

SOCIB Data Management System

From regional to European impact

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Outline

SOCIB in a nutshell

SOCIB Data Repository

Data Management System

Link to EOSC and increased impact

SOCIB in a nutshell

A multiplatform ocean observing & predicting system: from the coast to the open sea, from events to climate.

3 DRIVERS

- Science priorities
- Technological Development
- Society Needs

ACCESS MODALITIES

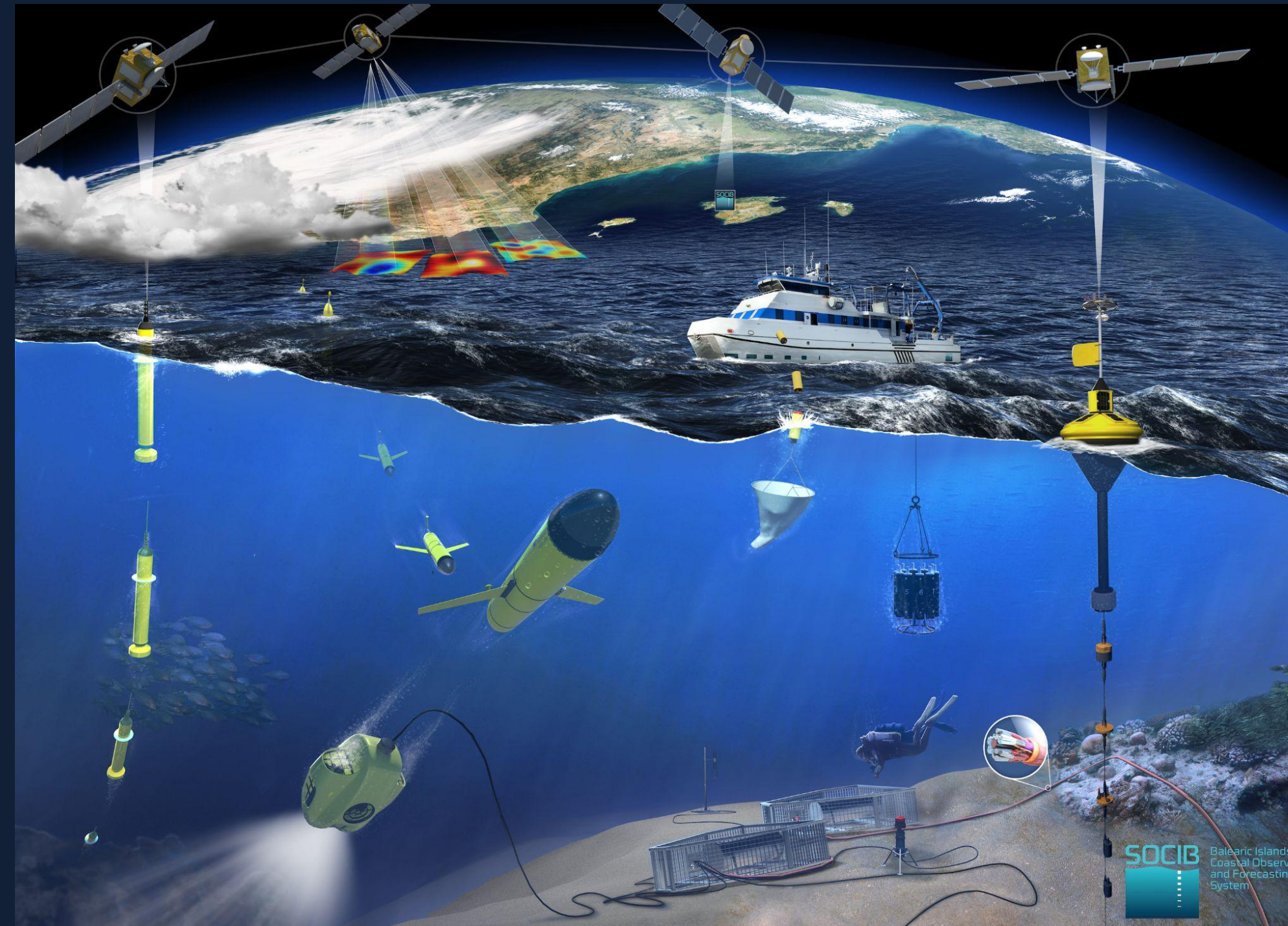
- Open Data Access
- Permanent Observing Programs
- Open Access to Infrastructures

