

Charting a Course- Maritime Transport Research Priorities

Willem Laros



Thermae Palace (Oostende, Belgium, 12-13 October 2010)

Maritime Transport



Shipping accounts for more than 90% of global trade and for more than 85% of all goods entering or leaving the European Continent

Besides the importance of this form of transport for Europe's trade

- European shipping companies own and operate more than 40% of the worldfleet (eg. Norway, Denmark and Greece)
- European Shipbuilding is still in the top three in terms of value
- European Shipbuilders are marketleaders in a number of niche markets like cruiseships, dredgers, complex workingvessels etc
- European Marine Equipment Manufacturers are worldleaders in their field
- European Offshore technology is leading in knowhow,equipment and expertise

Thus the maritime Industry is still one of Europe's key economic drivers

The maritime industry 1/2



Offshore



Leisure



Cruise



Ports



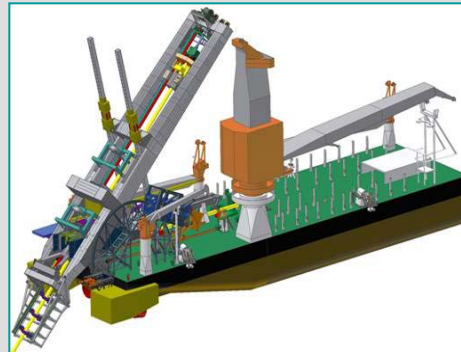
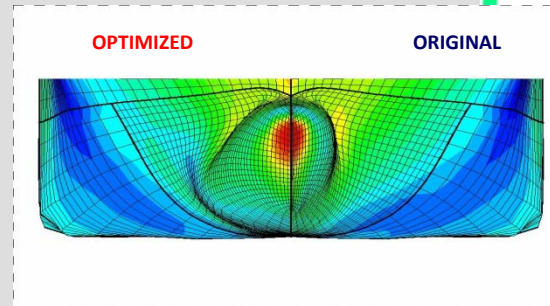
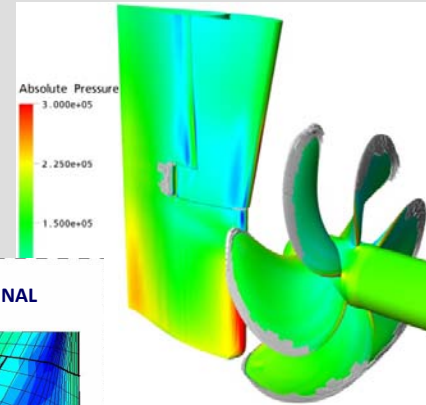
Fishing Vessels

