

IoT-Based Coastal Monitoring and Predictive Analytics Platform

Sector: Marine monitoring & surveillance

Short description of the needs:

Hooro aims to transform its mature and flexible IoT technologies into a vertical, reliable and replicable solution for continuous monitoring of coastal and maritime environments. The growing need for real-time monitoring of tides, water levels and climate-related phenomena along coastal and port areas creates a strong opportunity, particularly in the Adriatic region and other European coastal contexts.

The main challenge is not the development of new sensors, but the adaptation and integration of existing IoT solutions into a dedicated marine-coastal monitoring system, capable of operating in harsh environmental conditions (salinity, corrosion, installation and maintenance constraints). The solution should combine real-time data acquisition with advanced analytics, including predictive models and Digital Twin approaches, to support decision-making and risk management.

Hooro seeks to develop a dedicated data platform for public authorities and territorial operators, featuring dashboards, alerts and simplified data access, and to define a service-oriented business model (SaaS / Data-as-a-Service) that ensures scalability and long-term sustainability. Collaboration with scientific, institutional and technological partners is essential to validate data, metrics and models, and to enable wide adoption of the solution as a digital infrastructure for coastal resilience.

The proposed solution should be modular and scalable, enabling deployment across different coastal and port environments. Interoperability with existing monitoring systems and open data standards is encouraged. Pilot implementations along the Adriatic coast are envisaged as validation use cases. Collaboration opportunities include co-development, data model validation, integration of predictive algorithms and Digital Twin components, as well as long-term operation and maintenance strategies within a multi-partner ecosystem.

Hooro designs and develops proprietary IoT hardware, software and cloud-based data platforms, delivering integrated technological solutions directly to end users and institutional clients. The company operates as an OEM and Tier 1 provider, with the ambition to evolve its offering towards service-oriented models (SaaS / Data-as-a-Service) through collaboration with scientific, institutional and technological partners.



More info: For more information apply to d.francia@unibo.it

Company: Hooro S.r.l.

Point of contact for the brief/challenge: Unibo

Company position in the value chain: OEM / Tier 1 Technology Provider