COLLABORATIVE

- CSIC, IEO, UIB

ASSESSMENT

- Every 4 years



TIMELINE

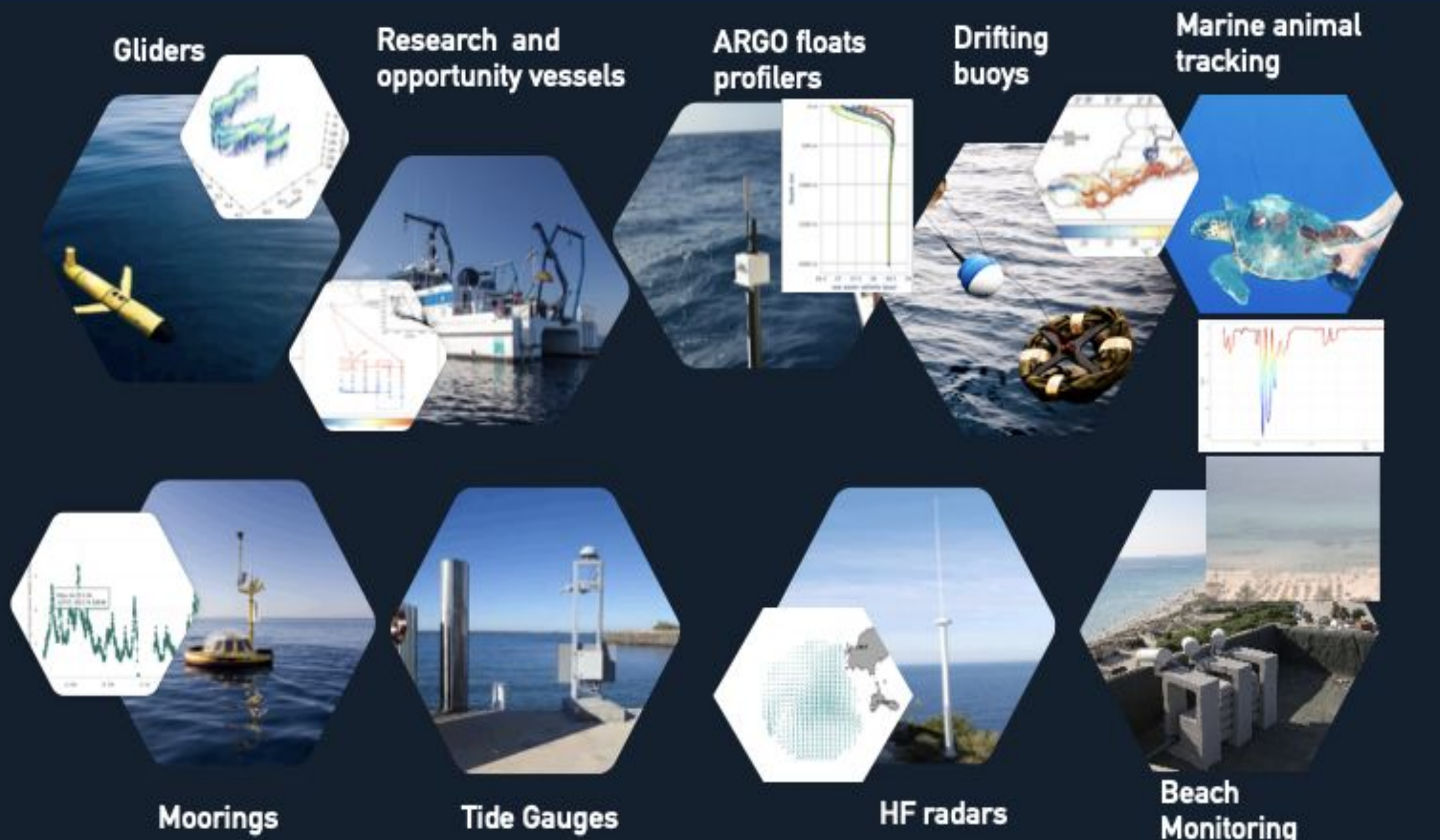
- Proposed in 2006 and approved in 2009
- Design and implementation: 2010-2013
- ICTS map: from 2014
- Digital Twin: 2024-2033

KPIs:

- >200 scientific publications, 2011-2023
- 20 European projects, 2014-2023
- 8 contracts with the private sector
- 8 collaborations with the public sector
- External financing > €6M

