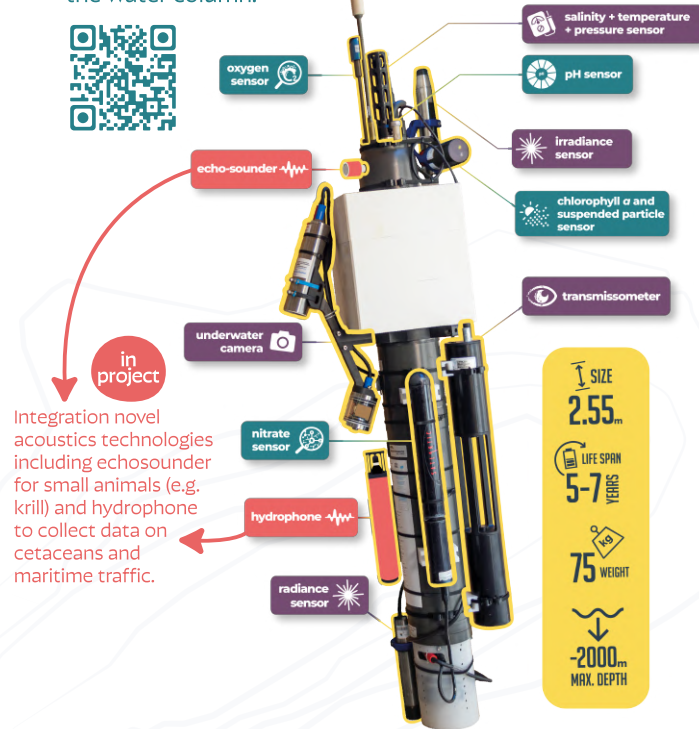


# THE PROFILING FLOAT

A profiling float is an autonomous platform used for acquiring subsurface measurements in the ocean. Floats measure a variety of physical, biogeochemical and soon ecological properties of the water column.



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## PROJECT BRIEF

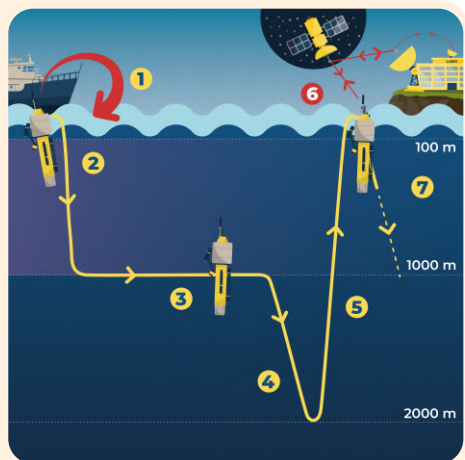
This project develops an ocean observing system for a dynamic management of the Thermal Dome offshore Central America.

### PURPOSE

- Deploy and sustain an array of profiling floats equipped with advanced sensors
- Establish an observational framework to support governance in Biodiversity Beyond National Jurisdiction (BBNJ) context

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### operating cycle of a profiling float

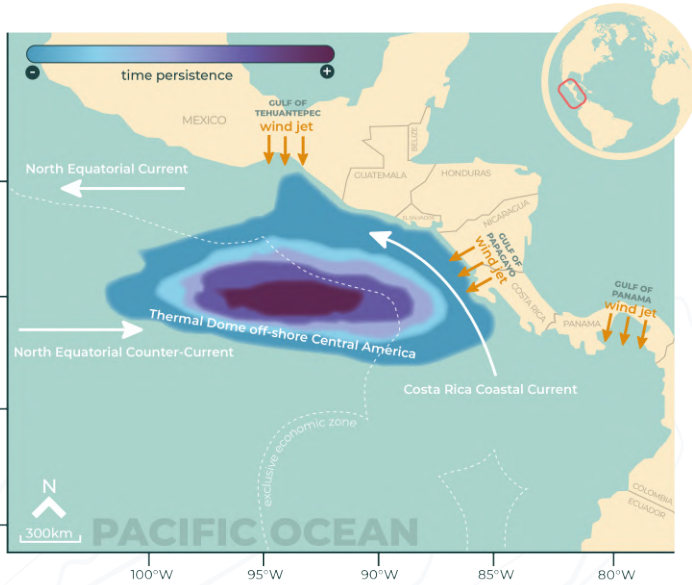


1. Deployment from a ship
2. Descent to 1000 m
3. Drifting at 1000 m for 9 days and sound recording
4. Descent to 2000 m
5. Ascent to the surface and activation of sensors for data collection: the stage when sensors measure the different properties
6. Data transmission to shore through satellite
7. The cycle begins again

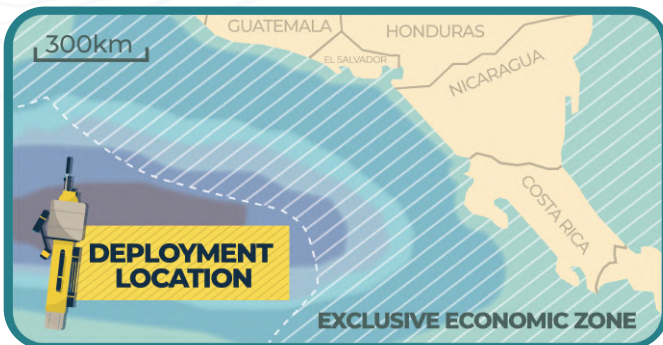


# THE THERMAL DOME

A persistent offshore upwelling system driving a biodiversity hotspot and projected to be the first protected area in the high seas.

