PROJECT

ECO-REFITEC

Eco innovative refitting technologies and processes for shipbuilding industry promoted by European Repair Shipyards.

Funding: European (7th RTD Framework Programme)
Duration: Jan 2011 - Mar 2014
Status: Complete
Total project cost: €3,647,062
EU contribution: €2,572,507

Call for proposal: FP7-SST-2010-RTD-1
CORDIS RCN : 97672

Background & policy context:

Ship and off-shore construction repair and conversion activities in Europe are nowadays conducted by more than 400 companies specialised repair shipyards.

The ECO-REFITEC project will help the repair shipyards and ship operator to perform a refitting of the existing fleet, through of technological development and new tools, helping shipping benchmark their performance, improving the retrofit processes and products, and assessing environmental and life cycle cost impact.

Objectives:

The objective of ECO-REFITEC project is to: improve the competitiveness of the European shipyards and SME's involved in ship building, ship repair and recycling. The project will help repair shipyards and ship operator to perform a refitting of existing fleet, through of technological development and new tools, helping shipping benchmark their performance, improving the retrofit processes and products, and assessing environmental and life cycle cost impact.

Several demonstration cases, together with the exchange of experience and relevant personnel, shall enable the participating institutions to build up relevant capacities. The partners will be able to exchange knowledge with academia and business.

Methodology:

ECO-REFITEC will:

- Develop IT supported tools for retrofit impact evaluation on ship's life cycle economy, energy, environmental performance and safety;
- Develop model tools to look at through life asset management of systems on board through the life cycle of the ship;
- Explore/identify/develop eco-retrofitting technologies and solutions for existing fleet to comply with some current and future IMO standards;
- Share knowledge of repair shipyards best practices and assessing their performance in real-life;
- Integrate environmental strategies and practices into the ship repair industry management systems.

The approach that ECO-REFITEC uses, is based on four stages:

- 1st: Development of Innovative tools based on careful assessment of current available capabilities and in close relation with future retrofits work.
- 2nd: Prototyping and validation of the eco-innovative tools developed within the frame work of
ECO-REFITEC.

- 3rd: Identification of skills and technologies required to sustain the eco-innovative tools developed.
- 4th: Exchange information through the supply chain and disseminate knowledge generated.

**Parent Programmes:**
FP7-TRANSPORT - Transport (Including Aeronautics) - Horizontal activities for implementation of the transport programme (TPT)

**Institute type:** Public institution

**Institute name:** The European Commission

**Funding type:** Public (EU)

**Lead Organisation:**

<table>
<thead>
<tr>
<th>Fundacion Centro Tecnologico Soermar</th>
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<tbody>
<tr>
<td><strong>Address:</strong> Avenida Cardenal Herrera Oria 57 28034 Madrid Spain</td>
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<tr>
<td><strong>Organisation Website:</strong> <a href="http://www.soermar.com">http://www.soermar.com</a></td>
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<td><strong>EU Contribution:</strong> €285,231</td>
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**Partner Organisations:**

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<tr>
<th>Universitatea Ovidius Constantza</th>
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<tr>
<td><strong>Address:</strong> Mamaia Av. 124 900527 CONSTANTZA Romania</td>
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<td><strong>Organisation Website:</strong> <a href="http://www.bsun.org/caes/caes_2002/index.htm">http://www.bsun.org/caes/caes_2002/index.htm</a></td>
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<tr>
<td><strong>Address:</strong> CALLE FERNANDEZ HONTORIA 24 39610 ASTILLERO (CANTABRIA) Spain</td>
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<td><strong>Organisation Website:</strong> <a href="http://www.astander.es">http://www.astander.es</a></td>
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<td><strong>EU Contribution:</strong> €109,200</td>
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<th>Varna Scientific And Technical Unions</th>
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<tr>
<td><strong>Address:</strong> Tcar Simeon I 25 9000 Varna Bulgaria</td>
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<td><strong>EU Contribution:</strong> €71,880</td>
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**Address:**  
Ul Szczecinska 65  
80 392 Gdansk  
Poland  

**EU Contribution:** €45,548

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**Atlantec Enterprise Solutions Gmbh**

**Address:**  
Oehleckerring 13  
22419 Hamburg  
Germany  

**EU Contribution:** €436,592

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**Snc Ship Design Srl**

**Address:**  
Incinta Port 1  
900900 Constanta  
Romania  

**EU Contribution:** €93,300

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**Consorzio Armatori Per La Ricerca S.r.l**

**Address:**  
Via D. Lecco De Guevara 17  
80059 Torre Del Greco  
Italy  

**Organisation Website:**  
http://www.consar.net  

**EU Contribution:** €312,616

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**Instituto De Soldadura E Qualidade**

**Address:**  
Avenida Do Professor Doutor Cavaco Silva 33 Parque Das Tecnologias  
2740 120 Porto Salvo  
Portugal  

**EU Contribution:** €152,760

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**Klaipedos Universitetas**

**Address:**  
Herkaus Manto 84  
92294 Klaipeda  
Lithuania  

**Organisation Website:**  
http://www.ku.lt  

**EU Contribution:** €142,256

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**Shipbuilders & Shiprepairers Association**

**Address:**  
MARINE HOUSE, MEDLAKE PLACE  
EGHAM
Technologies:

- Life cycle analysis
  Tools for retrofit impact evaluation on ship's life cycle economy
  
  **Development phase:** Research/Invention

- Life cycle analysis
  Model tools for life asset management of onboard systems
  
  **Development phase:** Research/Invention

Documents:
- [ECOREFITEC-P-00_00-2012-SOERMAR-Public-Presentation (Project presentation)]

STRIA Roadmaps:
- Vehicle design and manufacturing
  - Water transport (sea & inland)

Transport modes:
- Passenger transport
- Freight transport

Transport policies:
- Societal/Economic issues

Geo-spatial type:
- Other