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# **MARTEC - Maritime Technologies**



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**Ralf Fiedler** 





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# **About Project Management Organisation Jülich - PtJ**

• Research Center Jülich is one of the 15 Helmholtz Research Centres in Germany (staff around 4.400)



- PtJ is a largely independent Health Information Environment Energy unit within the Research Centre Jülich (staff around 340)
- Offices in Jülich, Berlin and Rostock-Warnemünde
- 8 divisions (one of which is MGS Marine, Polar- and Geosciences, Shipping and Marine Technology - staff around 30 at Rostock-Warnemünde and Berlin)
- Central Management, Planning and Controlling
- BMBF/BMWi Funding Information Centre



INNER

MARIFISH

MARINERA

TRANSPORT –



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# Marine / Maritime related ERANETs

- AMPERA Marine Pollution
- CRUE Flood Management
- EUROPOLAR Polar Research
- EU-SEC Security
- FENCO Energy Research
- HY-CO Alternative Energy
  - Innovative Energy Research
  - Marine Fisheries Research
    - Marine Science and Technology
      - **Transport Systems**



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# **MARTEC – Priority areas**



priority areas		
Shipbuilding	Offshore industry/technology	
Maritime equipment and services	Offshore structures for renewable energy	
Ship and port operation	Polar technology	
Inland water and intermodal transport	Fishing/aquaculture	

integrated acti	vities
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Safety and security

Environmental impact

Human elements







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# **MARTEC – Priority areas**

Priority Areas	Sub areas
Shipbuilding	new ship types, ship design, ship constructions, production technology, production processes, ship hydrodynamics, ship materials
Maritime equipment and services	maritime equipment and services including ship systems and ICT
Ship operation, Port operation	ship safety and security, shipping services, traffic management, ship manoeuvring, cargo handling systems, waste facilities
Inland water, Intermodal transport	shipbuilding, shipping, equipment and services, human elements, ICT, technical improvements
Offshore industry, technology	offshore technology (e.g. design, construction, installation, operation, maintenance and decommissioning of offshore structures for oil and gas production)
Offshore structures for ren. energy	wind, waves, tides, currents
Polar technology	ice technology and operation of ships and offshore structures
Fishing/aquaculture	





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## MARTEC – <u>Maritime Technologies</u> - Network of Funding Agencies -

Duration 01.06.2006 - 31.12.2010PtJ, BMWi, RCN, MEEDDAT, CETMEF, **Partners** AFMI, Tekes, INNOVAMAR, DMA, MinEZ, NCBiR, UDJG DTI, SMA, OSEO, UoA Observers Countries Denmark, Finland, France, Germany, Netherland, Norway, Poland, Spain, UK, Sweden, Romania, Greece **Project Website** http://www.martec-era.net





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# **MARTEC – Strategic Objectives**

- Information exchange National maritime research programmes
- Compare Management procedures
- Remove Administrative barriers
- Network Funding organisations
- Funding Transnational maritime technological research





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# **Work Packages**

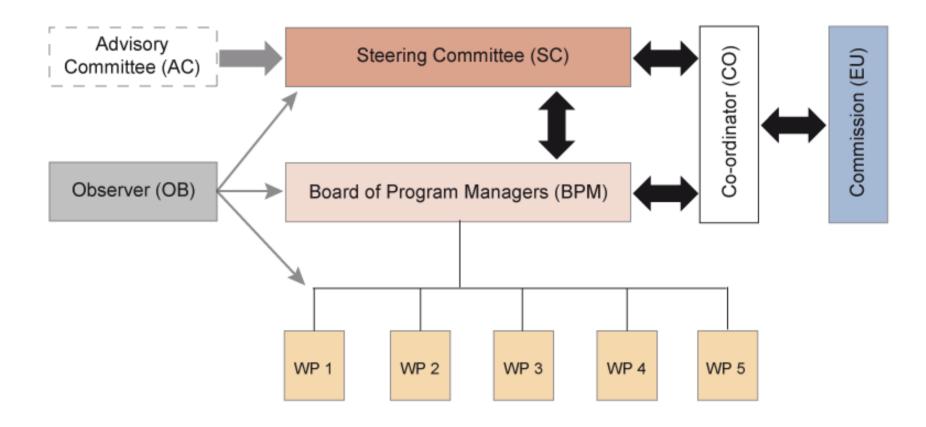
	Work package title	Leader	Duration	End	Delive- rables
1	Information exchange	PtJ	18 month	30.11.07	3
2	Strategic activities	CETMEF	26 month	30.11.08	4
3	Joint activities	RCN	28 month	31.12.10	7
4	Trans-national R&D activities	INNOVARMAR	31 month	31.12.10	3
5	Project Network Co- ordination	PtJ	55 month	31.12.10	5





