



ANNUAL NEWSLETTER

DEVELOPING EUROPEAN MARITIME RESOURCES

MARCH 2015

ISSUE 2

The 'blue' economy represents roughly **5.4 MILLION JOBS** and generates a gross added value of almost **€500 BILLION A YEAR**. However, further growth is possible and **the goal of REMCAP** is to substantially increase the innovation capacity across the EU in maritime resource efficiency, and thereby position European businesses to exploit **growing global demand** for resource efficient technologies, systems and operations.

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**REMCAP Project is:
Increasing Innovation in
Marine & Maritime Capability**

**6
EU Maritime
Clusters**

**8
Maritime Focus
Markets**

Register your Interest in the Project [HERE](#)

REMCAP Aims:

- To enhance understanding on the blue economy & provide clarity on how maritime cluster organisations can intervene to drive the maritime investment agendas in their regions;
- To support REMCAP clusters to develop and implement action plans to increase their impact on both public and private sector investment
- To expand engagement & collaborations to contribute to Europe's world-beating marine & maritime capabilities

KEY PROJECT ACHIEVEMENTS:

- Completed 6 Maritime Cluster SWOT Analysis
- Comprehensive database with approximately 300 projects and 700 facilities in the Maritime Sector
- Developed 6 unique Cluster Innovation Strategies
- Identified 8 focus markets with huge growth opportunities for European Maritime Companies

FOREWARD

All around the globe, Governments are increasingly recognising the social and economic value of the seas: as a source of energy, materials, food and leisure, as well as a transportation corridor. However, the coastal and ocean environment that provides these resources needs careful management to ensure its long-term viability. The capability to exploit marine resources, in ways that are sustainable and cost-effective, is becoming a strategic priority for maritime nations and the EU.

The REMCAP project has been exploring how these vital challenges can best be met. Over the two years that the project has been running, the consortium has analysed how the markets for ocean resources have grown, and how these markets offer growth opportunities to the marine and maritime industries. The objective of this work is to spotlight the areas of activity where novel solutions are required, and to identify key topics of innovation needed to create those solutions. Our REMCAP innovation roadmaps are signposting how these innovation priorities can be enabled.

The six clusters participating in REMCAP include a wide range of research and engineering capabilities, spread over universities, institutes and companies. These organisations are well-placed to take up these innovation challenges and to ensure that Europe's marine and maritime industries become engines of wealth and employment creation in the future. The clusters also include public authorities responsible for investment & growth policies, who can align with the opportunities highlighted by REMCAP. Cluster organisations, with their understanding

of business, research and public investment priorities, have a key role to play. But it is not always clear how they can intervene to drive forward this investment agenda in their regions; and there is confusion about what clustering can achieve. The REMCAP project has tackled these uncertainties by capturing how the consortium clusters operate, assessing their weaknesses as well as their strengths. This is helping the REMCAP clusters to target specific action plans to increase their impact on both public and private sector investment.

Looking back on the first two years of the project, I can see how it has contributed to a much clearer understanding of the 'Blue Economy' and how we and our partners can drive forward its future growth. Of course we cannot do it alone, and we need to expand our engagement with the many organisations that contribute to Europe's world-beating marine and maritime capability. We will be promoting this engagement at events during 2015.