The maritime industry 2/2

WATERBORNE™
MARITIME

Dredging & Mining

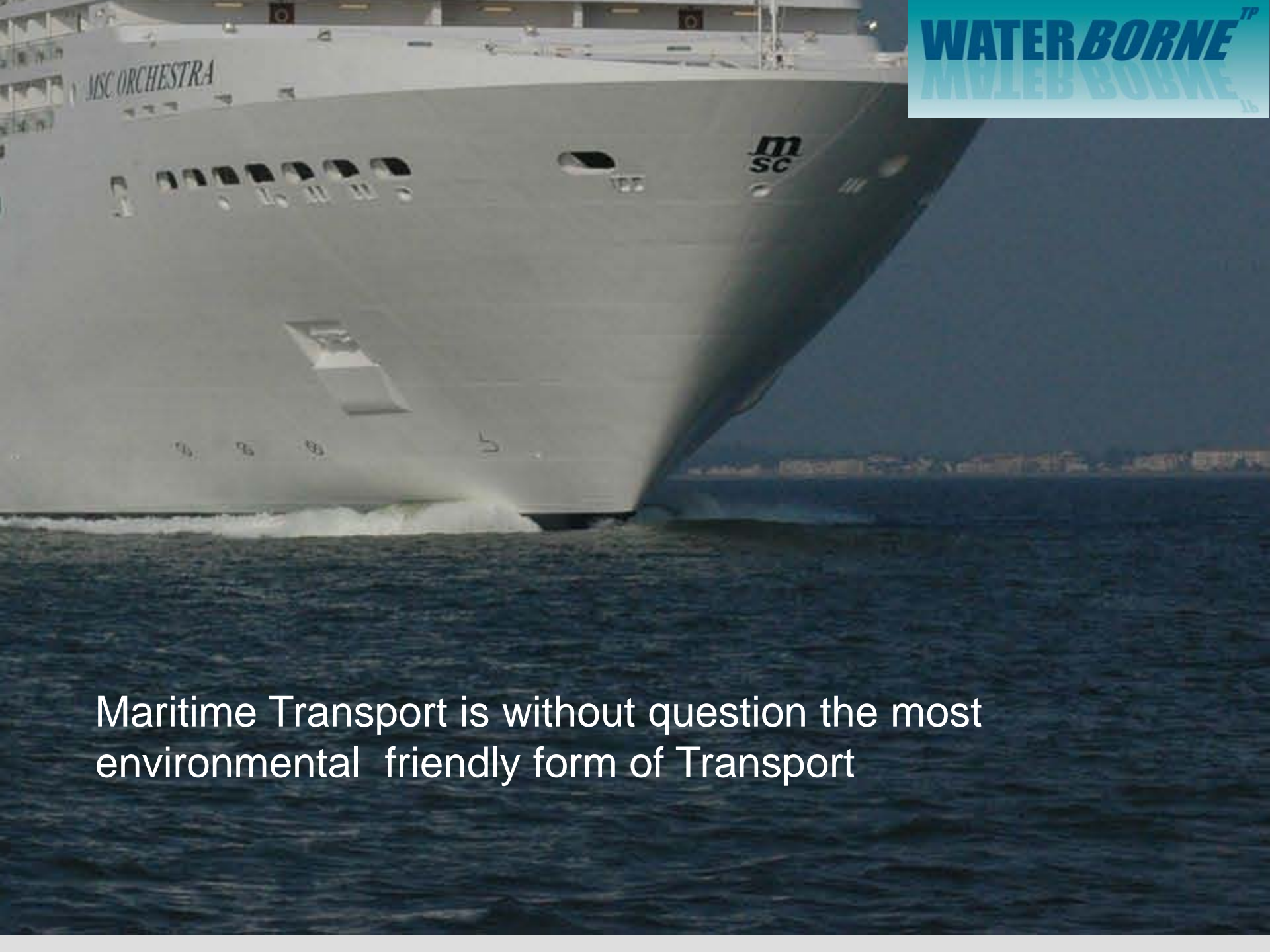
**Education
& Research**



Offshore Systems

Workvessels





Maritime Transport is without question the most environmental friendly form of Transport

Some figures :

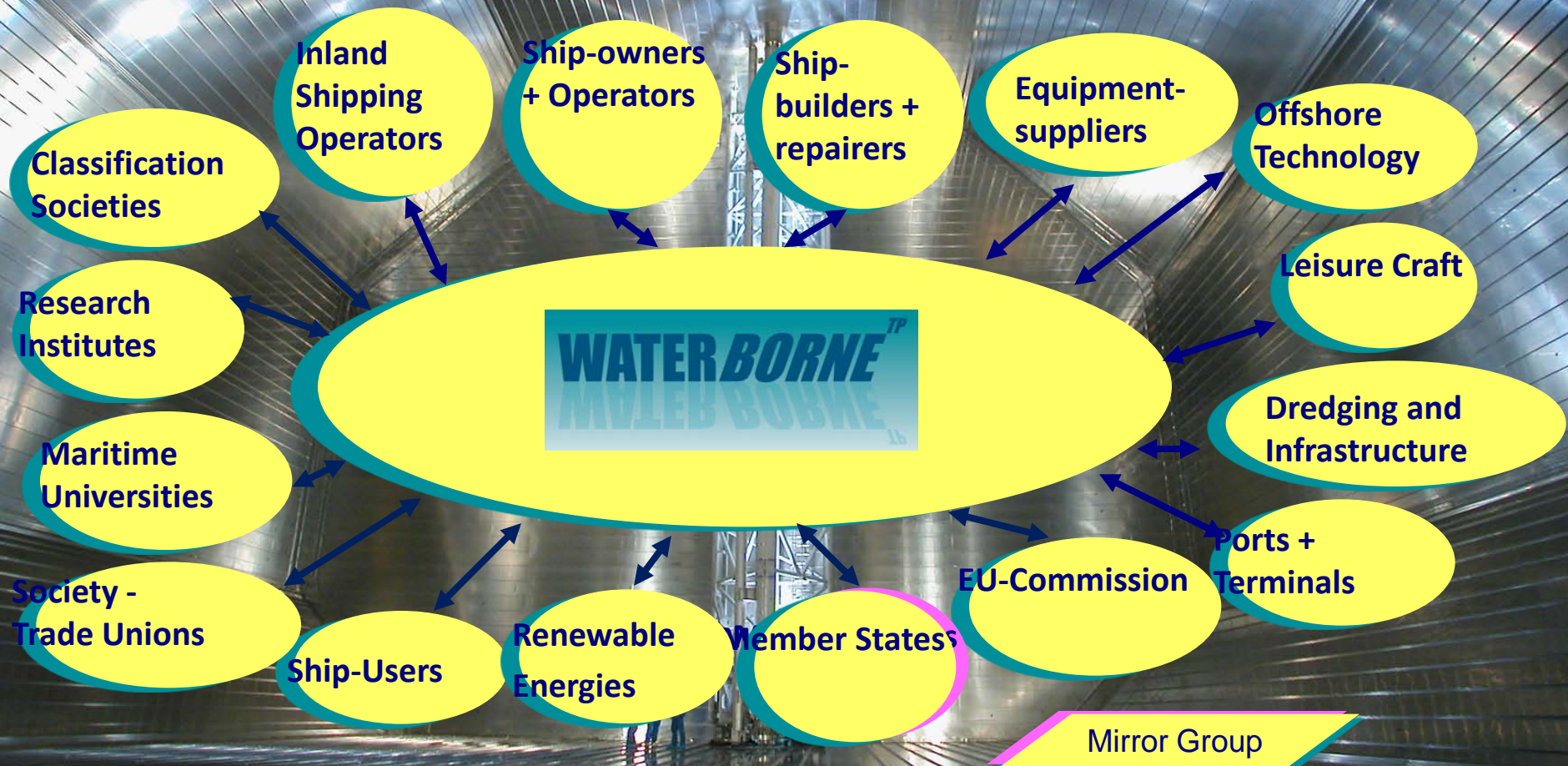
- International shipping emitted 1,046 million tonnes of CO₂ in 2007 or 3.3% of the total global emissions,; of which 0,6% is domestic shipping and fishing
- Other forms of transport : road 21,3%, aviation 1,9% and rail 0,5%.
- range of CO₂ efficiency of shipping is between 10 and 40 gCO₂/tonkm compared to rail 20 and 120 and road between 80 and 180 gCO₂/tonkm.
- without climate policies the CO₂ emissions of Maritime Transport will double or triple in the next 40 years.
- the average technical (economical) lifetime of a seagoing vessel is 25 to 30 years



