

Research Lifecycle Management technologies for Earth Science Communities and Copernicus users in EOSC



## Interdisciplinary research in Earth Science

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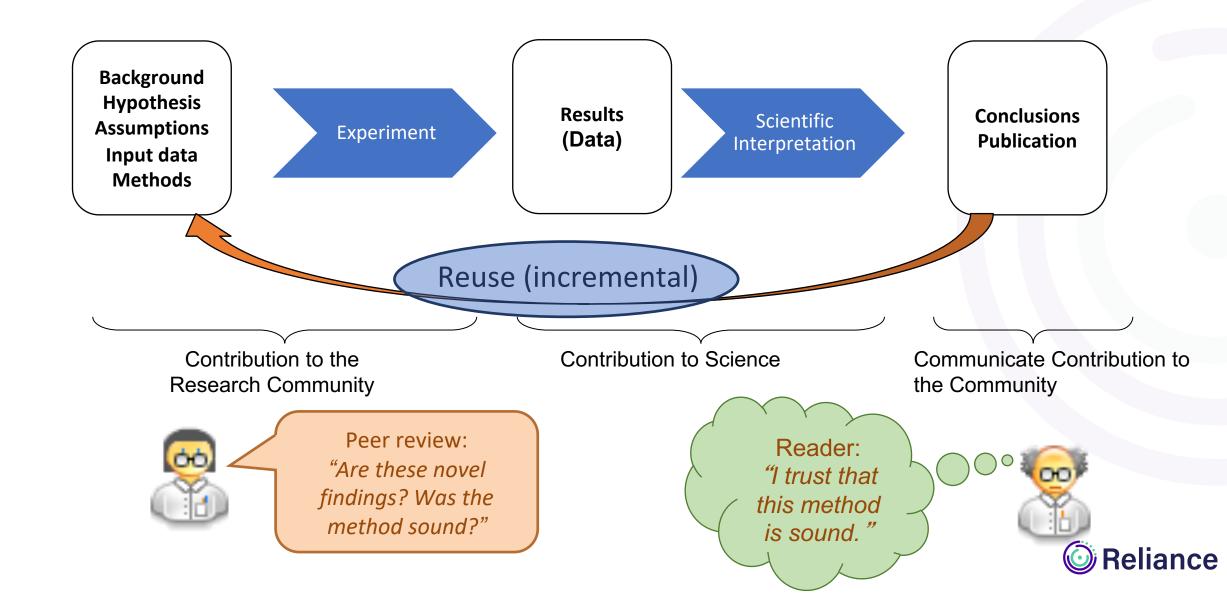
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Webinar: Pan-European digital assets supporting research communities: benefits and opportunities



This project has received funding from the European research infrastructures (including e-Infrastructures) *under the European Union's Horizon 2020 research and innovation programme* under grant agreement No 101017501

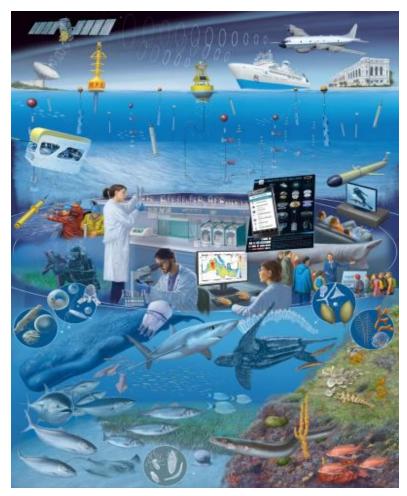
# The Research Lifecycle: high-level overview

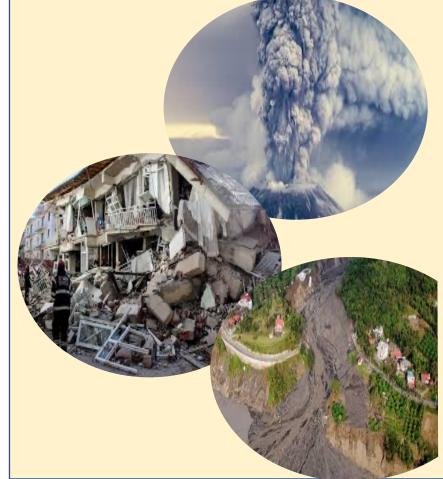


#### **Sea Monitoring**

#### Geohazard

## Atmospheric and climate modelling





Marine scientists studying the marine habitats, the present and past dynamics of the ocean and the interface between ocean and atmosphere

