



## POLYAMOOR

### FLEXIBLE AND DURABLE POLYAMIDE MOORING FOR MRES

Mooring systems for floating wind turbines differ significantly from those in the oil and gas sector, due to strong dynamic responses that are created in shallow waters. The challenge is to be able to maintain the floating platform in an extreme environment by limiting both the dynamic response transferred via the mooring lines and also the maximum off-centring of the floater to which the energy output cable is attached.

One solution envisaged involves using nylon lines, which are capable of absorbing the dynamic response and behave in a markedly non-linear fashion about which little is known over the long term.

POLYAMOOR is proposing to characterise in detail the dynamic behaviour of nylon mooring lines over the long term to identify added-value, reliably de-risk the technology and bring forward recommendations for those certifying this material.

The project involves experimenting to characterise, numerically model and optimise polyamide-based mooring solutions for use in pilot renewable energy farms. The goal is to acquire sufficient understanding of how the nylon behaves as well as produce detailed and validated modelling in order to offer reliable, dimensioned solutions for a 20 to 25-year lifecycle in the deployment of commercial farms.

#### Partners

##### Companies

Naval Energies, Brest / France Energies  
Marines [[Project Developer](#)]  
BEXCO, Hamme, Belgique  
Bureau Véritas, Paris

##### Research centers

ENSTA Bretagne, Brest  
Ifremer, Brest

#### Funders

Agence Nationale de la Recherche  
France Energies Marines

#### Labelisation

17/02/2017

#### Overall budget

825 K€