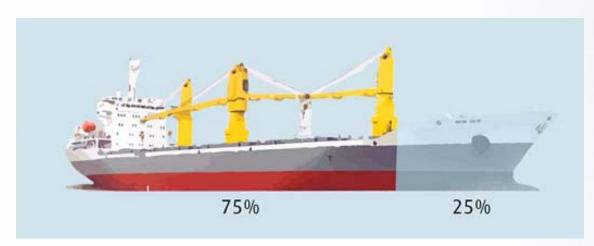
Marine Equipment

- Marine Equipment industry supports the whole marine value chain
- Comprises all products and services necessary for the Operation, Building, Conversion, Maintenance of ships "from the cradle to the grave"
- Includes
 - Design and manufacture of components and systems
 - Technical services
 - Installation and Commissioning
 - Life cycle Management

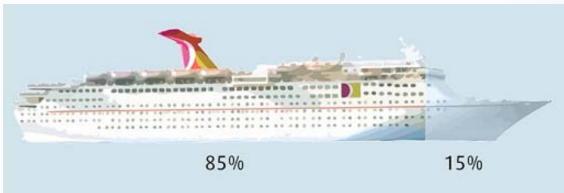




Ship Value



For standard to medium complexity ship designs up to 75% of value is contributed by the Marine Equipment Industry



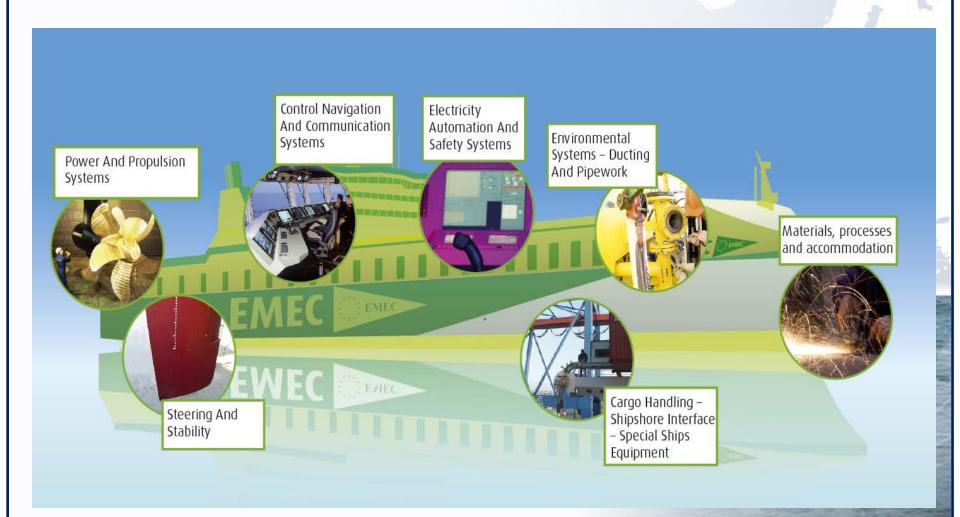
For special and complex ship designs such as Cruise ships up to 85% of value is due to Marine Equipment Industry input

Shipbuilding = Marine Equipment + Shipyards





Range of Marine Equipment







Sector Turnover

- Turnover of the EU marine equipment market (EMEC members only)*
 - € 26 billion (2004)
 - € 42 billion (2008)

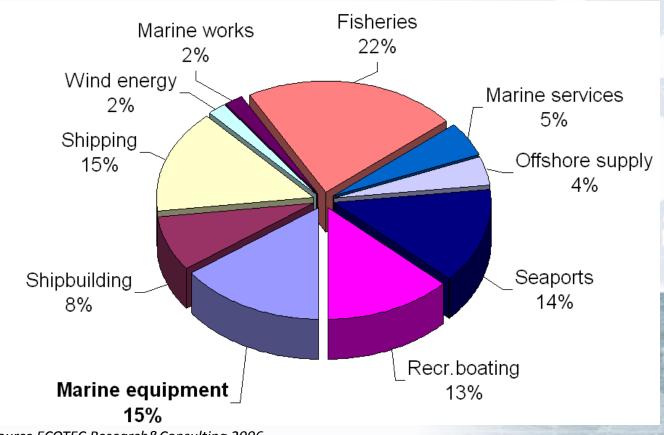
Estimated global market share 36 – 45 %

*Representing 1500 companies of which 75% are SMEs



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Share (%) of Employment



Source ECOTEC Research&Consulting 2006

Total: 287000 direct; plus 436000 indirect



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Export Orientated Sector

The EU Marine Equipment sector,

- Is a diverse sector that does not depend on European demand only
- Is a major exporter with 46% of revenue generated through exports
- It is a global player with a truly global presence





