MODULLES

MOdelling of marine **DU**nes : **L**ocal and **L**arge-scale **E**volution**S** in an OWF context

Webinar

October 17th, 2024

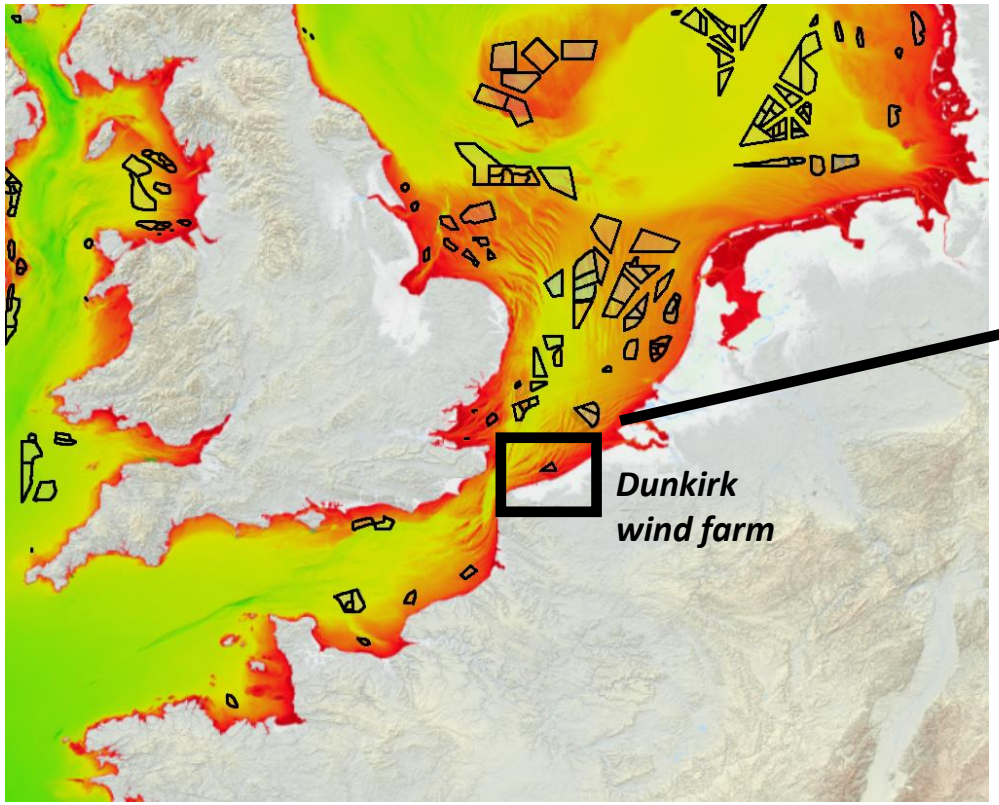
Project context

- MODULLES = **MO**delling of marine **DU**nes : **L**ocal and **L**arge-scale **E**volution**S** in a OWF context
- Collaborative project : 14 project partners
- 3-years project
  - Starting on November 17th, 2021
  - Ending on November 18th, 2024

