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# OCEAN INTEGRATION Towards a transformative change on Ocean Observing to more adequately meet the grand challenges of our time

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## Notes for discussion











# What is the issue?

the ocean under climate change

### For this, we need to:

- Enhance scientific understanding across disciplines and scales
- Embrace a more holistic view of the ocean system
- Have a more integrated, user-focused, transdisciplinary Ocean Observing and Forecasting System
- Work all **together as a community**, sharing data and knowledge **This is very challenging because it requires:** 
  - Moving **beyond a business-as-usual** approach
  - **Transcending** the well-established disciplinary and technology **silos**
  - Surpassing the traditional structures, norms and practices of our academic system

### **Today's biggest challenge:** contribute to a sound ecosystem-based management of



# Ocean integration: a possible way forward

## **Ocean integration could be achieved** through:

### Building a collective impact organisation

Agreeing on a common agenda & values → Designing a polycentric governance structure Establishing clear design & implementation and business plan

### Reaching sustainability

→ Elaborating long-term funding strategies

Efficiently communicating the added-value of integration  $\rightarrow$ 

### • Promoting a culture shift

- Facilitating the transition from research to operational
- Connecting the diverse communities
- Fostering FAIR data & TRUST data repositories, open science practices
- → Reforming the ocean research assessment system

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### **Ocean Integration: The Needs and Challenges of Effective Coordination** Within the Ocean Observing System

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# How to trigger this transformative change?

## One size does not fit all!

- taking the Digital Twin as catalyst
- labor!
- At the global level, GOOS leadership is needed!

### Need to develop and test the approach at **different scales**, pilot cases, lead by example

• SOCIB will take the lead at Regional Scale: Western Mediterranean region,

• What about the other regions? All-Atlantic? Pacific? Global, ... We need a division of







### More information in this position paper:

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# Thank you !

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