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# **MARTEC – Management structures**



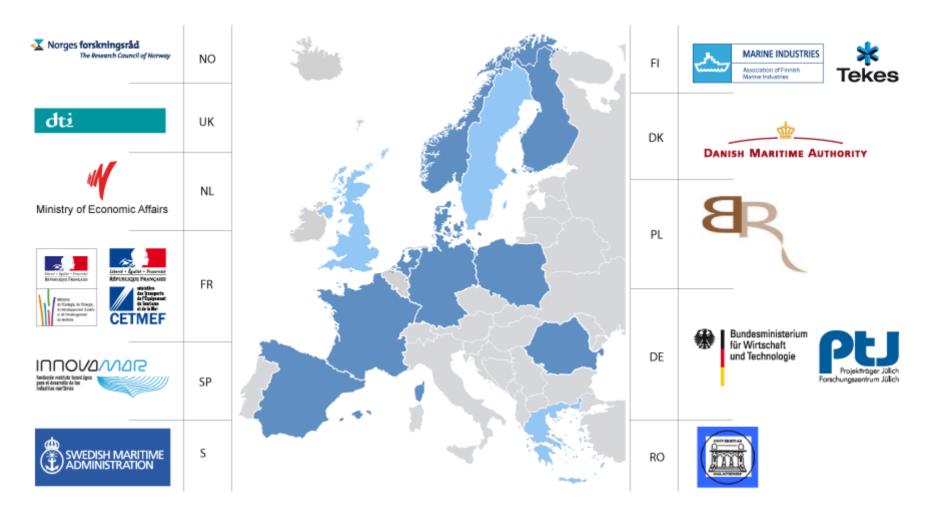




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## **MARTEC – Partners and Observers**







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#### **MARTEC** partnership 2008 compared to CESA member countries





# MARTEC 12 European countries

CESA 14 European countries





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#### **Possible future MARTEC partner countries, identified in WP1**

Country	Maritime Programme	Attempts to contact in 2008
Bulgaria	yes	National Science Fund – Bulgaria Ministry of Education and Science
Croatia	yes	Directorate for Science Research Programs and Projects Department
Italy	National industrial research programme in the area of shipbuilding	Ministry of Infrastructures and Transport
Portugal	part of a general programme	Ministry of Science and Technology
Russia	part of a general programme	Russian Ministry of Education and Science
Turkey	no information	Ministry of Transport





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# **National Research Programmes**

Country	Maritime	Name of programme
Germany	Yes	Shipping & Maritime Technology for the 21st Century
Poland	No	National Framework Programme
Norway	Yes	Maritime activities and Offshore Operations (MAROFF)
France	No	Programme de Recherche et d'innovation dans les transports terrestres (PREDIT)
Spain	No	National Plan for R&D/PROFIT Programme
Denmark	No/Yes	Strategic Research Programme Innovation Consortia Danish Maritime Trust Fund
Finland	Yes	MERIKE - Technology Programme for the Finish marine industry
Netherlands	Yes	Maritime Innovation Programme
UK	No	Technology Strategy





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## **National Research Programmes**



#### Maritime programmes General programmes





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# **National Maritime Programmes**