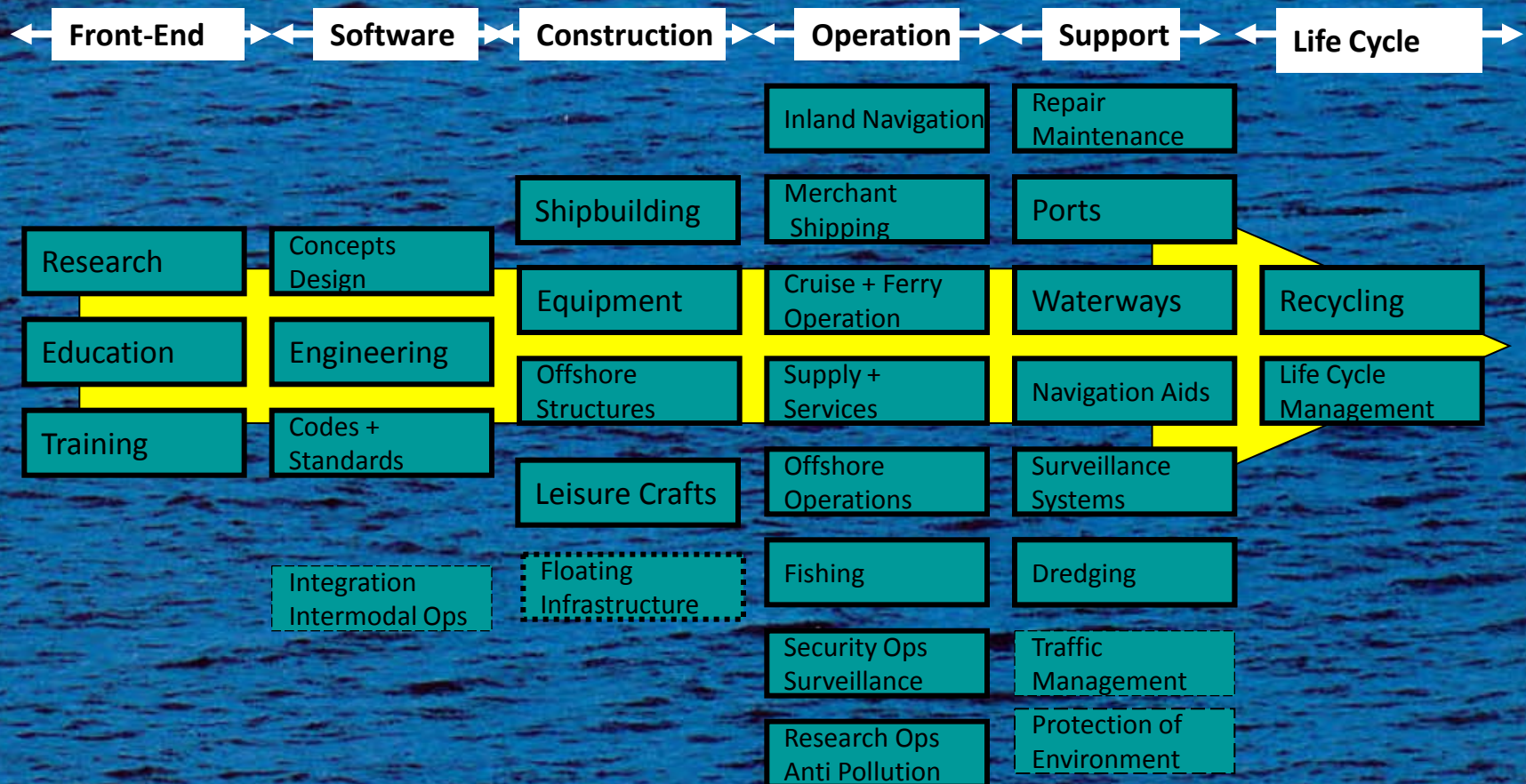
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Technology Platform