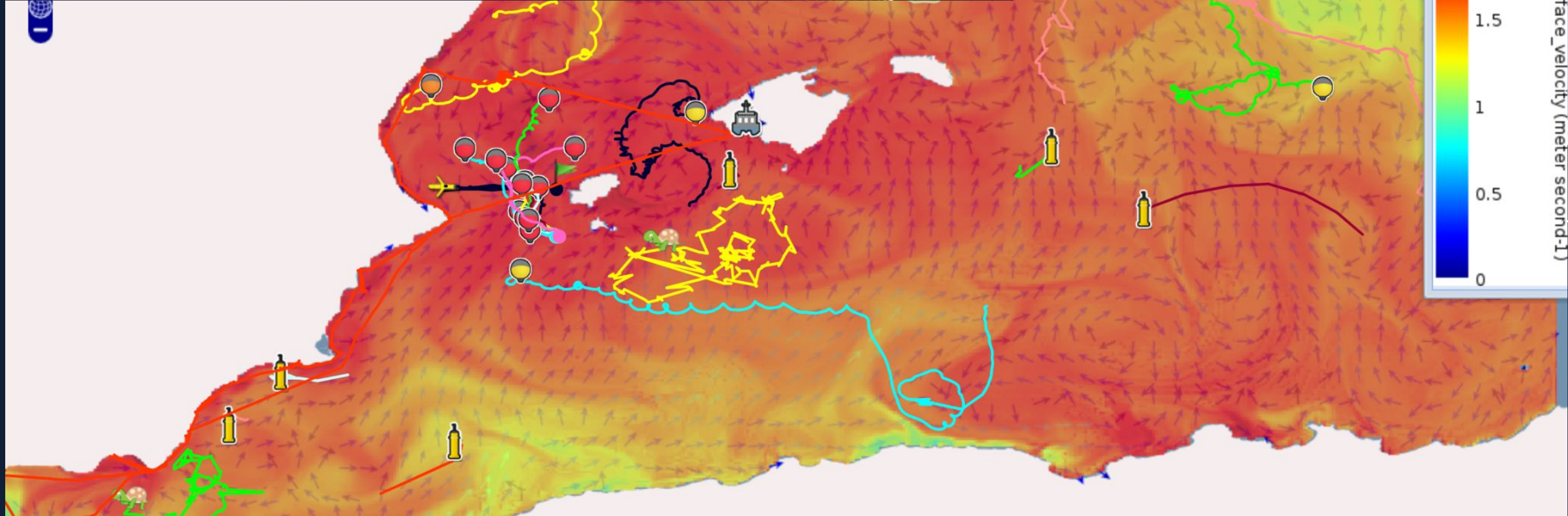
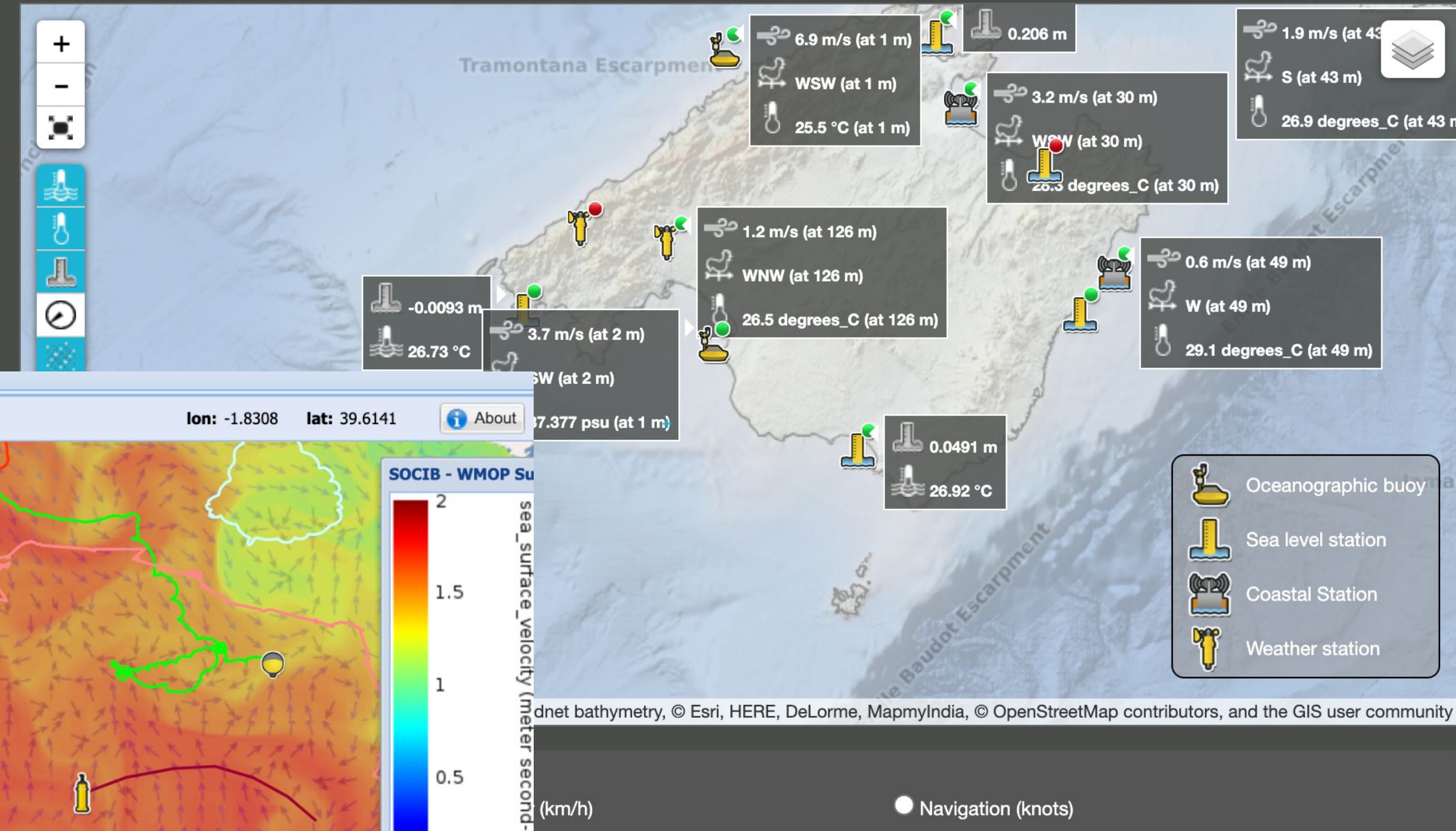
“Be a reference research infrastructure in the field of marine R&D&I and contribute to the development of a digital twin in the Mediterranean to support decision-making in a context of climate change”

SOCIB: A multi-platform observing system in the western Mediterranean



SOCIB / Fixed stations

Welcome to the **fixed stations** facility. Here you can **explore** all our fixed platforms and click on one of them to **display and download the latest data**. You can directly display all the variable data and the charts, clicking on the icons.



