Project n. PT02_Call4_0013 – “MEDUSA_DS – OPENING THE DEEP SEA FRONTIER”
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**

**SOLUTION:**
- System of multiple cooperative autonomous vehicles for the deep sea frontier
  - **MEDUSA_DS**
The solution: **MEDUSA_DS**

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

**Concept**:

- **Autonomous 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

Mission scenarios

Depth

\[ \begin{align*}
... \\
2000 \text{ m} \\
3000 \text{ m}
\end{align*} \]
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...Impact!

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.