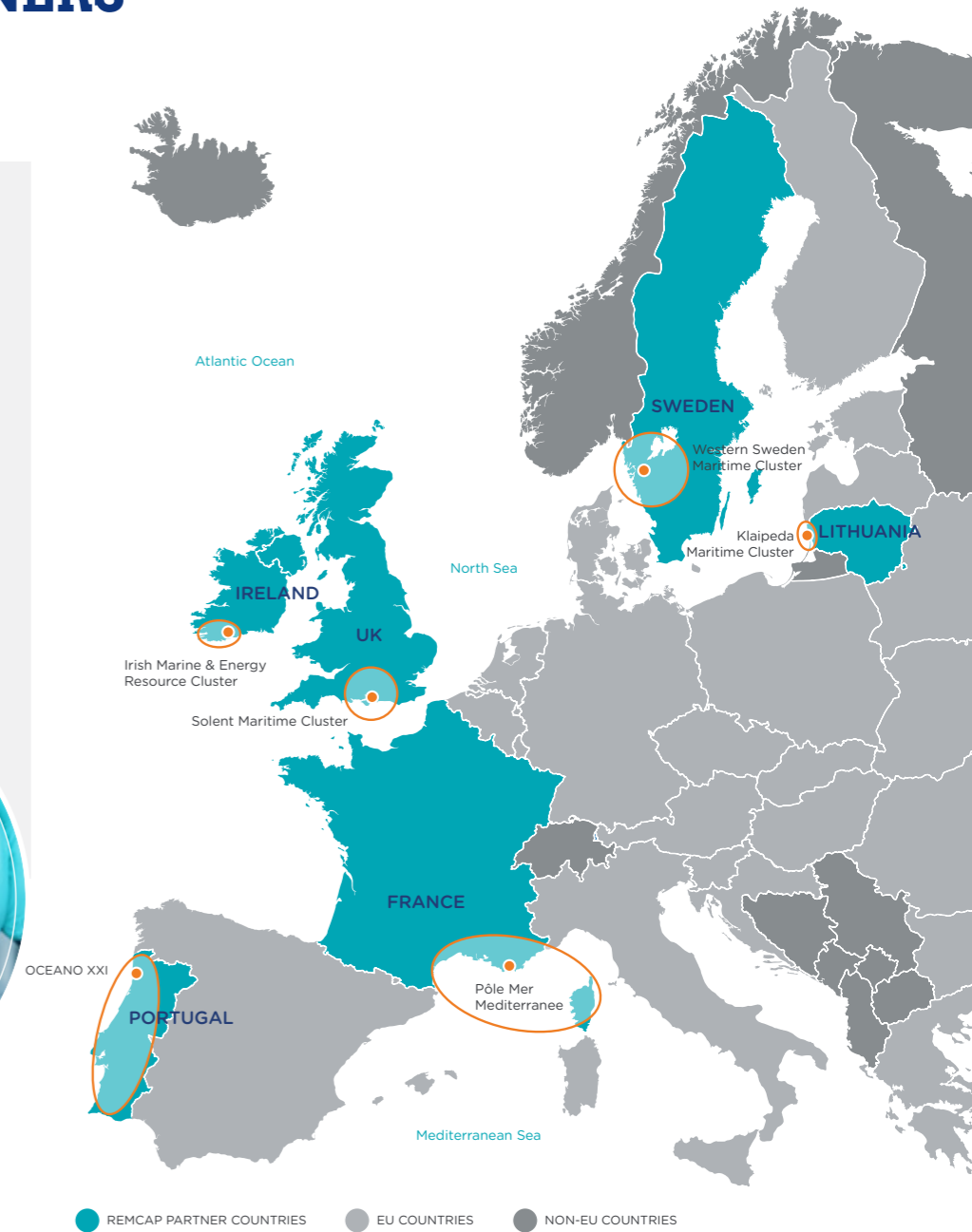
On behalf of the REMCAP project team, I would like to invite your interest and participation in what this project is trying to achieve. Further details are available by visiting www.remcap.eu.

Jonathan Williams,
CEO at Marine South East (UK)
REMCAP Project Director



REMCAP PARTNERS

The REMCAP Partnership is comprised of **14 Partners** from Commercial Bodies, Research Institutions and Public Authorities that make up **6 Maritime Clusters** in the **UK, Ireland, Portugal, Sweden, France and Lithuania**. These partner clusters are highlighted in the following map:



PROJECT PHASE 1: ANALYSIS PHASE Status: Complete

The REMCAP project team undertook extensive analysis to determine how the consortium clusters operate, assessing their strengths and weaknesses and identifying the major growth opportunities across each cluster area. This phase also explored how the markets for ocean resources have grown, and identified how these markets offer growth opportunities to marine and maritime industries.