Data Management Framework: Data Quality Policy

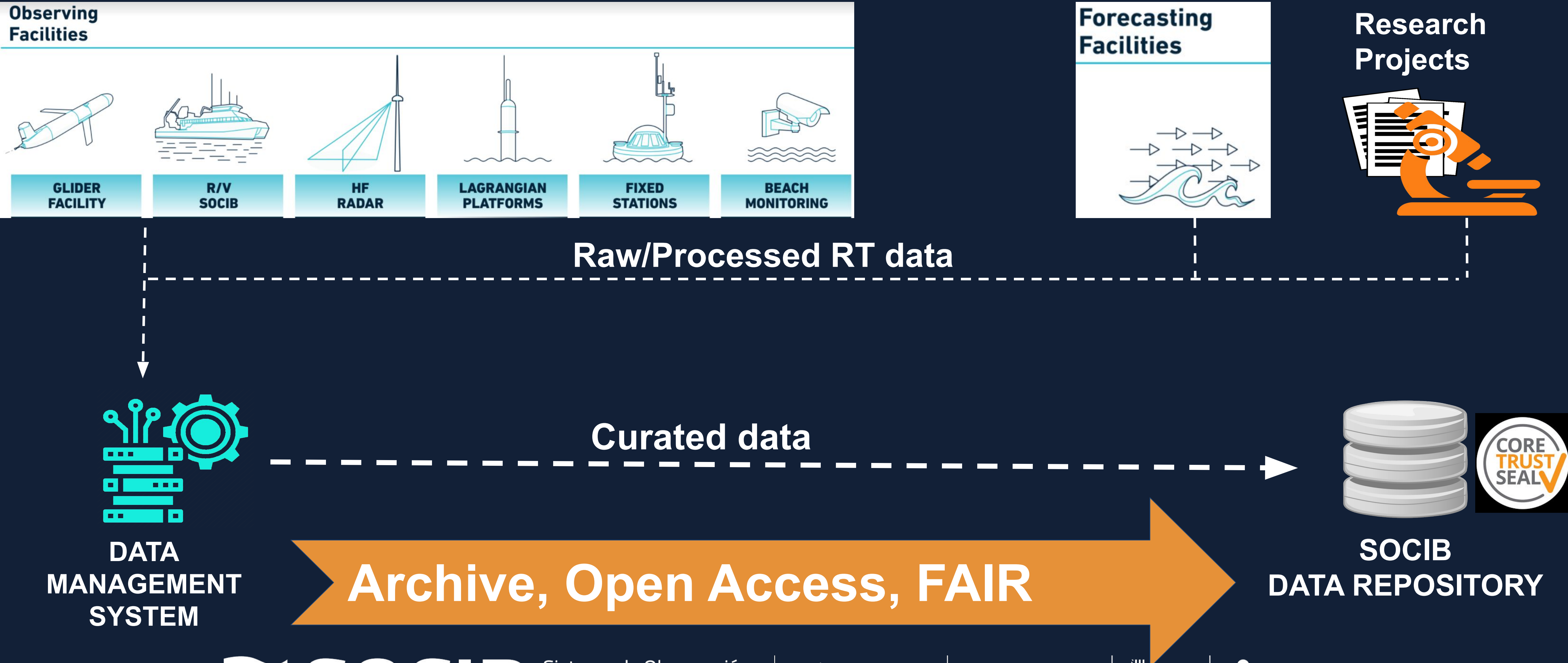
SOCIB Data Quality Policy

- Follow **FAIR data principles**.
- Implement Quality Control, following international standards, both in real time and delayed time.
- Meet scientific and operational requirements of both the SOCIB multiplatform system and forecasting systems (including research projects in which SOCIB is involved).
- Include data assets in the **SOCIB Data Repository**.
- Ensure the compliance of SOCIB metadata with international standards.

Data
Quality
Strategy

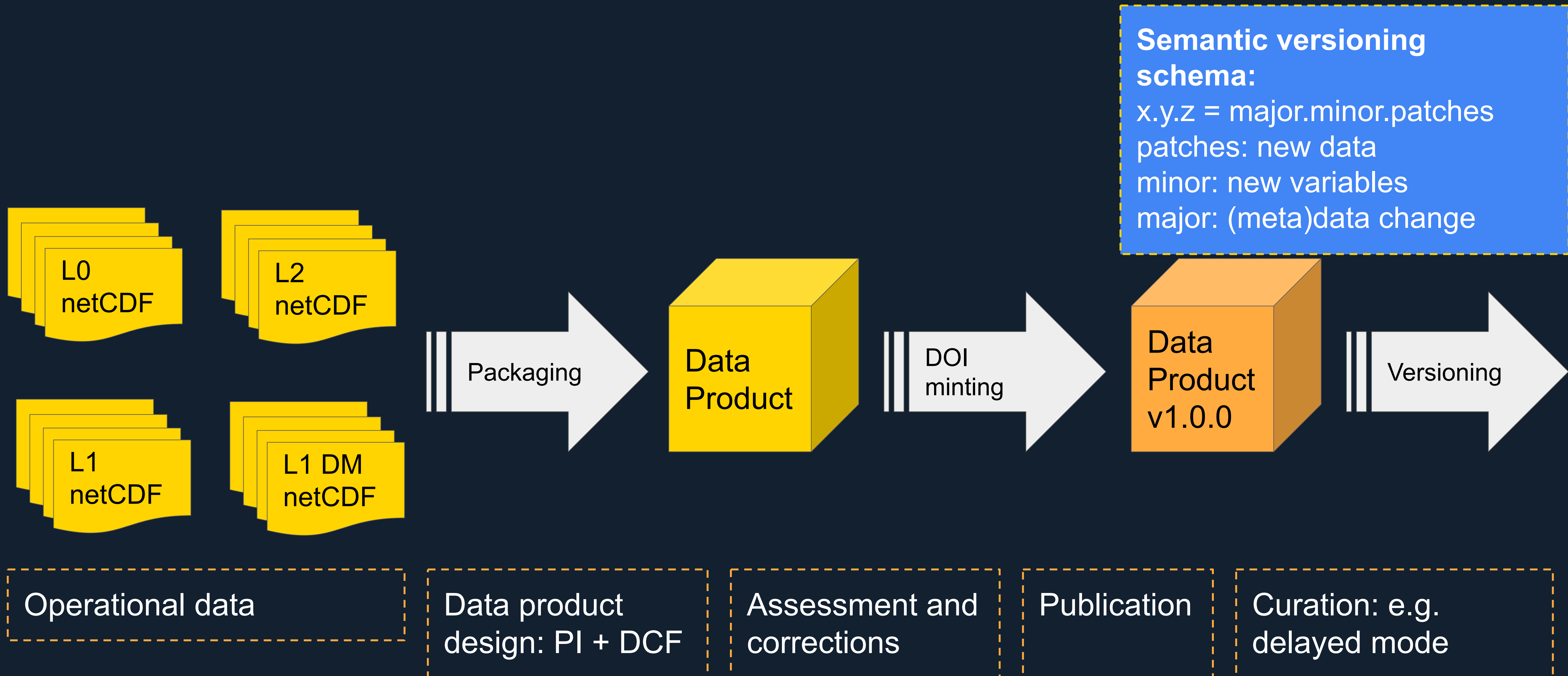
01	Quality Assurance
02	Quality Control
03	Quality Assessment
04	Tools
05	DMPs
06	Data Profiling
07	Data Cleansing
08	Data Operations (SOPs)
09	Quality Control WG

SOCIB Data Management Framework



Data Management System: data products packaging

Data products and versioning system



SOCIB Data Repository: user interfaces

3 user interfaces to support different use cases



Operational data

thredds.socib.es

Data server: the structure and organization of the data responds to purely operational criteria. It also offers access through standard services (OPeNDAP, WMS).

