Contribution ID: **23** Type: **Lightning Talk (8' + 2' for questions)**

COASTNET: Integrating Earth Observation and in-situ data for coastal management

Wednesday 12 October 2022 14:20 (10 minutes)

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. This monitoring network is implemented through: 1) the development of an historical and near real-time satellite data centre; 2) the deployment of a set of sensors, to collect environmental and biological in-situ data, at three estuaries (Mondego, Tagus and Mira), which are almost immediately transmitted to our data centre; (3) acoustic receivers arrays deployed to track aquatic fauna movements; and 4) the compilation of an historical in-situ dataset of biological and environmental parameters. CoastNet provides a better understanding of the functioning of Portuguese coastal systems through the analysis of their temporal and spatial variability. A case study based on the Tagus estuary, covering the water continuum from the coastal zone to the inner parts of the estuary, will be presented. Gathering such scientific knowledge is expected to improve scientific production, promote socio-economic activities, such as fishing and aquaculture, as well as the conservation of endangered species. A variety of services will also be provided to a wide range of stakeholders. Additionally, the Portuguese Coastal Monitoring Network provides full and free access to the collected data sets to the scientific community, public administration and private companies, through the dedicated Geoportal, available at: http://geoportal.coastnet.pt.

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