During this phase REMCAP identified 8 priority markets, which are at varying levels of maturity and form the core of the project. These markets were agreed as a result of existing and projected demand. The REMCAP partner clusters have significant experience and expertise in these markets. The REMCAP clusters have identified key opportunities that exist in these markets and are already supporting innovative companies in many of these markets.

An Example of Potential Opportunities and REMCAP Partners Driving Innovation in the Key Focus Markets

Markets at Pre-Development Stage



Ocean Energy

REMCAP's Lead Partner [Marine South East](#) supported an SME, [Sustainable Marine Energy](#) to develop screw pile technology for application in anchoring of tethered devices. This resulted in an installation rig that can remotely and quickly install screw piles into the seabed and enable turbines to harvest the maximum tidal power.



Algae

Opportunity: To identify commercial exploitation outlets for Algae. For example the use of Algae in the production of Bio Fuels. The yield of oil from algae is estimated to be between 19,000 to 75,000 litres per acre per year and is projected to produce 7 to 31 times greater a yield than the best crop of palm oil for example.



Blue Biotech

Blue biotech needs to develop science-based capabilities and synergies with wider maritime industries. Within the [OCEANO XXI](#) cluster members there are strong research, development installed capacity and technology centres that are involved in actions to further the development of the marine bio resources sector.



Seabed mining

Opportunity: Seabed Mining has the potential to provide an alternative for Europe's heavy reliance on importing strategic metals and rare earth elements. Should the economic conditions and technological advances continue, the sector may well be strategically important to sustain and support the increasing demands of green and emerging technology.

Growth Markets



Offshore Wind

[IMERC](#) supports a range of companies through its business incubator including [Exceedence Ltd](#) who have developed a marine renewable techno-commercial project planning and evaluation tool called "Exceedence Finance". This tool overcomes traditional sector shortcomings in terms of a company's inability to produce robust financial plans based around project implementation of ocean and offshore wind technology and better enable a company to secure investment.



Fish and Shellfish

[Pôle Mer Méditerranée](#) supports the initiative [VEGEAQUA](#) who is addressing the challenge of feeding in aquaculture through a genetic breeding process of four species: trout, bass, sea bream and meager in order to test different types of food combination using marine products (fishmeal and fish oils) and products of plant origin. This project combines methods tested in industrial experiments and also more precise investigations in experimental fish farming and in laboratories

Mature Markets



Fishing

The [Western Sweden Maritime Cluster](#) contains the entire value chain from "the sea to the table" in the Västra Götaland region. It is one of the major fishing industry regions in the Nordic countries. There is scope for growth and increased profitability in the fishing sector which can be created through diversification and quality improvements which increase the value of the product.



