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Intergovernmental  
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Commission



2021  
2030 United Nations Decade  
of Ocean Science  
for Sustainable Development



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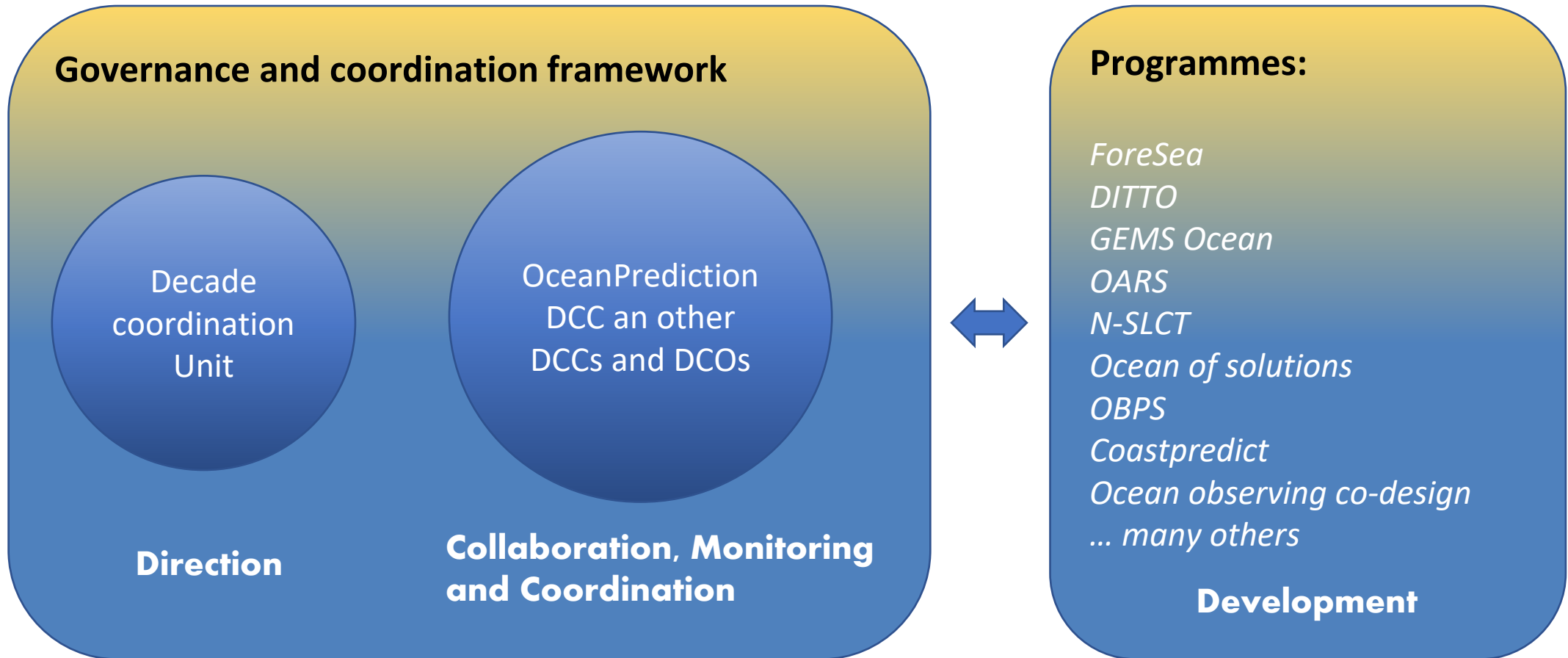
**MERCATOR  
OCEAN**  
INTERNATIONAL

