

FLOAT&M: Project kick-off and new developments

November 9, 2021

saitec-offshore.com



About Saitec Offshore

"We envision a better future harnessing the power of the wind"



Global vision



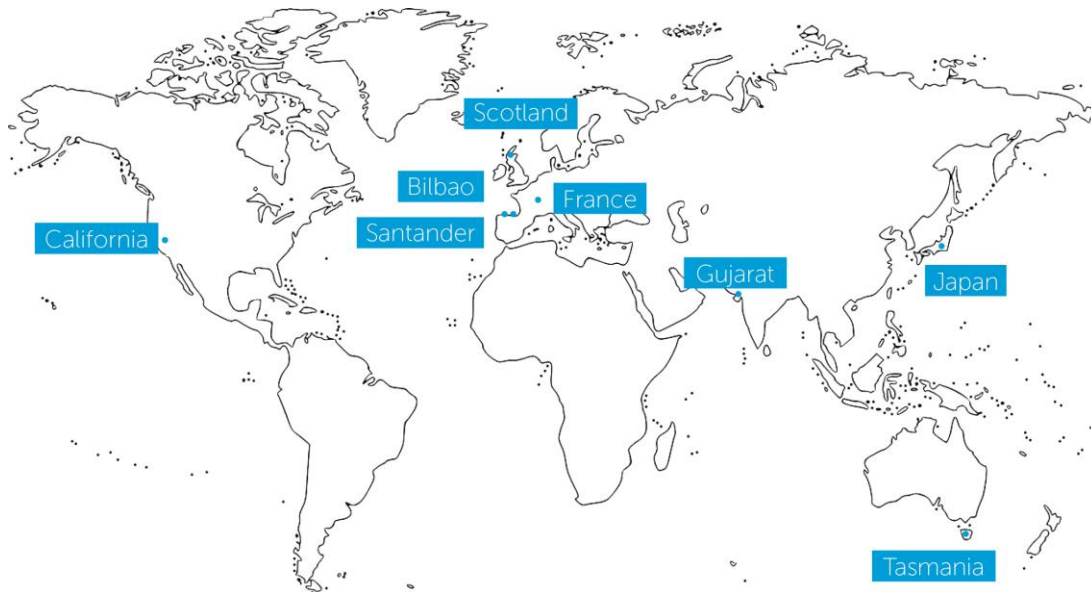
Innovation core value



committed to fight climate change



35 technical and specialized professionals



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offshore technologies



Prototypes & precommercial arrays

Santander | Spain
Bilbao | Spain
Gujarat | India
California | US
Tasmania | Australia

Commercial tenders

France
Scotland

Commercial developments

Japan (East & West)

Integral Solution of O&M for
the floating wind industry

3



**SOLUCIÓN INTEGRAL PARA LA O&M DE EÓLICA FLOTANTE
MEDIANTE EL DESARROLLO DE NUEVAS TECNOLOGÍAS**



Project Objectives

- ❖ **Research and technological development of solutions (equipment and services) for the Operation and Maintenance of floating wind power platforms**
- ❖ Multi-technology approach (general solutions for floating wind O&M, not for a specific platform)
- ❖ Two main objectives:
 - O&M cost reduction.
 - Increase Power Production.



Specific Objectives

- Development of **O&M cost models** → integrating the detail of the entire cost concept
- Development of a **drone system with a high level of autonomy** (intelligent navigation).
- Development of **digital twins and digital modelling** of control-oriented systems.
- Development of an **integral monitoring system** in the preloads of the **critical joints**, the **loads on the tower**, the **loads on the platform and on the anchors**.
- Development of **new materials**:
 - **high-performance concrete with fibres**
 - new types of **steel for offshore wind tower bolts and bearings**, improving performance and optimizing the use of alloys.
- Development of **new anti-corrosion and coating solutions**.

