ECOWindS – The European Clusters for Offshore Wind Servicing

Editorial

On behalf of the project team, I am happy to welcome you to our fourth ECOWindS newsletter.

ECOWindS (European Cluster for Offshore Wind Servicing) is an FP7 funded project with the scope to increase the innovative capacity of the offshore wind servicing (OWS) sector in European partner countries. Our intention in this newsletter is to inform all involved and interested parties, regional authorities, the industry and our stakeholders about recent project developments and outcomes in all four regions. This includes international cooperation strategy, our strategic orientation on objectives and a smart specialization strategy for the OWS industry.

We have just passed the midway point of the project and are in the process of setting up the joint action plan (JAP).

All four regions have benefited from involving local stakeholders and knowledge persons who were invited to contribute. We appreciate the dedicated involvement of all participating stakeholders. They have validated our findings and contributed to the process of concluding the first half of the project at the combined midway conference and JAP workshop held in Barcelona alongside the EWEA 2014.

The project team is well prepared and motivated for the second half of ECOWindS’ project period, which will involve setting up and implementing the joint action plan.

Read on in this newsletter and visit our website for more information at: www.ecowinds.eu

Hans A Pedersen

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Results from WP3 on “Regional Complementarities and Synergies”

The focus of work package 3 (WP3) was to establish research priorities based on the needs of the offshore wind servicing (OWS) sector. The main objectives were:

- formulation of strategic objectives
- brainstorming on potential research options
- appraisal and selection of options
- assessment of possibilities for international cooperation

The sections below describe each of the tasks undertaken in WP3. Additional information and the final results can be found on the ECOWindS website: [www.ecowinds.eu](http://www.ecowinds.eu)

Formulating strategic objectives through strategic orientation

This part was led by germanwind as it was closely linked to the regional mapping carried out in WP2. The task was to develop a set of strategic objectives for each cluster through a process of strategic orientation; it was carried out jointly with the regional mapping workshops.

The key outcome was a set of strategic objectives for each cluster based on the results of the SWOT analysis completed in WP2. Once this process was completed, objectives were combined to form a set of cross-cluster objectives that could be taken forward by the ECOWindS project.

Grouping similar objectives into strategic themes allowed the results to be presented in an easily comprehensible way. Without identifying strategic themes, the objectives would have proven extremely difficult to analyse for a cross-cluster comparison. The strategic themes have also been applied to the organisation of tasks like the scoring system.

The strategic themes identified were:

- 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

Brainstorming on innovation and research strategy options

The aim of the brainstorming sessions was to create a set of innovation research options (delivery measures) to allow the research-driven clusters to realise the strategic objectives defined as a result of the strategic orientation process mentioned above.

Brainstorming was split into two phases. The first was a creative phase to encourage idea generation. Regional stakeholders providing input came up with delivery measures based on strategic objectives. The second phase served to review these delivery measures and draw up the list of ideas into a manageable document by removing duplications and grouping similar ideas together. This was done by OrbisEnergy and reviewed and agreed upon by all partners. The purpose of this task was to have a short list of ideas that could be taken forward and scored to establish priorities.
Selecting options

Delivery measures then needed to be prioritised. A set of weighted scoring criteria was developed to allow each cluster (and each partner and individual if necessary) to score the delivery measures separately. The scoring criteria were developed to take into account key factors such as feasibility, importance to the OWS sector, and value to members of the triple helix.

The principle concern was to develop a scoring system that could be weighted and aggregated at all levels, from individuals to clusters. Individual scores were combined to create partner scores, which in turn were combined to create cluster scores. This process of weighting and aggregation made scores directly comparable and also served to remove aberrancies.

Once scores from each cluster were submitted, they were collated to assign each delivery measure an overall ECOWindS score. These scores were then ranked to prioritise the delivery measures.

ECOWindS strategy setting and smart specialisation toolkit

The next step was the presentation of the ranked scores to the ECOWindS clusters at cluster and cross-cluster levels.

Another key task of WP3 was the production of a smart specialisation strategy toolkit. The toolkit is a guidebook that allows other clusters to make more direct comparisons to ECOWindS clusters. It describes the processes which the ECOWindS project has used to achieve results through regional mapping, SWOT analysis, a strategic orientation exercise, and idea generation (delivery measures).

Developing an international cooperation strategy

The final task of WP3 was to develop an international cooperation strategy to allow the OWS sector in other areas of the world to benefit from the outcomes of the ECOWindS project.