# OceanPrediction

*Decade Collaborative Centre*

*Enrique Alvarez Fanjul and Mauro Cirano*

*Connecting the world around Ocean Prediction*



## 2020: THE OCEAN FORECAST WE HAVE



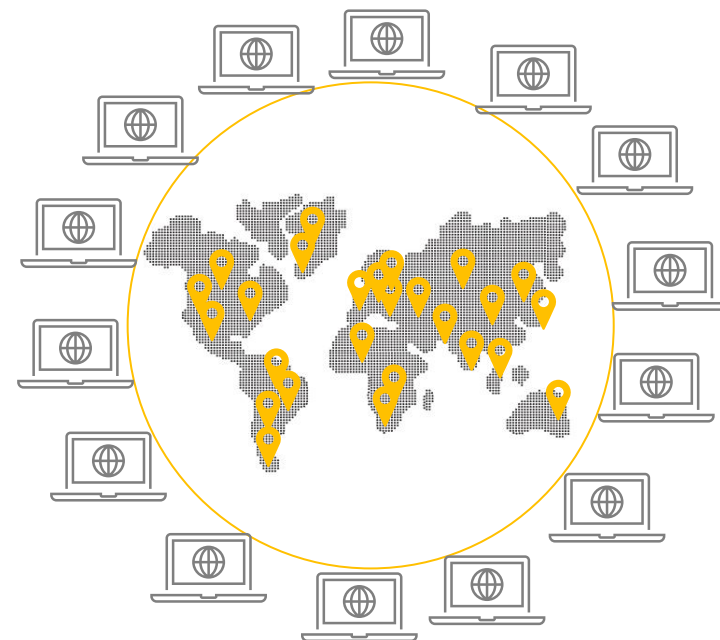
- Useful but partially disconnected services
- Poor presence in developing countries

## OceanPrediction DCC VESSEL

**Captain:** UN Ocean Decade  
**Chief engineer:** Decade actions and DTO  
**Crew:** OceanPrediction DCC community  
**Navigator:** OceanPrediction DCC



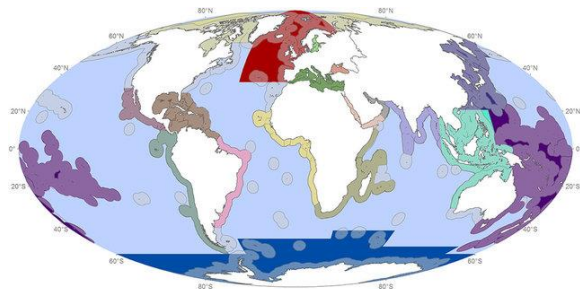
## 2030: THE OCEAN FORECAST WE WANT



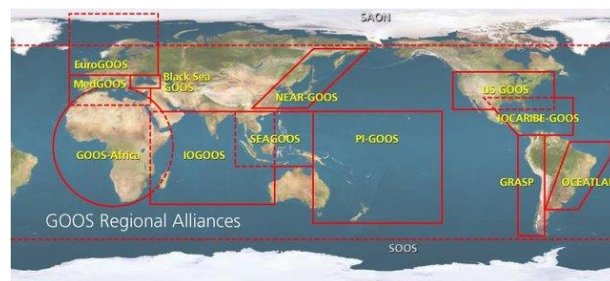
- Connected community and services
- Many robust systems worldwide

## Oceanprediction DCC regional teams: Promoting the implementation and use of ocean forecasting systems worldwide

UNEP regional seas



GOOS regional alliances



- Region 1: West Pacific and East Asian seas
- Region 2: Indian seas
- Region 3: African seas
- Region 4: Mediterranean and Black Sea
- Region 5: North-East Atlantic
- Region 6: South and central America
- Region 7: North America
- Region 8: Arctic
- Region 9: Antarctic

### “Boots on the ground” work:

- Identify and attract a wide community: scientist, users, private sector, NGOs, etc...
- Support decade actions related to ocean forecasting
- Identify gaps and ways forward
- Capacity building
- Advocate for implementation of Best Practices, Standards and Tools
- ...

