

Industrial post.doc: Sediment transport in marine vegetation

Do you want to development the future sediment transport formulations for vegetated, marine habitats and bring the scientific developments into practical engineering? Then this industrial postdoc position is for you!

We are looking for an industrial postdoc within our Marine and Coastal Global Business Unit to drive the development of sediment transport descriptions within marine vegetation (saltmarshes and eelgrass meadows). The formulations are to be implemented and tested in the MIKE Powered by DHI marine modelling suite. The industrial postdoc is executed in collaboration with the University of Copenhagen.

About DHI

DHI is a global and independent company dedicated to working on challenges within the fields of water and environment and sustainability. Within these fields, we provide a wide range of advisory, digital advisory, research and water governance services as well as providing leading edge MIKE technologies and products to the market. At DHI, we are constantly looking for passionate and talented people who are eager to join our team.

By joining DHI, you will not only become part of a dynamic and collaborative global team of experts; you will be empowered to innovate, engage and grow in your area of expertise. DHI is committed to disseminate our knowledge effectively and across our worldwide network of offices.

Responsibilities and challenges

The main responsibilities and challenges in the job are:

- Identify key physical processes for sediment transport (non-cohesive and cohesive alike) within marine vegetation.
- Apply a detailed hydrodynamic model to investigate differences between vegetated and non-vegetated sediment transport processes and magnitudes.
- Propose a suitable approach for its incorporation into the existing MIKE Powered by DHI software for coastal sediment transport processes.
- Validate and/or verify the formulation against existing laboratory and/or field measurements.
- Disseminate results at conferences and international scientific journals.
- Execute the developments with frequent coordination and technical alignment with company (Dr. Niels Gjøl Jacobsen) and the university (Prof. Aart Kroon) mentors.

Qualifications and personal skills

Required:

- Excellent understanding of coastal hydrodynamic and sediment transport processes.
- Good analytical skills and an ability to define detailed research questions and uplift to engineering practice.
- Proven skill in technical dissemination in oral presentations and in high-quality journal articles.
- Experience in coding in scripting languages (Matlab or Python).
- Proactive and able to take initiative and ownership of your tasks.
- Take enjoyment in collaborative research with your peers and colleagues and strive for cutting-edge research outcomes.
- A completed PhD within the last 5 years (requirement by the funding scheme “Innovation Fund Denmark”)
- Ability to start on the position no later than 1st of May 2026 incl. the effort to secure a Danish working permit (requirement by the funding scheme “Innovation Fund Denmark”)

Desirable:

- Prior experience with wave-vegetation interaction.
- Prior experience with the effect of excess turbulence on sediment mobilisation.
- Experience in computational programming in languages such as Fortran90 and C.
- A background in coastal engineering, coastal morphodynamics, applied physics, applied mathematics, or oceanography.

We offer

To work at DHI means being part of an organisation that is the global leader in solving the world's toughest challenges in water environment. We will offer you:

- An innovative job within a cutting-edge research field.
- A team of highly motivated colleagues in the field of natural coastal systems and nature-based solutions.
- Professional and personal development. We empower our people. We ensure that they have the freedom to innovate and grow.
- The position is time-limited to 2 years and 3 months with latest start May 1st 2026 (incl. the effort to secure Danish working permit).
- Salary conditions follow national agreements for university employees.

Office location

The position is a collaborative position between the University of Copenhagen (Prof. Aart Kroon) and the DHI office in Hørsholm, Denmark. The primary office location is Hørsholm. There is also an office at the University of Copenhagen for interaction with university researchers.

How to apply

- Please submit your application including CV and relevant scientific publications via the relevant job posting on DHI's website: <http://www.dhigroup.com/careers>
- Deadline for application is 6th of February 2026..
- For further information please contact Principal Engineer Niels G. Jacobsen
ngj@dhigroup.com.