Aggregates & Dredging

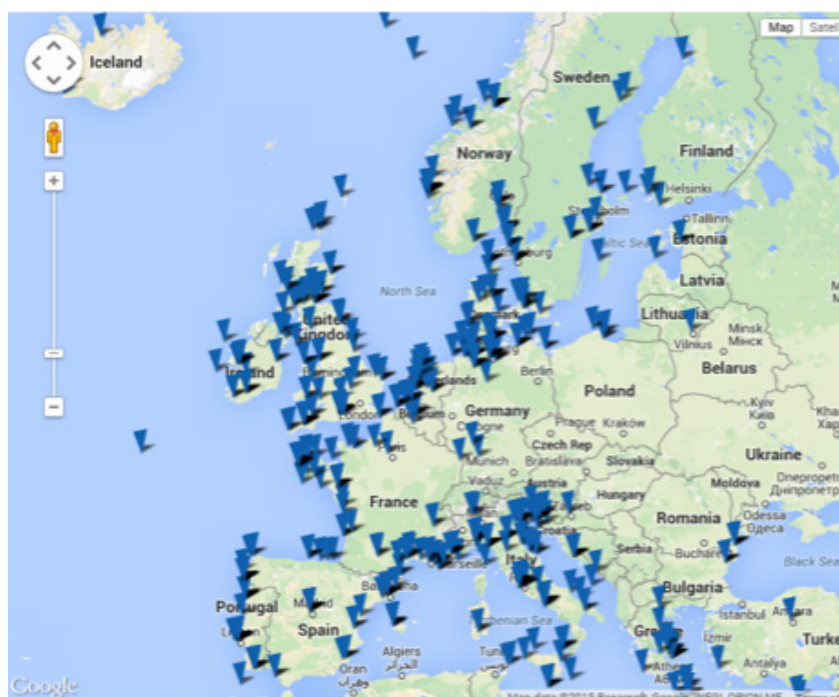
Members of the [Klaipeda Maritime Cluster](#) recently contributed to the development of a Marine Spatial Plan which will be used to implement the Baltic Sea Region strategy. The plan focuses on the proper management of marine resources and details the location of existing and future marine activities. The spatial solutions highlight pre-conditions for future development and the demand for scientific research while investigating marine resources and evaluating the economic effect as well as environmental consequences.

INTRODUCING THE EUROPEAN MARINE INNOVATION DATABASE

One of the biggest achievements of the REMCAP project to date has been the development of the **European Marine Innovation Database**. The European Marine Database is the most **comprehensive database of marine projects in Europe** in the field of marine resource efficiency and was developed through the REMCAP Project. The online database provides a comprehensive list of the most relevant Marine Science and Technology Projects funded by the different national or European mechanisms and is accessible via <http://data.remcap.eu/contenu/index.php>

Focus Market	Number of Projects
Offshore Wind	29
Ocean Energy	53
Fishing	16
Aquaculture (Fish & Shellfish)	58
Aquaculture (Algae)	7
Blue Biotech	55
Aggregates & Dredging	9
Seabed Mining	3
Projects involving two or more Focus Markets	27
Total	257

The database includes 257 projects linked to the 8 REMCAP focus markets.



Facilities Database

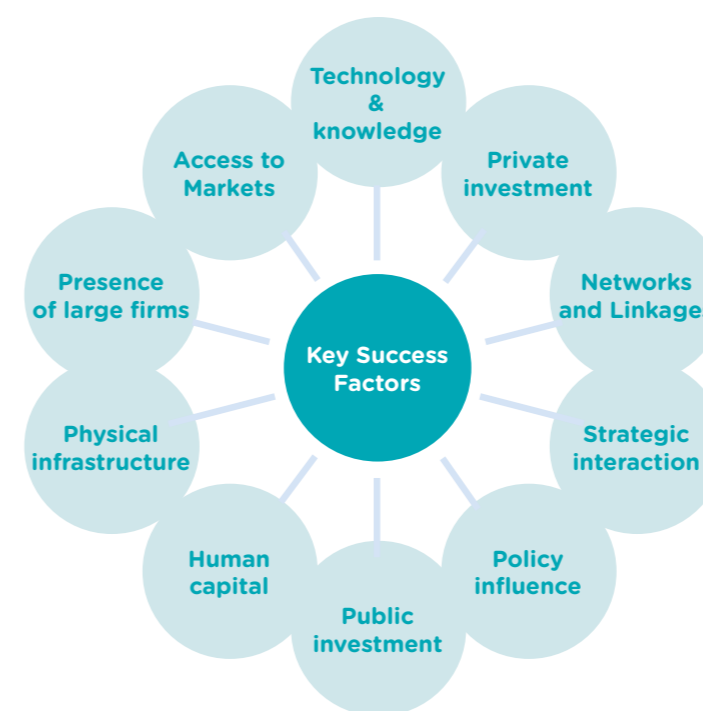
The database identifies approximately **700 facilities** across Europe which can support RTD and validation activities in the field of maritime resource efficiency. The Facilities Map identifies the Marine Facilities by location.

