

PRESS RELEASE | 11 May 2021

A buoy to study biocolonisation on the site of the future Groix & Belle-Île pilot wind farm



Buoy launching operation (© France Energies Marines and University of Western Brittany)

Successful launch on 29 April for a 2-tonne buoy on the North Atlantic site of the future Groix & Belle-Île pilot wind farm developed by [EOLFI](#). This rather unusual buoy was designed by [Cerema](#) and [France Energies Marines](#), under the scientific supervision of the [University of Western Brittany](#). Its originality lies in its mooring, which consists of two lines. The first is dedicated to on-site mooring at a depth of 65 m. The second, suspended in parallel, is equipped with frames with collectors that can be oriented in the current, fixed every 10 m to study biocolonisation according to depth. A system of spacers prevents the two lines from becoming entangled. The frames and the main mooring line are equipped with Mastodon pressure and temperature sensors, developed in collaboration with [LOPS](#) (CNRS, Ifremer, IRD, UBO).

► [View the location of the buoy](#)

The launching operation had been meticulously prepared by the [Thomas Services Maritimes - Iroise Mer](#) team, in close collaboration with scientists from [France Energies Marines](#) and the [University of Western Brittany](#). The *Willchallenge*, a vessel chartered for the occasion, had an experienced crew on board and suitable equipment, in particular a high-capacity crane, which enabled the two lines to be lowered in parallel, while preserving the integrity of the measuring devices.

► [Watch the launch of the buoy](#)

Once fully instrumented, this equipment will enable studies on the biocolonisation process of mobile elements immersed throughout the water column, such as mooring chains, electric cable sheaths or flat metal surfaces. These will be carried out as part of two collaborative R&D projects, [APPEAL](#) and [ABIOP+](#), coordinated by [France Energies Marines](#) and led respectively by the [University of Western Brittany](#) and the [University of Nantes](#). These studies aim to answer the following questions:

- To what extent could the development of biofouling modify the functionality of the components of a floating wind turbine?
- On the scale of an offshore farm, could this biocolonisation have positive or negative effects on the marine ecosystem?

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Partners of ABIOP+ project



⇒ [Project web page](#)

Duration: 40 months (2019-2022) | **Budget:** €1,990K

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Partners of APPEAL project



⇒ [Project web page](#)

Duration: 48 months (2018-2022) | **Budget:** €2,036K

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