MELOA: COVERING MARINE OBSERVATION GAPS

MELOA (Multi-purpose/Multi-sensor Extra Light Oceanography Apparatus) offers a solution to extend and improve current in situ ocean observing and monitoring systems, in the form of low-cost wave resilient surface drifters, easy to embed in different types of marine observation systems.

**OBJECTIVES**

- Address different use cases for marine in-situ measurements
- Open opportunities for market development of marine commercial sector & downstream users
- Generate valuable in-situ data and derived data products for GEOSS and Copernicus
- Provide data and information to implement the Sustainable Development Goals

**WAVY FAMILY**

**WAVY Littoral**
- GNSS, GPRS, adjustable ballast module, detachable SIM card, IMU (MEMS)

**WAVY Ocean**
- GNSS, Argos 2ways SatCom, adjustable ballast module, 2 thermistors, IMU, solar panels, wave energy harvesting

**WAVY Ocean-Plus**
- GNSS, Argos 2ways SatCom, adjustable ballast module, 2 thermistors, IMU, solar panels, wave energy harvesting

**WAVY Ocean-Atmo**
- GNSS, Argos 2ways SatCom, Equatorial floating, adjustable ballast module, 4 thermistors, atmospheric pressure, IMU, solar panels, wave energy harvesting

**USE CASES FOR TEST CAMPAIGNS**

1. Estimation of wave parameters in the surf zone & derivation of nearshore bathymetry (WAVY Littoral)
2. Surface characterization of Ocean dynamic structures (WAVY Ocean)
3. Derivation of near-surface Ocean temperature fields (WAVY Ocean)
4. Public demonstrations of the nearshore circulation, with emphasis on rip currents (WAVY Littoral)
5. Citizen Science: involving the public in the data collection and characterization (WAVY Littoral, WAVY Basic)
6. Measuring the Height of Big Waves (WAVY Littoral)
7. Tracking displacement and dispersion in oil slicks (WAVY Ocean)
8. Data products (WAVY Littoral, WAVY Ocean)