Global Presence

Companies in this sector are international operating companies with offices around the world, overseas headquarters and manufacturing facilities

Source: EMEC





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Leadership in Technology

The EU Marine Equipment industry is a valued contributor and innovator within the maritime cluster and leader in

- Propulsion technologies
- Cargo handling
- Communication
- Automation
- Environmental systems





Our Challenges

Climate change is a global challenge and 'a defining issue of our era' — Secretary General of UN Ban Ki-Moon

International Shipping must deal with both

- Environmental protection
- Climate change





Emissions

GREENHOUSE GASES (CO2, N2O, CH4, HFCs, PFCs, SF6)

ACIDIFYING SUBSTANCES (NOX, SOX, NH₃,)

PARTICULATES (PM10) OZONE PRECURSORS (NOX, VOCS)

EMEC

CHEMICALS

GARBAGE

HARMFUL SUBSTANCES
IN PACKAGED FORM

MICROORGANISMS (ALGAE, BACTERIA...)

BALLAST WATER

BILGE WATER

BLACK/GRAY WATER OIL SPILLS (PAH_s)



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Green Ship Technologies

International shipping needs to respond by

- Reductions in Atmospheric Pollution
 - Reduction of GHG, SOx, NOx, Soot, PM
- Reduction in Marine Pollution through treatment of
 - Bilge Water, Black & Grey Water, Ballast Water
- Improved Energy Efficiency
 - EEDI and EEOI
- Enhanced Safety & Security





European Marine Equipment Council

Green Ship Technology Book

EXISTING TECHNOLOGY BY THE MARINE EQUIPMENT INDUSTRY:
A CONTRIBUTION TO THE REDUCTION
OF THE ENVIRONMENTAL IMPACT OF SHIPPING

www.emec.eu/green



1^{5T} EDITION - DECEMBER 2009



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Equipment Industry Role

Provide shipbuilders, ship-owners and ship-managers with

- Equipment and systems to mitigate the environmental impact from ships
- Innovative solutions to enhance the energy efficiency of ship's operations and reduce CO₂ emissions
- Develop products for new buildings whilst allowing for the modernisation of the existing fleet through
 - Retrofitting
 - Replacement
 - Upgrade





Equipment Industry Role

- Promote innovation through research into more efficient, eco-friendly products
- Firmly place the industry at the leading edge of global innovation and focus on added value high tech products and services





Closure

- European technological leadership linked to research led innovation is key to the success of both shipbuilding and marine equipment industries.
- Improve maritime safety, by enhancing equipment safety and security technologies.
- Develop advanced system solutions for a new generation of special ships including corresponding landside infrastructure, thereby optimising the inter-modal transport chain.
- Maintain and improve environmental leadership through technical innovation.





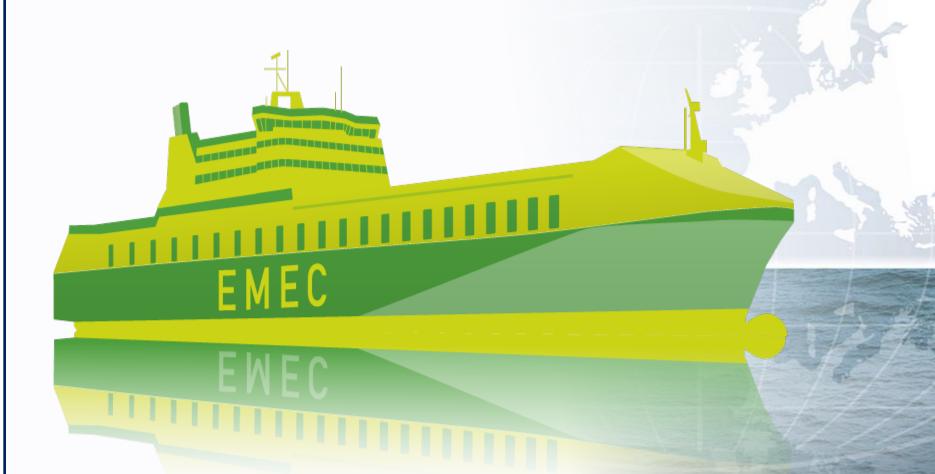
EMEC with the backing of the MIF strongly supports maritime governance.

Therefore it shall be possible:

- To reach a balanced approach between the different legitimate interests at stake including those of the maritime industry
- To favour a fruitful exchange of information and knowledge on all the issues that need to be solved in relation with the governance and sustainable use of the oceans and the seas
- Develop Maintain and improve environmental leadership through technical innovation.
 - Contentious decision making on the use of oceans, on the basis of a continuing and constructive dialogue with all the other stakeholders is needed in order to maintain and ensure a Greener, Cleaner and Safer future



Greener, Cleaner and Safer Future





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