Country	Maritime Programme	Programme Duration	Budget 2007	Calls year	Programme Owner	Programme Manager
Germany	Shipping 21st	2005 – 2010	21 Mio. €	open	BMWi	PtJ
Finland	MERIKE	2003 – 2007	5 Mio. €	open	Tekes	AFMI
France	PREDIT	2002 – 2007	50 Mio. €*	1	МТЕТМ	ADEME, OSEO
Norway	MAROFF	2002 – 2009	11 Mio. €	2	RCN	RCN
Poland	Technology	open since 2005	21 Mio. €*	not fixed	MSHE	MSHE
Spain	PROFIT	2004 – 2007	67 Mio. €*	1	MEC, MITyC	INNOVAMAR
	Innovation Consortia	open since 1995	17 Mio. €*	2	DMA	DMA
Denmark	Strategic Research	open	45 Mio. €*	1 - 2	DCSR	Programme committees
	Danish Maritime Trust Fund	open since 2006	9 Mio. €	open	Private	Private
Netherlands	MIP	2007 – 2011	6,5 Mio. €	open	MinEZ	SenterNovem
	SMI	2007 – 2010	2 Mio. €	open	MinVenW	SenterNovem
UK	Technology	2005 - 2008	120 Mio. €*	2	DTI	DTI

\* Budget for the whole national programme, not just for maritime

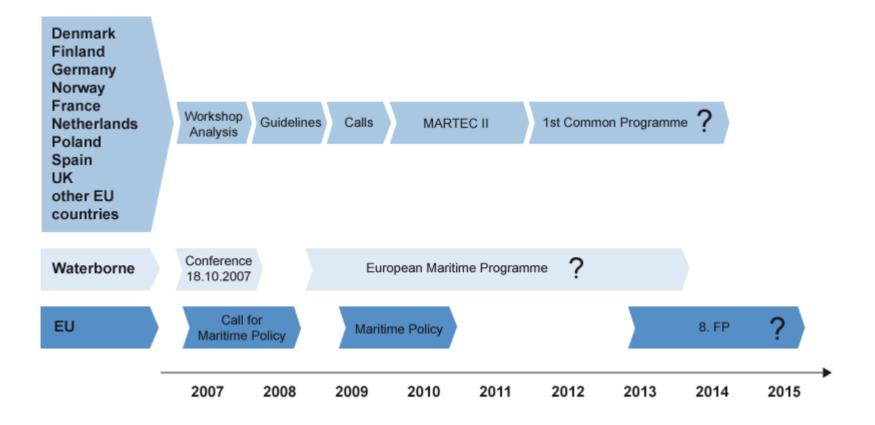




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# **MARTEC – Strategic Policy View**







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## **MARTEC – Web page**



Home Objectives Partner Observer Workpackages Dissemination Management structure Links Internal Sites



Home

#### MARTEC - Maritime Technologies as an ERA-NET

#### A collective effort



The competition with South Korea, China and Japan are putting great pressure on Europe's maritime industry. The maritime industry is dependent on emerging technologies in areas such as shipping, shipbuilding and marine technologies.

At the moment, different countries handle maritime research in different ways. In fact, some may be absorbed into broader areas of research. There are also huge differences in the way research is administered in different European countries. Europe's approach to research is fragmented, as different countries tend to focus on different research topics.

However, general themes, such as environmental protection, safety and security, the use of IT, and the development of innovative products, are being addressed in almost all national research programmes. Thus, the potential exists for European partners to share a research platform and develop coordinated activities. The European sector must maximise the value of research by creating a sustainable R&D strategy that can bring together Europe's key players.

