



In partnership with



2021 United Nations Decade
2030 of Ocean Science
for Sustainable Development

THE VISION 2030 STRATEGIC AMBITION FOR OCEAN DECADE CHALLENGE 8 THE DIGITAL OCEAN

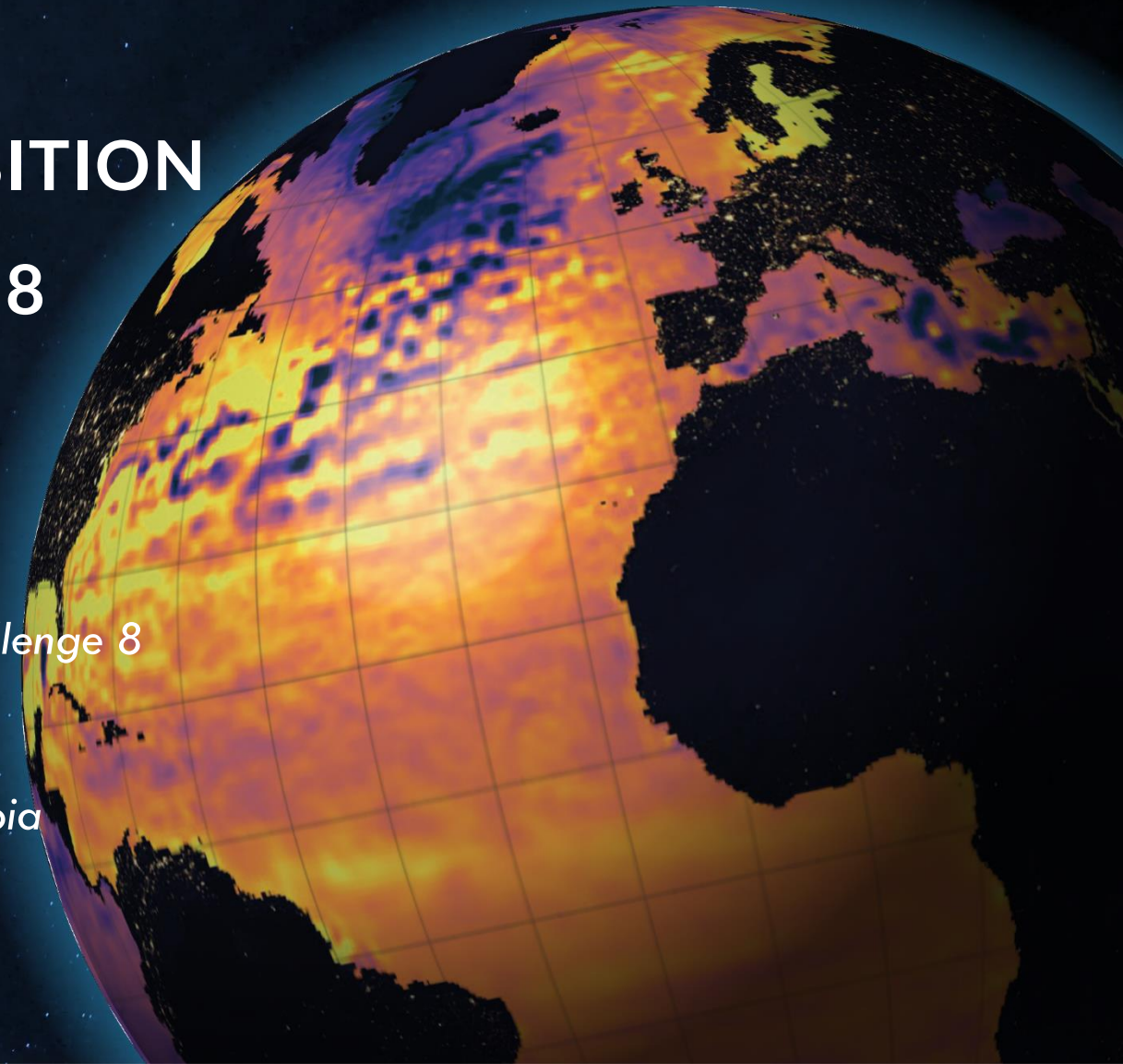


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IOC-UNESCO

Co-chairs of Vision 2030 Working Group Challenge 8

Jan-Bart Calewaert, Seascope - Belgium

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Data and information as cornerstones of the Decade's success