PROJECT PHASE 2: ACTION PLANNING PHASE

Status: In Progress

Cluster Specific Regional Strategies

Through the project all six REMCAP Clusters created a **region/cluster specific strategy and action plan** which builds upon the recommendations elicited from the earlier project work. The strategy identifies ways to create additional innovative capacity that supports each region's smart specialisation objectives by identifying ways to address each clusters weaknesses and support their strengths identified from an analysis of the Cluster based on **ten key success factors**.



The cluster specific strategies contribute to the development of the **regional innovation action plan** which will offer the opportunity for closer engagement and in depth understanding of how strengths from one cluster can facilitate innovation in another partner cluster.

Click [here](#) for more information on how each REMCAP cluster analysed their innovation capacity requirements to develop their specific action plan.

REMCAP Project Joint Action Plan

The participating REMCAP Clusters are currently developing a **Joint Action Plan targeting innovation priorities across the consortium and highlighting opportunities for the involvement of additional European clusters**.

The project partners have developed innovation road-maps that are based on the innovation requirements within the REMCAP focus markets. The road-maps identify **12 priority technology platforms** that will underpin future innovation. These platforms are:

- Autonomous systems
- Seabed Anchoring
- Acoustic Sensors
- Materials & processes
- Bio-chemical sensors
- Biological modelling & simulation
- Platforms & power train
- Physical modelling & simulation
- Monitoring & communications
- Automation & handling systems
- Marine genomics
- Habitat systems

PROJECT PHASE 3: IMPLEMENTATION AND SUPPORT PHASE

Status: In Progress (commenced in 2015)

Supporting Regional & Joint Action Plans (JAP)

The objectives for the REMCAP project are:

- To facilitate **new collaborations** and commitment to RTD challenges in line with the shared action plans
- To initiate the **stakeholder engagement** needed to support regional action plans, highlighting specific innovation advantages and socio-economic benefits

REMCAP partners will undertake the actions needed to support the implementation of the JAP. The major implementation initiatives included in the JAP (new collaborative programmes, facilities etc) will take place outside the REMCap project, using external sources finance identified in the action plan. At the consortium level, the work package will focus on preparing the ground for investment in new collaborative programmes and in new/improved access to facilities.

International Impact

The final action of the REMCAP project is to extend its international impact through the following actions:

- Develop **priorities for co-operation beyond the project clusters**, targeting specific capabilities and routes to market which would strengthen the consortium impacts.
- Initiate **international relationships** with priority clusters and organisations outside Europe, that can extend the reach of European clusters in the field of maritime resource efficiency

Delivering these actions will strengthen the competitive position of the participating clusters within the international marketplace by pursuing three strands of activity.

Firstly, it will prioritise the key focus markets in terms of their **global growth potential**, and identify clusters/organisations that can help gain access to those market opportunities, through strategic partnerships.

Second, it will extend the interaction with selected European clusters that can bring complementary capabilities in the field of maritime resource efficiency, addressing identified weaknesses or gaps and the global growth opportunities.

Thirdly, it will **build relationships** with the non-European organisations to enable new routes to market for research-driven European companies, expert in the field of maritime resource efficiency.

REMCAP PROJECT WORKSHOPS

The REMCAP project partners will be organising **2 workshops** to inform stakeholders of the progress and achievements of the project, involve other clusters in the project activities and explore international market priorities. The overall aim of the workshops is to generate an increased level of interest and engagement with the REMCAP project, improving **collaboration** between key stakeholders and provide a platform for **influencing innovation capacity-building measures** going forward.

Information about the workshops will be disseminated via the [REMCAP LinkedIn](#) and [Facebook](#) page and also it will also be uploaded to the [REMCAP Project website](#). Additionally you can [register your interest](#) in the REMCAP project and be kept up to date with all the project activities.

