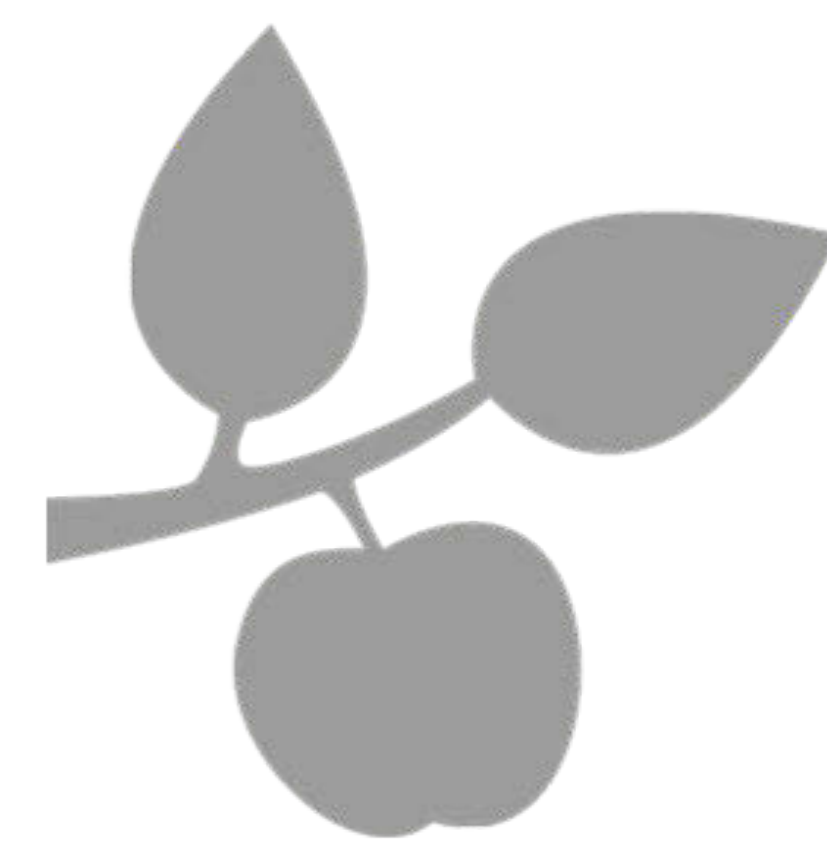


Small and Medium-sized Enterprises (SMEs) and their contribution to O&M activities in offshore wind parks in the North Sea.



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Abstract

The research in this paper reveals how SMEs can enable innovation collaboration with larger enterprises for enhanced competitiveness of the offshore wind sector. The research is based on a longitudinal qualitative study starting in 2011 with a project-based network and learning course with 10 SMEs wind farm suppliers and continued with a focus group interview and interviews of 20 individual enterprises within O&M in wind farms and a seminar in May 2015.

The findings reveal opportunities, however, also challenges for SMEs to contribute to innovation and competitiveness through collaboration with larger enterprises in the offshore wind farm sector. Three different routes are revealed, which partially overlap.

The three routes are called respectively:

- ◆ **Demand-driven** collaboration, which require very specific knowledge from the SME.
- ◆ **Supplier driven** collaboration, which require collaboration with other SMEs on only partially revealed demands.
- ◆ **Partner driven** collaboration, which requires flexible dynamic complementary capabilities of the SME.

Challenges are thus present on the collaboration aim of SMEs with larger enterprises.

Further research is needed in other sectors on the research question. A fourfold contribution is made to enhance understanding of innovation collaboration to enable competitiveness for the offshore wind energy sector. SMEs, larger enterprises, academic researchers and policy bodies are provided a model for positioning of innovation collaboration for enactment.

Objectives & Methods

Research Question: *how can SMEs contribute to competitiveness of offshore wind?*

Research project 1 – SME innovation	Research project 2 – Industry innovation
<ul style="list-style-type: none"> ◆ Action learning on 8 network days from September 2011 to April 2012 ◆ Group evaluation of the impact April 2012. ◆ Follow up meeting with 10 SMEs september to November 2013. 	<ul style="list-style-type: none"> ◆ Focus group meeting, June 2014 ◆ Individual interviews with 20 actors within O&M, from Sept. 2014 to March 2015 ◆ Seminar with preliminary findings, May 2015

Findings:

Routes for SME innovation collaboration: <http://ipaper.ipapercms.dk/Windpower/OWDrapport>

		SMEs	Long term:
		Short term: Competition	Collaboration
Larger Enterprises	Short term: Competition	<p>“Arms Length”</p> <p><i>Tender law</i></p>	<p>“Supplier Driven”</p> <p>Proposition & findings: Joint supplier unit</p>
	Long term: Collaboration	<p>“Demand Driven”</p> <p>Proposition & findings: Specific knowledge of the SME.</p>	<p>“Partner Driven”</p> <p>Proposition & findings: Flexible and dynamic Complementary capabilities</p>



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