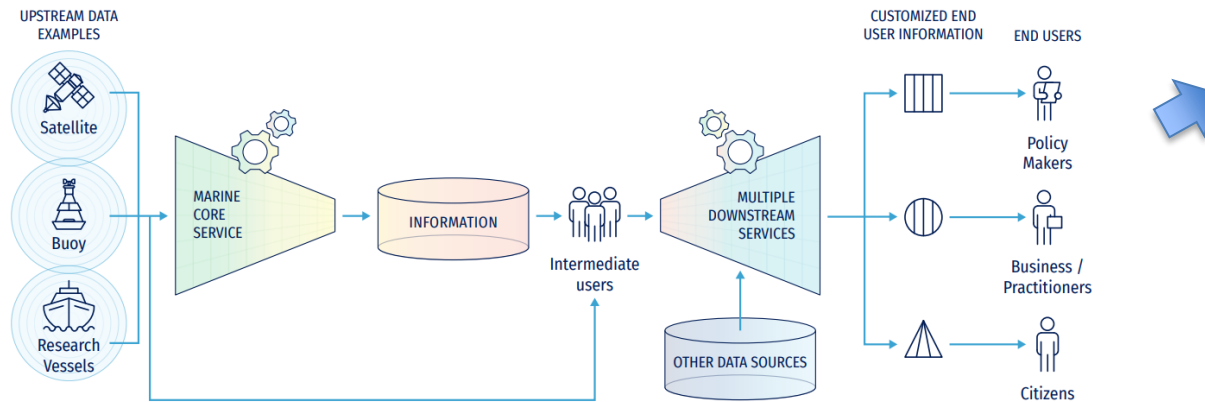


THE OCEAN FORECASTING CO-DESIGN TEAM



## The Ocean Forecasting co-design team; Objectives:

- Design an ocean forecasting architecture to overcome the existing gaps, allowing to deliver as one and taking benefit of the digital twining concept.
- This architecture will be based on **Standards, Tools and Best Practices**.
- COS-TT or others could get inspiration by the definition of these “building bricks” and contribute to implement this architecture.



Team built to cover all aspects of value chain

Ocean Forecasting Co-Design Team experts			
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Regional experts			
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	Region 7: North America Region		
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Stuart Corney	Region 9: Antarctic Region	IMAS	Stuart.Corney@utas.edu.au