Data Catalog

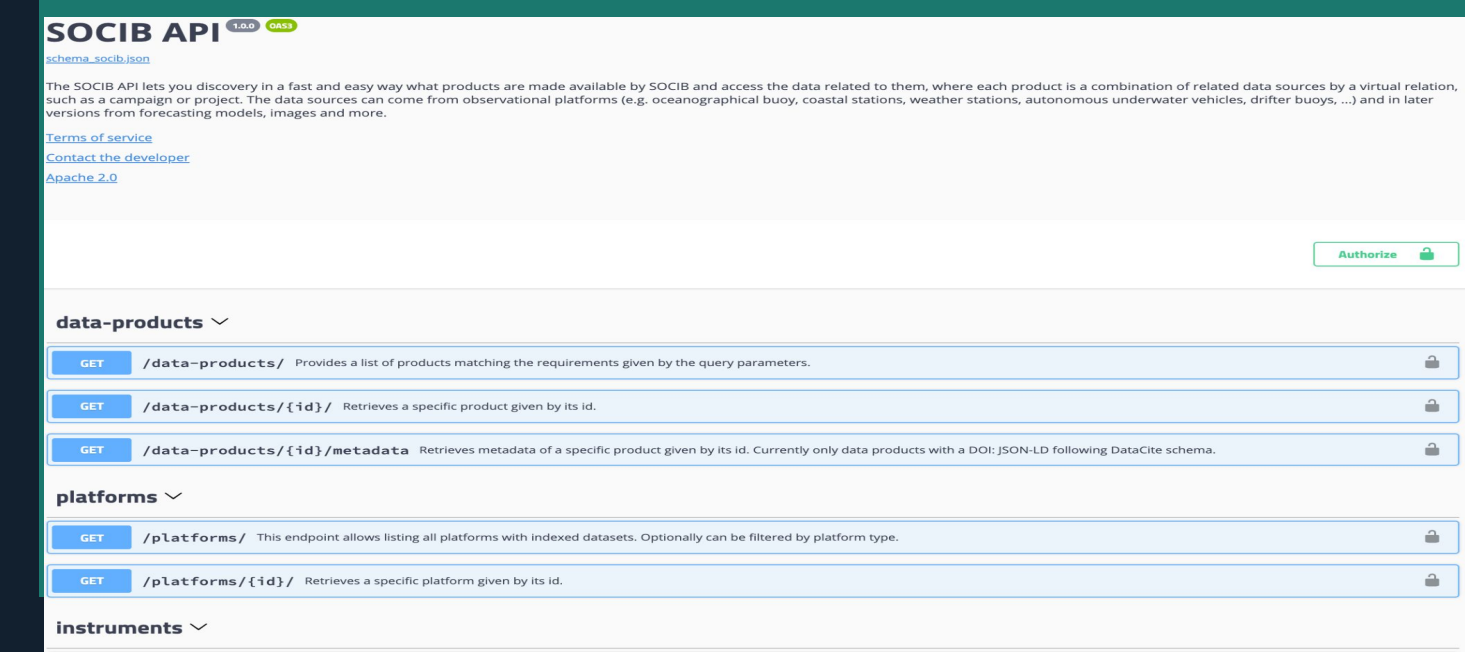
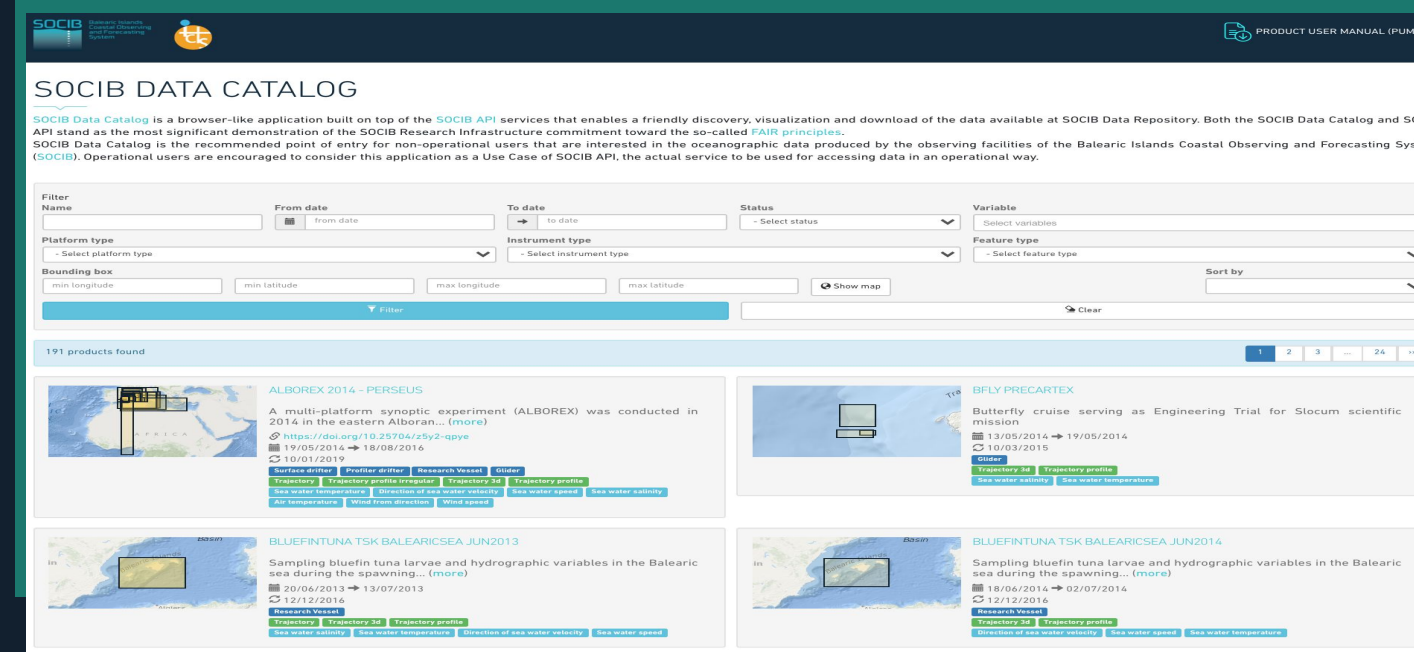
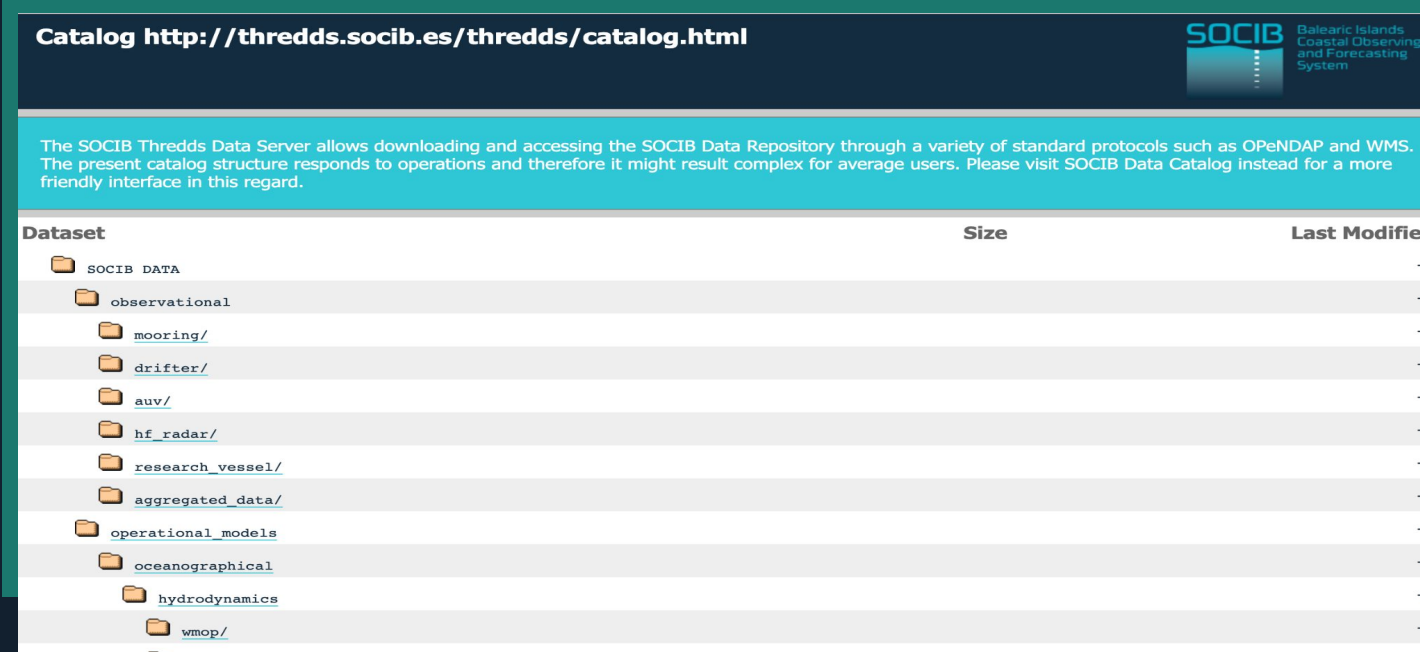
apps.socib.es/data-catalog