UPCOMING EVENTS



Ocean Business: April, Southampton, UK

14th - 16th April: This unique event sees companies from around the world exhibiting their products and services within the oceanographic, offshore survey, maritime defence, environmental monitoring and pollution control, ports and harbours, renewable energy and marine engineering industries.

For more please see:

<http://www.oceanbusiness.com/>



Subsea Vessels Europe: April, Oslo, Norway

29th - 30th April: Subsea Vessels Europe is the leading event focused on vessels involved in offshore construction, construction support and IMR operations.

For more please see:

<http://www.informamaritimeevents.com/event/subsea-vessel-operations-conference>



All-Energy Exhibition and Conference: May, Glasgow, UK

6th-7th May: All-Energy Exhibition and Conference is the UK's largest renewable energy event. This is a free-to-attend event, showcasing the complete range of renewable and sustainable technologies.

For more information, please see:

<http://www.all-energy.co.uk/subsea-vessel-operations-conference>



European Maritime Day: May, Piraeus, Greece

28th - 29th May: The Conference will focus on ports and coasts as engines for Blue Growth. High level sessions and stakeholder workshops, as well as exhibitions will be included in the Conference.

For more information please see:

<http://ec.europa.eu/maritimeaffairs/maritimeday/en/home>



Seawork International, June, Southampton, UK

16th-18th June: Seawork International is the largest and fastest growing international commercial marine and workboat exhibition and conference held in a European working port.

<http://www.seawork.com/>



8th European Seminar on offshore wind and other marine renewable energies in Mediterranean and European seas: October, Rome, Italy

7th -9th October: The 8th triennial seminar will provide a new opportunity for scientists and engineers to present recent advances and to discuss current problems, future needs and prospects in the area of marine energies.

For more information please see:

<http://www.owemes-2015.eu/>

REMCAP PARTNERS AT WORK

GA Meeting 2, Port of Leixões Training Center, Porto, Portugal

The Second GA meeting took place in Porto, Portugal on the 14th and 15th of November. The main purpose of this meeting was to update the consortium on the progress on the work packages in progress and develop a strategy for progressing the current work packages and how they feed in to upcoming work packages.

There were two site visits also organised for the REMCAP partners to the Sea Centre of UPTEC MAR facilities and a visit to Port of Leixões.

GA Meeting 3, National Oceanography Centre, Southampton, UK

The third GA meeting took place on the 18th and 19th of June in Southampton. The first day of the meeting focused on updating the group on the technical work packages. Day 2 included an intense discussion around the agreed meta-technology platforms as agreed in the Joint Action Planning Work Package.



OCEANO XXI Internal Interest Group on the REMCAP Project - July 2014.

At this meeting OCEANO XXI presented the project objectives, situation and first deliverables. The interest group on REMCAP was established in order to ensure greater involvement of OCEANO XXI stakeholders in the project developments and outcomes.

SMTF Showcase the REMCAP Project at SMM Hamburg - September

The Swedish Maritime Technology Forum promoted the REMCAP project at its stand at the SMM tradeshow in Hamburg in September 2014. The event attracted 50,000 visitors and had 2,141 exhibitors from 67 countries. The next SMM Hamburg will take place on the 6th -9th September 2016.

Cork County Council organized Cluster Development Workshop - 10th October 2014

Cork County Council organised a workshop at the Bord Iascaigh Mhara (BIM) Seafood Development Centre, Clonakilty, Cork in October. The aim of the workshop was to inform the attendees about the theory behind clustering and how clustering can benefit traditional and maritime sectors through improving competitiveness.



GA Meeting 4, Pôle Mer Méditerranée, La Seyne-sur-Mer, France

The fourth GA meeting took place on the 10th and 11th of December in La Seyne-sur-Mer. This meeting focused on the action planning phase of the project finalising the REMCAP regional strategies and furthering the significant Joint Action Plan. Dissemination of key achievements and expanding the existing REMCAP consortium also featured heavily on the agenda at the meeting.

