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
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