All the Stakeholders are involved

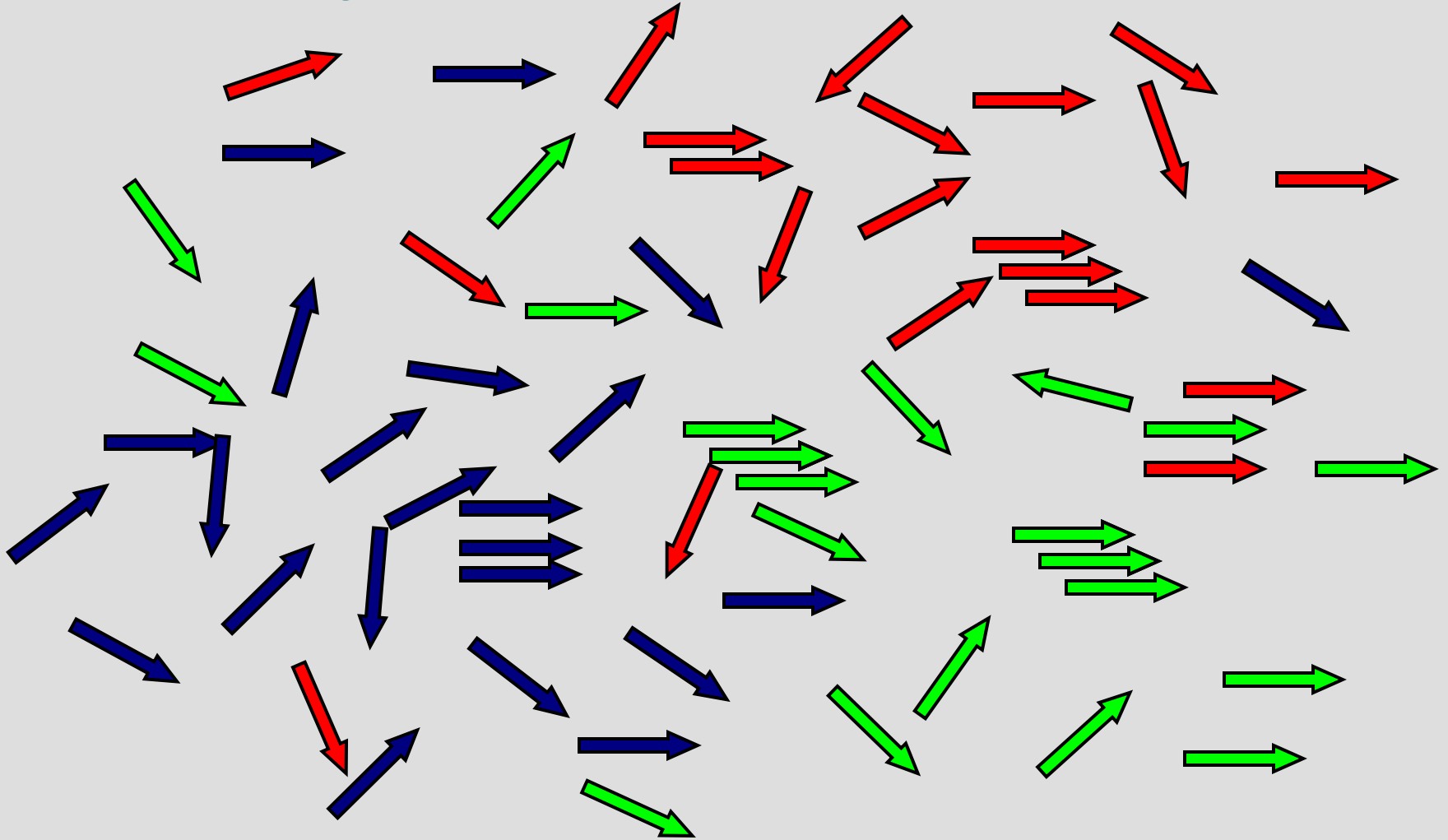


Waterborne Transport and Operations - Complex Value Chains and extensive know-how Synergies



