D6.6 Publication and presentation of the research performed in the WP

This report summarizes the deliverables produced in WP 6: Uncertainty and Risk Management. The report also gives an overview of all the dissemination activities that were carried out as part of the research, including publications and public presentations.

The work package has six deliverables, with each deliverable addressing a specific area of risk associated with the development of floating offshore wind substructure and floating offshore wind farm. The six key areas addressed in the work package are:

1. Methodology for risk management of deep water substructures.
2. Risk assessment of the substructures designed on the project.
3. HAZID risk report for the specific HSE implications of the design.
4. Operation and Maintenance risk register.
5. Review of key commercial risks.
6. Publication and Presentation of the Research Performed in the work package

There are four floating offshore wind substructure concepts supported on this project for further development. This work package helps the designers of each of the substructure concepts to understand the full profile of risks associated with their concept, from design to decommissioning. This knowledge will empower the designers to consider ways of mitigating the risks from the design stage.

Also the project has its objective of selecting two concepts from the four concepts based on a number of criteria: levelised cost of energy, technical performance, environmental KPIs, and risk profile for optimisation through wind tunnel and ocean basin tests. So risk profile of each of the substructure concepts was one of the key criteria used to assess the concepts for advancing to optimisation of the design.

Prior to this project, there was no existing specific methodology for assessment the risks of floating deep water substructures, so the first deliverable on this work package is a methodology suitable for risk assessment of floating deep water substructures.

However even though the methodology developed in this work package covers risk management, which includes risk identification, risk assessment, risk evaluation, and risk treatment, the subsequent deliverables do not include risk evaluation and risk treatment as it was considered to be beyond the scope of this work package. The intention was that the designers of each floating substructure concept would use the result of the risk assessment to determine how best to mitigate the risks associated with their technology. This is in recognition of the fact that one risk treatment or risk mitigation will not be suitable for different floating substructures.