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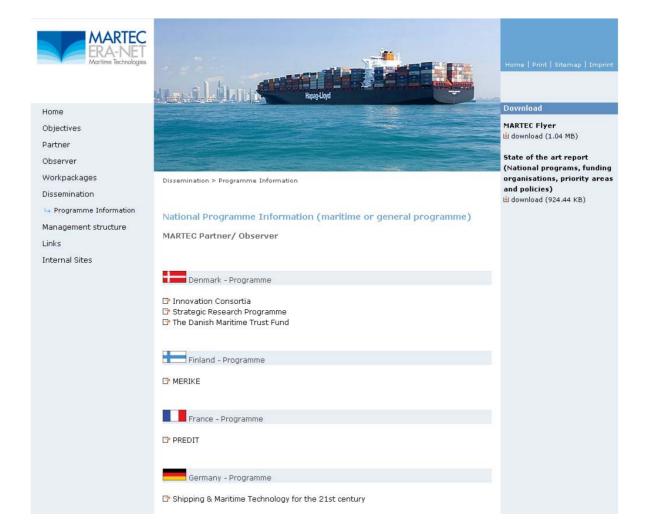
State of the art report (National programs, funding organisations, priority areas and policies) 🗄 download (924.44 KB)





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## **MARTEC – Programme information**







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# **MARTEC Next Steps**

- Database National Programmes (open to public)
- Database Maritime Projects (user access: national 2008 + FP7)
- Future calls
- Stakeholders database of new member countries





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#### **Database – National Programmes**

Maritime projects	Keywords: any programm	in: please choose 👻	
Maritime programmes			Download
Pilot call	Search result: All countri	es	MARTEC Flyer 냄 download (770.34 KB)
Internal bleb	◀ 8 of 9 ►		MARTEC Presentation at Gdansk & download (1.98 MB)
	Germany		🖬 downioad (1.96 MB)
	Programme name	Shipping & Maritime Technology for the 21st century	D2.2 State of the art report
	Year of programme start	2005	(Analysis of gaps, priority areas, technology transfer
	Year of programme end	2010	and synergistic use of
	Next programme update	2010	maritime research) I download (382.23 KB)
	Number of calls per year	Permanent open call	
	Dates of call deadlines	Permanent open call	D2.1 Analysis of barriers b download (130.43 KB)
	Project information	🖸 http://www.bmbf.de/pub/schifffahrt.pdf	E download (199.49 (C))
	List of completed projects	් http://foerderportal.bund.de/foekat/foekat/foekat	Pilot Call Flyer download (505.63 KB)
	Funded R&D projects	Basic Applied Demonstration and implementation	
	Funded disciplines	Shipbuilding Maritime equipment and services Ship and port operation Inland water and intermodal transport Offshore industry/technology Offshore structures for renewable energy Polar technology	
	Funded institutions	Universities: 27 % Public research institutes: 15 % Private research institutes: 4 % Companies: 54 %	
	Annual programme budget	2003: 15,4 Mic. € 2004: 15,2 Mic. € 2005: 13,2 Mic. € 2006: 12,6 Mic. € 2007: 16,7 Mic. €	
	Funding type	Grant	
	Funded cost items	Direct costs (Human resources, travel, materials) Indirect costs (overhead)	





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## **Database – Maritime Projects**

Maritime projects	Keywords: any p	oroject in: please choose 💌	
Maritime programmes			Download
Pilot call Internal sites	2 of 7		MARTEC Flyer 넵 download (770.34 KB)
	Project title:	Impact of production related imperfections in relation to the hydrodynamic performance of selected ship structures	MARTEC Presentation at Gdansk I download (1.98 MB)
	Project acronym:	HYDROFERT Country: Germany	D2.2 State of the art report (Analysis of gaps, priority
	Project coordinator:	Dr. Uwe Hollenbach Hamburgische Schiffbau-Versuchsanstalt +49 40-69203-224 hollenbach@hsva.de	areas, technology transfer and synergistic use of maritime research) 냄 download (382.23 KB)
	Project duration:	01-08-2008 - 31-01-2011	D2.1 Analysis of barriers
	Programme:	Shipping & Maritime Technology for the 21st century	년 download (130.43 KB) Pilot Call Flyer
	Programme owner:	Federal Ministry of Economics and Technology (BMWi)	Id download (505.63 KB)
	Programme manager:	Project Management Jülich (PtJ)	
	Participating organisations full name:	<ul> <li>Hamburgische Schiffbau-Versuchsanstalt</li> <li>IMAWIS Maritime Wirtschafts- und Schiffbauforschung</li> </ul>	
	Project description:	The objective of this research project is to investigate the impact of production related imperfections of hull and appendages of a vessel to the hydrodynamic performance and on the cavitation behaviour. Plate buckling and welding seams may influence the boundary layer and thus the frictional resistance of a vessel. Erection holes, welding seams, screwed connections and anodes placed on the rudder surface may influence the cavitation inception and thus the erosion process. The effect of such inaccuracies of selected ship structures will be investigated by numerical and experimental methods. Recommendations for the design and the manufacturing processes will be worked out to avoid such deficiencies and shall serve as the basis for future research work.	
	Keywords:	hull, hydro, hydrodynamic	
	Project website:	다 http://n/a	





