# DRIVERS OF BEACH MICROPLASTIC CONTAMINATION: PHYSICAL PATTERNS, TOURISM AND OTHER HUMAN PRESSURES

## **TOPIC:**

Microplastics; Coastal Hydrodynamics; Tourism and Social Behavior; Public Awareness; EU Marine Policy; EU Mission "Restore our Ocean and Waters".

### **IDEA / PROPOSAL:**

How do hydrodynamic conditions, tourism, and human activities influence microplastic pollution on the beaches of the northern Portuguese coast, and what measures can be implemented to reduce this contamination? This project aims to quantify the abundance and distribution of microplastics on key beaches across different seasons and to relate these patterns to coastal hydrodynamics, local human pressures, visitor density, and seasonal tourism. It will also evaluate the effectiveness of existing beach management practices. A complementary component will address public awareness of microplastic pollution through targeted outreach and educational activities. Under this topic, the student will gain multidisciplinary experience through fieldwork, laboratory analyses, and data interpretation, while collaborating with local stakeholders to develop skills in science communication, data analysis, and environmental management. The results will integrate physical, ecological, and behavioural data to inform coastal management strategies, enhance public awareness, and contribute to EU missions such as "Restore our Ocean and Waters."

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