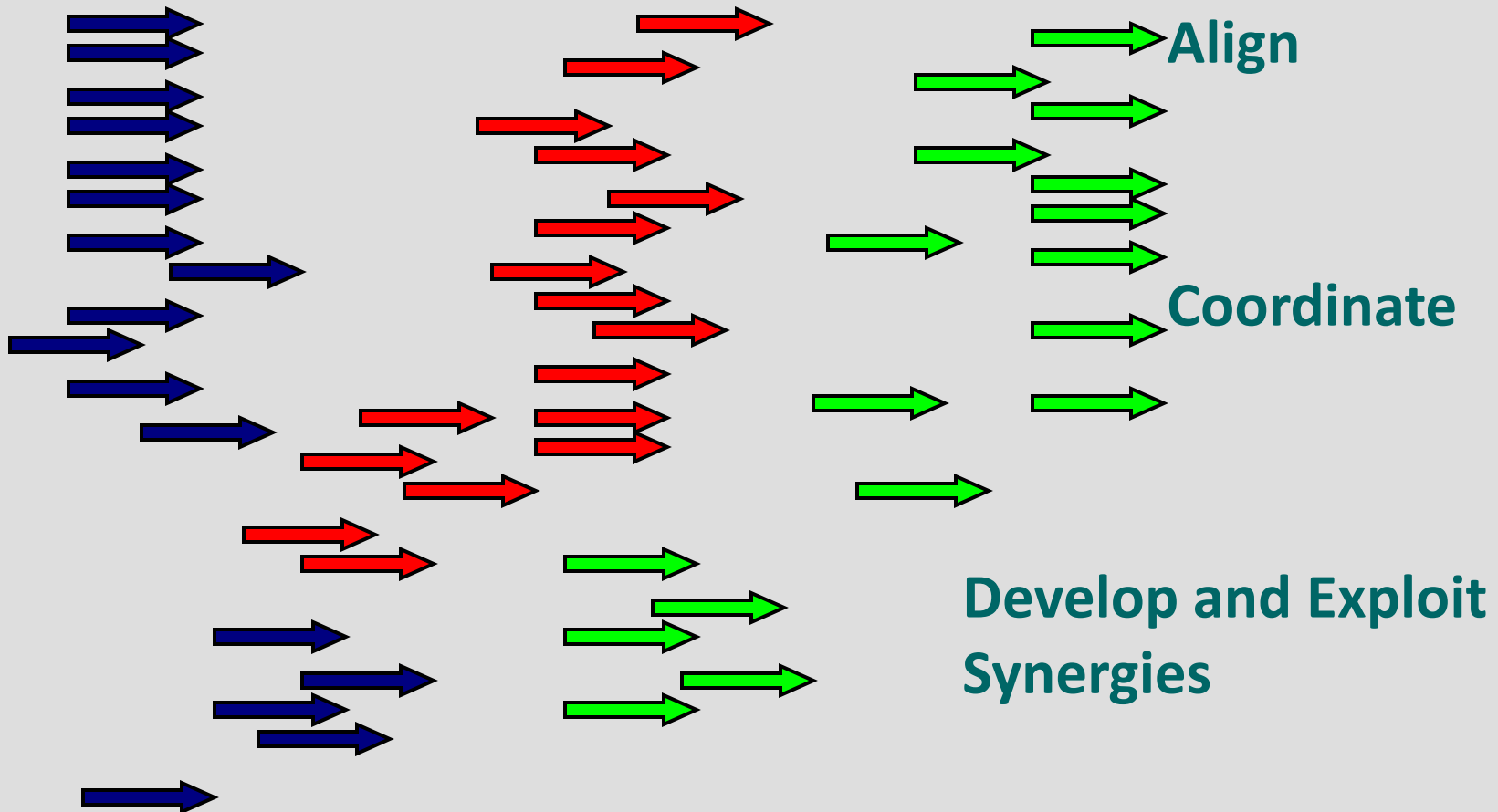
ETP WATERBORNE

What is it seeking to do?



ETP WATERBORNE

What is it seeking to do?



2005

VISION 2020

Waterborne Transport & Operations
 A Key Asset for Europe's Development and Future