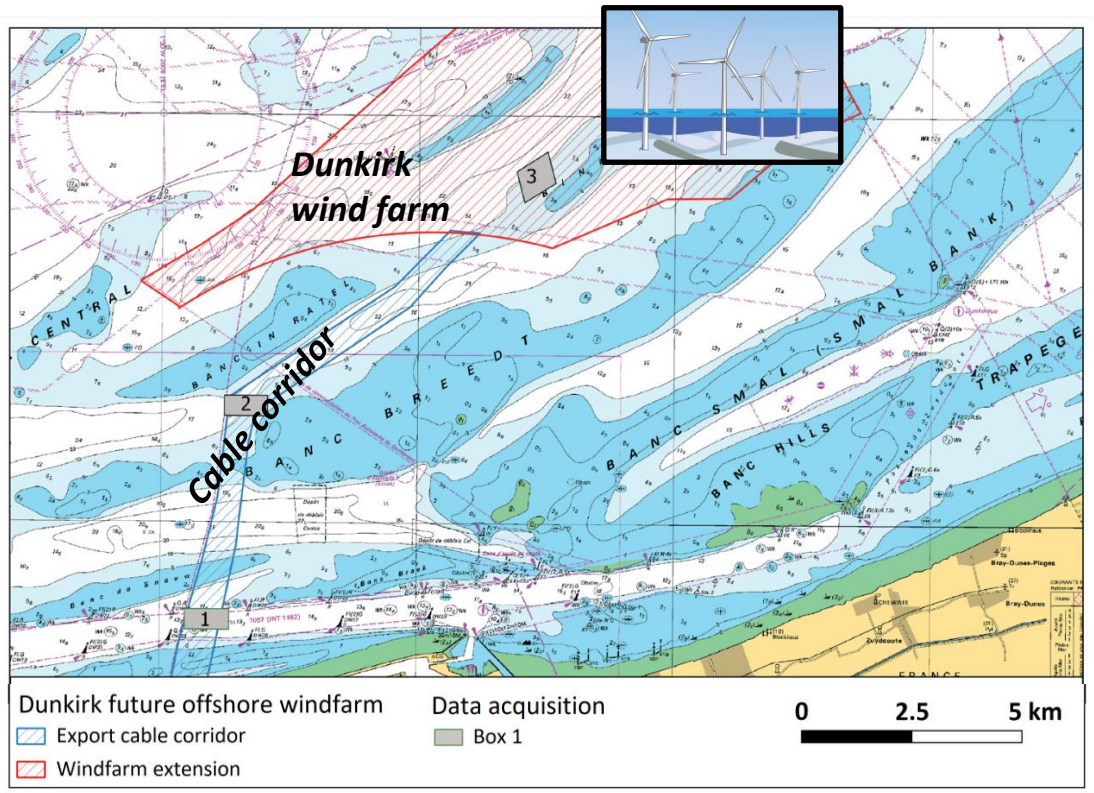
"This work benefited from France Energies Marines and State financing managed by the National Research Agency under the Investments for the France 2030 program"

Partners

Project context



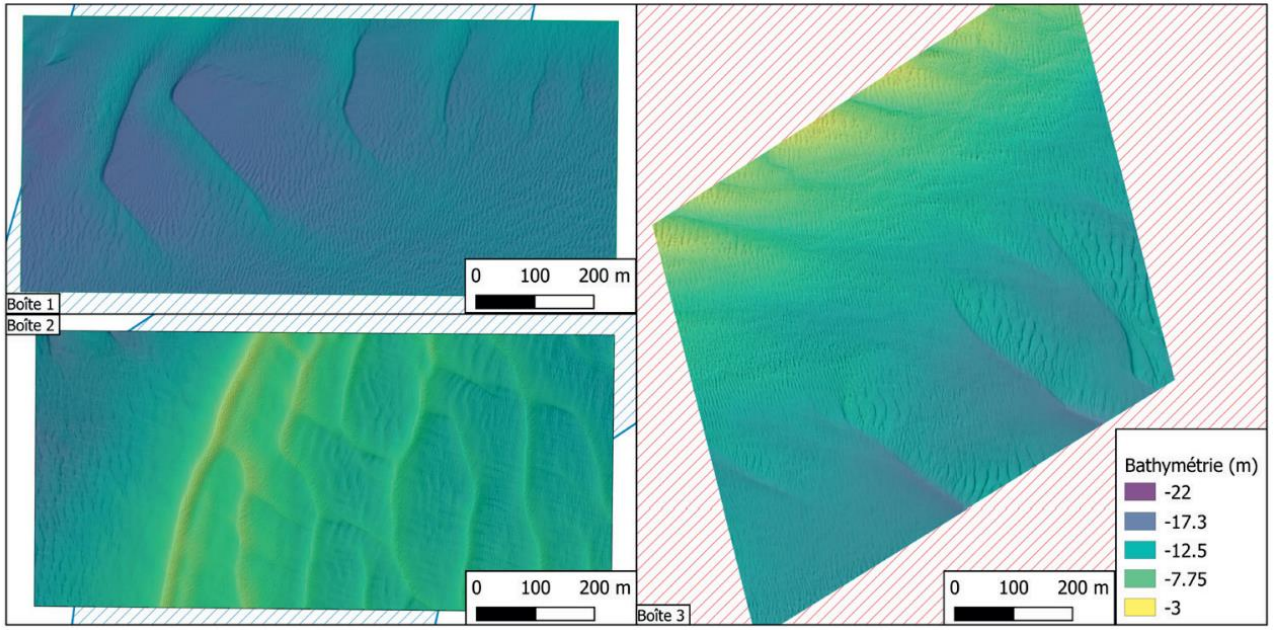
Bathymetry of the North Seas planned and in operation Offshore Wind Farms (OWF) and power cables (data from ©EMODNET).



