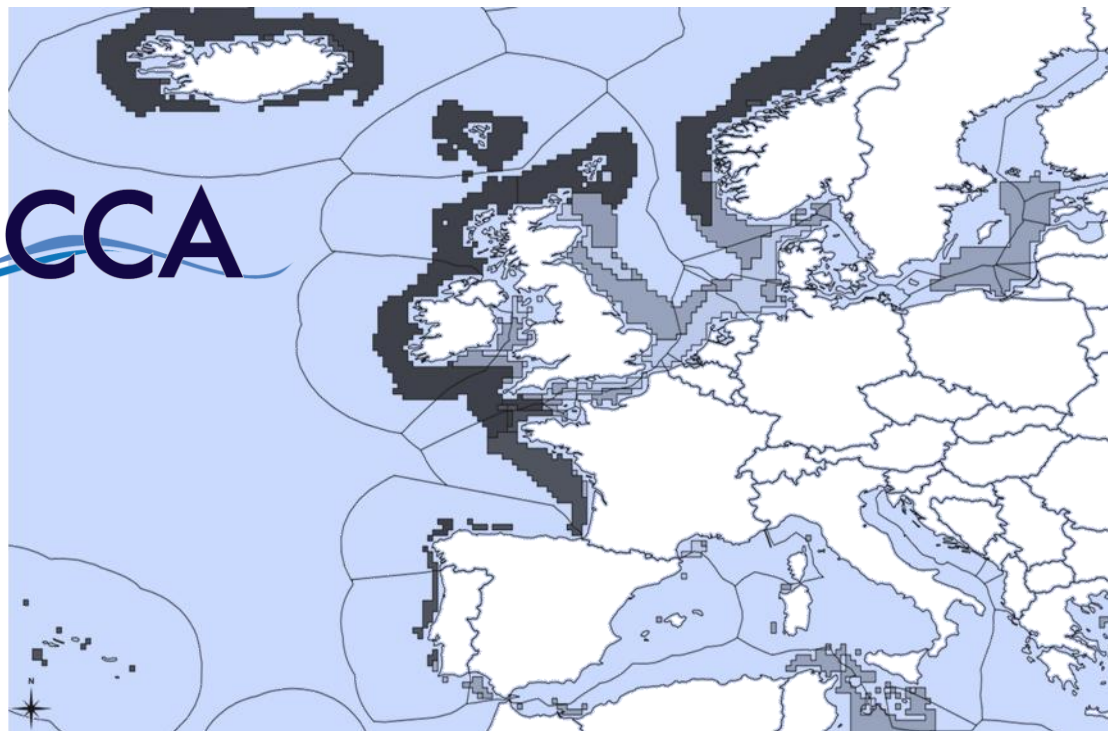




Offshore
Renewable Energy
Conversion platforms -
Coordination Action

Project info 2

A common approach for the exploitation of wind, wave, tidal and other ocean energy resources and activities has the potential to accelerate the offshore market development and to reduce the overall cost for the energetic exploitation of the oceans and seas.



Resource Map showing 6 categories of wind and wave resources across Europe, see reports for details

