

Project n. PT02_Call4_0013 – "MEDUSA_DS – OPENING THE DEEP SEA FRONTIER"





The problem





SOLUTION:

System of multiple cooperative autonomous vehicles for the deep sea frontier

MEDUSA_DS

The Marine National Strategy is driven by the challenge to explore and monitor the vast deep continental shelf with an average depth over 3.000 meters.

PROBLEM/MARKET NEED:

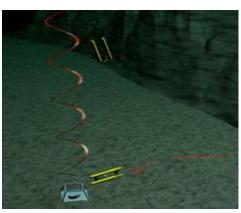
- Technology available not cost-efficient for such depths
- Technology extremely dependent on support from manned surface vessel
- Need for systems with light logistic requirements

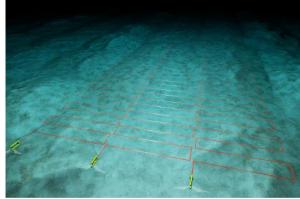
The solution: MEDUSA_DS



... 2000 m

3000 m





Mission scenarios

Objectives: development of a new cost-effective system of autonomous vehicles with light logistic requirements, with advanced mission control capabilites, to collect and disseminate relevant deep sea data using NIPIM@R platform.

Concept:

All operating autonomously and in a cooperative manner

Autonoumous Surface Vehicle – ASV

for navigation and communications support and relay operation

Multiple Autonomous Underwater Vehicles – AUVs for data acquisition in the water column and near the ocean floor

Developed by



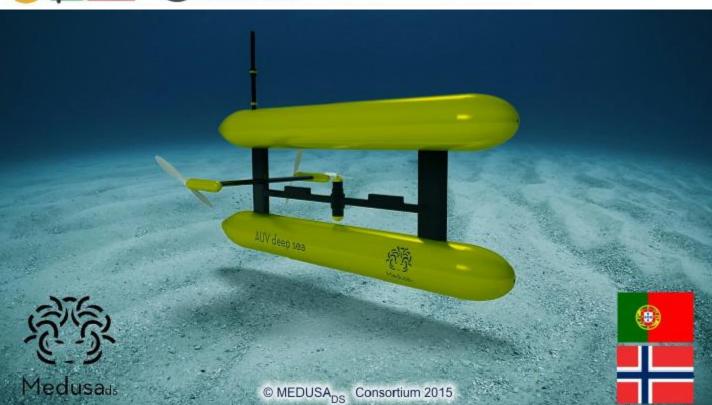












...Impact!

eea grants

Using a modular, easily scalable design for future interoperability with other monitoring systems

Reinforce the capabilities of national science and technology stakeholders with an accessible environmental monitoring and exploring tool for deep sea - seabottom and water column.

Extend
oceanic
exploration
to the
deep sea