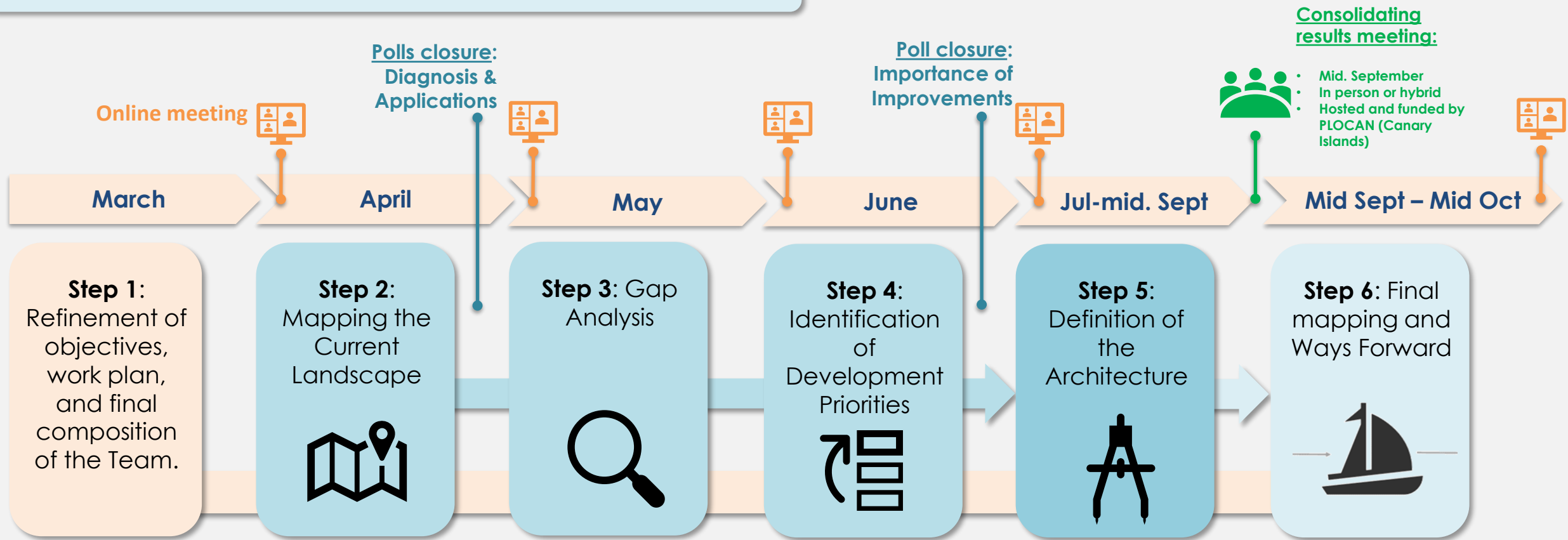
UN DECADE COLLABORATIVE CENTER

**Compilation Team**

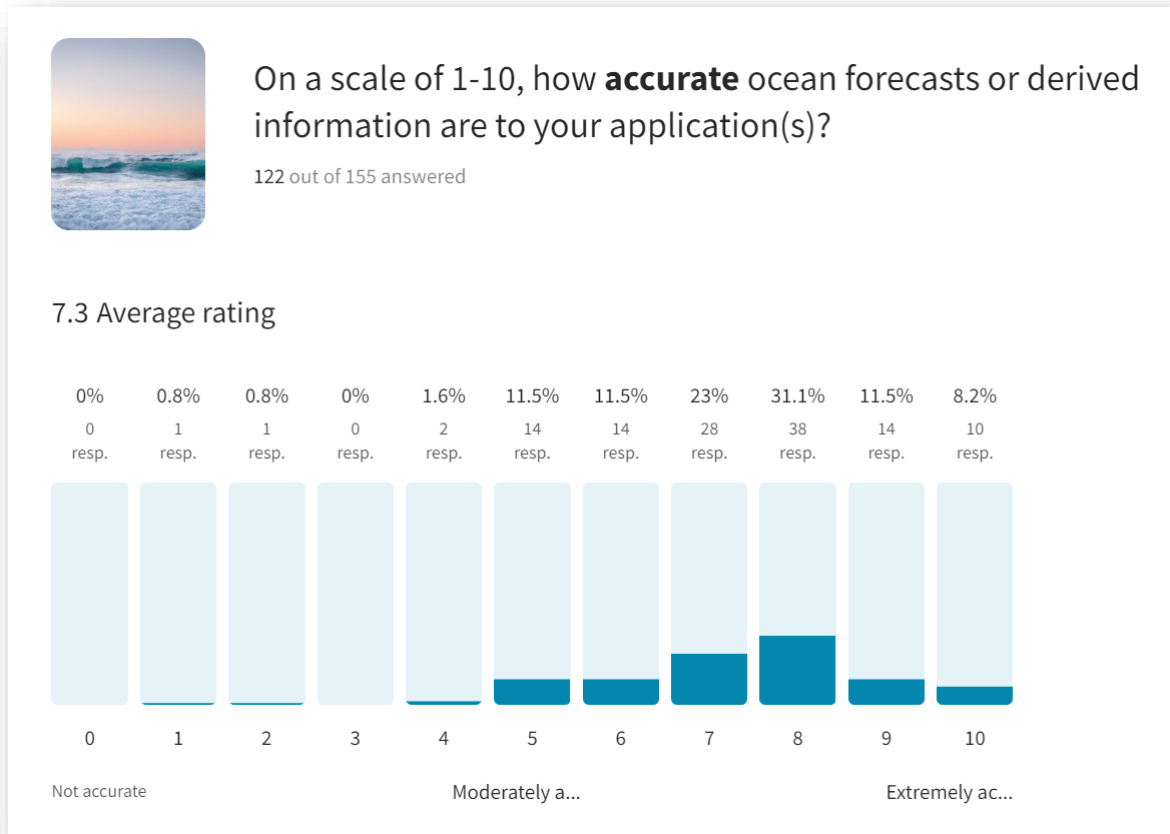





**Ocean Forecasting Co-Design Team**



As part of this effort: an ongoing survey to analyze the **user's degree of satisfaction** and needs (not for developers):



