

## Capacity building for knowledge generation and innovation growth in coastal water research

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In the era of Big Data, satellite remote sensing plays a major role in marine and coastal research, by contributing long archives of datasets to the scientific community for a wide range of applications. Various large-scale projects have exploited these archives, however, until recently, scientists had to deal with the daunting task of mining large datasets for suitable data, and often from various different sources. In addition, as the datasets increased in volume, the processing has become slower and demanding of better computing facilities. The European Commission (EC) H2020 Coastal Waters Research Synergy Framework (Co-ReSyF) project aims to tackle these issues, by developing a platform for combined data access, processing, visualisation and output in one place. The platform is based on cloud computing to maximise processing effort and task orchestration. Co-ReSyF will address issues faced by inexperienced Earth Observation (EO) researchers, and also target EO and coastal experts and downstream users, with main focus on enabling EO data access and processing for coastal and marine applications.

The Co-ReSyF capabilities will be supported and initially demonstrated by a series of early adopters, who will develop new research applications in the coastal domain, guide the definition of requirements and serve as system beta-testers. A competitive call will be issued within the project to further demonstrate and promote the usage of the Co-ReSyF release. It is envisioned that over the course of the project a “pull” will be generated in the wider end user community, creating a niche to sustain the use of the system beyond the end of the project. Due to the user-orientated and user-central character of the Co-ReSyF project, effective and efficient communication with various users at different stages of the project is crucial to ensure the successful implementation and outcomes of the project.

The EO team in the Marine and Renewable Energy Ireland (MaREI) centre, University College Cork (UCC), have extensive experience in science communication in the fields of marine and coastal research. As a result, the authors have developed an outreach and promotion plan to efficiently implement the Co-ReSyF communications strategy. This includes the development of a consistent and flexible Co-ReSyF brand that is identifiable, relevant and up-to-date. Different audiences are being targeted at different levels of expertise, using various communications routes to suit both the audience type and the purpose of communication. For example, the use of social media platforms helps with dissemination of news and updates for the project, and enhances and facilitates user interaction with the consortium. Interviews and an online survey as well as consultations during dedicated user meetings are being used to gather user requirements, feedback and recommendations on the platform, and guide its development and evolution. In addition, interpersonal communication at various events, helps build a large network of coastal and EO scientists, who will potentially become advocates and users of the platform. Overall, Co-ReSyF aims to build capacity in the scientific community for new knowledge generation and innovation growth by combining various communication means and a collaborative research environment.