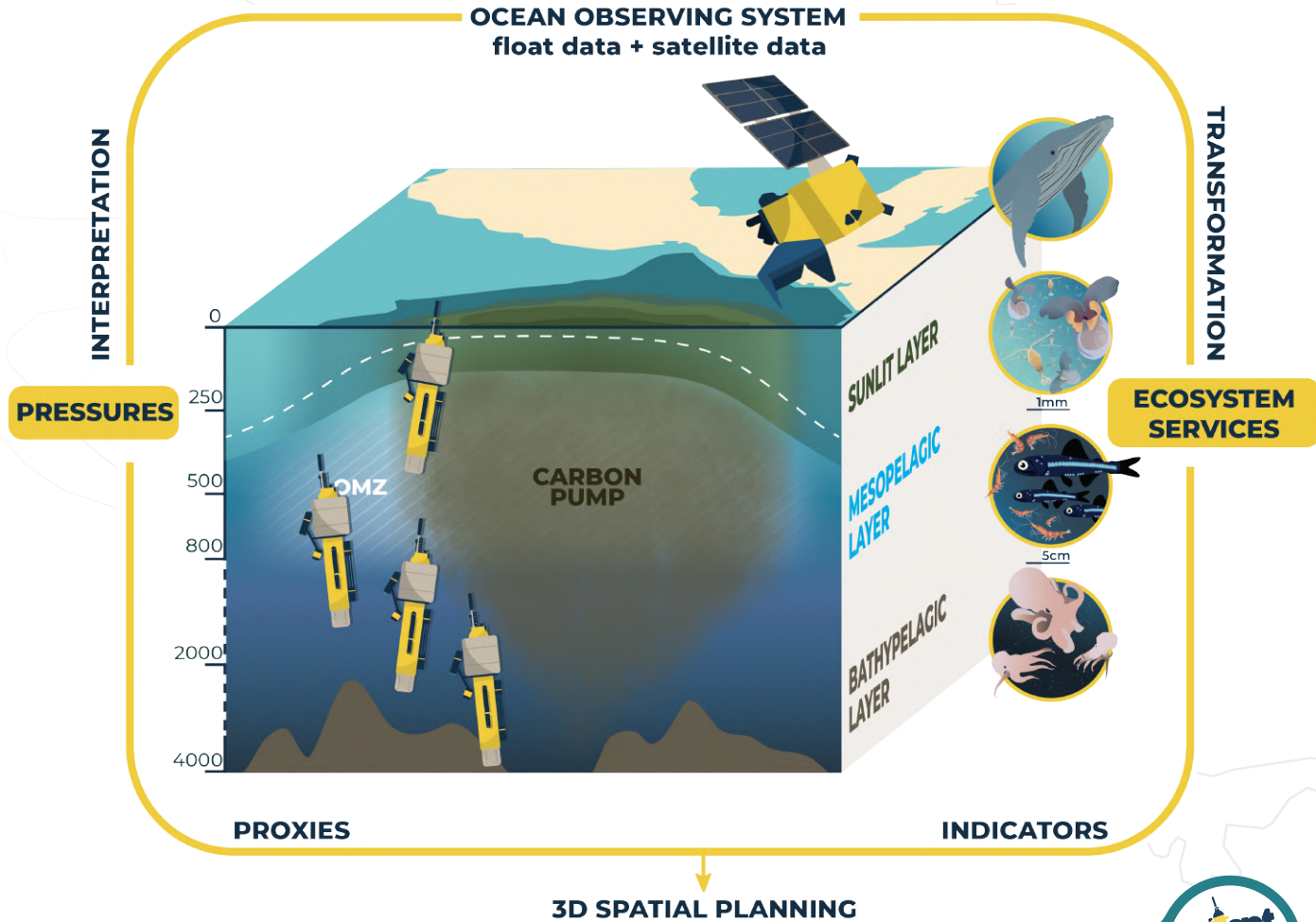


Robots will be deployed in Areas Beyond National Jurisdiction, at the core of the Thermal Dome, 200 miles offshore Central America.



# DATA APPLICATIONS

- 3D monitoring of the most relevant oceanographic features that structure the Thermal Dome, incorporating knowledge on upwelling, mid-water dynamics, seafloor features, and carbon fluxes.
- Design of scenarios for 3D area-based conservation of the Thermal Dome aligning with the BBNJ agreement.
- Aims to highlight the role of data collection by ocean observing systems in decision-making when developing regional strategies.



Discover more about the Thermal Dome off-shore Central America



## OCEAN LITERACY

ARGO-DOME will serve as a support to undertake Ocean Literacy actions for the young generation in the context of the adopt a float project ([adoptafloat.com](http://adoptafloat.com))