The Ocean Decade Framework



“The science we need for the ocean we want”



ACTIONS

CHALLENGES

OUTCOMES



PROGRAMMES



PROJECTS



ACTIVITIES



CONTRIBUTIONS



1 UNDERSTAND AND BEAT MARINE POLLUTION



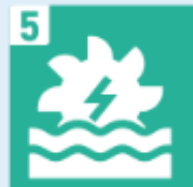
2 PROTECT AND RESTORE ECOSYSTEMS AND BIODIVERSITY



3 SUSTAINABLY FEED THE GLOBAL POPULATION



4 DEVELOP A SUSTAINABLE AND EQUITABLE OCEAN ECONOMY



5 UNLOCK OCEAN-BASED SOLUTIONS TO CLIMATE CHANGE



6 INCREASE COMMUNITY RESILIENCE TO OCEAN HAZARDS



7 EXPAND THE GLOBAL OCEAN OBSERVING SYSTEM



8 CREATE A DIGITAL REPRESENTATION OF THE OCEAN



9 SKILLS, KNOWLEDGE AND TECHNOLOGY FOR ALL



10 CHANGE HUMANITY'S RELATIONSHIP WITH THE OCEAN



CLEAN OCEAN



HEALTHY OCEAN



PRODUCTIVE OCEAN



PREDICTED OCEAN



SAFE OCEAN



ACCESSIBLE OCEAN



INSPIRING OCEAN

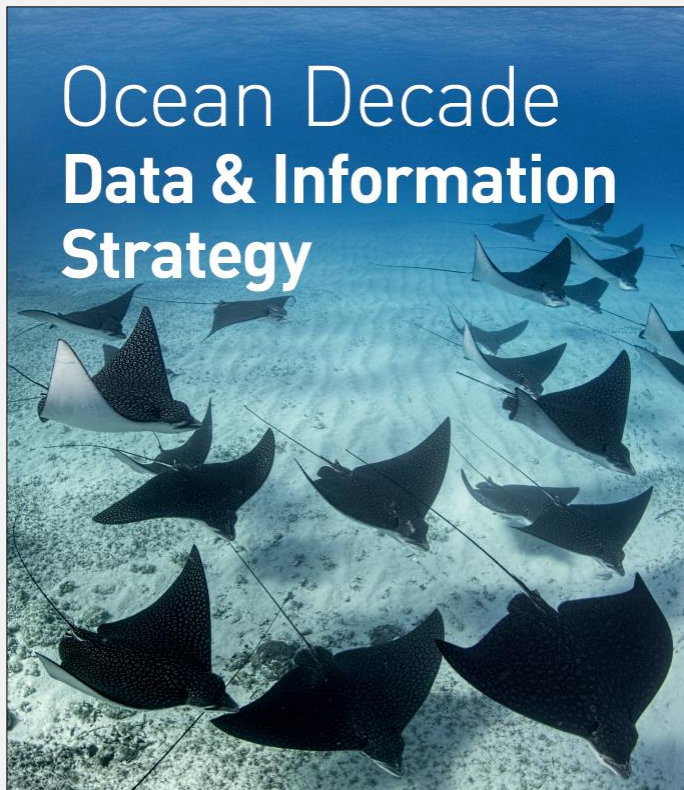


The United Nations Decade of Ocean Science for Sustainable Development (2021-2030)



Towards a globally distributed, trusted, inclusive, and interconnected ocean data and information ecosystem

Data Coordination Group
Decade Data & Information Strategy



The United Nations
Decade of Ocean Science
for Sustainable Development
(2021-2030)



Vision

A trusted, inclusive, and interconnected ocean data and information ecosystem that is actively used for decision making to support sustainable ocean management.

Mission

To catalyse a solution-oriented, global digital transformation for the digital ecosystem we need to overcome the Decade Challenges.

Strategic Objectives



Develop an ocean digital ecosystem that encourages the sharing and equitable access of multidisciplinary data, information and knowledge by all.



Improve data and information discovery and usability across the ocean digital ecosystem.



Build trust in data and information shared across the ocean digital ecosystem.



Prioritise digital solutions that support decisions for sustainable ocean management.



Expand, empower, and mobilise global communities to advance and maintain the ocean digital ecosystem.