Catalog of data products: operational data in the best available quality, packaged according to scientific criteria. Data products have a DOI assigned to them.

API M2M

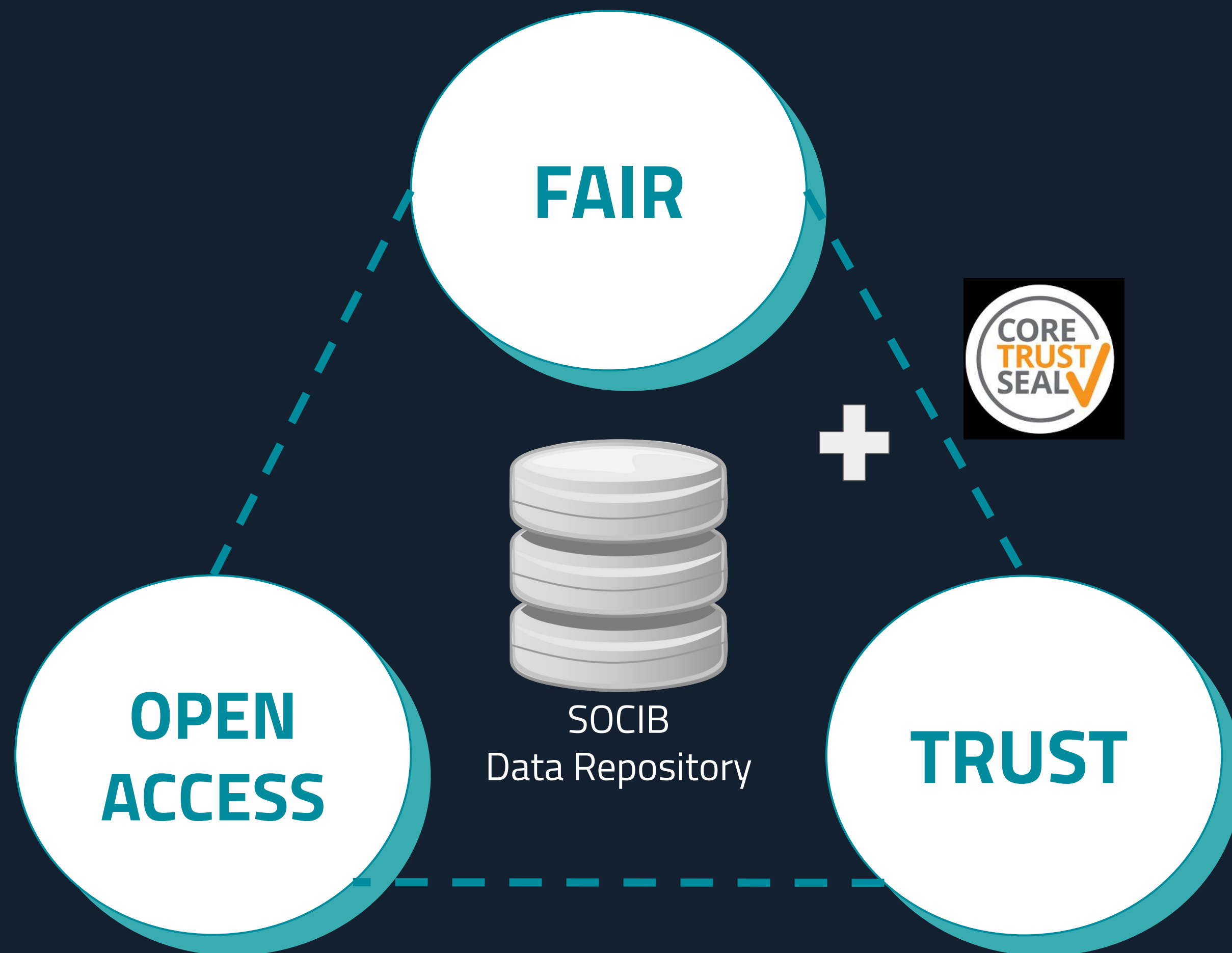
api.socib.es

Machine-to-machine interface REST API to access repository data and metadata..