A high level SWOT analysis was carried out for a number of clusters within and outside Europe, and a set of indicative actions for how international cooperation could be facilitated was identified.

The clusters/countries reviewed were:

- United Kingdom
- Germany
- Denmark
- Norway
- France
- Belgium
- Netherlands
- Sweden
- Finland
- Ireland
- Poland
- Latvia
- Estonia
- Lithuania
- China
- USA
- India
- Canada
- Japan
- South Korea
- Brazil

For more information and to see the final results, please visit the ECOWindS website: www.ecowinds.eu
Midway conference
Side event at EWEA in Barcelona on Monday, 10 March 2014

From four regions around the North Sea, 32 stakeholders joined the conference and contributed to guiding the ECOWindS project and its partners in the right direction.

The four regions were each represented by stakeholders from the following areas (the triple helix):

- industry in the offshore wind service area
- universities
- regulative and administrative bodies

One of the main goals of ECOWindS is to identify research, development and innovation priorities and translate them into action. To this end we invited stakeholders to work on developing a joint action plan (JAP) / roadmap with specific actions. To ensure that priorities are translated into concrete actions and meet the actual needs of the industry, the stakeholders were invited to a workshop where industry, universities, administrative bodies and the project team worked together to select and prioritise the actions to be taken.

Stakeholders in each region were involved in developing the SWOT and turning this into a concept for strategic orientation. The next step was to bring stakeholders together from each region to share knowledge and understand needs in order to develop input for a common roadmap/JAP. Each workshop participant saw the results and gained insight on the four regions through regional mapping. All stakeholders had influence on the choice of priorities and helped to determine/design the actions to be taken in the joint action plan.

The midway conference was held in conjunction with the JAP workshop to take advantage of synergies.

Morten Basse welcomes participants
Laying the foundations for the future of offshore wind services: the ECOWindS joint action plan workshop at EWEA 2014

DTU and Offshoreenergy.dk prepared and held a joint action plan (JAP) workshop together with their ECOWindS partners on 10 March 2014 in conjunction with the ECOWindS midway conference alongside the annual EWEA event. Altogether 31 participants, a broad group of stakeholders from the triple helix in the four regions, were present at the workshop, comprising representatives from organisations involved in research, development and education, policymakers and the offshore wind industry.

The key objectives of the workshop were to present the results from ECOWindS’ regional mapping and strategy work packages and to develop actions for the future of the offshore wind service (OWS) industry in a collaborative roadmapping process. DTU designed this process and facilitated the group through its agenda. The workshop started with a presentation on the key findings from regional mapping and proceeded to look at strategic orientation and the ECOWindS strategy toolkit to set the framework for future actions.

Building on the orientation presentation, the group began the collaborative roadmapping process. During this phase, the group discussed key goals for the next three to eight years in the OWS industry, prioritised them, and continued on to generate ideas for specific actions to advance toward these goals. These ideas for action were then clustered and prioritised. The final phase of the workshop was a session for drafting roadmaps for OWS.

The main outcomes from the JAP workshop were a total of 97 initial ideas for actions to develop OWS through research, development and innovation (RDI). These ideas were clustered into 17 main areas of action prioritised by the participants and organised in a timeline as an initial roadmap for the OWS industry. The figure below (page 6, figure 2) summarises the results from the workshop as a roadmap, indicating a rudimentary time scale and expected level of actions.
A glimpse at the JAP workshop, with proposals for short term actions as envisioned by stakeholders at the workshop (the blue cards are action headings, while ideas from industry are in green, from research and education in orange, and from policy agencies in pink).
Due to some overlap between the first drafts of actions, some were merged, e.g. the actions concerning data management. The result is altogether 12 action proposals that will be further edited in collaboration with industry stakeholders. The headings for proposed actions are:

- Communicate the value of the OWS industry
- Drive business collaboration and knowledge sharing
- Develop a research, development and innovation (RDI) strategy for OWS
- Drive for industry standards
- Drive technical standardisation
- Develop OWS specific skills and training programmes
- Develop an OWS industry database
- Mid-term to long-term RDI programmes
- Establish OWS specific test sites and research infrastructure
- Drive skills and qualifications standardisation/harmonisation
- Drive regulatory harmonisation on occupational health and safety
- Drive regulatory harmonisation on maritime spatial planning and approval processes

Within these areas of action, mid-term to long-term RDI programmes include the selection and development of collaborative research and development projects with OWS stakeholders in key technical areas. The general thrust prescribed by the JAP is to focus on framework conditions and infrastructures that enable the development of OWS as an industry at the international and cluster level.