Enablers

Technological Innovation // Partnerships // Durable Resourcing // Policy & Regulatory Frameworks

UN Ocean Decade Vision 2030 Working Group 8

Challenge 8: Create a digital representation of the Ocean



THE CO-CHAIRS



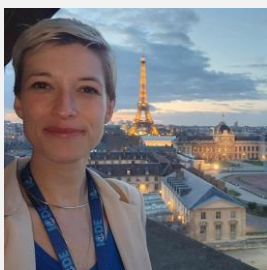
Jan-Bart
Calewaert



Paula Cristina
Sierra-Correa

Through multi-stakeholder collaboration, develop a comprehensive digital representation of the ocean, including a dynamic ocean map, which provides free and open access to explore, discover and visualize data and information on the past, current, and future state of the ocean.

THE EXPERT MEMBERS



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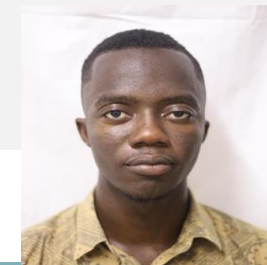
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The Vision 2030 Strategic Ambition for Challenge 8



By 2030 Ambition for Challenge 8 is to deliver the **enabling environment [Infrastructures, Tools, Services and Content]** for **generating comprehensive** digital ocean representations to better understand past, current and future state of the ocean

- **Digital Content:** FAIR data, information, data products, digital representations...
- **Interoperable infrastructures and systems** for data collection, management, sharing, processing, analysis and forecasting ...
- **Services and Applications** including APIs, software, DCS, Digital Twins...



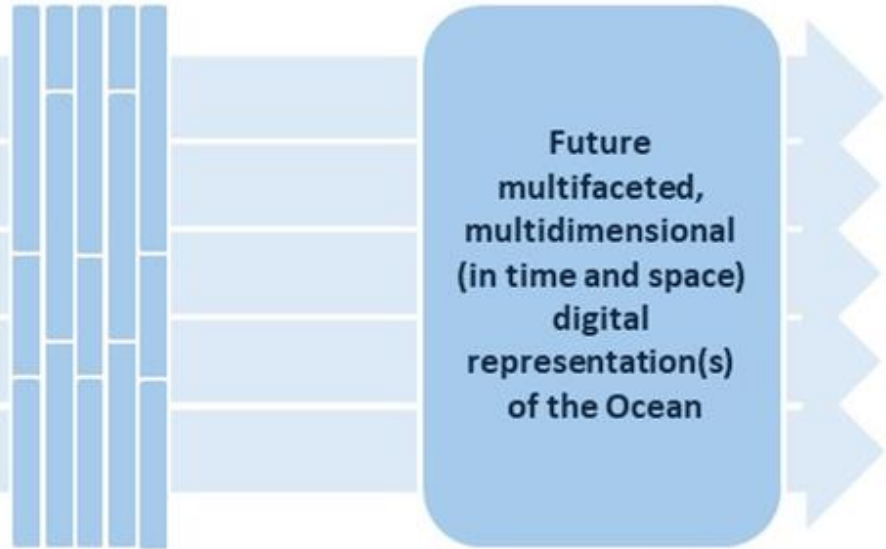
Delivering the Strategic Ambition – Challenge 8



Creating The Enabling Environment

Tools & services as required elements of an enabling environment

- Ocean Discovery & Data Access Service
- Ocean Forecasting Structure
- Digital Atlas of the Ocean
- Marine Knowledge Exchange Mechanism
- Capacity Development & Training



≥ 10 global priority base layers
≥ 10 local case studies

2021 United Nations Ocean Decade
2020 The Ocean Decade
2020 The Ocean Decade

Vision 2030 White Paper

Challenge 8
Create a digital representation of the ocean

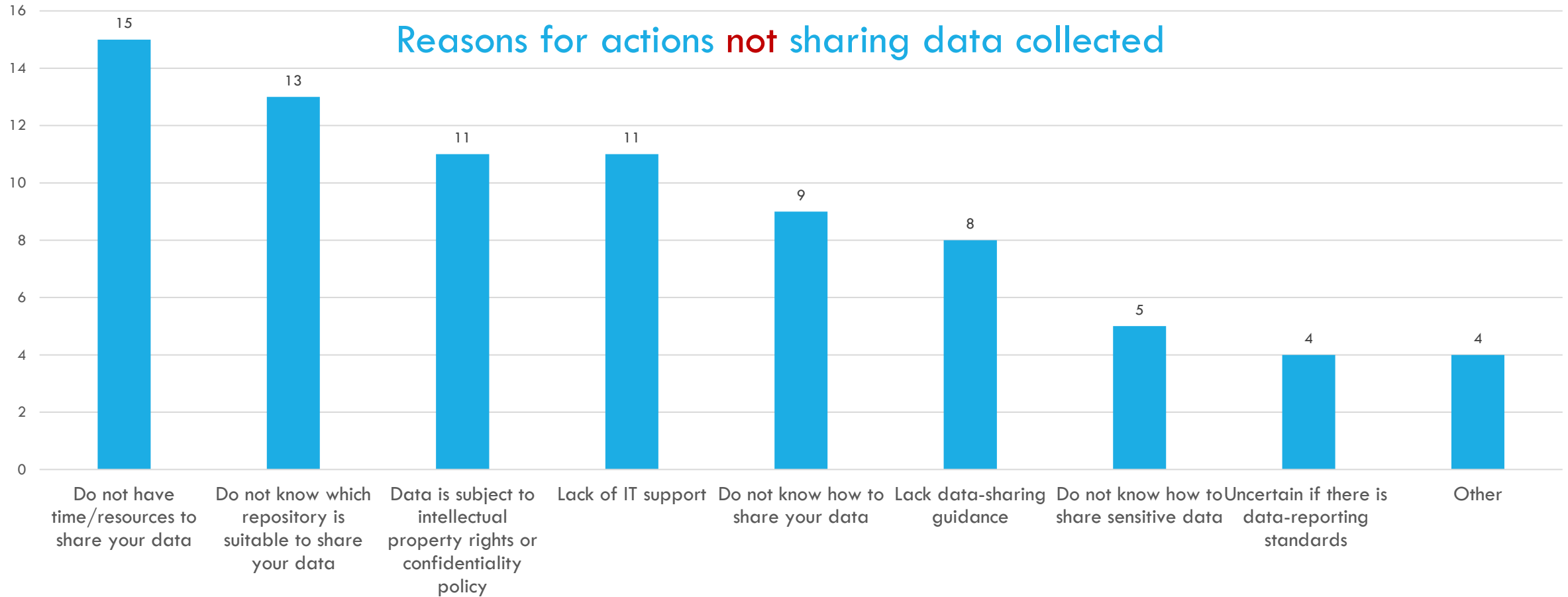
Version 1.0 - April 2024



Ensure **interoperability** and **compatibility** of proposed data and information-sharing systems & services with other core ocean knowledge systems and/or decision support tools/applications existing or currently under development – **connecting and building on what exists already.**

SURVEY OF DECADE ACTIONS

EXPERIENCE OF DATA GENERATION AND SHARING



SURVEY OF DECADE ACTIONS

HOW YOU FIND & USE YOUR DATA?

What would be helpful for finding the data/data products needed



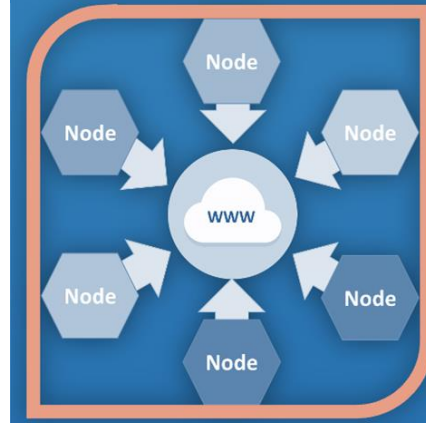
Towards an operational global Data Discovery and Access Service - OceanData2030

An Ocean Data & Information System supporting the Ocean Decade

- Development of an **open-source data and information system** that will link existing ocean information systems around the world, and enable more efficient discovery of data, information and knowledge products.
- Led by IODE of the Intergovernmental Oceanographic Commission (IOC).
- The **Ocean Data and Information System (ODIS)** will be a central element of the OceanData2030 Programme.
- Hosting Ocean Decade projects:
 - Marine Regions / From global gazetteer to global community*
 - Portuguese National Oceanographic Data Centre*
 - World Ocean Database Cloud*

Bibliographic infobases (catalogues and repositories)	Code lists and vocabularies	Data catalogues	Data products (model output, forecasting, climatologies,...)
Data systems/portals (allowing downloading of datasets)	Education and training materials	Information on platforms (buoys, sensors, floats, gliders, satellites,...)	Information on experts and organizations
Information on projects	Information on vessels	Journals (open source and commercial)	Manuals, guidelines, standards and best practices
Maps and atlases (geospatial products)	Multimedia content	Real-time observing systems	Software (ocean related)

