Impacts of Waterborne Research – Success stories

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LAUNCHING OF THE WATERBORNE TECHNOLOGY PLATFORM

Ugo Salerno
CEO RINA SPA
Chairman EurACS
Chairman ETP WATERBORNE Support Group

MIF Plenary
Bremen 25 January 2005

THE MISSION OF WATERBORNE

A VISION FOR THE INDUSTRY

To identify the STRATEGIC RESEARCH AGENDA

THE PILLARS OF WATERBORNE

WATERBORNE

VISION 2020

MARITIME INDUSTRY

COMPETITIVE

SAFE, SUSTAINABLE

POPULATION & TRANSPORT GROWTH

EFFICIENT
WATERBORNE Strategic Research Agenda (WSRA)
Key Priorities (1)

▷ Safe, sustainable and efficient waterborne transport
  ✔ Synergy of safety + security through Goal/Risk Based Design
  ✔ Towards the “zero ship accidents” target
  ✔ The “crashworthy vessel”
  ✔ “Low emission” vessels and waterborne activities
  ✔ Enhanced waterborne security
Fincantieri’s LNG ferry leaves for Canada

After having completed the liquified natural gas sea trials, the F.-A.-Gauthier ferry built by Fincantieri in its shipyard in Castellammare di Stabia, left the yard on Wednesday sailing to Matane, in Québec, Canada.

The delivery to Société des traversiers du Québec will take place when the ferry arrives in Canada, Fincantieri said in a statement.

The new vessel is the first LNG-powered ferry ever built in Italy and the first of the kind to enter into service in North America.
....Carnival XL Project

**Shipyard:** Meyer Werft - Papenburg  
**Shipowner:** AIDA  
**Size:** 2 × cruise ships (180,000 gt)

**Shipyard:** Meyer - Turku  
**Shipowner:** Costa Crociere  
**Size:** 2 × cruise ships (180,000 gt)
MSC Orders Four LNG Megaships from STX France

April 06, 2016
Low emissions vessels: LNG

Green ships of the future

Renowned Canadian ferry operator switches its fleet to LNG with the help of Polish shipyard!
Goal/Risk Based Design

Common car classes size in Europe over history

www.teoalida.com/cardatabase

Goal/Risk Based Design

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Goal/Risk Based Design

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RMS Olympic ~ Interiors

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Goal/Risk Based Design

Draft SOLAS amendments on subdivision and damage stability agreed

Draft amendments to revise and update SOLAS chapter II-1 subdivision and damage stability regulations were agreed. The draft amendments will be forwarded to the Maritime Safety Committee (MSC 96) for approval with a view to subsequent adoption.

The draft amendments form part of a substantive review of the regulations in SOLAS chapter II-1, in particular those related to passenger ships, covering stability information to the master; watertight integrity; periodic operation and inspection of watertight doors in passenger ships; survivability of passenger ships; and prevention and control of water ingress. Further work on explanatory notes to those regulations in the chapter will continue in a correspondence group.
Which results?

- Newbuildings
- Parts
- Maintenance

Total €91bn

- Marine Equipment €60bn
- Naval Newbuilding €10.8bn
- Mega Yachts Newbuilding 3.2 bn €
- Commercial Newbuilding €9.5bn
- Commercial SMRC €3.2bn
- Naval Maintenance €4.2bn

> 500,000 highly skilled workforce
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**The economic value of the EU shipping industry**

**The EU controlled shipping fleet in numbers**
- 70% growth in tonnage
- 2005: 660 million deadweight tonnes, 450 million gross tonnes, 23,000 vessels
- 2014: 660 million deadweight tonnes, 450 million gross tonnes, 23,000 vessels

**Direct economic impact**
- 590,000 people employed
- 38,000 students and cadets
- EU average: €53,000, Shipping: €88,000
- €56 billion to EU GDP
- €6 billion tax revenue

**Indirect impacts**
- €59 billion contribution to GDP
- 1.1 million jobs

**Induced impacts**
- €30 billion contribution to GDP
- 550,000 jobs

**Total economic impact**
- €145 billion to EU GDP
- 2.3 million jobs
- €41 billion tax revenue

For every €1 million of GDP the shipping industry creates, another €1.6 million is created elsewhere in the EU economy.

Amount by which the total economic contribution of the EU shipping industry could have been reduced in the absence of EU-approved state aid measures.

= 2.6
Which results?

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WE ARE THE CHAMPIONS

MISSION ACCOMPLISHED
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STRATEGIC RESEARCH AGENDA

OVERVIEW

Waterborne Transport & Operations
Key for Europe’s Development and Future

2000-2012: 50 Projects co-financed

Deliverable 2.1
TTG SAFETY: CLUSTERED RESEARCH PROJECTS
State-of-the- art, achievements, opportunities for implementation
Wartsila, MAN D&T start Hercules-2 project

The Hercules R&D programme to develop large engine technologies, which was initiated in 2004 as a joint vision by the two major European engine manufacturing groups, Wärtsilä and MAN Diesel & Turbo, is to continue with a new Hercules-2 project, pending approval under the Horizon 2020 EU Framework Programme for

Hercules Timeline

2002

Vision ⇒ R&D Project HERCULES ~80 M€ Budget, 10 years duration

Phase I

I.P. HERCULES (A) 33 M€ Budget 43 months duration 42 Partners

Phase II

HERCULES-B 26 M€ Budget 36 months duration 32 Partners

Phase III

HERCULES-C 17 M€ Budget 36 months duration 22 Partners
SAFETY FIRST

Project reference: G3RD-CT-1999-00031
Funded under: FP5-GROWTH

Design for safety: ship fire engineering analysis toolkit

From 2000-03-01 to 2003-03-31

Project details

Total cost: EUR 3,376,118
Topic(s):
1.1.3.-3. - Key Action Land Transport and Marine Technologies

EU-funded safety at sea project has worldwide impact

The results of the ‘HARDER’ project have been incorporated into the revised IMO SOLAS regulations on safety and stability of passenger vessels, applied to shipping around the globe.

Tags: Water, Greening of transport, Safety and security, Competitiveness

When water is running into a ship following an accident at sea, a number of different scenarios can be played out. The ship may sink due to flooding of so many compartments that there is not enough buoyancy to keep the vessel afloat. This was the case for RMS Titanic, which sank in 1912, two years...
... a lucky coincidence?

We prefer to call it...

.... building our
What we learnt?

Diversity is an asset

Provided we sing the same song

Success requires time
7 technical areas have been identified on the basis of their potential impact on the transformation of the EU transport system:

1. Electromobility
2. Alternative fuels
3. Vehicle design & manufacturing
4. Connected and automated transport
5. Transport infrastructure
6. Network and traffic management systems
7. Smart transport and mobility services (incl. urban)
Agenda for new skills and jobs

This initiative is how the Commission will help the EU reach its employment target for 2020: 75% of the working-age population (20-64 years) in work.

Launched in 2010, it is part of the EU’s overall strategy – Europe 2020 – promoting smart, sustainable and inclusive growth in the next 10 years and beyond.

The Agenda also contributes to achieve the EU’s targets to get the early school-leaving rate below 10% and more young people in higher education or equivalent vocational education (at least 40%), as well as to have at least 30 million fewer people in or at risk
We are ready for a new mission

When the going gets tough, the tough get going.

(Joseph P. Kennedy)

izquotes.com