As described in the figure below, the workshop contributed the key ideas underlining the final JAP that will be an important contribution by the ECOWindS project. Since the March workshop, ECOWindS partners have worked on actions side-by-side with the delivery of a strategic orientation, and later, of a report on the supply and demand of research development and innovation. These actions were discussed and developed in a working meeting with partners in September in Copenhagen. The meeting brought the partners’ joint expertise together and synchronised parallel work packages. The details of these actions are being prepared for stakeholder consultation, which will pave the way for completion of the Joint Action Plan to be released later this year.

If you would like to know more about the JAP process and its contents, or if you would like to contribute to the action plan, please contact:

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Fourth project steering group meeting held in Bremerhaven

All seven project partners attended the fourth project steering group (PSG) meeting from 13 to 15 May in Bremerhaven. It was held as a three-day combined PSG meeting and project workshop, and was hosted by germanwind / WAB.

Since the ECOWindS project has passed the midway milestone, work at the meeting focused on status reporting on all ongoing activities and planning for the second half of the project. This is to prepare for the comprehensive midway reporting. ECOWindS and its partners agreed to pursue a revised project plan. In short, the present status is:

- All seven partners are on board and two new colleagues have joined since the last PSG meeting.
- All 15 deliverables were submitted on time.
- The project is following the plan and has spent 7 percent less than budgeted.
- Comprehensive reports so far total 326 pages.
- WP2 and WP3 are now completed.
- The combined midway conference and joint action plan (JAP) workshop were held in Barcelona.
- WP4 is ongoing.
- WP5 and WP6 have just started and are proceeding according to plan.
- Midway reporting is ongoing.

Dissemination activities for WP7

It was agreed to post all reports and deliverables on the project’s website. Persons interested in our results need only to register to have free access. Stakeholders’ logos are welcomed for posting on the website and will be uploaded when they are delivered. Video spots will be added as well to show the people involved in the project.

The meeting also discussed and decided on the purpose and content of a new flyer.

Joint action plan for WP4

Participants discussed tasks, deliverables, goals and their involvement, and a detailed plan was set up to ensure input from all partners. A workshop will be held in Copenhagen on 1 and 2 September 2014. This will combine the WP6 regional workshop with industry feedback from WP4 and the JAP.

Research and innovative idea generation at WP6

Regional workshops will be held in the four regions during October and November. An international workshop is planned for November 2014 in the UK. Participants from the industry and from clusters outside the four countries will be invited.

The project team had the good fortune to attend the bimonthly WAB social get-together in Bremen at the invitation of WAB. This networking event regularly hosts some 200 to 300 guests who are active in the offshore wind industry.

The next PSG meeting will be held in Esbjerg in December 2014 and hosted by DTU.
The East of England research-driven cluster: demonstrating expertise and leadership in offshore wind servicing

The UK has Europe’s largest offshore wind (OW) resource. In July 2014 the UK’s installed capacity for OW stood at over 3.6 GW, more than the rest of the world combined, with a further 5.7 GW under construction or with planning approval and significant additional capacity in the planning stages. The East of England is at the centre of this market, positioned at the heart of the UK’s OW industry and ideally situated to provide offshore installation and operation and maintenance (O&M) services to OW projects in the North Sea, including the two largest offshore wind farms in the world, London Array and Greater Gabbard.

The East of England cluster is a UK and international leader in offshore wind servicing (OWS). Port facilities around the region’s coast are serving as successful installation and O&M bases to existing OW projects. Examples include the port of Harwich, used for installing the 504 MW Greater Gabbard wind farm, and the port of Great Yarmouth, the installation and O&M base for E.ON’s Scroby Sands.

The region boasts an historic supply chain and expert skills base in offshore operations, developed over 40 years of supporting the oil and gas industry in the southern North Sea. The skilled workforce and existing supply chain has diversified to support the emerging OW market through the planning, installation and O&M of regional projects since the early 2000s.