Consortium

15 companies

Consortium Leader



WP Leaders



ALERION



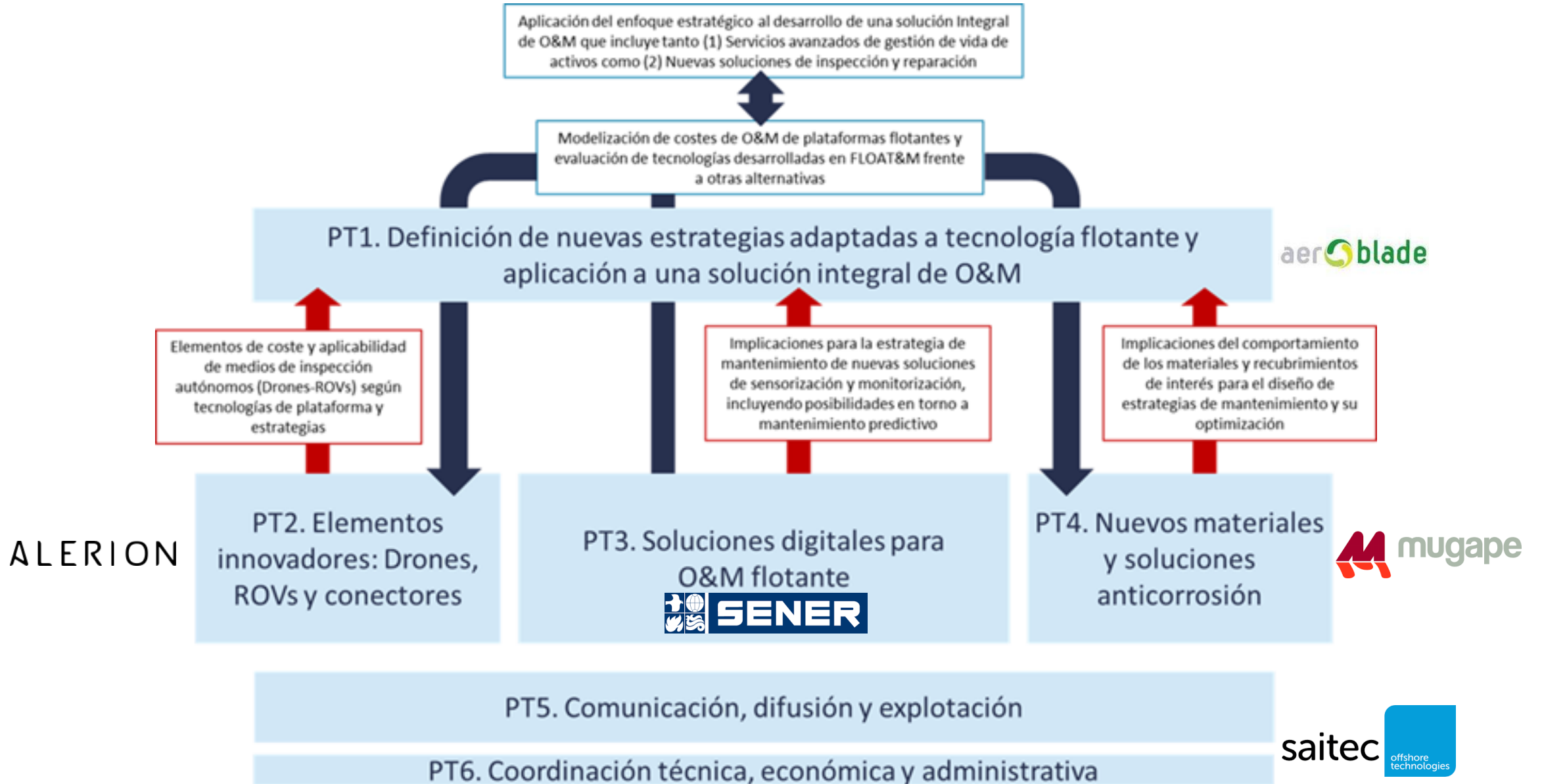
Participants



Tech. Centres



Work Packages

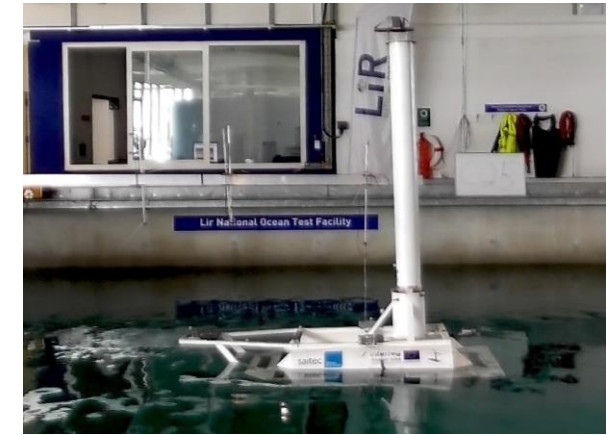
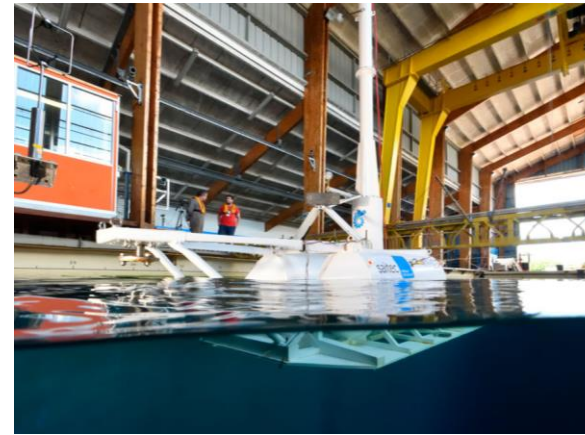


Expected Outputs

- Increase reliability of FOWT.
- Minimize non-operation hours.
- Monitoring System to optimize the O&M strategies.
- Reduction of personnel access to the platform.
- Increase the safety of the people involved in the offshore operations.
- Increasing useful life of FOWT.

Current R&D Projects and Demonstrators

01 R&D projects

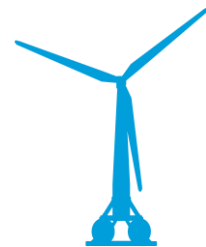


02 Demonstration projects

Pilot projects underway to test, analyze and validate SATH Technology



BlueSATH



DemoSATH

03 Road commercialization

SATH technology in commercial wind farms



Projects: BlueSATH

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Co-funded by the Horizon 2020 programme
of the European Union

SME instrument (H2020)

EUR 2.7 m

In progress (2019-2021)

Main objective:

accelerate commercialization of 10+ MW floater

+ added objective:

de-risking DemoSATH



Key figures



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 Watch BlueSATH progress on YouTube

Wind Turbine	30kW
Rotor diameter	15 m.
Hub height	17,45 m. (m.s.w.l.)
Anchors	Drag anchors
Mass	50T (steel+concrete)
Mooring	3 x 150 m (chain)



