IODE 2024-2025

IOC Officers Meeting
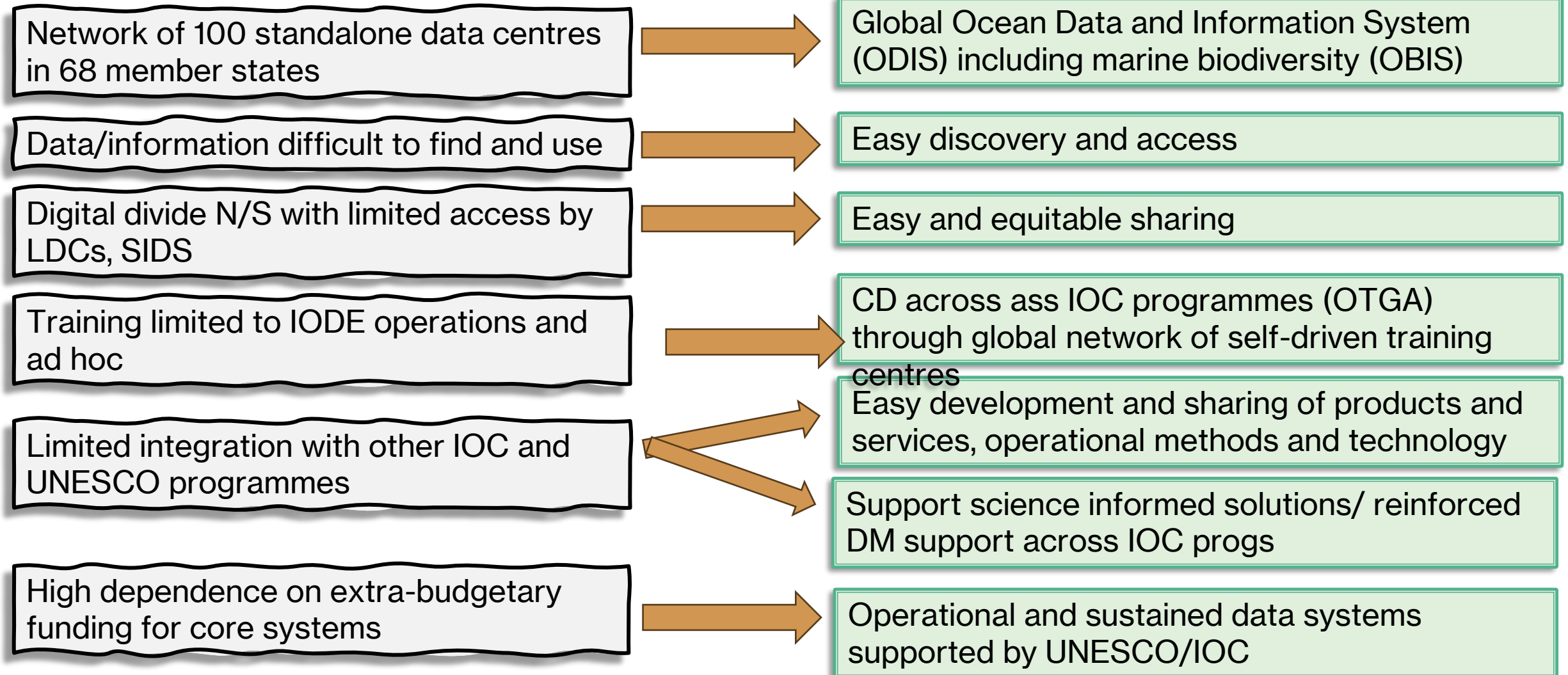UNESCO HQ, 23-25 January 2024

IODE 1961

- Established in 1961

- *"to enhance marine research, exploitation and development, by facilitating the exchange of oceanographic data and information between participating Member States, and by meeting the needs of users for data and information products"*

https://www.iode.org

IODE transformation 2023

IODE
International Oceanographic Data and Information Exchange

Network of 100 standalone data centres in 68 member states → Global Ocean Data and Information System (ODIS) including marine biodiversity (OBIS)

Data/information difficult to find and use → Easy discovery and access

Digital divide N/S with limited access by LDCs, SIDS → Easy and equitable sharing

Training limited to IODE operations and ad hoc → CD across ass IOC programmes (OTGA) through global network of self-driven training centres

Limited integration with other IOC and UNESCO programmes → Easy development and sharing of products and services, operational methods and technology

→ Support science informed solutions/ reinforced DM support across IOC progs

High dependence on extra-budgetary funding for core systems → Operational and sustained data systems supported by UNESCO/IOC