WATERBORNE^{TP}

STRATEGIC RESEARCH AGENDA

OVERVIEW

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



WATERBORNE^{TP}

2006

STRATEGIC RESEARCH AGENDA

IMPLEMENTATION

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

Executive Report 2007

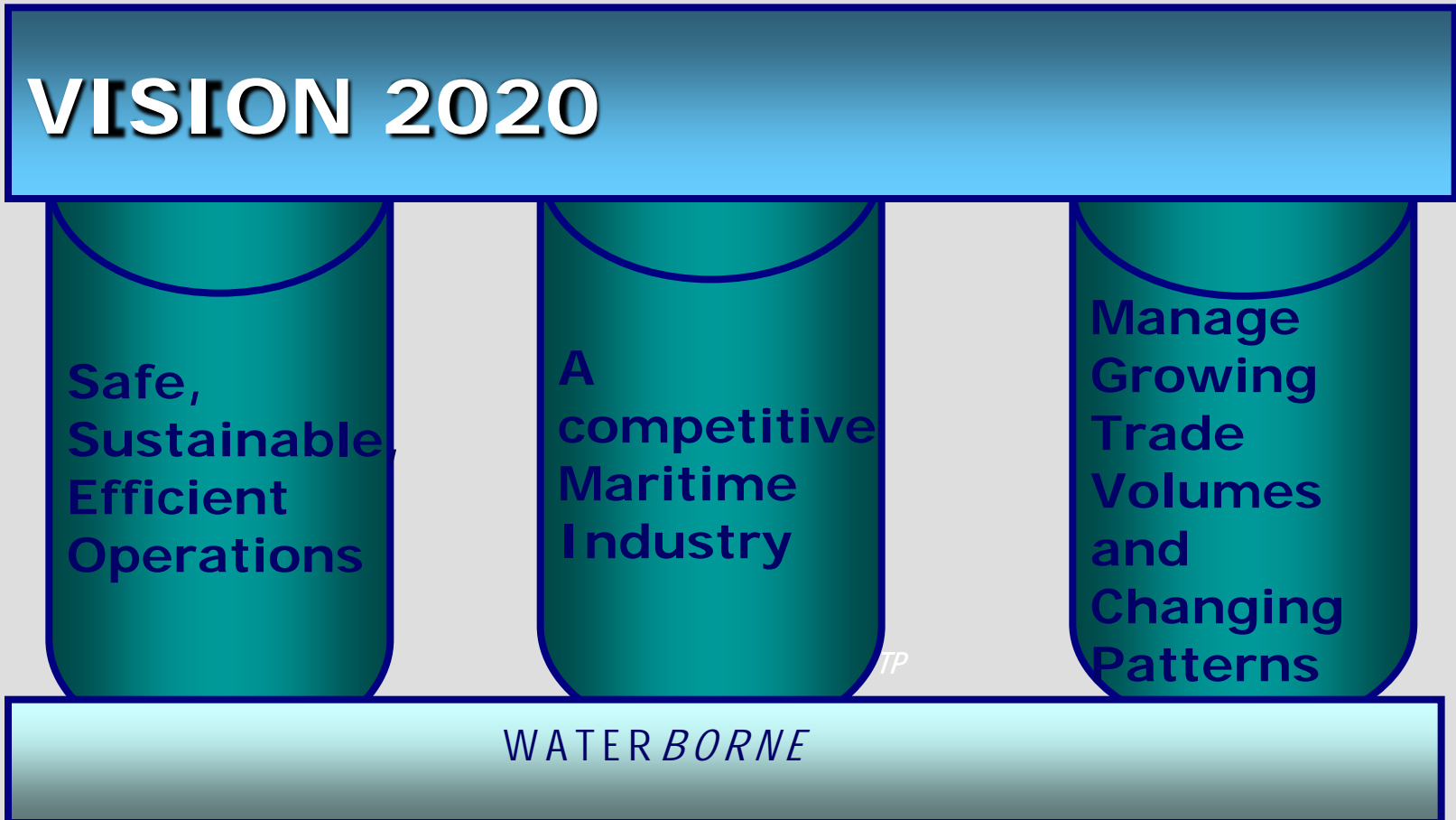


WATERBORNE^{TP}
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2007/2008

Medium to Long Term Vision

3 “Pillars” have been defined:

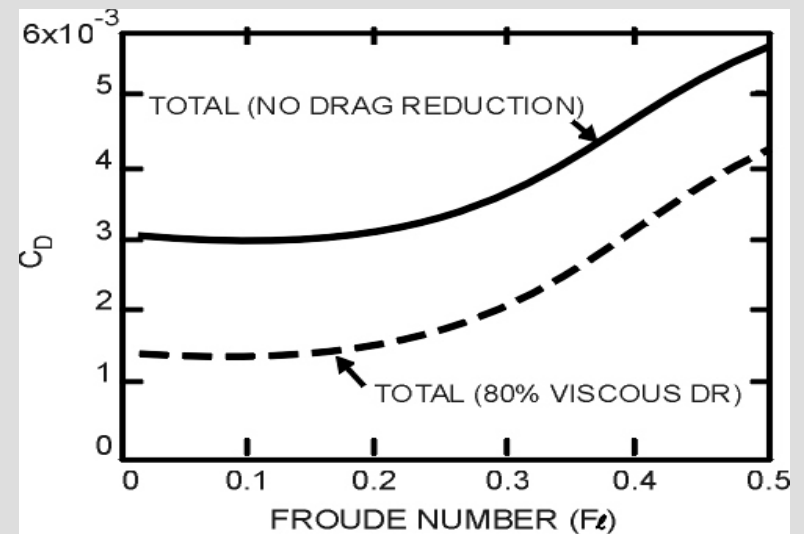
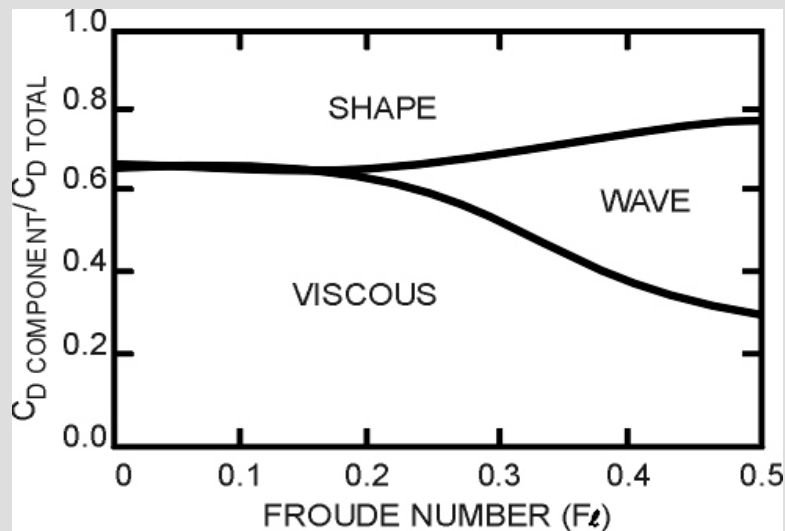


