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Earth Observation-Driven Solutions for Sustainable Tourism and Leisure activities in the Blue Economy

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BLUERISM aims at building, with coastal tourism and leisure actors, solutions dedicated to promoting a long-term balance of economic benefits, social inclusion and environmental sustainability.

Coastal and marine tourism *represent at least* **50%** *of global tourism (Ocean Panel)*

The main outcome of the project is to **impulse strategies and practices** leading to a sustainable and environment-friendly tourism and leisure.

Key Objectives

Scientific objectives

- ❖ Fostering applications using EO in **synergy** with in-situ data and models
- ❖ Services co-designed **with** and **for** coastal economies stakeholders

Sectorial Uptake

- ❖ Showcase EO potential through a **range of innovative and replicable services** addressing different actors of Leisure and Tourism
- ❖ Build a **community** of engaged Leisure and Tourism stakeholders

Building the solutions

Water sports · **Hotels & Resorts** · **Beach managers** · **Municipalities** · **Authorities** · **Coastal mariners**

Use Cases Specifications

Macroplastic Monitoring for Public Awareness

Genoa, Italy

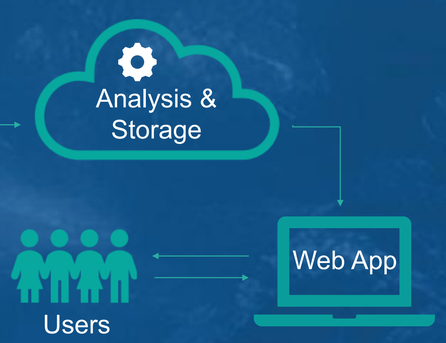
- ❖ **Multi-source data fusion system** integrating Earth observation with CCTV cameras and crowdsourcing
- ❖ **Management and prevention tool** for public authorities, raising awareness and ensuring more effective management of plastic waste

Where Beaches and costal zones

What Macroplastic on beaches and water quality of coastal waters

How Multi-sensor approach

- **Fixed camera installation on beaches**
- **Crowdsourcing (spottings, publications)**
- **Satellite observations (optical sensors)**



Sargassum Alerts for Beach Preservation

Barbados & Caribbean Islands

- ❖ **Alert system** enhancing the ability to detect, model and predict sargassum movements
- ❖ **Actionable insights** tailored for local authorities and hospitality businesses: presence, volumes, predicted landings

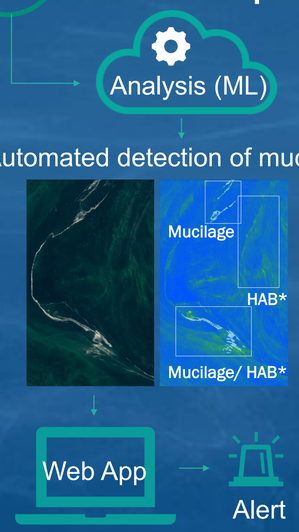
- **Satellite observations (optical sensors)**
- **Drift modelling**

Mucilage Detection & Alert

Adriatic sea, Italy

- ❖ **Alert System** improving the ability of local authorities to implement management measures
- ❖ Earth-Observation based **Near Real-Time monitoring of mucilage** to support resilience and manage the associated environmental and economic risks

- **Satellite observations (optical sensors)**
- **In situ data from research trips**



Water Quality Monitoring for Underwater Activities

Baltic Sea, Germany

- ❖ **Decision support tool** for divers, providing accurate and real-time monitoring of diving conditions
- ❖ **Data driven assessment of underwater conditions** based on water quality parameters derived from high resolution satellite images

- **Satellite observations (optical sensors)**

- **In situ data from divers**

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