Location of the three boxes defined for bathymetric surveys (Shom base map), the position of the export cable corridor, and the extent of the offshore wind farm shown in the figure date from September 2019.

Project context

- WP #1 – Project management
- WP #2 – Numerical modelling of scouring and sediment transport close to OWF components
- WP #3 – Numerical modelling from several marine dunes to dune fields in an offshore windfarm
- WP #4 – Physical modelling of marine dunes in offshore wind farms context
- WP #5 – Thermic of an export cable buried in a marine dune field
- WP #6 – Exploring dune resilience



Bathymetry in August 2020 of the three boxes of the DUNES project: Box 1: barchan dunes located in the intermediate channel of the Grand Port Maritime, Box 2: sinuous dunes located at the tail of a bank, Box 3: straight dunes located on the flank of a bank

PROJECT OBJECTIVE

Model the dynamics of underwater dunes at different scales to (1) predict the impact of dune movements on the components of an offshore wind farm and (2) better understand the resilience of marine dunes after the construction phase

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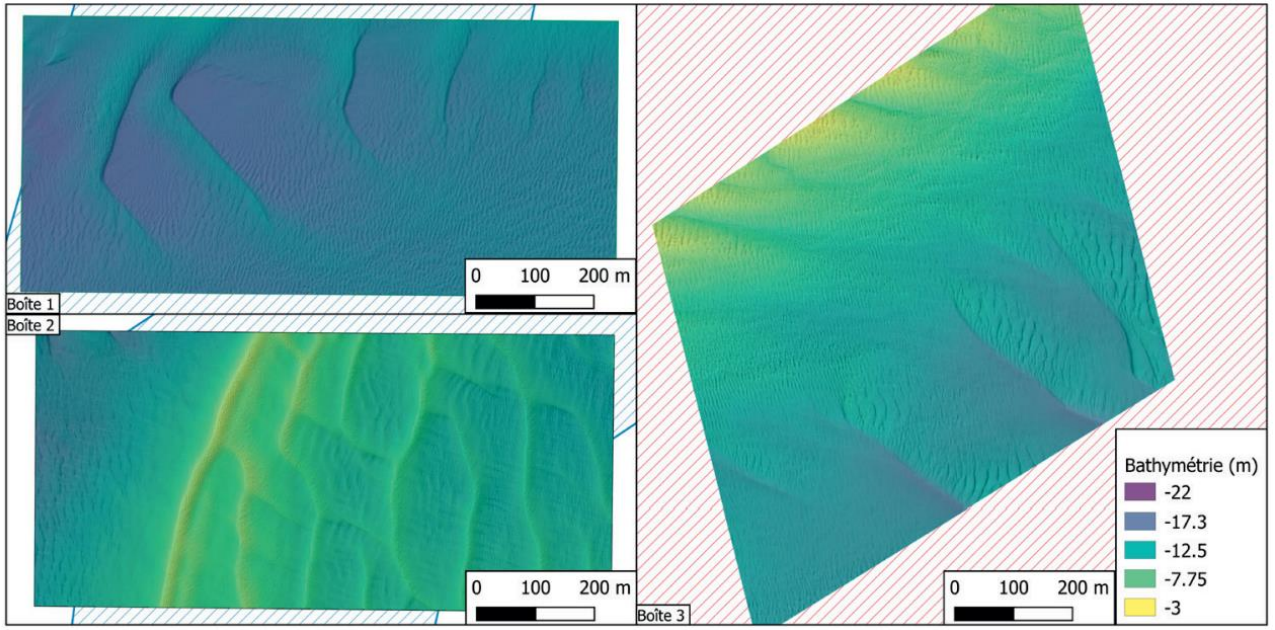