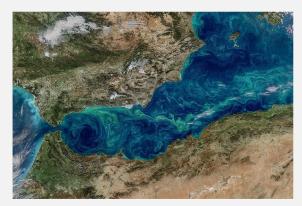
**Geohazard scientists** aiming at improving scientific knowledge of volcanic and seismic Supersites to support Disaster Risk Reduction. Atmospheric scientists working on the development of numerical meteorological, ocean and climate models. Reliance

### **Sea Monitoring Community**



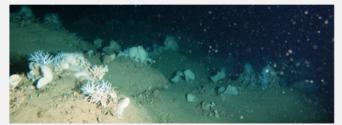
Marine ecologists, biologists, geologists, geophysicists, geochemists and oceanographers studying past and present dynamics of the ocean and the ocean-atmosphere interface

Influence of climate change on oceanic circulation, seawater chemistry, biogeochemical cycles











Natural and anthropogenic factors impacting economically and socially on coastal systems and deep-sea environments

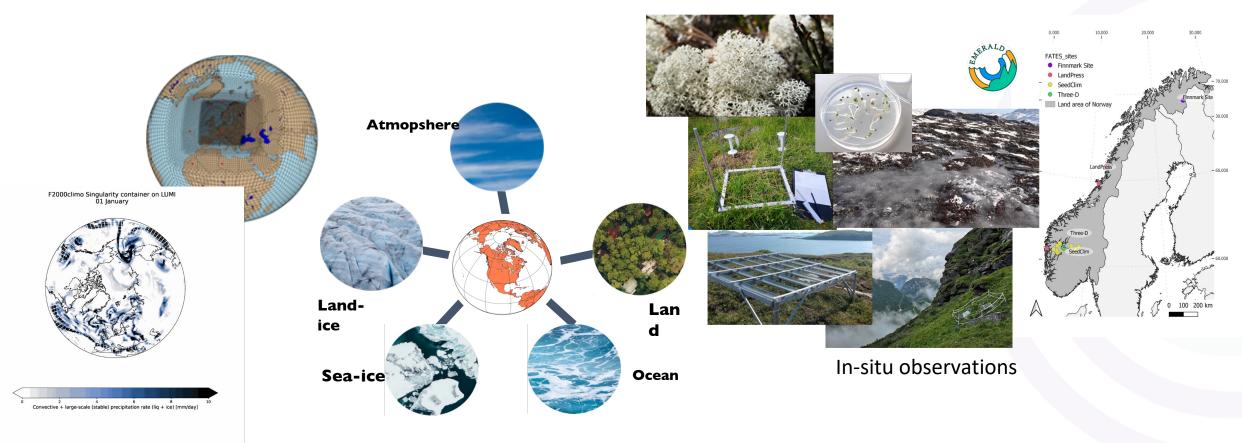




Reliance

### **Climate Change Community**





Earth System Modelling

Impact studies, climate mitigation and adaptation, geo-engineering, monitoring

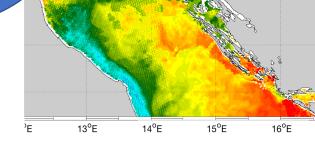


### Multi-disciplinary case study: De-Impacts on Coastal Environment during the COVID 19lockdown

To test the evolution of the anthro coastal system following the lock with high urban and/or industria

To quantify in a synoptic way the sea (GES) at the end of applying open data appro

To integrate measures from adding (i) ad hoc measures in maximum change, (ii) qualit citizens according to the Lo What about air quality During Covid 19 Lockdown? Are there any correlation with the water quality



13.5

12.5



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## how reliance services can help to connect the two communities and to answer this scientific question?

DEMO



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#### Based on 3 complementary technologies

Reliance proposes a research lifecycle management service ecosystem based on three complementary and interconnected technologies:

D



ROHub is a holistic solution for the storage, lifecycle management and preservation of scientific investigations, campaigns and operational processes via research objects.

It makes these resources available to others, allows to publish and release them through a DOI, and allows to discover and reuse pre-existing scientific knowledge. Built entirely around the research object concept and inspired by sustainable software management principles, ROHub is the reference platform implementing natively the full research object model and paradigm, which provides the backbone



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## Thanks!

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