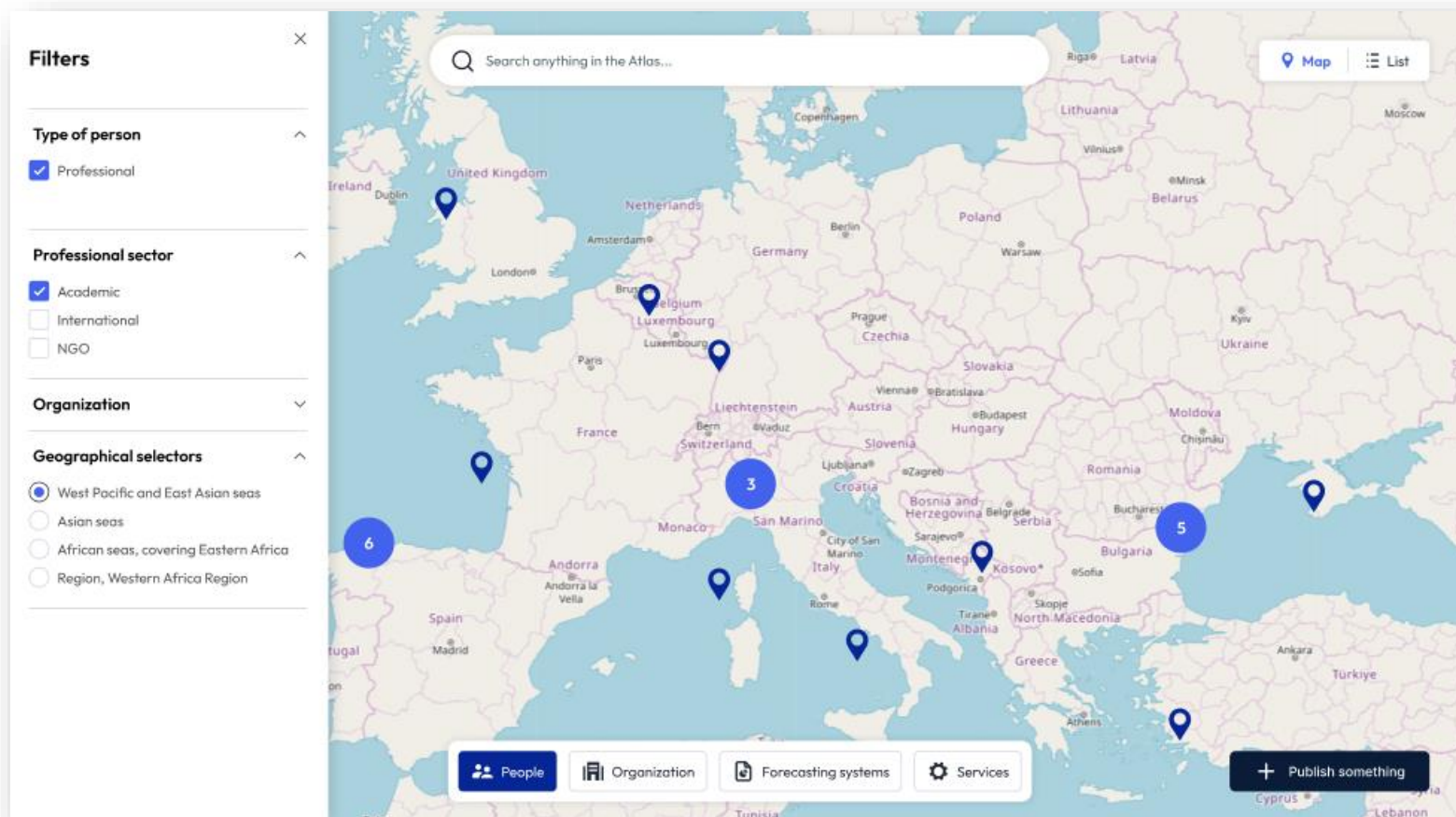
Please, help us by distributing this to your users!

