



The EVER-EST portal as support for the Sea Monitoring Virtual Research Community, through the sharing of resources, enabling dynamic collaboration and promoting community engagement

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EVER-EST offers a framework based on advanced services delivered both at the e-infrastructure and domain-specific level, with the objective of supporting each phase of the Earth Science Research and Information Lifecycle. It provides innovative e-research services to Earth Science user communities for communication, cross-validation and the sharing of knowledge and science outputs.

The project follows a user-centric approach: real use cases taken from pre-selected Virtual Research Communities (VRC) covering different Earth Science research scenarios drive the implementation of the Virtual Research Environment (VRE) services and capabilities.

The Sea Monitoring community is involved in the evaluation of the EVER-EST infrastructure. The community of potential users is wide and heterogeneous including both multi-disciplinary scientists and national/international agencies and authorities (e.g. MPAs directors, technicians from regional agencies like ARPA in Italy, the technicians working for the Ministry of the Environment) dealing with the adoption of a better way of measuring the quality of the environment. The scientific community has the main role of assessing the best criteria and indicators for defining the Good Environmental Status (GES) in their own sub regions, and implementing methods, protocols and tools for monitoring the GES descriptors.

According to the Marine Strategy Framework Directive (MSFD), the environmental status of marine waters is defined by 11 descriptors, and forms a proposed set of 29 associated criteria and 56 different indicators. The objective of the Sea Monitoring VRC is to provide useful and applicable contributions to the evaluation of the descriptors: D1.Biodiversity, D2.Non-indigenous species and D6.Seafloor Integrity (http://ec.europa.eu/environment/marine/good-environmental-status/index_en.htm).

The main challenges for the community members are: 1. discovery of existing data and products distributed among different infrastructures; 2. sharing methodologies about the GES evaluation and monitoring; 3. working on the same workflows and data; 4. adopting shared powerful tools for data processing (e.g. software and servers). The Sea Monitoring portal provides the VRC users with tools and services aimed at enhancing their ability to interoperate and share knowledge, experience and methods for GES assessment and monitoring, such as:

- digital information services for data management, exploitation and preservation (accessibility of heterogeneous data sources including associated documentation);
- e-collaboration services to communicate and share knowledge, ideas, protocols and workflows;
- e-learning services to facilitate the use of common workflows for assessing GES indicators;
- e-research services for workflow management, validation and verification, as well as visualization and interactive services.

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