IODE transformation 2023

IODE International Oceanographic Data and Information Exchange

ODIS
Federated digital ecosystem

- 28 partners
- World Ocean Database
- GODAR
- GTSPP
- GOSUD
- IQuOD
- AquaDocs
- OceanExpert
- ICAN
- OBPS (jointly with GOOS)
- QMF

OBIS
Global open-access data and information clearing-house on marine biodiversity for science, conservation and sustainable development

- 33 OBIS nodes
- PacMAN
- eDNA Expeditions
- MARCO-BOLO
- DTO-BioFlow
- MPA Europe
- eDNAquaPlan
- BioEcoOcean

- GOOS BioEco Portal
- HAB portal

OTGA
Federated training ecosystem with joint content platform and network of training centres

- 17 regional and specialized training centres
- Close cooperation with IOC Capacity development Unit

101 data centres in 68 Member States

IODE core team

OBIS
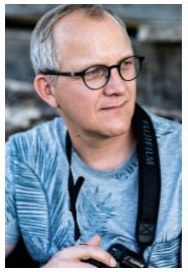
Ward.   Pieter   Silas.   Saara

Lisa.   Elizabeth.   Katherine.   Martha

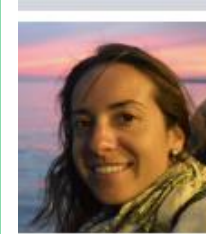**ODIS**

Pier Luigi.   Lucy

Doug.   Jeff

OTGA

Ana Carolina   Greg

Aidy   Uday

+ >100 members of SGs
+ >100 NODC, ADU, AIU colleagues
+ >100s experts

IODE management, administrative and technical support
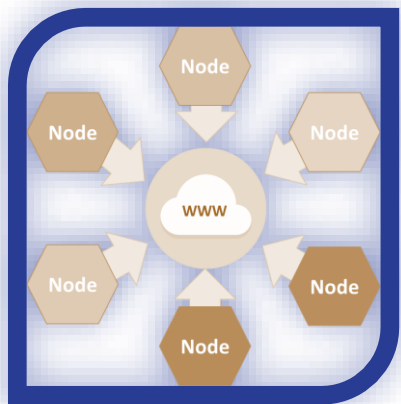
Peter   Kristin   Sofie   Arno   Lotta   Paula

The Ocean InfoHub and ODIS

**Mission: To build a sustainable, interoperable, and inclusive digital ecosystem for all ocean stakeholders**

- Improve discovery and interoperability of existing information systems across sectors (private, public, etc) for sustainable ocean management

- Provide capacity building to support contributors and end-users of the global OIH and regional nodes

- Connect independent digital initiatives to form a diverse, but interoperable and inclusive, Ocean Data and Information System

2021-2023 Proof of concept demonstrated with 28 partners from around the world

2024-2025

- Begin implementation of ODIS as an IODE Programme
- **ODIS offers a long-term solution for NODCs, ADUs, scientific infrastructures, and new partners to co-implement FAIR**
- **The "ocean digital ecosystem" aligned to the "Data & Information Strategy for the UN Ocean Decade"**
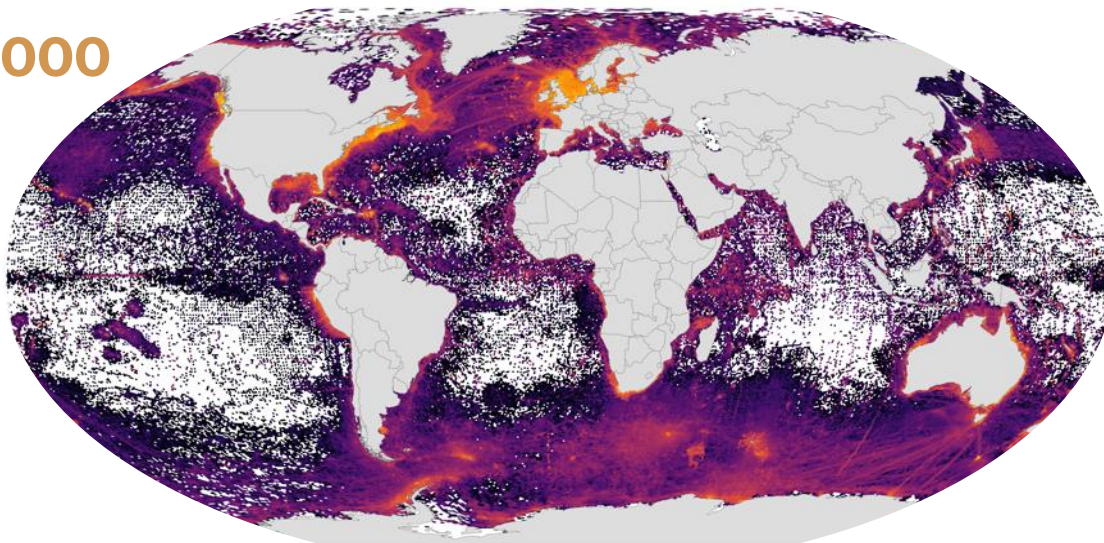
The internet of ocean data and information?

