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# The ECOWindS Project and its key results

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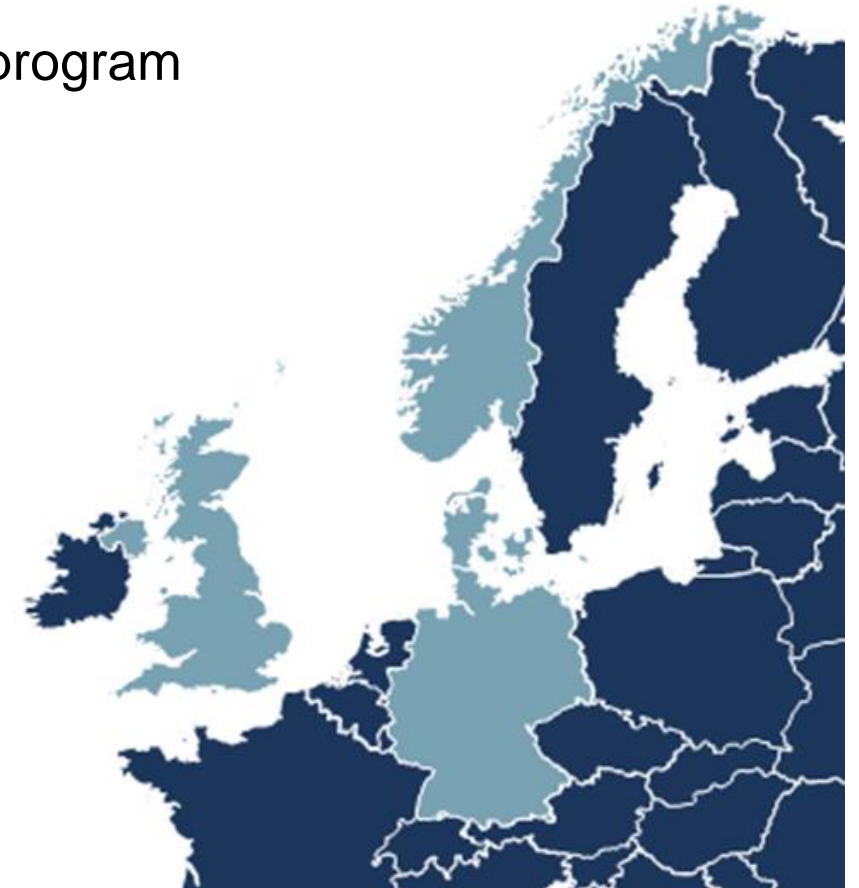
This Project is funded by  
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## General information

ECOWindS: **European Cluster for Offshore Wind Servicing**  
Funded by: The European Union under the 7th framework program  
Project period: 01.11.2012 - 31.10.2015

### Project partners:

Offshoreenergy.dk, Lead partner	(Esbjerg, Denmark)
Denmarks Tekniske Universitet	(Copenhagen, Denmark)
NWES Property Services Limited	(Lowestoft, United Kingdom)
Germanwind GmbH	(Bremerhaven, Germany)
Ålesund Kunnskapspark AS	(Ålesund, Norway)
HØGSKOLEN I Ålesund	(Ålesund, Norway)
Nautilus Associates Ltd	(Lowestoft, United Kingdom)



To pave the way, for new research and understanding, of how the costs of offshore wind servicing, can be driven down through research, innovation and cross regional cooperation.