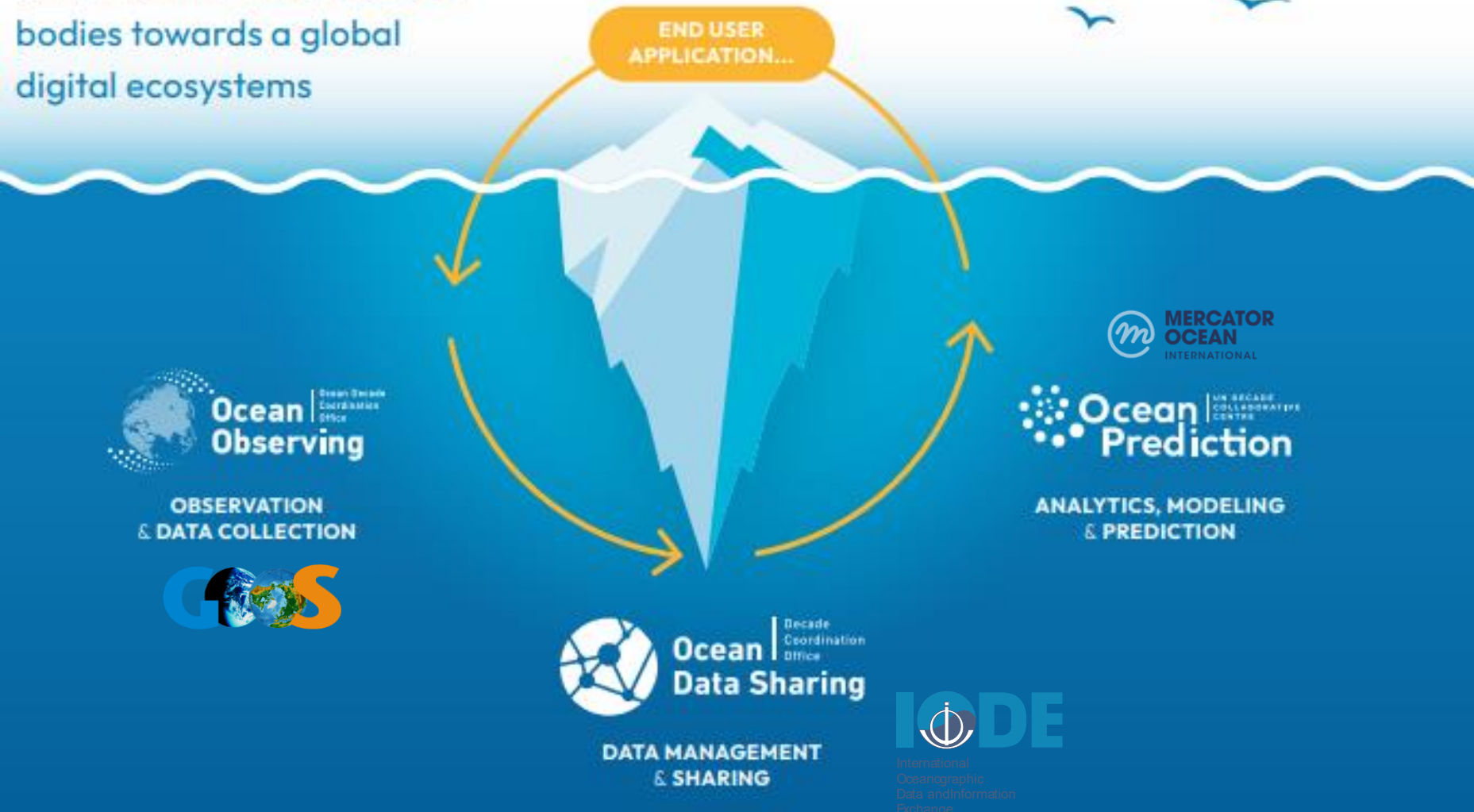
Oceans (ODIS)



Improving the different steps of the Ocean Data Value Chain

A multi-actor Decade endeavour

OceanPrediction DCC
will work with other decade
bodies towards a global
digital ecosystems



THANK YOU!

For all your future contributions

SYM POSIUM OP' 24

ADVANCING OCEAN PREDICTION
SCIENCE FOR SOCIETAL BENEFITS