

 Content archived on 2024-05-28



Materials Onboard: Steel Advancements and Integrated Composites

Fact Sheet

Project Information

MOSAIC

Grant agreement ID: 314037

[Project website](#) 

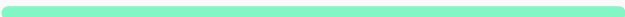
Project closed

Start date

1 September 2012

End date

31 August 2015



Funded under

Specific Programme "Cooperation": Transport
(including Aeronautics)

Total cost

€ 3 996 280,44

EU contribution

€ 2 859 690,00

Coordinated by

CETENA SPA CENTRO PER GLI
STUDI DI TECNICA NAVALE

 Italy

This project is featured in...



Objective

The proposal aims to investigate two novel ideas concerning ship structures. First the introduction of High Strength Low Alloyed Steels (HSLA) in specific structural details in order to deal with the major issue of crack initiation and propagation in critical areas of ships and second the replacement of specific structural parts of the ship with composite materials. Regarding the use of HSLA steels, it has been well documented that today's merchant ships are prone to crack initiation and propagation in stress concentration areas mostly due to fatigue loads.

In this respect it is envisaged to replace Grade A or AH steels by HSLA steels with high toughness properties in specific areas of the ship structure, thereby reducing the risk of cracks developing in stress concentration areas. Concerning the use of composite materials, it is envisaged that they could replace parts of the steel structure, such as superstructures, piping and other non-critical parts. Composite materials can replace steel in certain parts of the ship thereby reducing weight and corrosion effects, without sacrificing structural integrity.

Fields of science (EuroSciVoc)

[engineering and technology](#) > [mechanical engineering](#) > [vehicle engineering](#) > [naval engineering](#) > [sea vessels](#)



Programme(s)

[FP7-TRANSPORT - Specific Programme "Cooperation": Transport \(including Aeronautics\)](#)

Topic(s)

Call for proposal

FP7-SST-2012-RTD-1

[See other projects for this call](#)

Funding Scheme

[CP-FP - Small or medium-scale focused research project](#)

Coordinator



CETENA SPA CENTRO PER GLI STUDI DI TECNICA NAVALE

EU contribution

€ 358 140,00

Total cost

No data

Address

VIA IPPOLITO D ASTE 5

16121 Genova

 **Italy** 

Region

Nord-Ovest > Liguria > Genova

Activity type

Private for-profit entities (excluding Higher or Secondary Education Establishments)

Links

[Contact the organisation](#)  [Website](#) 

[Participation in EU R&I programmes](#) 

[HORIZON collaboration network](#) 

Participants (10)



ETHNICON METSOVION POLYTECHNION

 Greece

EU contribution

€ 426 000,00

Address

HEROON POLYTECHNIOU 9 ZOGRAPHOU CAMPUS
157 72 ATHINA 

Region

Αττική > Αττική > Κεντρικός Τομέας Αθηνών

Activity type

Higher or Secondary Education Establishments

Links

[Contact the organisation](#)  [Website](#) 

[Participation in EU R&I programmes](#) 

[HORIZON collaboration network](#) 

Total cost

No data



THE UNIVERSITY OF BIRMINGHAM

 United Kingdom

EU contribution

€ 333 628,00

Address

Edgbaston
B15 2TT Birmingham 

Region

West Midlands (England) > West Midlands > Birmingham

Activity type

Higher or Secondary Education Establishments

Links

[Contact the organisation](#)  [Website](#) 

[Participation in EU R&I programmes](#) 

[HORIZON collaboration network](#) 

Total cost

No data



INSTITUTO SUPERIOR TECNICO

Portugal

EU contribution

€ 385 618,00

Address

AVENIDA ROVISCO PAIS 1

1049 001 Lisboa

Activity type

Higher or Secondary Education Establishments

Links

[Contact the organisation](#) [Website](#)

[Participation in EU R&I programmes](#)

[HORIZON collaboration network](#)

Total cost

No data



TWI LIMITED

United Kingdom

EU contribution

€ 408 400,00

Address

GRANTA PARK GREAT ABINGTON

CB21 6AL Cambridge

Region

East of England > East Anglia > Cambridgeshire CC

Activity type

Private for-profit entities (excluding Higher or Secondary Education Establishments)

Links

[Contact the organisation](#) [Website](#)

[Participation in EU R&I programmes](#)

[HORIZON collaboration network](#)

Total cost

No data



FINCANTIERI SPA

 Italy

EU contribution

€ 174 125,00

Address

VIA GENOVA 1

34121 Trieste 

Region

Nord-Est > Friuli-Venezia Giulia > Trieste

Activity type

Private for-profit entities (excluding Higher or Secondary Education Establishments)

Links

[Contact the organisation](#)  [Website](#) 

[Participation in EU R&I programmes](#) 

[HORIZON collaboration network](#) 

Total cost

No data



ALVEUS DOO ZA SAVJETOVANJE I INZENJERING

 Croatia

EU contribution

€ 244 372,00

Address

KVATERNIKOVA 62B

51000 RIJEKA 

Region

Hrvatska > Jadranska Hrvatska > Primorsko-goranska županija

Activity type

Private for-profit entities (excluding Higher or Secondary Education Establishments)

Links

[Contact the organisation](#)  [Website](#) 

[Participation in EU R&I programmes](#) 

[HORIZON collaboration network](#) 

Total cost

No data



LLOYD'S REGISTER EMEA IPS

United Kingdom

EU contribution

€ 68 872,00

Address

FENCHURCH STREET 71
EC3M 4BS London

Region

London > Inner London — West > Camden and City of London

Activity type

Other

Links

- [Contact the organisation](#)
- [Website](#)
- [Participation in EU R&I programmes](#)
- [HORIZON collaboration network](#)

Total cost

No data



ASOCIACION DE INVESTIGACION METALURGICA DEL NOROESTE

Spain

EU contribution

€ 263 020,00

Address

CALLE RELVA TORNEIROS 27A
36410 Porrino

Region

Noroeste > Galicia > Pontevedra

Activity type

Research Organisations

Links

- [Contact the organisation](#)
- [Website](#)
- [Participation in EU R&I programmes](#)

Total cost

No data



Estaleiros Navais de Peniche, S.A.

 Portugal

EU contribution

€ 152 140,00

Address

Molhe Leste
2520-620 PENICHE 

Activity type

Private for-profit entities (excluding Higher or Secondary Education Establishments)

Links

[Contact the organisation](#)  [Website](#) 

[Participation in EU R&I programmes](#) 

[HORIZON collaboration network](#) 

Total cost

No data



DANAOS SHIPPING COMPANY LIMITED

 Cyprus

EU contribution

€ 45 375,00

Address

CHRISTAKI KOMPOU 3
3011 Limassol 

Region

Κύπρος > Κύπρος > Κύπρος

Activity type

Private for-profit entities (excluding Higher or Secondary Education Establishments)

Links

[Contact the organisation](#)  [Website](#) 

[Participation in EU R&I programmes](#) 

Total cost

No data

Last update: 24 April 2017

Permalink: <https://cordis.europa.eu/project/id/314037>

European Union, 2025