GEOSISMEM

Geophysical surveys for the sea bottom characterization of MRE sites

In the framework of the **development of offshore wind farms**, geotechnical surveys are very expensive. These costs have a **strong impact** on the competitiveness of this industrial sector.

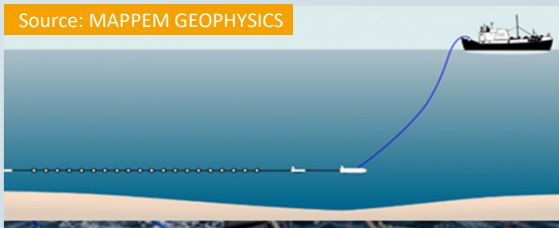
The main objective of the project **GEOSISMEM** is to **develop a methodology and recommendations** for the exploration of the sea floor for offshore wind farms through the combination of geophysical and geotechnical surveys.

The project will focus on the optimization of the geophysical and geotechnical observations, knowing that geophysical data are obtained indirectly, but may **contribute to decrease the need for geotechnical data** that are the most expensive to collect.

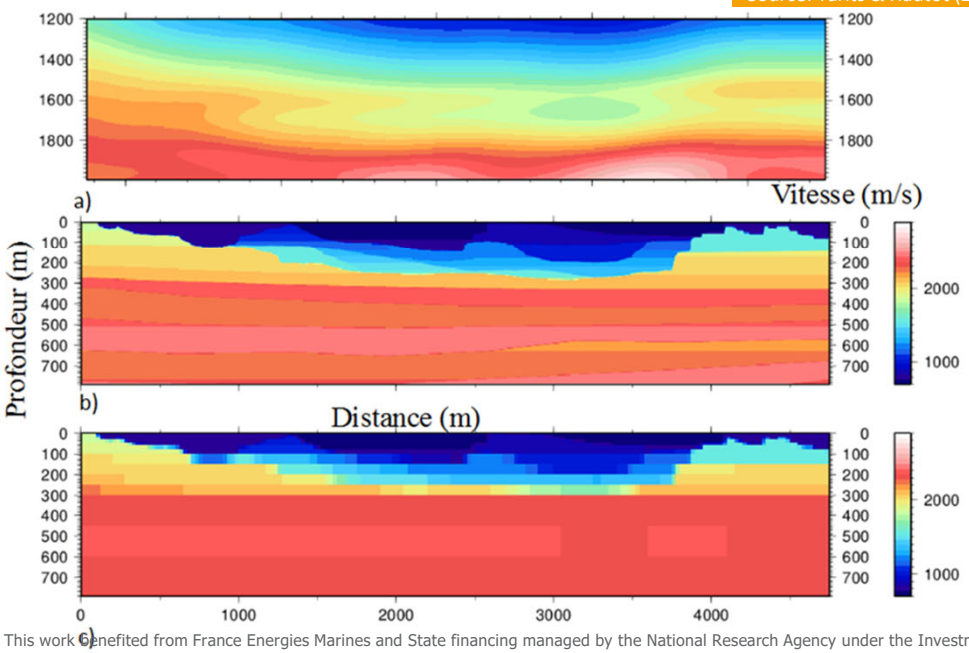
To achieve this, **GEOSISMEM** will combine two geophysical approaches, namely **multi-track seismic** and the **marine resistivity**. Resistivity in particular can be helpful in the presence of hard substrates where the acoustic reflectivity is too high for multi-track seismic tools.

Concentrated efforts will be made to develop efficient algorithms enabling the **optimization of geophysical and geotechnical surveys**.

Source: MAPPEM GEOPHYSICS



Source: Tarits & Hautot (2016)



Objectives:

- Develop a new methodology for the sea bottom characterization of MRE sites,
- Contribute to recommendations regarding the integration of different types of geophysical surveys for the bottom characterization of MRE sites.

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