FRANCE
ENERGIES
MARINES

Institute for research and innovation dedicated to offshore wind energy

Atlantic | Eastern Channel - North Sea | Mediterranean

90 employees

Over 200 partners worldwide

€10 million in activity in 2024

Our mission

Transforming sustainability challenges into innovations

France Energies Marines brings together and coordinates a wide range of scientific expertise and resources to validate standards and produce the innovations essential for the development of offshore wind energy.

DEVELOPING REFERENCE SOFTWARE, METHODS AND INSTRUMENTS
to reduce uncertainties in production forecasts

TESTING CRITICAL COMPONENTS AND DEVELOPING MONITORING METHODS
to improve technological maturity of floating

DEVELOPING REFERENCE TOOLS
to optimise environmental and socio-economic integration

PRODUCE KNOWLEDGE AND METHODS
to make public debates and decisions more objective

DESIGNING OPERATIONAL TOOLS
to monitor machine health in real time

FINELY CHARACTERISING CONSTRAINTS
to reduce the conservatism of standardsused for systems design

Activities directly connected to the needs expressed by the industry

Sector issues

- Scaling Up
- Logistics - Skills
- Socio-environmental Impacts
- Design - Reliability
- Cost - Viability

Expertise & Infrastructure

- A multidisciplinary team composed of 95% researchers
- Testing and monitoring resources, both proprietary and in partnership

Transfer to the Sector

- Research and expertise services
- Knowledge transfer
- Operating licenses
- Expert committees and networks

R&D

Sector Programs and Multi-partner Projects in France and Internationally

Government Services

Wind Farm Developers

Technology Developers

Consulting Firms

Investors, Funders, Insurers

Cross-cutting and complementary research programmes

Systems design and monitoring

Synthetic mooring lines, dynamic electrical cables, hydro-dynamics and structure, real-time fatigue assessment

Site characterisation

Climate change, wake effects, upper atmosphere, wind resource and turbulence, extreme metocean conditions, hydro-sedimentary processes

Envrionmental and societal integration

Biofouling, corrosion, marine mammals, fish, flying fauna, collision risk, offshore observatory

Cumulative impacts of wind farms, integration of fishing, socio-ecosystem modelling

Farm optimisation

Farm architecture, isolated grids, power-to-X, offshore electrical substations, shared anchors, weather windows, major component replacement

A key institute for the sector

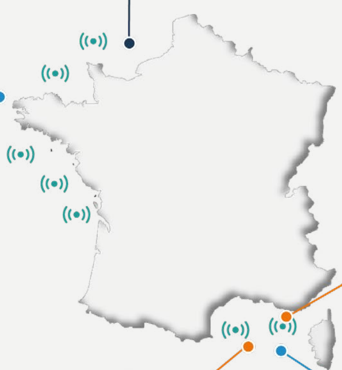
at the interface of private and public stakeholders

Institute for the Energy Transition supported by the France 2030 investment plan

Member of the French Institute Technology (FIT) Association

Our testing and monitoring facilities

at the service of industry development



Multi-instrumented met mast off Fécamp
Wind, structure, megafauna monitoring

Jument Lighthouse
Extreme waves

ADCP current profilers
Tidal currents, turbulence

Acoustic telemetry network
Fish tracking at 7 sites in the English Channel, Atlantic, and Mediterranean

Test bench for dynamic cables
(in development)
Behaviour and in-service monitoring

Biofouling observatory
4 instrumented buoys in the Atlantic and Mediterranean

7T semi-submersible buoy
Mooring lines

Profiling lidar
Wind, turbulence

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