BECOME INVOLVED:

REMCAP is eager to explore **opportunities for wider engagement** and collaboration with other EU and international maritime clusters and partners to further maximise opportunities for innovation capacity and growth.

As part of this process, the REMCAP project team will disseminate **key project materials** (e.g. annual newsletter, project reports, summary finding briefing papers) at key project stages to keep you **informed** of our work and any **upcoming opportunities**.

REMCAP will also host two workshops for international collaboration in 2015 to develop expanded working partnerships which enable the project team - and potential new partners - to capitalise on the maritime resource efficiency development and growth opportunities identified over the REMCAP project.

We are happy to keep you **updated of project progress, key findings, and next steps**. To register, please click [here](#) and provide your contact details and inform us of your **areas of particular interest** so we can ensure to keep you updated accordingly.

What the REMCAP Partners say about the project:

“Through the REMCAP project the IMERC Cluster will work to overcome existing cluster challenges through the implementation of the strategic plans developed in the project and further expand the growth of the IMERC Cluster through increasing the Cluster’s innovation capacity and exploring new opportunities for collaboration”

- IMERC, Ireland

“Through REMCAP, the Solent Marine Cluster is developing an in-depth understanding of the growth potential for the emerging ‘blue economy’ within Europe and our own region. The collaborative creation and implementation of REMCAP Regional and Joint Actions Plans allows us to build strong mutually beneficial relationships with clusters across Europe. These linkages will remain valuable long after completion of the REMCAP project.” - Solent, UK

“REMCAP is a strategic project for OCEANO XXI which will expand our capacity for innovation and investment across key maritime growth markets” -

Oceano XXI, Portugal

“The participation in REMCAP project gives Pôle Mer Méditerranée the opportunity to learn from other European Cluster experiences in terms of governance, funding schemes and strategy. The analytical work carried out and the identification of sectors and technologies of mutual interest constitute an opportunity to implement joint activities.”

- Pôle Mer Méditerranée, France

“REMCAP has helped to identify strengths and weaknesses of the Western Sweden Maritime Cluster and contributed to valuable insights on different priority areas and growing market demands across Europe. The integrated triple helix approach and the interdisciplinary framework of REMCAP provides a solid ground for future collaboration between the six Regional Research Driven Clusters that constitute the consortium of the project.”

- Western Sweden Maritime Cluster

“The Klaipeda Maritime Cluster aims to harness the experience of the REMCAP Clusters and use it to establish the Cluster as a recognised Cluster Organization”

- Klaipeda Maritime Cluster, Lithuania
















KEY CONTACTS

PROJECT COORDINATOR

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REMCAP CLUSTERS	Partner organisations	Website
 In partnership with  	Solent Maritime Cluster, England Marine South East University of Southampton Portsmouth City Council	www.marinesoutheast.co.uk www.southampton.ac.uk www.portsmouth.gov.uk
	Pole Mer Mediterranee, France Toulon Var Technologies	www.polemermediterranee.com
   	Irish Maritime & Energy Resource Cluster (IMERC), Ireland Cork Institute of Technology Cork Chamber of Commerce Cork County Council	www.cit.ie www.corkchamber.ie www.corkcoco.ie
  	Klaipeda Maritime Cluster, Lithuania Baltic Valley Association Klaipeda University Klaipeda Science and Technology Park	www.balticvalley.lt www.ku.lt www.kmtp.lt
	OCEANO XXI, Portugal OCEANO XXI	www.oceano21.org
  	Western Sweden Maritime Cluster, Sweden Chalmers University of Technology Region Västra Götaland Swedish Maritime Technology Forum	www.chalmers.se www.vgregion.se www.smtf.se

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REMCAP is a Coordination Project funded by the Research DG of the European Commission within the Regions of Knowledge programme of FP7.