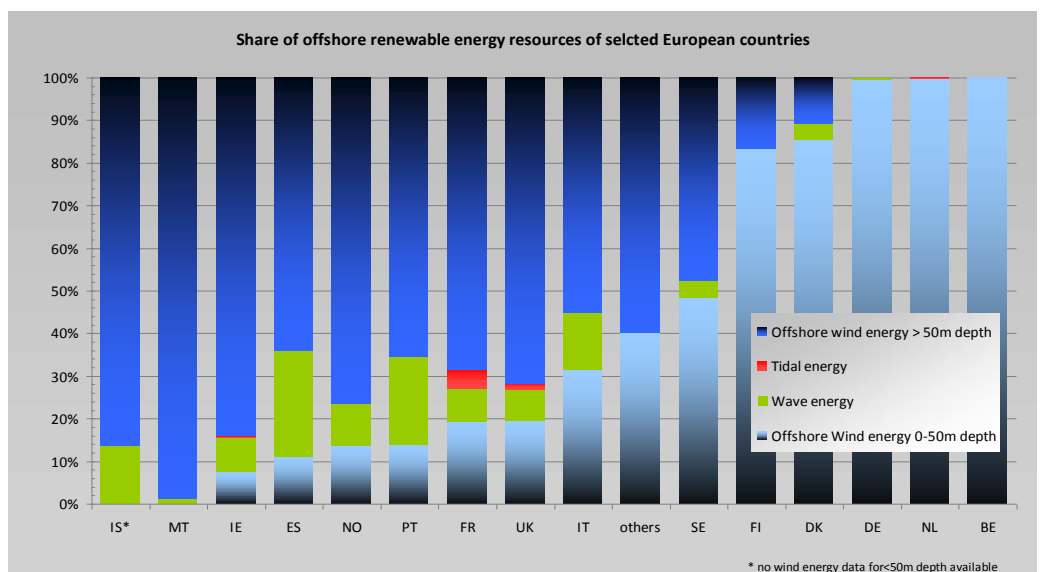
ORECCA results summary

The Off-shore Renewable Energy Conversion platforms - Coordination Action (ORECCA) project has created a framework for knowledge sharing and developed a research and technology roadmap for offshore renewable energy.

Results achieved, information and reports available are listed below.

Resources

For the three geographical target areas investigated namely North & Baltic, Atlantic, Mediterranean & Black Sea, sites have been identified based on the amount and type of renewable energy resource available and on the sea characteristics together with consideration of the infrastructure, offshore and onshore.



* no wind energy data for <50m depth available

- State of resources report.
- Site selection report.
- Offshore WEB-GIS database: EEZs, bathymetry, wind, wave and tidal resource, exclusion zones, distance to shore, ports, installed RE projects and pipeline

Co-ordinator:



Funding scheme:



ORECCA is funded by the European Commission under the FP7 Energy programme with project reference 241421.



ORECCA is a Coordination and Support Activity type project which ran from March 2010 to August 2011 funded by the European Commission under FP7

28 partners from Europe, the US and Canada collaborated with the objective of creating a **framework for knowledge sharing** and of developing a **research and technology roadmap** for activities in the context of offshore renewable energy.

ORECCA aims to **overcome the knowledge fragmentation** existing in Europe and to **provide useful inputs to industries, research organizations and policy makers** on the necessary next steps to foster the development of the ocean energy sector in a sustainable and environmentally friendly way.



MULTIPURPOSE PLATFORM
Author: Riccardo Volpato, Indaco Dept,
Politecnico di Milano

Finance, Environment, Regulation & Legislation

Based on the available resources, this report deals with the environment, the regulatory and financial framework (e.g. marine spatial planning) and policies for each of the three geographical target areas and benchmarks the fiscal national policies and financial incentives relevant for the technology development and investment:

- **Report on National policies and investment opportunities.**

Technology

ORECCA has analysed the state of the art of current offshore RE converters and platform technologies as they are being used in the sectors: oil and gas, offshore wind and ocean energy. The analysis has covered structural requirements and designs of the different technical solutions and described realised systems, including demo and pilot projects. The technical information provided has been processed so as to devise the possible scenarios of development and penetration of RE platforms in each area. Existing and demonstrated structural solutions are analysed, synergies on both technical level (installation and operation) and non-technical level (cost, permits and other) have been identified.

- **Platform technology report: State of the art.**
- **Report on guidelines, tools and standards.**
- **Report on synergies, hybrids and multipurpose platforms.**

Infrastructure

Ports, vessels and the offshore grid are critical infrastructure for the commercial success of offshore renewables. These reports provide an overview on the infrastructure used for offshore wind today and required for offshore renewables in the future based on realised projects and the project pipeline identified.

- **Report on offshore infrastructure (ports, vessels).**
- **Offshore installation and service vessel database.**
- **Offshore Grid report.**

Road Map

One main objective of ORECCA has been to develop roadmap studies for the research, deployment and regulatory activities in this field. This roadmap aims at defining the strategic priorities, including socio economic aspects, for the development of offshore renewable energy conversion platforms in the context of an integrated European maritime policy.

- **Full version.**
- **Executive summary.**

Workshop Readers

Two public workshops were held in the course of the project which involved around 100 experts across the different sectors discussing visions for offshore renewables, combined platforms & new ideas for each of the target areas and along the main project topics.

- **Workshop 1: “The Future of Offshore Renewables”.**
- **Workshop2: “Outlining the Vision for Future Renewable Energy Conversion Platforms in Europe”.**

Contact:
jochen.bard@iwes.fraunhofer.de