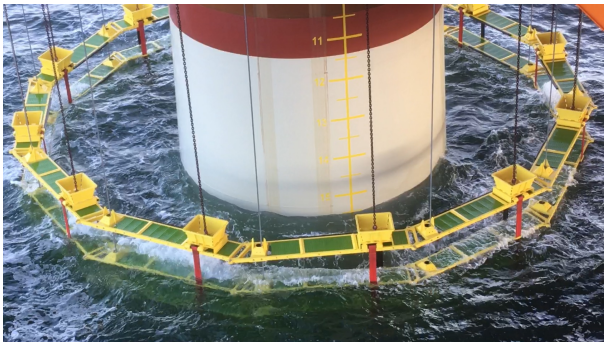
Underwater Noise Abatement System for Pile Driving

Publieke samenvatting / Public summary

In/around the Northsea, an 160 dB (at 750m) - underwater noise limit applies for offshore operations, especially pile driving. Meeting this limits is required and therefore mitigating measurements have to be taken.

Reduction of underwater noise using a novel Noise Abatement System (NAS). This new technology will contribute to a reduction in costs in the construction of offshore windfarms relative to existing systems. Furthermore a numerical model will be made and validated in order to optimise the system. This proposed project should make this new noise abatement system a proven technology which can be deployed (with adjustments if necessary) on future projects where noise restrictions are in place. Validated models will be available to optimise the system and to predict the underwater noise levels for future wind farms.



The tasks and activities have been split over three companies: AdBm, TNO and Van Oord

* Predict the emitted underwater noise level from the pile driving of a monopile at Gemini Offshore

Projectinformatie / Project information

Projectnummer / Project number
TEHE115021
Subsidiebedrag / Grant amount
€ 556.523,00

Algemene informatie / General information

Penvoerder / Secretariat
Van Oord Offshore Wind Projects BV

Publicaties en materialen / Publications and attachments

- **04.03.2020**

  Eindrapport TEHE115021

Links

- Van Oord Magazine, interview with Bob Meijer, director TKI Wind op Zee (2019)
- Another innovation in the construction of offshore wind farms (press release, 2019)

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Wind Farm without a NAS (TNO)

* Develop a numerical model for the NAS to predict the noise through water and soil (TNO) when applying a NAS

* Design and fabricate resonators including molds (AdBm)

* Design and fabricate slats, winches and floaters (Van Oord)

* Write a method statement for execution of the works offshore (Van Oord)

* Assemble the full system and do harbour tests to confirm operation of system (Van Oord)

* Deploy system on Gemini Offshore wind farm (Van Oord)

* Execute measurements of noise levels in line with (German) requirements (TNO)

* Process measured data and report screen effectiveness and validate model (TNO)

De data in deze applicatie is afkomstig van de Rijksdienst voor Ondernemend Nederland (RVO) en wordt in samenwerking met de Topsector Energie ontsloten.
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Voor meer informatie over de TSE / Energie-Innovatie regelingen die RVO aanbiedt, ga naar **www.rvo.nl/tse**.