

Grid Systems (DGGS) geographical analysis system in support environmental assessment and decision-making for stakeholders. Beyond the challenges related to DGGS, the issue of the post processing of multivariate information is a major issue, needing the combination of innovations in observation sensors, spatial sciences, data mining and artificial intelligence (machine learning, inductive approach and predictive algorithms).

This is typically useful to meet the issue of managing both ocean adaptive management as MSFD or MSP and ocean dynamic management in real time, in a multidimensional highly dynamic system."

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**Theme:** Future look at the next generation of observing & monitoring tools and approaches;

**Title:** JERICO-RI: The integrated coastal component for the European Ocean Observing System

"JERICO-RI, the European research infrastructure of coastal observatories, is an ocean observing system of systems, designed to provide high-quality data that are supporting knowledge development on the complex and often coupled physical, chemical and biological processes characterizing the coastal waters of Europe. As such, JERICO-RI is foreseen to become an important building-block of the future EOOS. JERICO-RI is built around a multiplatform and multidisciplinary approach in order to tackle the complexity and high variability of coastal processes. It is targeted to answer to the requirement of an ecosystem approach, supporting research on multi-stressor impact on the environmental status. JERICO-RI integrates several types of observing platform, deployed in coastal and shelf seas, i.e. fixed buoys, piles, moorings, drifters, Ferrybox, gliders, HF radars, coastal cable observatories and the associated technologies dedicated to the observation and monitoring of the European coastal seas. The RI is to serve both the implementation of European marine policies and the elucidation of contemporary and future key scientific questions. It therefore includes observations of the physical, chemical and biological compartments and aims at a better integration of marine biology with physical and chemical oceanology.

The implementation of the JERICO-RI encompassed setting up, integrating and harmonization of existing coastal observing systems around Europe into a system of systems, covering all European coastal waters from the Baltic Sea to the Black Sea, This endeavour started in 2011 in the framework of the JERICO-FP7 project, and presently pursued through the H2020 JERICO-NEXT project, which involves 34 scientific and industrial partners. The main objective of the JERICO-RI consortium is to establish and implement a common strategy towards a sustainable coastal observing system of systems for Europe supporting with

sustainable blue growth in the European coastal ocean through technology, expertise, scientifically sound observations, data, and innovation.

This poster summarizes the work carried out since and the present drivers of the JERICO-RI science strategy for providing data and services.

Keywords: JERICO, JERICO-NEXT, Coastal Observatory, integrated multi-disciplinary system of systems, harmonization, sustainability, Open access, Blue growth."

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**Theme:** Ocean observation and Human Health: Monitoring needs and benefits

**Title:** The Olrac suite of electronic logbook (eLog) software solutions: Utilising all ocean going vessels as marine observation collect

"As civilisation's footprint on our oceans increases, there is a need to continuously monitor the human impacts on the entire ocean ecosystem. While there are vast efforts to do so, the reality is, considering the enormous expanse that needs to be covered, one can say that this effort is just a "drop in the ocean".

What if, the countless vessels already roaming the oceans, daily, were used as scientific, fisheries and general observations data collection platform? What if, each of these vessels and the individuals onboard were equipped with reliable and easy to use tool to enable all forms of marine related data collection? This is the vision of OLSPS!

OLSPS develops the Olrac suite of electronic logbook (eLog) software solutions. Innovative, comprehensive, paperless solutions for the collecting, analysing, plotting, mapping, reporting, tracing and transmitting of all marine and vessel-related data. This software is fully customisable and can be used for commercial fisheries, coast guards, cargo shipping companies, scientific surveyors, cruise ship operators and/or citizen science enthusiasts.

The Olrac suite of eLog software consists of two core components. Firstly, The Olrac Dynamic Data Logger (OlracDDL), a dedicated vessel unit, eLog solution, capable of capturing, storing and reporting of all marine-related data and observations. Secondly, The Olrac Dynamic Data Manager (OlracDDM), a complete web based system with the capacity to store and manage data, from any number of vessels, on one integrated platform.

The three relevant deployment options of the OlracDDL are suited for: