



2021 United Nations Decade  
2030 of Ocean Science  
for Sustainable Development

The Vision of data, information and knowledge  
management for the Decade

The Ocean Decade Implementation Plan & Data

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# Why an Ocean Decade?

*“Humanity is running out of time to manage the ocean sustainably...”*

2016 World Ocean Assessment



Convention on  
Biological Diversity



Food Systems Summit 2021



United  
Nations

Intergovernmental Conference on Marine  
Biodiversity of Areas Beyond National Jurisdiction



# Ocean Decade: The framework for implementation



**Vision:** *The science we need for the ocean we want*

**Mission:** *Transformative ocean science solutions for sustainable development, connecting people and our ocean.*

DISCOVER TAKE ACTION WHAT'S ON? OPPORTUNITIES JOIN

## JOIN THE COMMUNITY

Over 4,800 Members Making Change Now

SIGN UP

### Join the Ocean Decade Community

Let's join hands to deliver the science we need for the ocean we want! Join the Ocean Decade community!

#### Connect

Connect with your peers, future employers in your field and be mentored by world-class professionals.

#### Transform

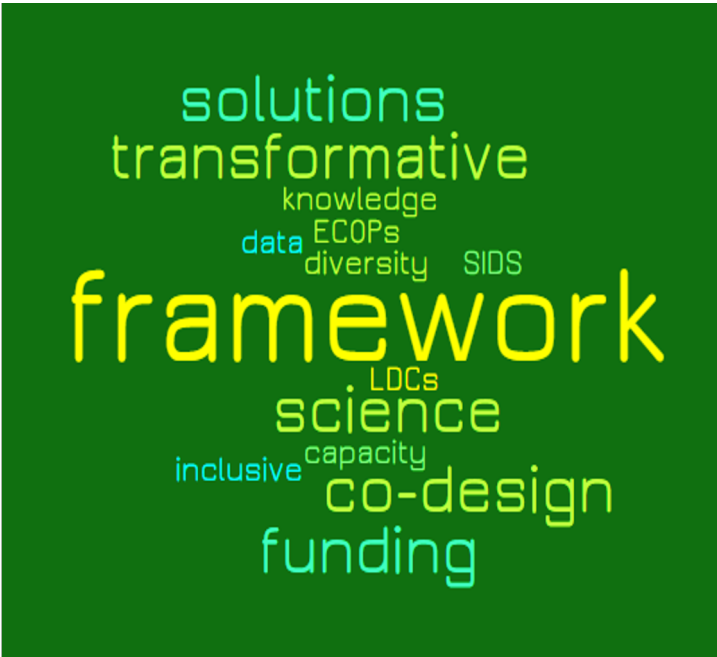
Transform the future of our ocean and sustainable development and grow your impact by collaborating with world scientists and policy makers.

#### Support

Support programmes with a proven impact on sustainability on a local, national, regional and global scale.

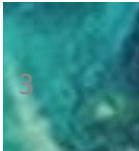
Be part of the Ocean Decade. Join the community.

SIGN UP



[oceandecade.org](https://oceandecade.org)

[forum.oceandecade.org](https://forum.oceandecade.org)





## DECADE OUTCOMES

"THE OCEAN  
WE WANT"

- A clean ocean
- A healthy and resilient ocean
- A productive ocean
- A predicted ocean
- A safe ocean
- An accessible ocean
- An inspiring and engaging ocean

## OCEAN DECADE CHALLENGES



Pollutants



Ecosystems



Food from the Ocean



Ocean economy



Ocean-climate nexus



Ocean-related risks



Ocean observing system



Ocean digital representation



Capacity development



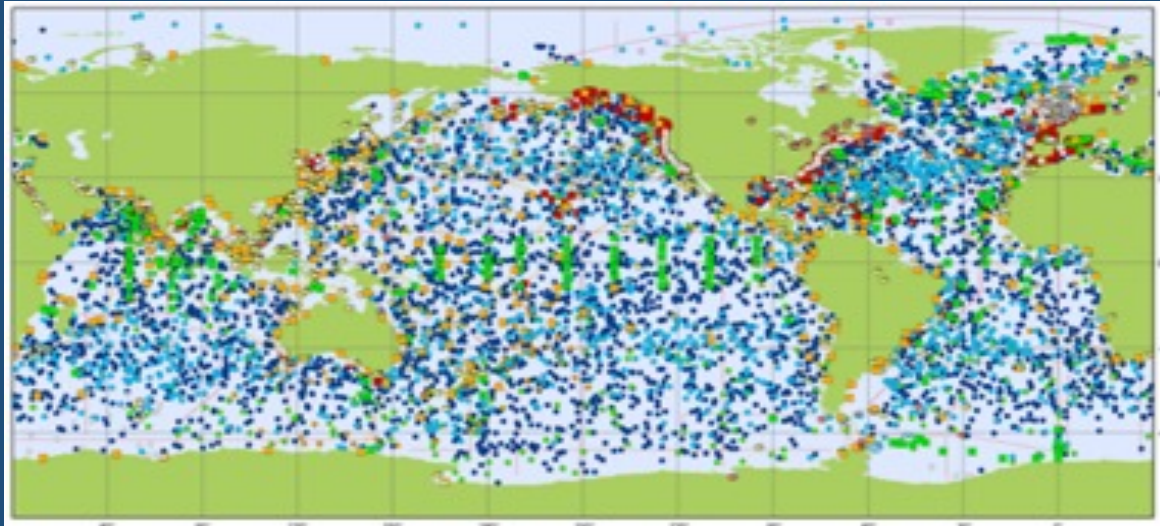
Behaviour change



# Ocean Decade Action Framework



# Observing



# Understanding

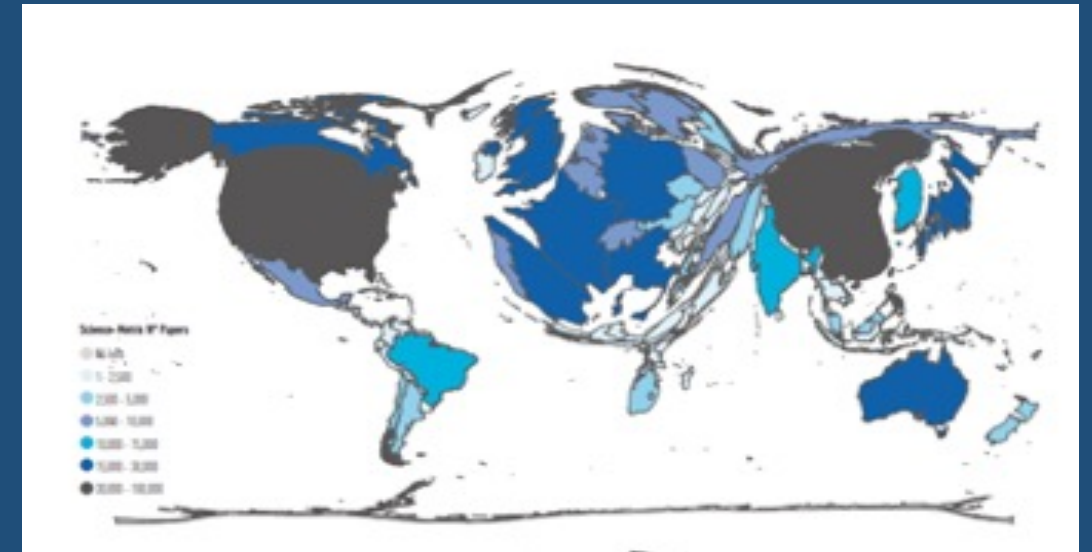


# Predicting

## Integrated Ocean Management/Policies

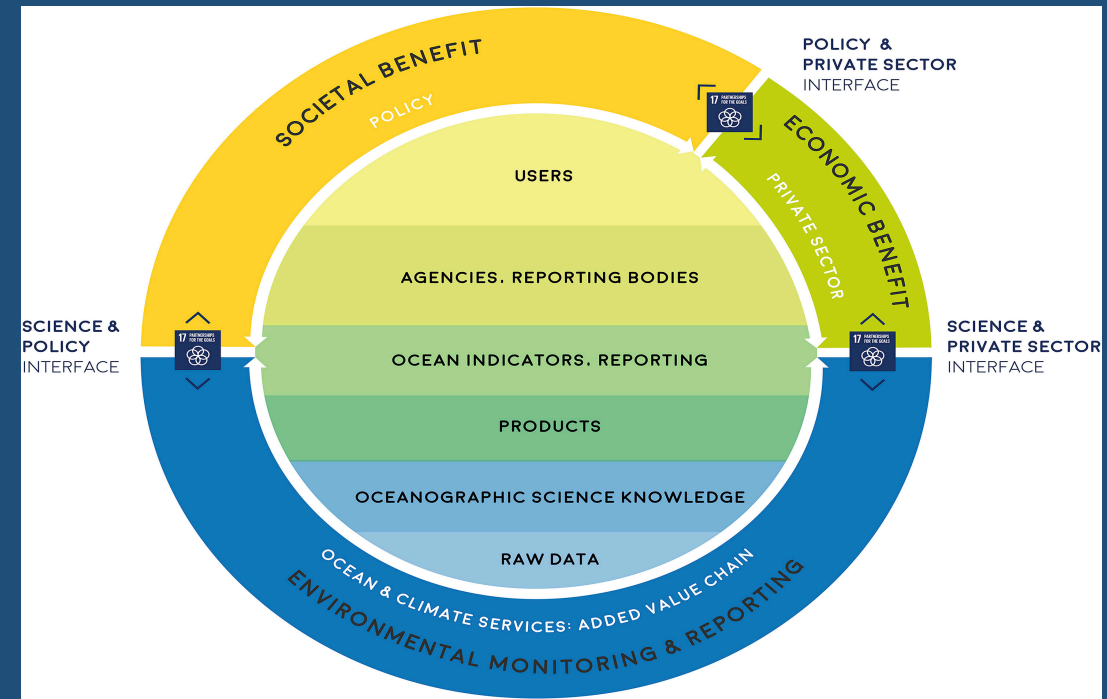


# Capacitating



# What do we need?

- Better **understanding of the whole ocean system**
- Delivery of **timely information about the state of the ocean (past, present, future)**
- **Break data silos and create incentives for data sharing**
- Engage **industry** and Foster **public-private partnerships** in ocean observing, data distribution, and information product delivery
- Influence the development of **data policies, infrastructure, architecture systems, and emerging data technologies**
- Address **major disparities in the capacity** around the world to access, collect, manage, and transform data into knowledge products and services
- **Democratize access, contribution to and use of ocean data products** (from satellites to smartphones)



# Data Vision of the Implementation Plan

Aims to create a shared multidisciplinary digital representation of the ocean's socio-environmental system, i.e. 'a **shared digital ecosystem of the ocean**' that links knowledge generators to users.

- Embrace a culture of **timely, free and open access, use, and re-use of data, information and knowledge**.
- Interlink resources that are **quality controlled and traceable**.
- Create new opportunities for participation of **non-traditional ocean science actors** including industry and local and indigenous knowledge holders.
- Are responsive to **user needs** through proactive engagement and co-development.
- Are capable of being used and contributed to by a **wide range of stakeholders**, including those in low-technology environments.
- Champion and promote **interoperability across scales**.

“

*No single system will be able to implement the vision for data management under the Decade.*

*Data, information and knowledge management will be a collective effort that increases coordination between actors.*

”



# Principles of Ocean Decade Data Ecosystem

Ocean Decade vision => **collective development of a distributed, robust, and collaborative “digital ecosystem” of interoperating parts, that leverages open, scalable, easily implementable, and responsive digital management frameworks.**

This system will:

- Support a complete understanding of marine social-ecological systems **drawing from historical data, contemporary data** (including real-time data streams), **and modelled data** to help predict future ocean conditions.
- Be constructed to **contribute to the identification and fulfilment of knowledge gaps**
- **Embrace non-quantifiable forms of knowledge and diverse knowledge paradigms**—including indigenous and local knowledge, to contribute to the digitised evidence base.
- Be designed to **overcome existing barriers**—including a lack of digitisation capacity, data fragmentation, siloing of data, lack of data sharing, and hidden or underexploited datasets.

## Where do we start from?

- Identify **challenges and barriers**, regional & community needs and priorities
- Data needs to achieve **Decade Challenges** (across value chain)
- Create **interfaces** between users and data community (eg Decade Community of Practice)
- Build on **existing international efforts** (infrastructure, initiatives, eg IODE ODIS, Ocean Best Practices, DITTO)
- Contribute to Data focused **Decade Actions** and guide the design of call for actions
- Assess **resource needs** (Decade Alliance, Philantropy )
- What does **success** looks like ? In 2, 5, 10 years (need metrics/reporting )
- **Contribute to the work of the Decade Data Coordination Group!**



Canada



Thanks to all Decade partners !!

And many others  
that have  
contributed in-  
kind support...

The Ocean We Need  
for Future We Want



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