## Objectives:

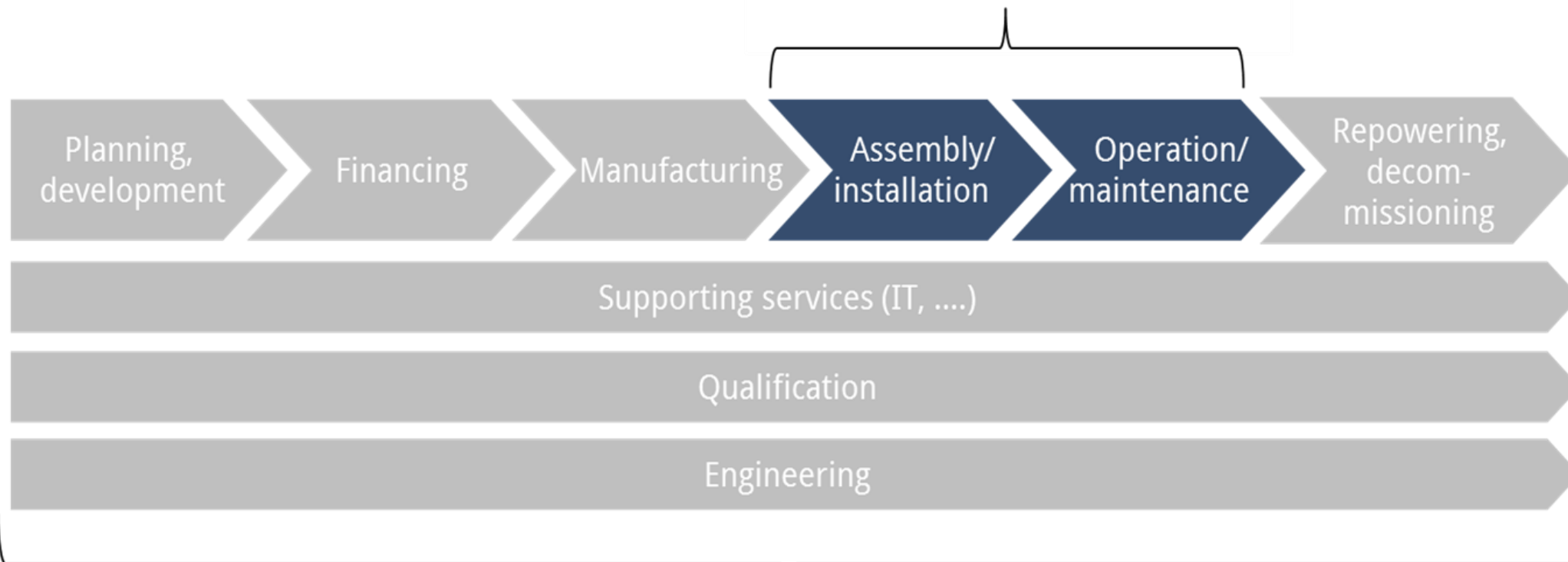
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- Increase capacity for innovation amongst and within ECOWindS Research Driven Cluster (RDC)
- Develop regional strategies for Offshore Wind Servicing (OWS), via smart specialization, mapped in a Joint Action Plan (JAP)
- To develop an international cooperation strategy for innovative OWS clusters to internationalise and exploit new business opportunities
- To increase innovation driven cooperation of stakeholders within and amongst the participating clusters by means of regional research agendas and a joint action plan
- To improve qualification capacities within and amongst the RDCs to secure a capable workforce and intelligent researchers that respond to the needs of the OWS sector across Europe and internationally



