

# **FLOATFARM** PROJECT FACTSHEET

#### **About the project**

<u>FLOATFARM</u> is a Horizon Europe R&I Action (HORIZON-CL5-2023-D3-01-05) funded by the European Climate, Infrastructure and Environment Executive Agency (CINEA). FLOATFARM is closely linked to the <u>FLOATECH</u> project (2020-2023) and aims to bring the technologies developed within <u>FLOATECH</u> to the next level of technological readiness, complementing them with a significant number of new concepts, innovations and methods.

The consortium is coordinated by **TU Berlin** and is implemented by **17 partners** from 8 EU countries. The project runs from **January 2024 to December 2027** and has received a budget of 6 million EUR from the European Commission.

The overarching goal of FLOATFARM is to **significantly advance the maturity of FOW technology** by **increasing energy production** and achieving **important cost reductions** at all levels within the design and implementation phases. Ultimately, FLOATFARM aims to contribute to **decreasing the negative environmental impacts on marine life** and to **enhancing the public acceptability** of FOW farms. This will be achieved by 4 types of actions:

- Action 1 focuses on developing innovative technologies for individual FOW turbines, aiming to address sustainability and economic challenges.
- Action 2 aims to develop and demonstrate technologies applicable to multiple turbines within a FOW farm, emphasizing synergy between components and optimization to simplify practical implementation.
- Action 3 assesses environmental and socioeconomic impacts of FOW farms through model development, data collection, and scenario analysis.
- A **cross-cutting action** involves integrating technologies from Actions 1 & 2 with environmental and socioeconomic impacts in Action 3 through a holistic MDAO framework.



### **Project outcomes**

- **Improved FOW turbines and farms efficiency**: Advanced control methods for aerodynamic interaction between sub-clusters, associated with synchronised turbine controllers.
- Increase energy production of FOW farms: Low specific power offshore rotor will enable FOW farms to be installed in deepwater areas with lower speed power at an increase AEP of 20%.
- Adoption of cutting-edge technologies from EU SMEs: Innovative generator designs up to 80% lighter and wave feedforward control and radar wave sensing technologies.
- Better use of the marine space and less environmental impact: Shared mooring and anchoring system reducing by 66% the footprint and contact with seabed by 33%.



## **Expected impacts**

- **Technological:** Wider available wind areas resulting in an increase of EU energy autonomy and security, and deployment of FOW across all sea basins by 2050.
- **Economical:** Reduction of the LCOE and the CAPEX enabling a rapid establishment and expansion of FOW farms in EU.
- **Environmental:** Improved design of FOW platforms for reduced environmental impact, enabled by a better understanding of their impacts on the marine biodiversity
- **Societal:** Improved acceptability of the necessity of FOW farms in the renewable energy mix.

## The consortium



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FLOATFARM Coordinator Joseph Saverin j.saverin@tu-berlin.de



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