<https://tinyurl.com/COSTTsurvey>

Survey closing May 15th



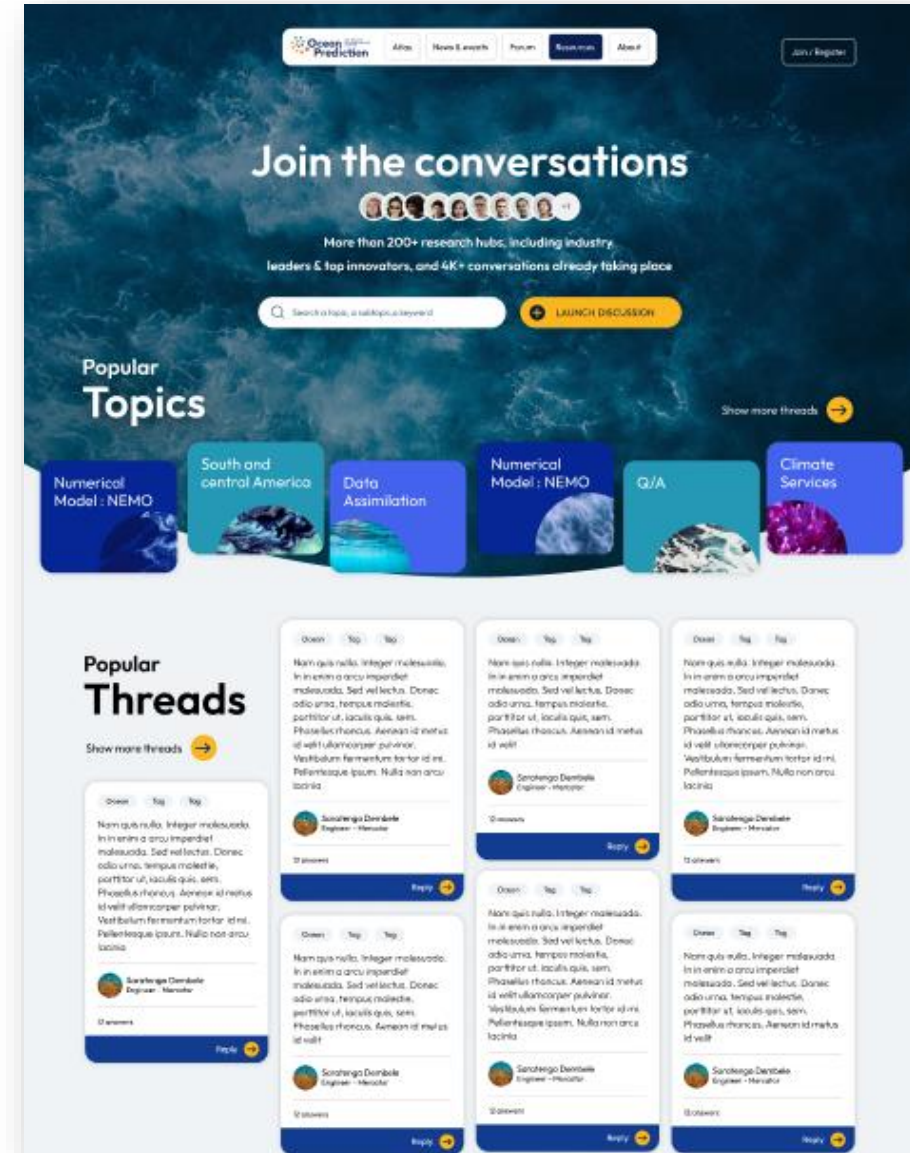
- An **online atlas** to locate:
  - OOFs
  - Individuals
  - Institutions
  - Downstream services
- A **source of information** for our activities and a way to find partners
- An interface will be available to allow COSS-TT community and others to **add and modify the information**



A **focal point/forum** for communication and matchmaking to be operated in close cooperation with Foresea/OceanPredict:

- Community announces
- Contact a partner, Matchmaking service
- Ocean forecasting Activities related to the decade programmes
- Regional Forums
- Technical forum for specialized announces and doubt solving

Administration of relevant sections could be done by COSS-TT community.