# Definition og Offshore Wind Servicing

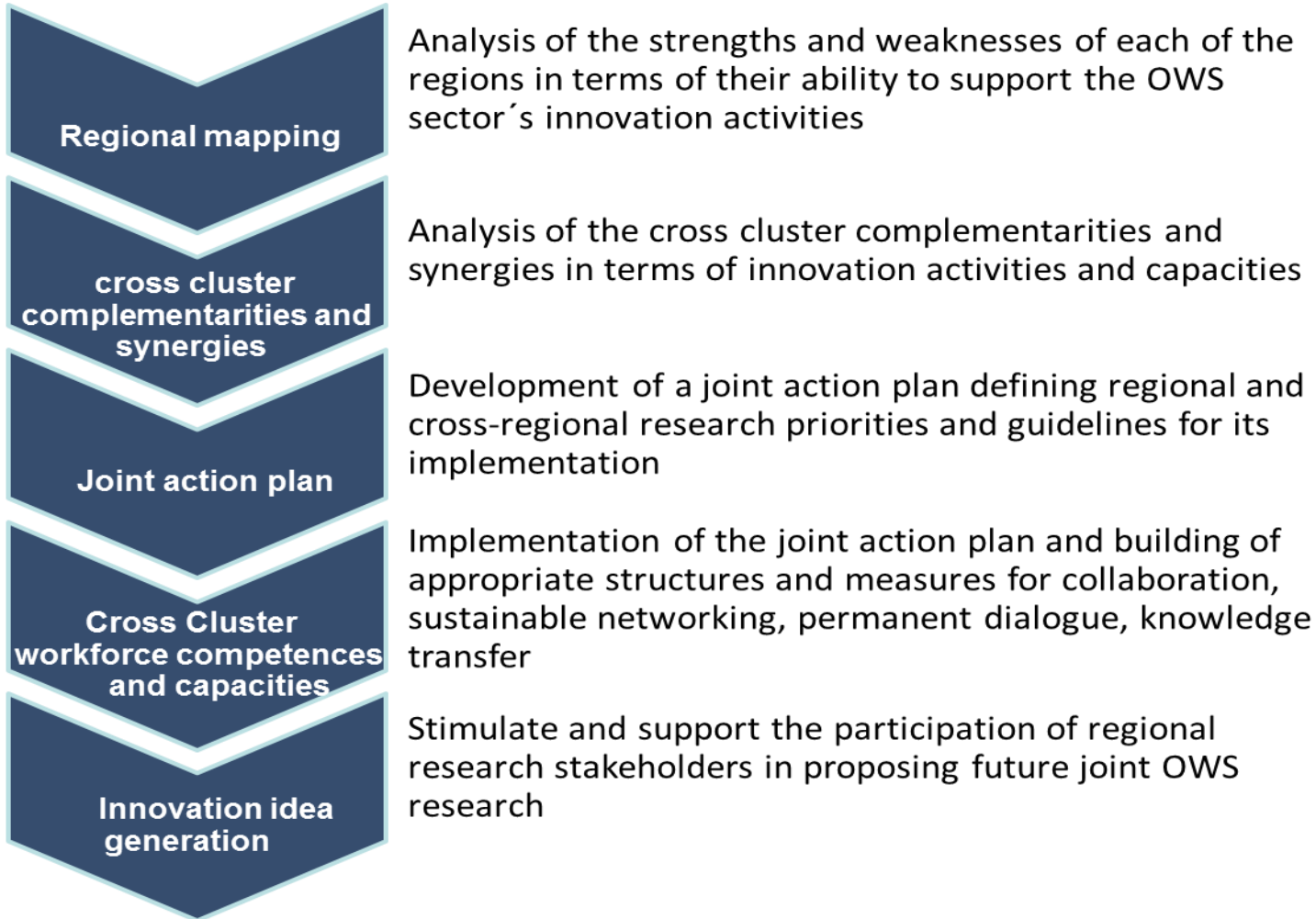
## Offshore wind servicing (OWS)



## Value chain of offshore wind (OW)



# Activities



# Regional mapping of the Participating Offshore Wind Regions

- Created a understanding of the internal dynamics with focus on the Innovation capacity
- Identified the cross-cluster complementarities and synergies
- Summarized the findings in regional SWOT mapping



# Strategic Orientation

The themes identified are:

- Knowledge sharing and exchange of best practice
- Standardisation and industrialisation
- Qualifications and skilled workforce
- Innovation and R&D
- Funding
- Business collaboration
- Political support and Industry regulation
- Strengthening the market position
- Infrastructure
- Data management





# Offshore Wind Servicing Strategy

- Building on the work completed in the regional mapping, to identify research agendas for OWS in each Cluster.
- An advisory group with representatives from industry, research organisations and administration met in each cluster to discuss their regional research priorities.
- The final strategy produced outlines measures including:
  - promotion of business collaboration and standardisation
  - improvements in qualification and training provisions
  - management of ‘Big Data’ across the industry.



