

## Distributed intelligent seabed bottom nodes for persistent monitoring and surveillance of critical marine Infrastructures

**Sector:** Marine monitoring & surveillance

### Short description of the needs:

Typhon Labs is engaged in the development of a distributed network of underwater seabed nodes for the persistent monitoring of critical infrastructure and the surveillance of maritime areas in deep waters. The company is seeking partnerships for the design and structural validation of the enclosures, ensuring long-term structural integrity and operational reliability.

In parallel, the project foresees the evolution of a distributed intelligent underwater sensing architecture based on low-power passive nodes equipped with local processing capabilities and edge AI algorithms for the in situ detection, classification, and correlation of underwater acoustic events. The architecture supports advanced software analysis of acoustic signatures, aimed at extracting stable and comparable sound fingerprints, while avoiding continuous transmission of raw audio streams.

**More info:** For more information apply to [eccentric@imast.it](mailto:eccentric@imast.it)

**Company:** Typhon Labs S.r.l.

**Point of contact for the brief/challenge:** IMAST - High Tech District on Engineering of Composite Materials and Polymers

**Company position in the value chain:** OEM