Ocean Biodiversity

OBIS
OCEAN BIODIVERSITY
INFORMATION SYSTEM
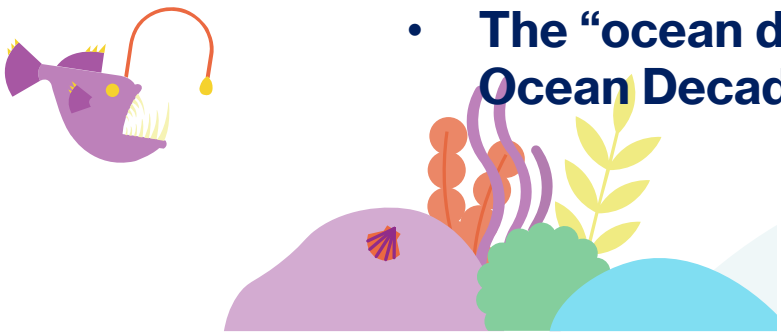
To be the most comprehensive gateway to the world's ocean biodiversity and biogeographic data and information required to address pressing coastal and world ocean concerns.

Since 2000

| 📍 126,479,041 PRESENCE RECORDS | ⚗ 168,123,962 MEASUREMENTS AND FACTS | 🗄 5,092 DATASETS | ✓ 183,441 ACCEPTED SPECIES | ⌛ 23,341,844 SEQUENCES |

Highlights

- x10 data contributions
- x2 scientific papers
- ±5M US$ in projects (5 EU + 2 FUST)
- Increase from 2 to 6 staff
- eDNA focus, UNESCO DG priority

Priorities 2024 beyond

Data Mobilization
Data Products (CBD, IPBES, WOA, ...)
Partnerships

How?

- Two OBIS coordination groups (data & products
- Cooperation with GOOS and OCG
- Shared workspace for products
- Training and local field projects

OTGA – strategic objectives and action

OTG@
OceanTeacher Global Academy

VISION

To build equitable capacity related to ocean research, observations, and services in all IOC Member States by delivering training courses on a range of topics addressing the priority areas of the UN Decade of Ocean Science for Sustainable Development and the 2030 Agenda and its SDGs as well as supporting the implementation of the IOC Capacity Development Strategy.

Sharing **training resources and expertise** in a coordinated framework

17 Regional and Specialized **Training Centres**

Languages used for teaching: English, Spanish, French, Portuguese

Outcome Nº 1 Increased capacity and skills by ocean specialists to use standards and best practices tools towards achieving SDG 14.

Outcome Nº 2 Regional and Specialized Training Centres efficiently developed and managing the training programme
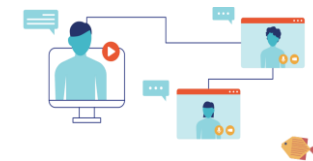
https://oceanteacher.org

How?

- **Training courses (online, F2F, blended)**
- **Network of RTC/STC**
- **Common e-Learning platform**
- **Quality procedures ISO certification**

Priorities 2024 beyond

+ face-to-face training

international internship

education innovation

resource mobilization

Linkages...

IOC section/programme	Cooperation
Ocean Science	1. Harmful Algal Information System (HAIS) 2. Global Ocean Oxygen Database and Atlas (GO2DAT) 3. SDG 14.3.1 data portal
Ocean Observations (GOOS)	1. IODE/GOOS Ocean Best Practices System (OBPS)
Tsunami resilience	1. Training courses through OTGA
Marine Policy & Regions	-
Capacity Development	1. OceanTeacher Global Academy 2. CD-Hub

IODE strategic objectives
In simple terms...

- Further develop the IOC Ocean Data and Information System (ODIS) into a global ocean data and information ecosystem making available data and information sources of all member states and to all member states

- Further develop the Ocean Biodiversity Information System (OBIS) into a globally interconnected community of practice, facilitating seamless and near-real-time data flows, from biological observations to practical applications.

- Ensure that all IOC Member States have the necessary capacity to manage ocean data and information (as part of the IOC value chain) and to develop products, services and policy advice for sustainable ocean planning and management