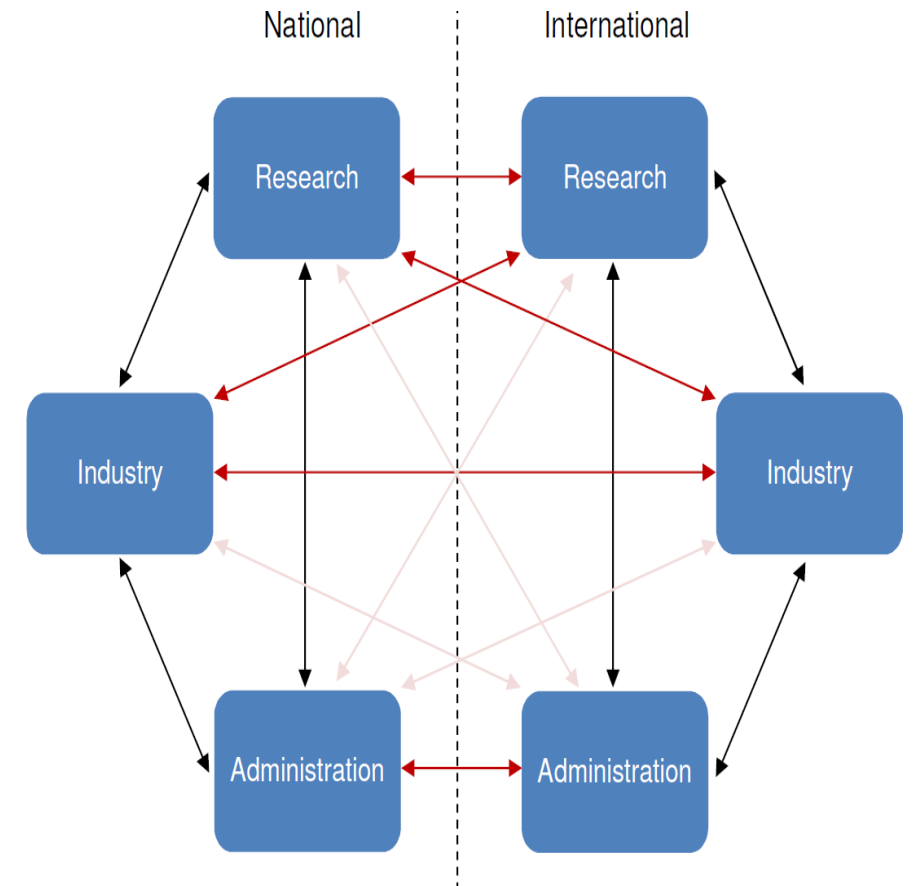
# International Cooperation Strategy

Results Categorized under four broad themes:

