

PORTUGUESE COASTAL MONITORING NETWORK (COASTNET)

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RESUMO

The **Portuguese Coastal Monitoring Network** (CoastNet) is a research infrastructure (RI) included in the **Portuguese Roadmap of Research Infrastructures**, designed to improve the understanding of **Portuguese coastal ecosystems' functioning** through the development of a remote coastal monitoring system.

CoastNet aims at monitoring important coastal ecosystems of the Portuguese coast, through relevant chemical, physical and biological parameters, collected remotely in near real-time; Chlorophyll, Sea Surface Temperature, Sea Surface Height, Sea Surface Salinity, Wind and Geostrophic currents. This monitoring network is implemented through: 1) the development of a near real-time satellite data processing centre; 2) a set of sensors and acoustic receivers to collect in-situ data on environmental and biological parameters, as well as marine fauna movements, transmitted in near-real time to our data centre; and 3) a web-based platform, integrating the whole database and providing open access to the information.

The **Portuguese Coastal Monitoring Network** provide access to the collected data sets to the scientific community, public administration and private companies, through the geoportal developed for the project www.geoportal.coasnet.pt. Also provide multiple services such as: advanced training, research, innovation, public and private consultancy, laboratory support and data collections.

The physical, chemical and biological features; temperature, salinity, pH chlorophyll and Oxygen, collected in three Portuguese estuaries; Tejo, Mira and Mondego, will contribute for the integrative assessment of both long-term trends and spatial variability patterns of coastal biological communities and will markedly improve the capacity to thoroughly monitor the Portuguese coastal aquatic systems. This will allow a better understanding of these systems' functioning, assessing long-term trends and spatial variability. Gathering such scientific knowledge is expected to improve scientific production, socio-economic activities, such as fishing and aquaculture, and the conservation of endangered species, as well as to provide a variety of services to a wide range of stakeholders.

Palavras-chave: Coastal observation; Monitoring network; Coastal management