The cluster is home to a strong and diverse offshore supply chain that boasts home-grown companies that now work internationally as leaders in their fields. Examples include Seajacks International, a leading owner and operator of purpose-built jack-up vessels working globally in offshore wind installation and O&M, and the Gardline Group, providing marine geophysics, environmental, and consulting services to the sector. The East of England is also home to numerous vessel companies that cover all parts of the supply chain from survey to installation and crew transfer.

The East of England is home not only to local companies but also developers and key industry players such as Scottish and Southern Electric, E.ON Climate and Renewables, East Anglian Offshore Winds Ltd, and Fred Olsen United, all of whom have operational offices on the region’s coasts.
OrbisEnergy is located at the UK’s most easterly point on the Lowestoft coast. Though less well represented in the regional and national supply chain, the manufacturing of small components is covered by regional businesses such as foundation and substation manufacturer Sembmarine SLP.

Equipped with these facilities and an experienced supply chain, the East of England is ready to expand OW capacity in the upcoming Round 3 developments.

OrbisEnergy is a specialist innovation and incubation centre at the heart of the East of England’s offshore renewable energy sector. Situated on Britain’s most easterly point in the town of Lowestoft, its prime objectives are to maximise the supply chain opportunities associated with the rapid development of offshore renewables in the North Sea, and to help regional businesses take advantage of the many opportunities this fast-growing sector offers.

OrbisEnergy plays a major role in ensuring that companies in the supply chain have access to the fast-growing offshore wind industry, helping to build partnerships and commercial links among suppliers, contractors, engineers, manufacturers and research centres. It encourages and helps facilitate innovation as well as research and technological development (RTD), and represents the cluster internally and externally. The centre’s commitment to the development of the sector and supportive role for businesses within it has lead the centre to be named the cluster management organisation of the East of England research-driven cluster for offshore wind servicing.

Being a facility and not a legal entity in itself, OrbisEnergy is represented by the two UK partners in the ECOWindS project: NWES Property Services Ltd, which operates OrbisEnergy and coordinates the support and services the facility provides, and Nautilus Associates Ltd, a multidisciplinary consultancy company working in the offshore renewable and wider energy sector. NWES Property Services manages OrbisEnergy on behalf of the owners of the facility, Suffolk County Council. It has expertise in supporting the growth of businesses in all sectors in the region. Nautilus Associates provides all forms of business support, market intelligence and supply chain analysis. Both UK partners have a wealth of experience in delivering European projects to the highest standards.

OrbisEnergy is located at the UK’s most easterly point on the Lowestoft coast.
The UK contribution to ECOWindS

As a region, the East of England offers a great deal to the ECOWindS project. As we have seen, companies in the cluster play an important role in the installation, operation and maintenance of the biggest offshore wind farms in the world, as well as in other related offshore and energy industries. Adding their knowledge and expertise to the project makes a significant contribution to the value and implementation of the project’s results.

Lowestoft-based Windcat workboats providing crew transfer services at Greater Gabbard Orbis-Energy is located at the UK’s most easterly point on the Lowestoft coast. For OrbisEnergy and the UK partners, their involvement in ECOWindS builds on their knowledge and experience base in the offshore wind sector and provides key insights into the attitudes and needs of the industry to better inform the services they provide.

For companies in the region, the East of England’s representation in the project will support their business by broadening business opportunities available to them both at home and abroad, and fostering collaborative relationships with national and international partner organisations. The project will make significant headway in identifying and resolving key challenges in the sector and improving the capacity for research and innovation in the region, making an important contribution to achieving reduced operational expenditure.

The UK partners, NWES Property Services and Nautilus Associates, are the work package leaders responsible for the successful and timely delivery of work package three and work package six. OrbisEnergy will also host all the international partners, and key stakeholders from their clusters, for the ECOWindS closing conference when the project is completed in October 2015. The event will be an opportunity to celebrate the project’s key results and promote further opportunities for collaboration in innovation and research within the offshore wind servicing sector.

ECOWindS downloads available

In the last months of work a number of interesting results have been produced by the joint effort of the ECOWindS Consortium: for example

- ECOWindS Analysis of the Strengths, Weaknesses, Opportunities and Threats (SWOTs) of the ECOWindS Offshore Wind Clusters
- ECOWindS Report on Strategic Objectives (SOR) of the Participating Offshore Wind Clusters
- ECOWindS Strategy Report and Smart Specialisation Toolkit
- ECOWindS International Cooperation Strategy

All results are available as downloads on the ECOWindS website: [www.ecowinds.eu](http://www.ecowinds.eu)