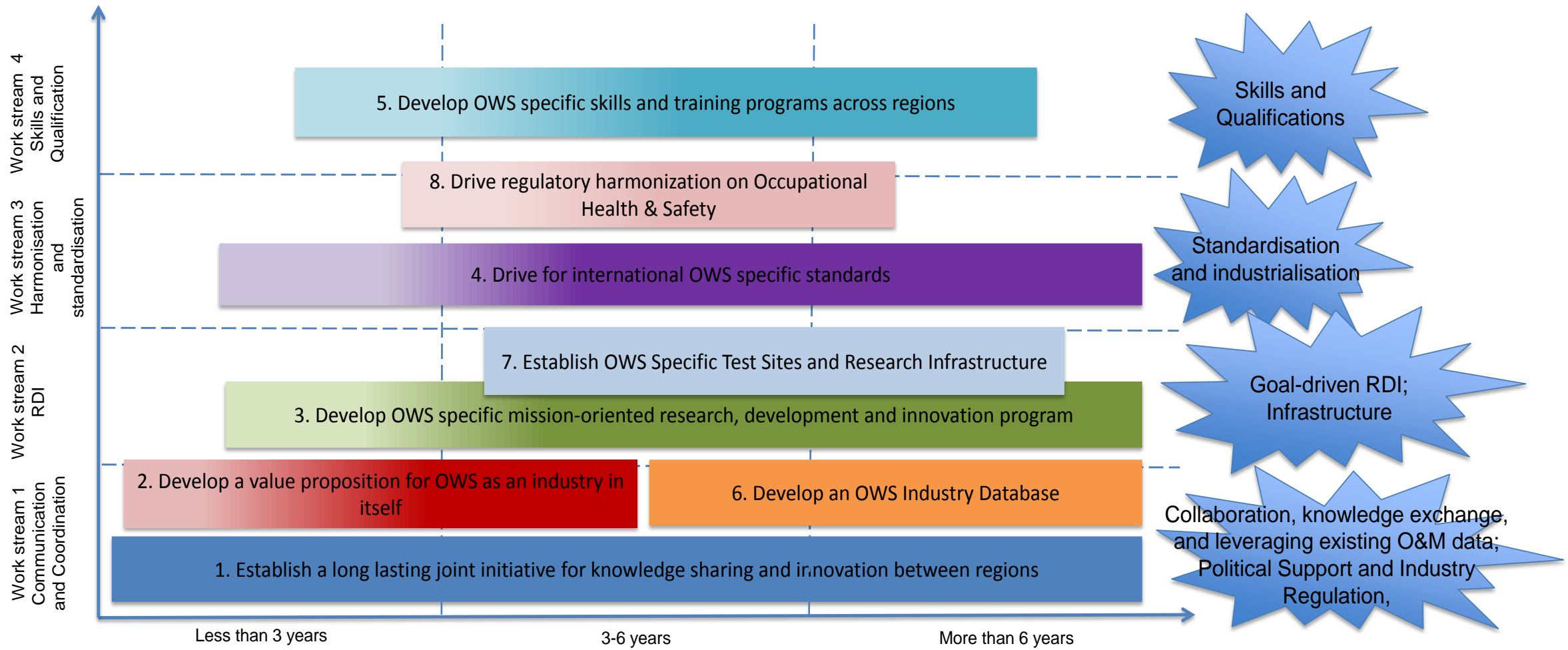
- Exchange of personnel
- Sharing of knowledge and best practice
- Use of shared resources
- Cross funding

One key recommendation is establishment of an **international advisory group**, made up of representatives of the triple helix within the key international markets.

- They will help to set future agenda for the Offshore Wind Service industry
- Develop and promote key ideas like standardization and harmonization.



# Overview of Joint Action Plan



## Cross-cluster Workforce Competences and Capacities

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- Well trained crew work more efficient and have less accidents.
- Verification and optimization of work procedures.
- Preplanning of operation, briefing and debriefing.
- Secure procedures due to customer confidence, risk level and time of operation
- High capacity training
- Simulator training is better structured and more efficient as opposed to learning on the job.



## Key benefits of using training in virtual environment

- Simulator training is flexible and safe
- Simulator training is better structured and more efficient as opposed to learning on the job
- Simulator can be used to try out and study difficult or extraordinary operations, in single mode or in team mode.
- Simulation of operations under different weather conditions
- Emergency training, due to malfunction of accidents.
- Try things you never would do in reality
- Preplanning of operation, briefing and debriefing.



# Catalogue of Research and Innovation Concepts

- A core focus of ECOWindS was the improvement of the innovation capacities in the four regions, and as a result strengthen the OWS sector within them.
- Research and innovation demand was mapped
- A gap analysis with stakeholder conducted
- A detailed catalogue of research and innovation concepts.
- The catalogue details the innovation concepts, matched to potential sources of funding as well as a broad overview of which organisations are best suited to take action.



## Summary

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- Detailed mapping in each region created the basis for the analysis.
- Involvement of Triple Helix stakeholders verified and supplemented the findings
- This resulted in the following guidelines:
  - SOR report on strategic objectives
  - International Cooperation Strategy
  - Joint Action Plan
  - Core Characteristics of the ECOWindS Training and Simulation Platform
  - Supply and Demand of Research and Innovation in Offshore Wind Servicing
- Visit **[www.ecowinds.eu](http://www.ecowinds.eu)** for more information
- Learn more details by downloading one or more of the 10 reports conducted.



Thank you for listening.



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This Project is funded by the European Union