Pillar 1

Safe, Sustainable and Efficient Operations

- in the short term introduction of available green technologies in existing ships with a reduction potential of 40 to 60% of current levels.
- focus will be on less fuel and better fuel: resistance, combustion efficiency, integration and powermanagement
- in the longer term new technologies to even further reduce emission levels (an example)
- international legislation and Europe's potential mission

Fundamentals of ship resistance



Froude number is a value for Length/Speed

C_d is a value for resistance

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Pillar 2

A Competitive Maritime Industry

Refocus and create new businesses to secure our technology base and critical mass by using the potential and the challenges of the Sea and the Oceans:

Food, Energy, Mining, Leisure, Safety and Security

This where the Marine and Maritime world will meet and where new forms of cooperation between the two communities are needed

Pillar 3

Managing Growing Trade Volumes

- despite the downturn due to the economic crisis the volume of International trade and thus of International Shipping (East-West vv) is fast recovering
- there is sufficient new shipping capacity in the pipeline but will the trend of growth return and to what extent?
- to manage the carbon footprint on the long run we have to rethink this form of transport (slower,more,bigger?) or the cargo (from bulk to halfproducts?) or the balance between cost and benefits
- international legislation and marketbased instruments



Cooperation with the Marine Research and Science Community

FP7 project (2009-2011)
Marineboard ESF and WATERBORNE 1)
Focus on Maritime Transport

- Identification of the key players
- PoE and PIP
- 5 workshops to identify areas of common interest
- Identification of potential forms of sharing knowledge and cooperate programs
- proposal of most relevant form of cooperation
- final conference and dissemination



Results sofar:

- + very interesting stakeholder inventory demonstrating the fragmentation of the players at both sides
- + workshop 1 and 2 on the different forms of impact of Maritime Transport on the Marine World generated some interesting areas of common interest eg. biomimics, underwater noise
- + workshop 2 and 4 are planned next month
- + it is expected that cooperation will prove to create added value when subject focussed
- + final conference end 2011 together with MARCOM+



FP7 project with the aim :

“to develop a Forum or a Network of Networks representing the whole Marine/ Maritime Research and Science Community which can act as a liason with the Commission “

ICES led with participation of of CIESM, Marineboard, EUCC, EFARO, EATIP, WATERBORNE, MARS and EUROGOOS

EMAR2RES will act as input

First result is the consensus that the social context needs much more attention and the opening of a call with this aim is issued

Second finding is that the Research and Science Community of all the Marine /Maritime is more potentially more coherent than the Stakeholders as such.



MARCOM+
Integrating Marine & Maritime Science Communities

Conclusions

The WATERBORNE Strategic Research Agenda is still *the* guidance document for European Maritime R&D priorities but needs:

- More focus on the introduction of available green technologies onboard existing ships

- More focus on the opportunities and challenges of the Sea and the Oceans in terms of food, energy, leisure on and offshore (ports, regions), safety and security

- More focus on the sustainability of Maritime Transport in the future

The Maritime Industry will continue to develop closer relationships with the Marine Research and Science community there where it makes sense and creates added value

WATERBORNE

TP

Welcome to WATERBORNE TP

The European Technology Platform WATERBORNE is a forum where all stakeholders from the waterborne sector (sea & inland) define and share a common Vision and a Strategic Research Agenda, driving the necessary innovation efforts forward.

Documents

Newsletter

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MEMBER SECTION

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NON-GOVERNMENTAL - PARTNERS



15 results found.

Displaying results 1 to 10.