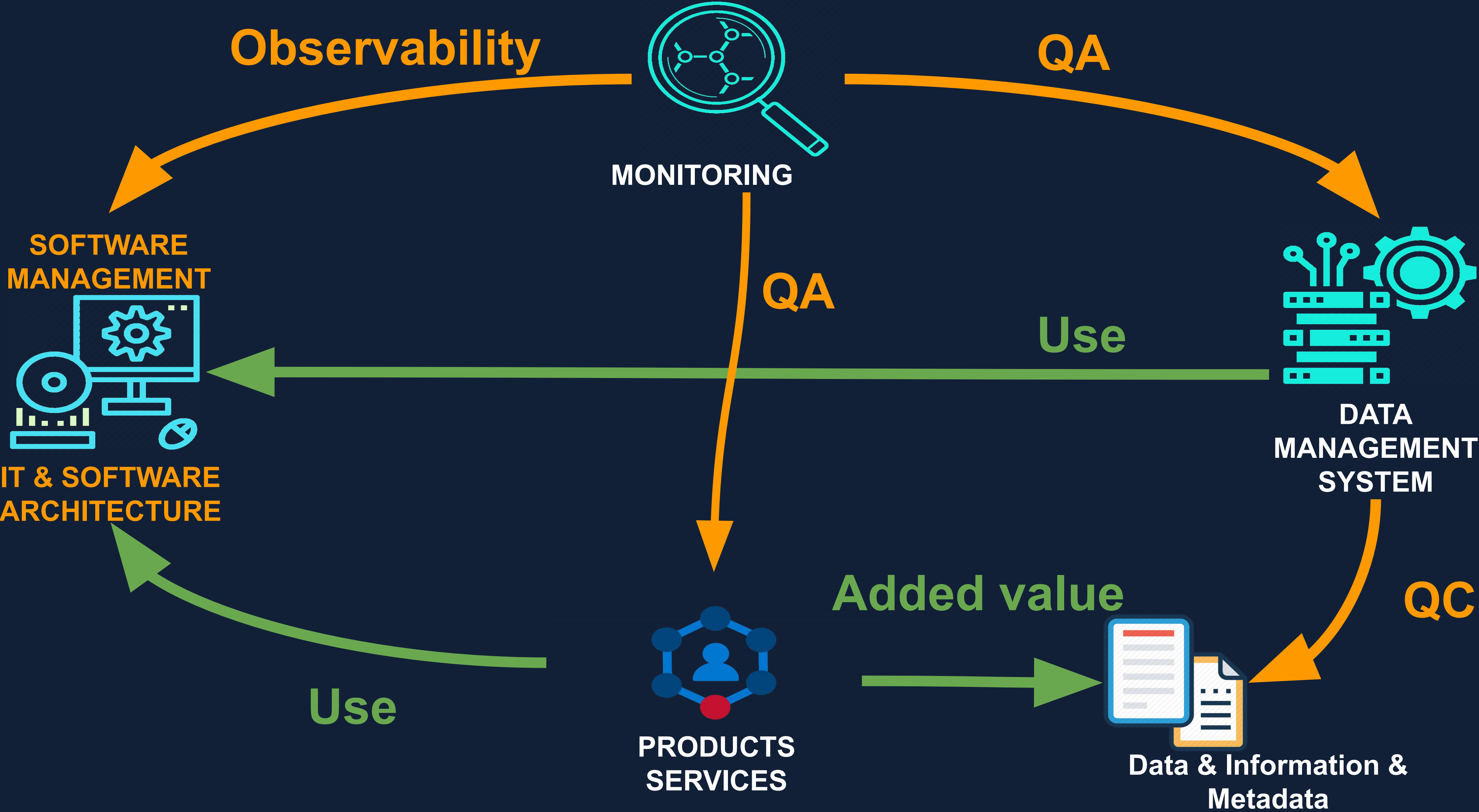


SOCIB Data Repository: support Open Science

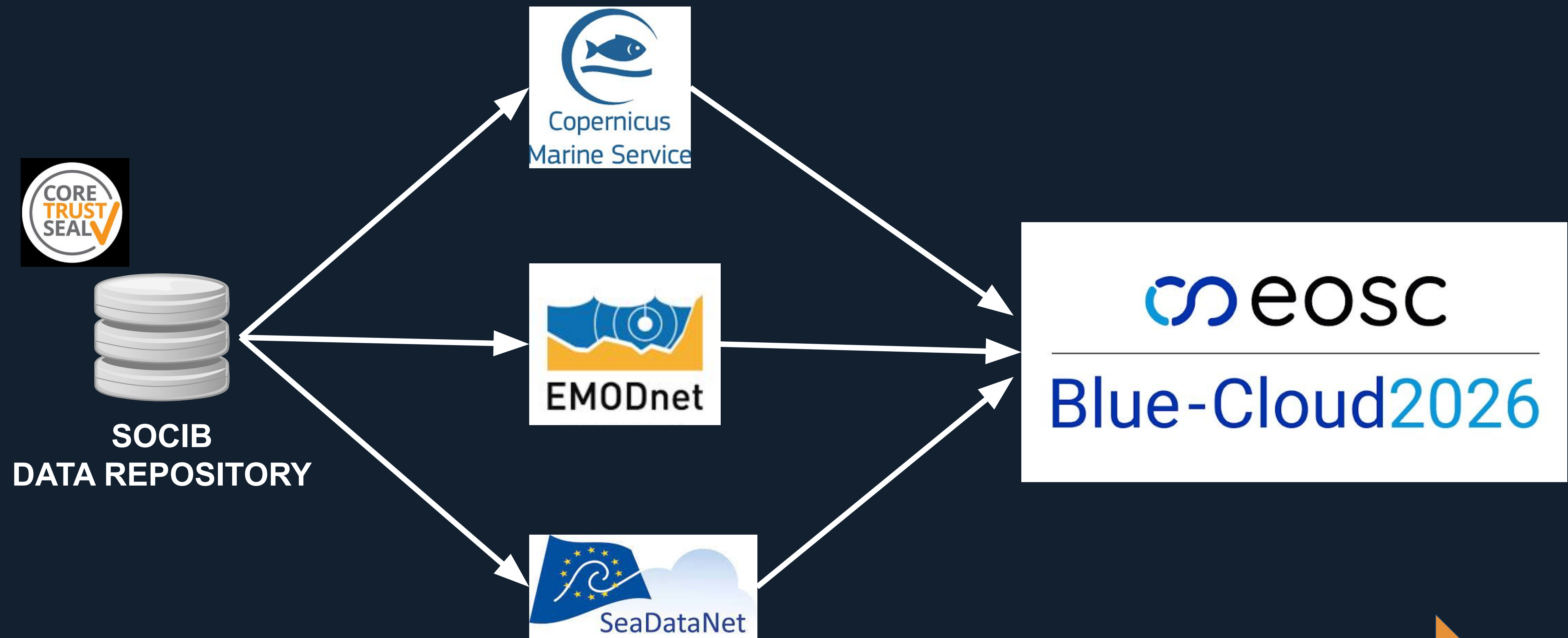
We promote **accessible** scientific **research** and **data**
open to all citizens



Data Center Facility: high level overview



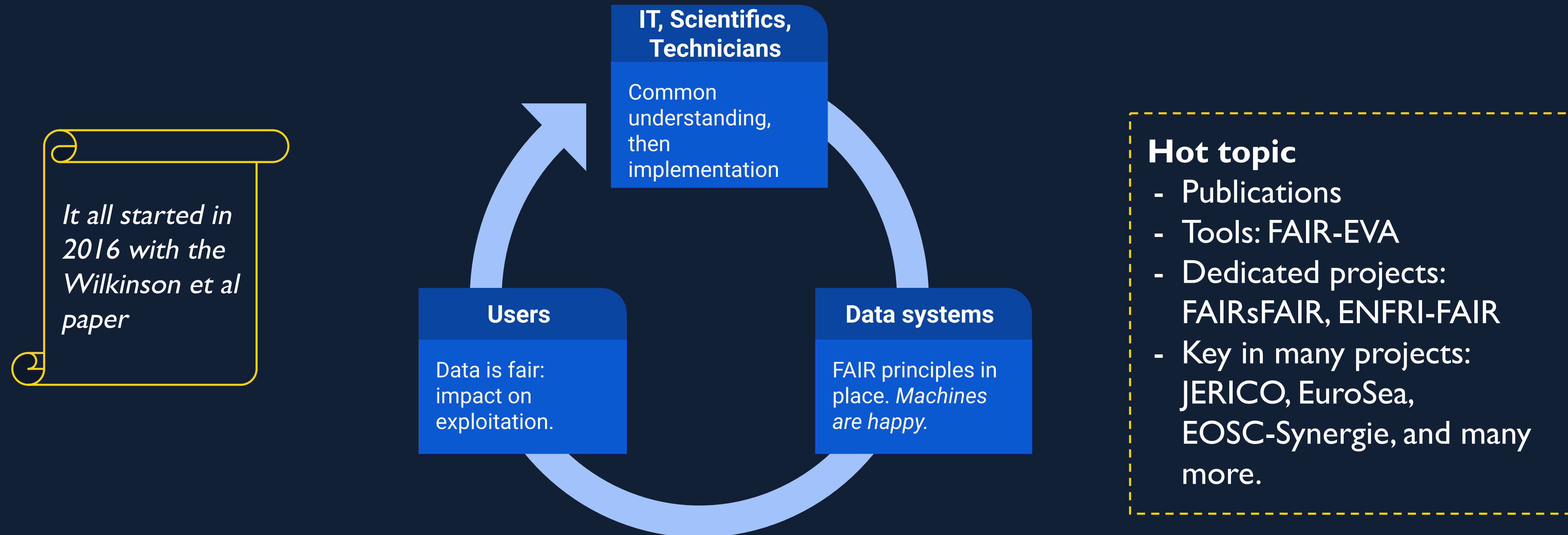
SOCIB Data Repository: link to EOSC



From local and regional to European and Global impact

FAIR principles: summary

“Fair” for machines then “fair” for humans



Distinct from peer initiatives that focus on the human scholar, the FAIR Principles put specific emphasis on enhancing the ability of machines to automatically find and use the data, in addition to supporting its reuse by individuals (Wilkinson, M. D. et al., 2016)



Thanks a lot!



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ICTS SOCIB