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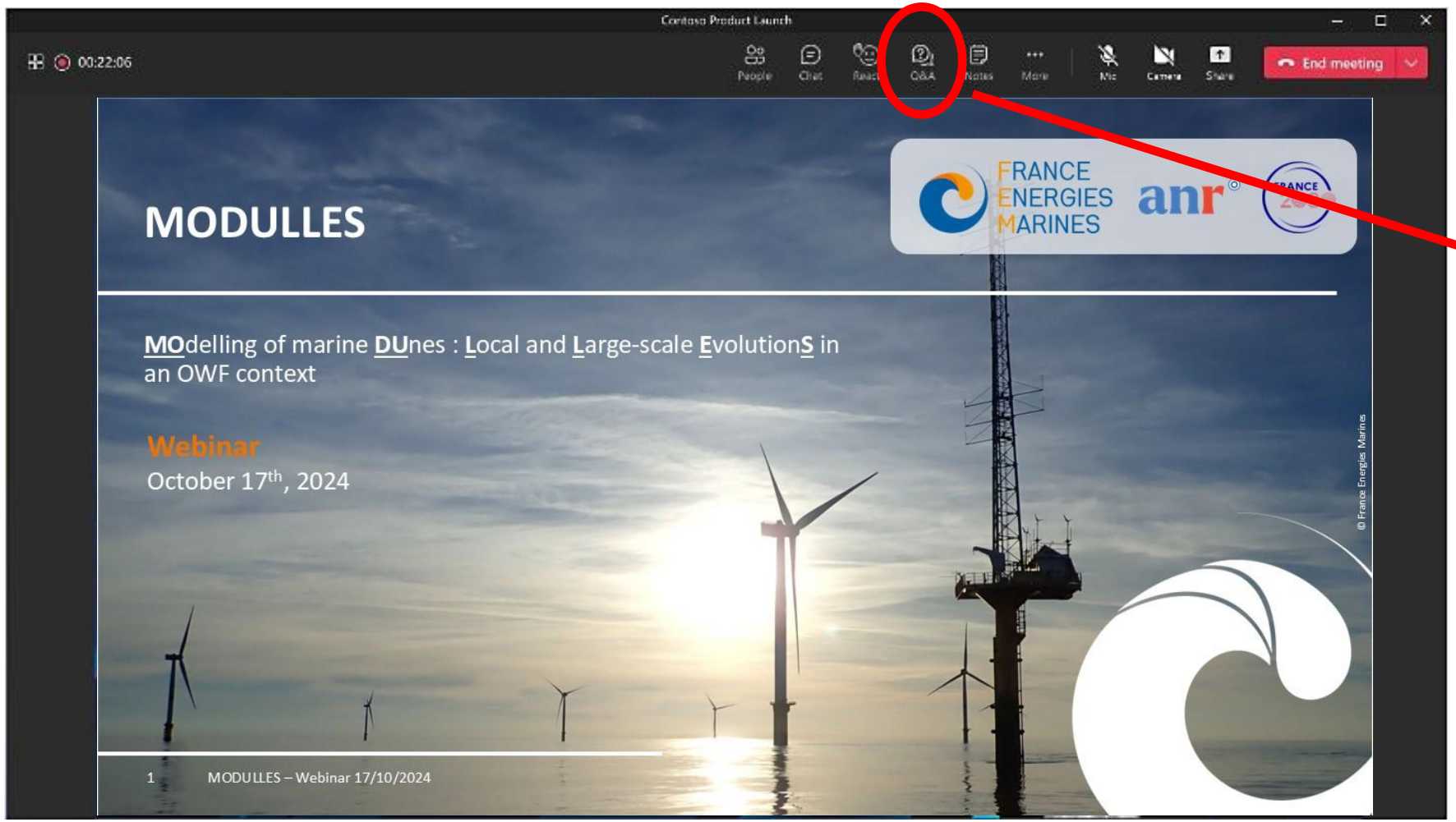
Agenda

Webinar : 14h – 15h30

14h – 14h05	**Introduction** *(Nicolas Michelet)*
14h05 – 14h20	**WP #2 - Small-scale modelling** *(Alban Gilletta)*
14h20 – 14h35	**WP #3 - Large-scale modelling** *(Nicolas Michelet)*
14h35 – 14h50	**WP #6 - Exploring the dune resilience** *(Nolwenn Quillien)*
14h50 – 15h00	**Results transfer to the ORE sector** *(Stéphane Rochwerger & Jean Chavet)*
15h00 – 15h30	**Q&A session**

Agenda



Q&A (Q&R for French version) button to ask your question at any time

All questions will be addressed in the Q&A session