

Wind farm Autonomy through Vessel-Enhanced Systems

Publieke samenvatting / Public summary

Aanleiding

The WAVES project addresses the critical shortage of qualified offshore inspection staff and the technical limitations in offshore wind farm inspections, amid growing demand for these services due to rapidly expanding offshore wind capacities. Offshore wind farms require regular inspections to ensure asset integrity and operational efficiency, but challenges persist, particularly in inspecting underwater cables and pipelines, which are vital yet vulnerable to damage, sabotage, and environmental degradation. Additionally, the ecological impacts of offshore wind activities remain poorly understood, necessitating improved monitoring.

Doelstelling

Led by Seekable, in collaboration with Fugro, Stichting Wageningen Research, and Lobster Robotics, the WAVES project will develop an advanced, autonomous inspection system integrating Uncrewed Surface Vessels (USVs), aerial drones, and Autonomous Underwater Vehicles (AUVs). Key innovations include improving autonomous operations in shallow and deep waters, enhancing sensors and analytics for cable and pipeline inspections, and enabling ecological monitoring during inspections. These advancements aim to close critical gaps, such as untethered subsea inspections and collecting comprehensive ecological data.

Resultaat

Projectinformatie / Project information

Projectnummer / Project number
TKITOE_WOZ_2506_WAVES

Subsidiebedrag / Grant amount
€ 250.000,00

Algemene informatie / General information

Penvoerder / Secretariat
Seekable BV

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The project's results will expand the robotic toolbox for offshore wind operations, paving the way for follow-up projects focused on validating and demonstrating these autonomous solutions. By combining technological innovation with ecological research, WAVES will help ensure the sustainable growth of offshore wind energy while addressing workforce shortages and infrastructure vulnerabilities.

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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