A focal point for communication to be operated in close cooperation with Foresea/OceanPredict

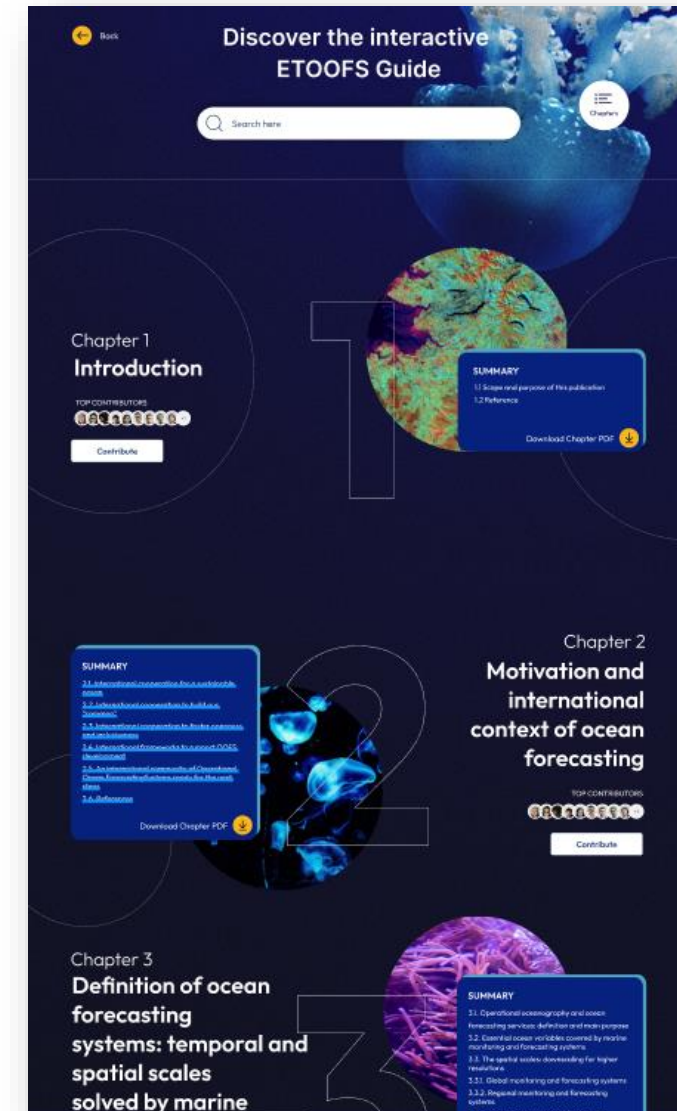
Reaching a **transversal audience** (from coastal to deep sea, nowcast to climate, Bio to physics, public to private, users to scientists). Now 1800+ persons registered for the kick-off event:

- News from the regional teams
- Latest news
- Special announcements
- News from Decade actions



**Expert Team on Operational Ocean Forecast Systems (ETOOFS) guide** (created with relevant contribution from COSS-TT members) converted to wiki site:

- A new consolidated version of the guide every 3-4 years
- New section on Biological modeling (higher trophic) and Tsunami
- Improvements needed in several sections, like rivers contribution