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# **Stakeholders database of new member countries**

Poland Romania

> Bulgaria Cyprus Czech Republic Estonia Hungary Latvia Lithuania Malta Slovak Republic Slovenia





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# **MARTEC Pilot Call**





#### What do you want to research in 2009?



#### **Pilot Call**

until January 31<sup>th</sup> 2008





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# **Pilot Call – Minimum Rules**

- 8 open priority areas
- Minimum 2 industrial partners from 2 partner countries
- Common call
- National evaluation of draft proposals
- International assessment of full proposals (ranking)
- National funding





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## **Evaluation Criteria**

CRITERIA	DE	PL	NO	FR	ES	DK	FI	TOTAL
Relevance to the programme	3	3	3	3	3	3	3	21
Innovative potential	3	3	3	3	3	3	3	21
Scientific and technical quality of proposal	3	3	2	3	3	3	3	20
Relevance to industrial application	3	3	3		3	3	3	18
Potential of applicant/team	1	3	2	3		3	3	15
International competitiveness	3		2			3	3	11
Viability of the project	1		1	3	1	1	3	10
Profitability			2		1	3	3	9
Internationality	1		2		3	1	1	8





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# **Time Table for Pilot Call**

#### Pilot Call

Partner search MARTEC call Nat. evaluation Decision Full proposal Int. evaluation Ranking Decision Negotiations Earliest start

## Time Table

from 18.07.07 closed 31.01.08 01.02. - 29.02.08 11.03.08-01.04. - 31.05.08 01.06. - 31.07.08 August 08 29.09.08 01.10. - 31.12.08 01.01.09

#### Remarks

MARTEC web page Pre-proposals national rules BPM meeting, pre-proposals applicants MARTEC criteria scoring SC meeting, full proposals national rules national funding





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# **MARTEC Pilot Call Results**

	Before national evaluation	After national evaluation	After recommen- dation
Number of proposals	15	9	4
Number of applicants	63	49	21
Total budget	19,5 Mio. €	14,4 Mio. €	7,9 Mio. €
Requested funding	14,0 Mio. €	10,7 Mio. €	4,7 Mio. €





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# **Transnational Evaluators 2008**

Denmark	2
Finland	5
France	1
Germany	2
Norway	1
Romania	6
Spain	5
Sweden	5
Total	27





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# MARTEC Call 2009



#### What do you want to research in 2010?



## Transnational Call Maritime Technologies

deadline May 29<sup>th</sup> 2009





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# MARTEC Call 2009

- One stage procedure (full proposal document)
- Common call in at least 7 countries
- 8 open maritime areas
- Max. 10 partners (recommended)
- At least 2 industrial partners from 2 partner countries
- Transnational evaluation (ranking)
- National funding





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# **MARTEC Calls**

Time Table	2008	2009 (proposed)
Submission (pre-proposal)	31.01.	none
National Evaluation (pre-proposal)	29.02.	none
Decision (pre-proposal)	11.03.	none
Submission (full proposal)	30.05.	29.05.
Int. Evaluation (full proposal)	June, July	June, July
Ranking, nat. documents (full proposal)	August	August
Funding Decision (full proposal)	September	September
Earliest Start of Projects	Jan. 2009	Jan. 2010





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# **MARTEC – Further Information**

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