DEMOSATH

2MW

rated power

2000

households

75%

local content

2mn

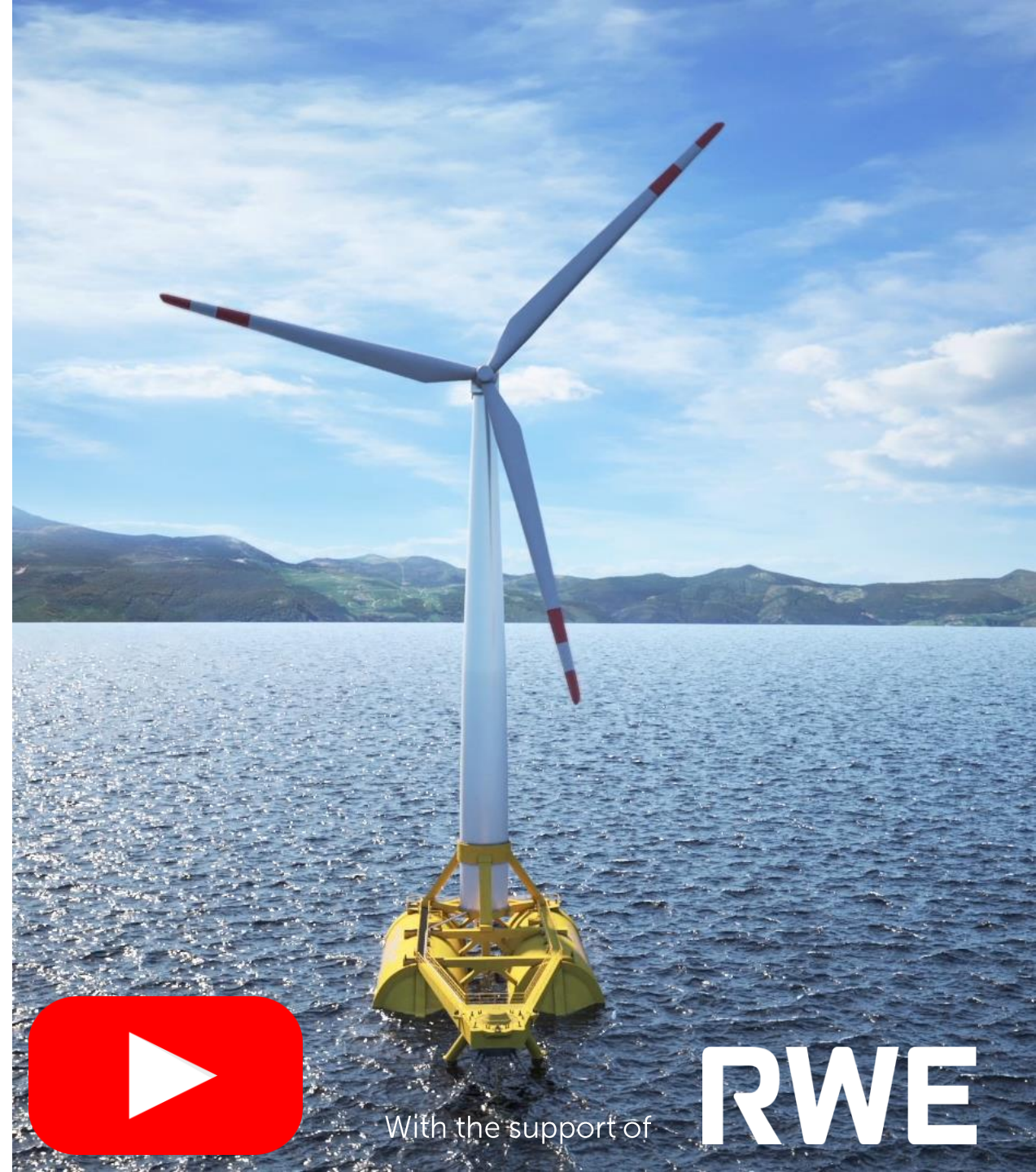
distance to shore

85m

depth



**1st connected to the
grid in Spain**



With the support of

RWE

Key Milestones

Access to site	Granted
Turbine	Procured
Construction Start	November 2020
Floater Completion	Q4 2021
Launching	Q4 2021
Mooring Prelay	Q1 2022
Hook-up	Q2 2022
COD	Q2 2022

WHAT'S NEXT?



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Green Energy Research for Offshore Atlantic

- ✓ **45MW** clean energy **50,000** households
- ✓ **COD - 2025.**
- ✓ Onshore substation - **BiMEP**
- ✓ **25** years operation
- ✓ Collaboration with Academia and R&D
- ✓ Boost Basque Offshore Wind Supply Chain



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