CEMT-CONFEDERATION OF EUROPEAN MARITIME TECHNOLOGY SOCIETIES

☒ CROSS SECTORAL

☐ CONTACT DETAILS (Click to open/close)

CESA - COMMUNITY OF EUROPEAN SHIPYARDS' ASSOCIATIONS

☒ SHIPBUILDING

☐ CONTACT DETAILS (Click to open/close)

EBI- EUROPEAN BOATING INDUSTRY

☒ LEISURE

☐ CONTACT DETAILS (Click to open/close)

EBU- EUROPEAN BOAT UNION

PRESENTATIONS

LAUNCHING OF THE WATERBORNE TP

WATERBORNE PRESENTATION WEBSITE

NEWS

GJION, 19. MAY 2010
WATERBORNE General Assembly - 19th May in Gijon during the European Maritime Day

GJION, 19. MAY 2010
Register to the WATERBORNE GA during the European Maritime Day on the 19th May - Gijon - Spain

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DOCUMENTS

WATERBORNE VISION 2020
21. December 2008

STRATEGIC RESEARCH AGENDA
03. May 2008

IMPLEMENTATION PLAN - FULL
20. February 2008

IMPLEMENTATION PLAN -

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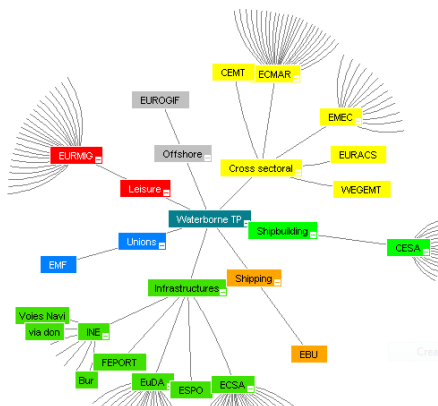
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WATERBORNE STRUCTURE



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NATIONAL PLATFORMS



2 results found.

Displaying results 1 to 2

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☒ ROMANIA

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IMPLEMENTATION PLAN -

Thank you for your attention!

Contacts:

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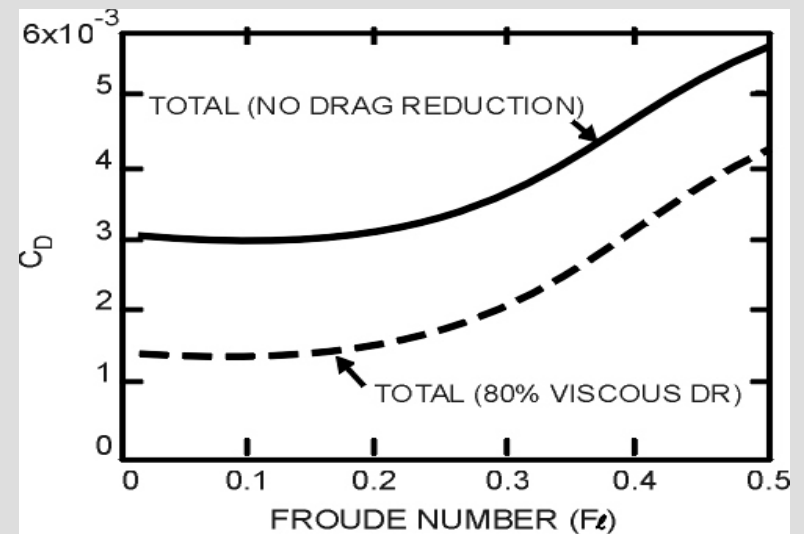
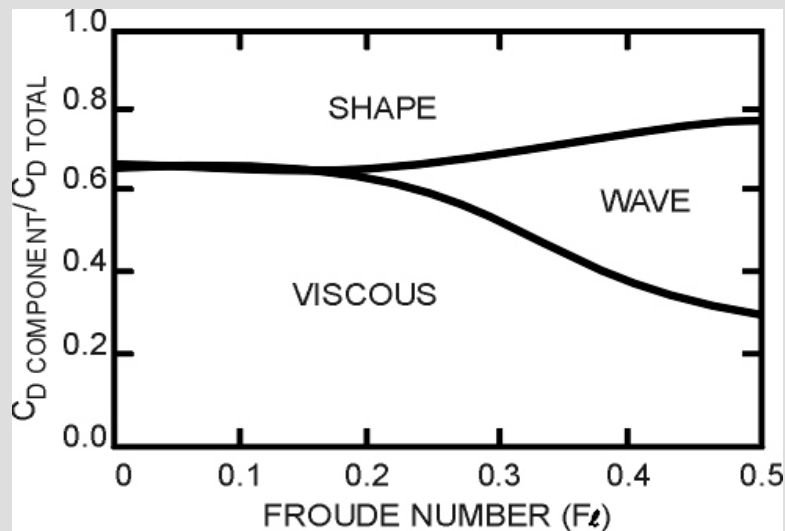
Persons of Contact: Lanfranco Benedetti/Willem Laros

- **Website:**

www.waterborne-tp.org



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