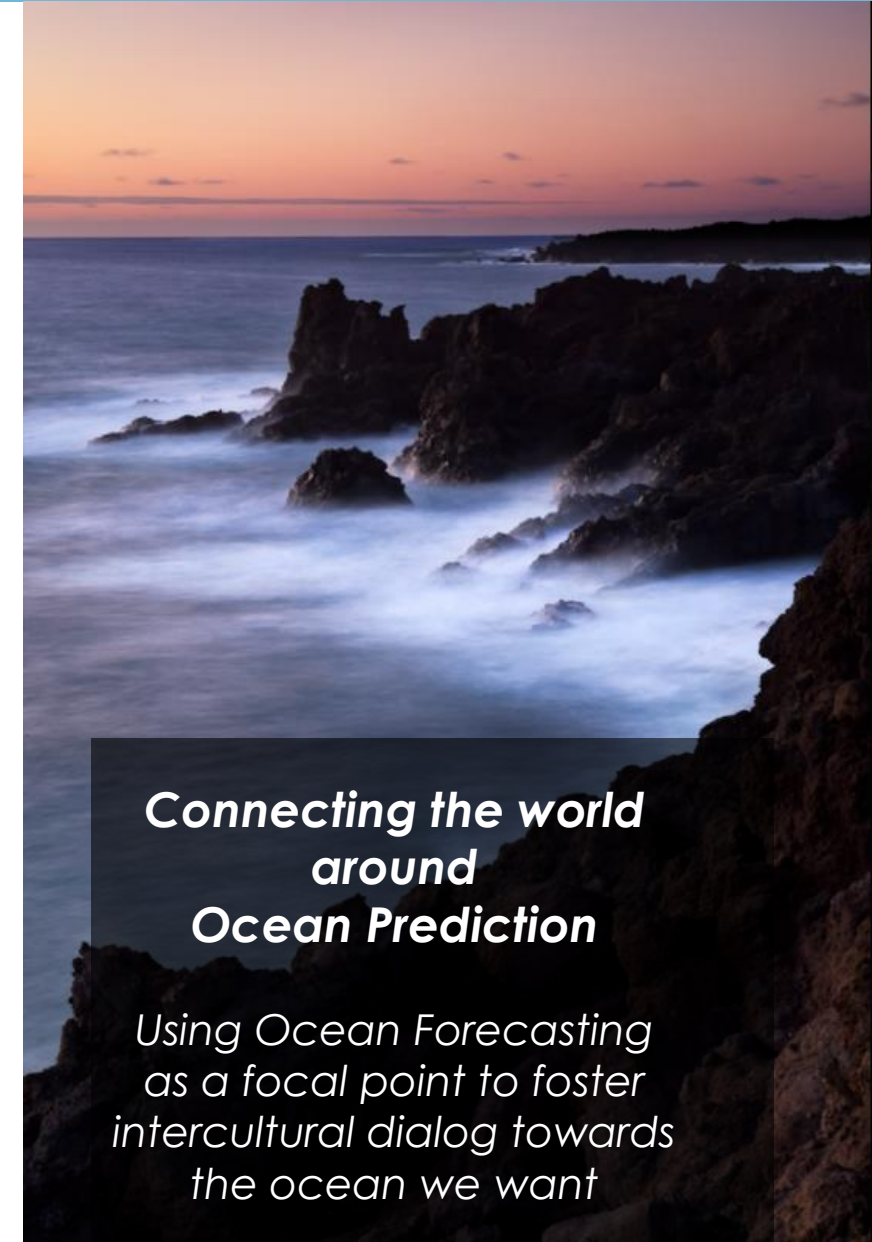
Solution to be based on the ETOOFS guide and serving the needs of the community (COSS-TT, OceanPredict/Foresea, CoastPredict, DITTO)



- **Step1: Engage stakeholders** **2023**
- **Step2: Assess assets & needs**
- **Step3: Design a solution**
- **Step4: Implement a solution**
- **Step5: Evaluate the solution & outcomes**

COSS-TT community to be engaged for steps 1 to 3 this year

- OceanPrediction DCC: a **key element for the ocean prediction we need**
  - Builds an active community of users, scientists and policymakers (with additional focus on developing countries)
  - Harnesses the Decade framework and arrival of the Digital Twin of the Ocean, to join and deliver together worldwide
- Substantial **benefits** expected
  - A connected community
  - New and better OOFs
  - A technologically linked worldwide ocean forecasting framework
- **Serving COSS-TT!**
  - Several tools (Atlas, forum, ETOOFS wiki...) will be developed in close collaboration with COSS-TT community, and COSS-TT will benefit from its use



**Connecting the world  
around  
Ocean Prediction**

*Using Ocean Forecasting  
as a focal point to foster  
intercultural dialog towards  
the ocean we want*