Rock Speed Dumping

Publieke samenvatting / Public summary

Cause

In the offshore wind industry, often the foundations of for instance wind turbines or converter platforms are protected against erosion to ensure their stability. This is often done using loose rocks that can be installed either before or after installation of the foundations. This rock is transported offshore from a land-based quarry, and then deposited around the offshore foundation. The material is often put in plcae by using a fallppipe system that can accurately place the rock at the desired location. As a post-dump operation, the deposited rock is levelled. The entire installation process is a time consuming and costly operation.

Objective

In this project, a consortium consisting of Deltares, OHT, Scanmudring and Rohde/Nielsen are investigating the use of an innovative system that has the potential to significantly speed up the operational time. The rock material is dumped in a faster and more continuous fashion. The focus in this research is in the understanding of the underwater behaviour of the material during falling, and the subsequent geometry of the resulting rock mound and possible degree of segregation of the rick mixture.

Short description

Projectinformatie / Project information

Projectnummer / Project number
TKITOE_WOZ_2010_Deltares_RED
Subsidiebedrag / Grant amount
€ 50.740,00

Algemene informatie / General information

Penvoerder / Secretariat
Deltares

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This will be achieved by using a mix of physical modelling and by using state-of-the-art numerical CFD modelling. The results from the physical model tests and the numerical model development are directly applicable to optimize offshore installation procedures.

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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