

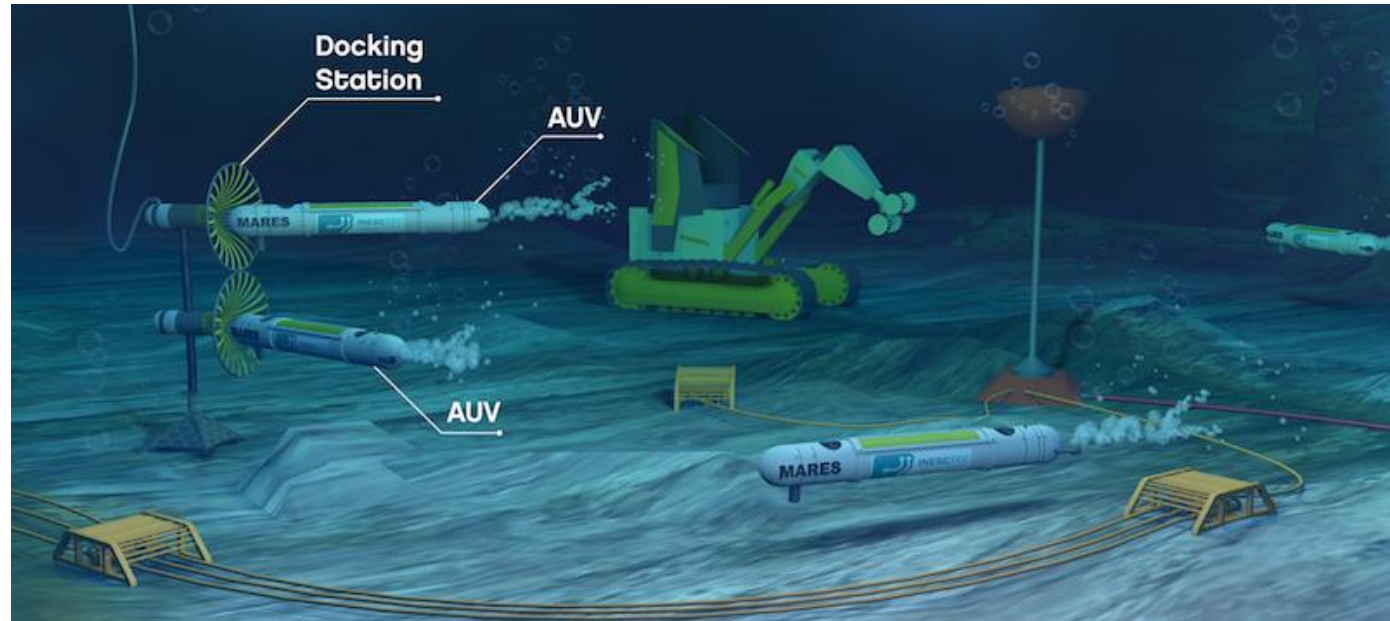


PT02_Aviso4_0015 – ENDURE - Enabling Long-Term Deployments of Underwater Robotic Platforms in Remote Oceanic Locations

Motivation

Increasing need to sense the underwater environment:

- Environmental monitoring
- Water/seabed data



Large and deep ocean -> Automation -> AUVs

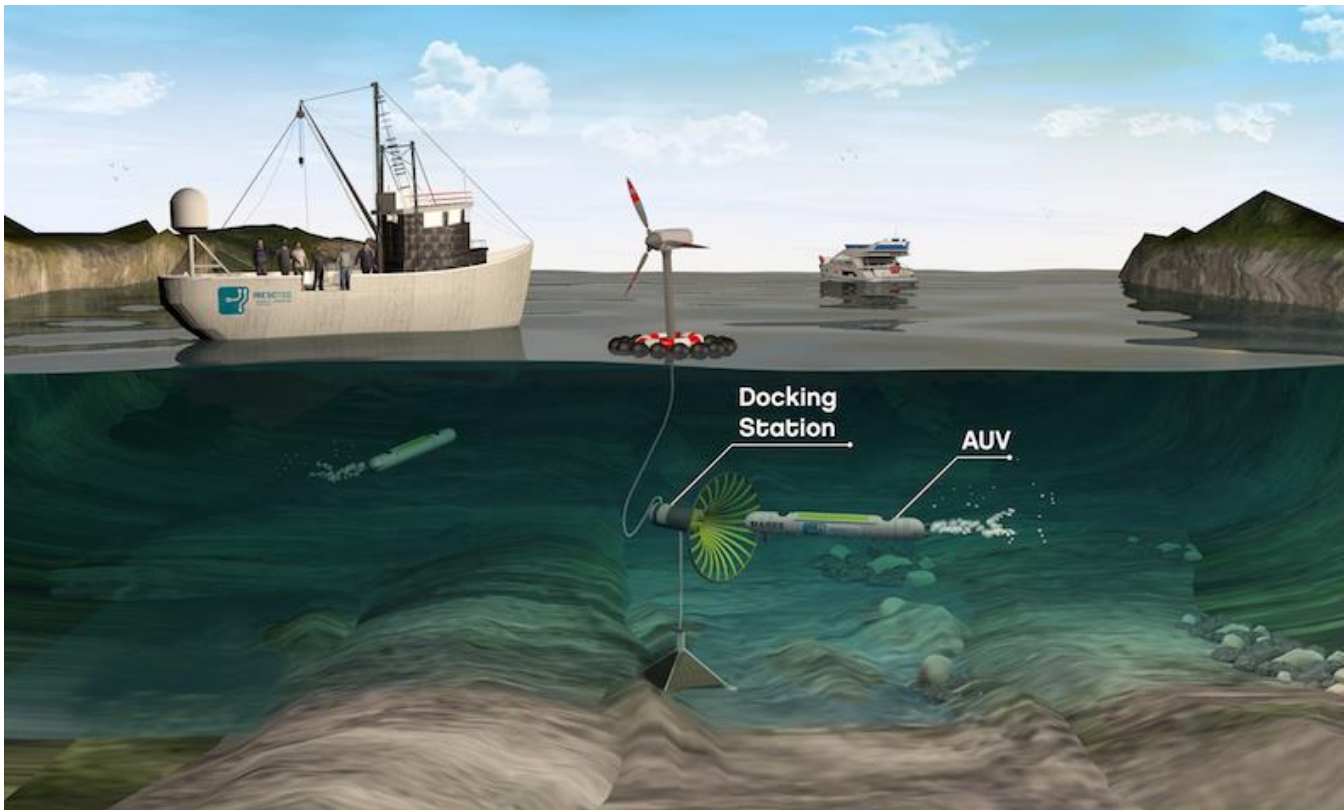
- Autonomous operation ✓
- Scalable ✓
- Unlimited autonomy ✗

Need for energy solution enabling the operation of multiple AUVs in remote oceanic locations, with time unlimited missions

Objectives

- Develop and demonstrate a cost-effective solution for recharging autonomous underwater vehicles used in remote oceanic areas:
 - Docking robotic mechanism
 - Wireless Power Transfer
 - Wireless Communications
- Exploitation and impact assessment measures for the technology to be developed, together with an effective dissemination and communication of the project results

Concept / Demonstration



Designing, constructing and testing a cost-effective solution that allows for AUVs to wirelessly recharge their batteries near an underwater charging station, using a simple retention mechanism.

Advantages:

- Avoid complex mechanical docking
- Reduce maintenance
- Easy scale up

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