IODE REPORT

IOC Officers Meeting 17-21 Jan 2022

Peter Pissierssens, head of IODE programme
Presented by Ward Appeltans a.i.

<mark>This presentation is limited to items covered by the recent IOC Assembly and IOC Executive Council and does not cover the entire IODE portfolio</mark>

IODE
International Oceanographic Data and Information Exchange

Introduction

International Oceanographic Data and Information Exchange (IODE) of IOC/UNESCO

- 60 National Oceanographic Data Centres (NODC)
- 33 Associate Data Units (ADU)
- 6 Associate Information Units (AIU)
- Project Office in Ostend, Belgium
- 15 global projects

IODE Mission:
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

Ocean Decade Challenge:
Through multi-stakeholder collaboration, develop a comprehensive digital representation of the ocean, […] which provides free and open access for exploring, discovering and visualizing past, current and future ocean conditions in a manner relevant to diverse stakeholders.

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Staffing at IODE, including CD

	Name	Title	Funding Source	2022	2023
1	Peter Pissierssens	Head of Office – P5 80%	UNESCO RP		Retire maybe before end 2023
2	Ward Appeltans	Marine Biodiversity coordinator – P3 90%	UNESCO RP		
3	Pieter Provoost	OBIS data manager – P3	Project Appointment FUST		
4	Sofie de Baenst	Admin assistant – G4	Project Appointment FUST		
5	Claudia Delgado	Training Coordinator	Secondment via VLIZ MOU		
6	Arno Lambert	IT hardware manager	Secondment via VLIZ MOU		
7	Kristin de Lichtervelde	Administrative coordinator	Secondment via VLIZ MOU		
8	Greg Reed	Project Manager OTGA, IODE QMF	Consultant FUST		
9	Pauline Simpson	Project Manager OBPS	Consultant EU projects		
10	Lucy Scott	Project Manager OIH	Consultant FUST		
11	Johanna Diwa	CD assistant	Consultant IOC	Ending Jun 2022	
12	Douglas Fils	OIH software engineer	Consultant FUST	Ending May 2022	
13	Saara Suominen	OBIS scientific officer/eDNA	Consultant FUST		
14	Serita Van der Wal	GOOS BioEco data manager	Secondment via VLIZ/EXB		
15	Cristian Muñoz Mas	ODISCat content manager	Consultant FUST		
16	Cheikh Moulaye	OTGA e-learning designer	Consultant FUST	Ending Jan 2022	
17	To be recruited	OBIS training officer	Consultant NORAD		

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MOU IOC-VLIZ for IODE Project Office

- Since 2005 : MOU with Flanders Government
via VLIZ to host the IOC Project Office in Ostend.
    - 3 FTE staff secondments, housing and
    - ± US$200,000/year for operational expenses, IODE activities
- In 2021, external audit of IODE PO was very positive. Report submitted to IODE-26 and IOC-A31, requesting Flanders to renew the MOU
- New MOU (2022-2026):
    - 3 FTE staff secondments + housing continued
    - ~~± US$200,000/year for operational expenses.~~
- FUST: remaining budget (US$ 1.1M) entirely to oceans, no competitive calls, IOC Sec to decide (IOC contribution to Decade actions).

![IODE International Oceanographic Data and Information Exchange](logo)

IODE & Decade Actions

Endorsed Decade Actions:

1. Ocean Practices for the Decade (jointly with GOOS)
2. OceanTeacher Global Academy (OTGA)
3. Pacific Islands Marine bioinvasions Alert Network (PacMAN)
4. eDNA Expeditions in marine World Heritage sites (jointly with World Heritage Centre)
5. World Ocean Database cloud (WODc) (jointly with NOAA/NCEI)

Proposed Decade Actions:

6. Ocean Data 2030 (based on OIH and ODIS)

Decade Actions in preparation:

7. Ocean Biodiversity Information System (OBIS)

IODE involvement in Decade Programmes

8. IODE/OBIS core partner in Marine Life 2030
9. IODE/OBIS partner in OBON
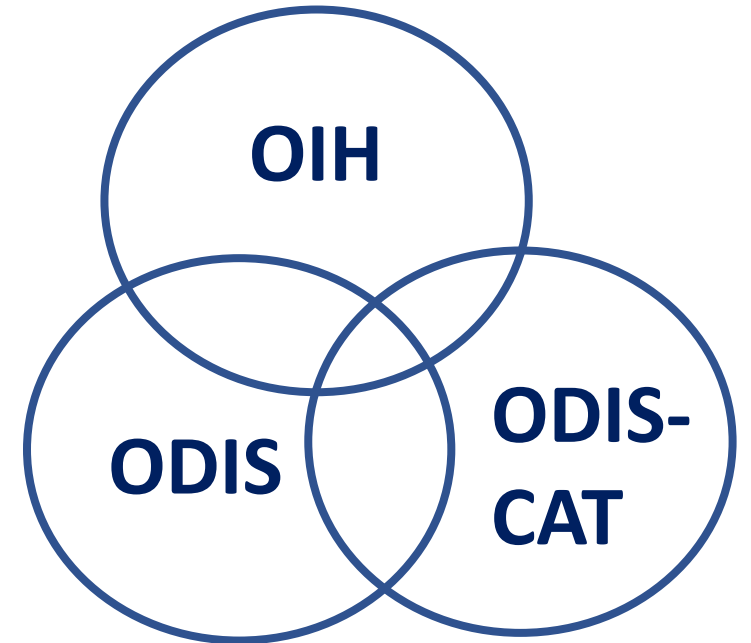
IODE membership in Data Coordination Group

- Taco De Bruin (IODE Co-Chair), Peter Pissierssens (ex-officio observer)

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ODIS

1. The **Ocean InfoHub Project**

2. IOC **Ocean and Data information system Catalogue of data sources** (ODISCAT), currently describes over 2000 online sources of marine & coastal data in 16 categories

3. The **Ocean Data and Information System**

The three projects are very closely linked.

The OIH Project has developed the first phase of the architecture underpinning ODIS, and is concerned with involving user communities and establishing proof-of-concept of ODIS.
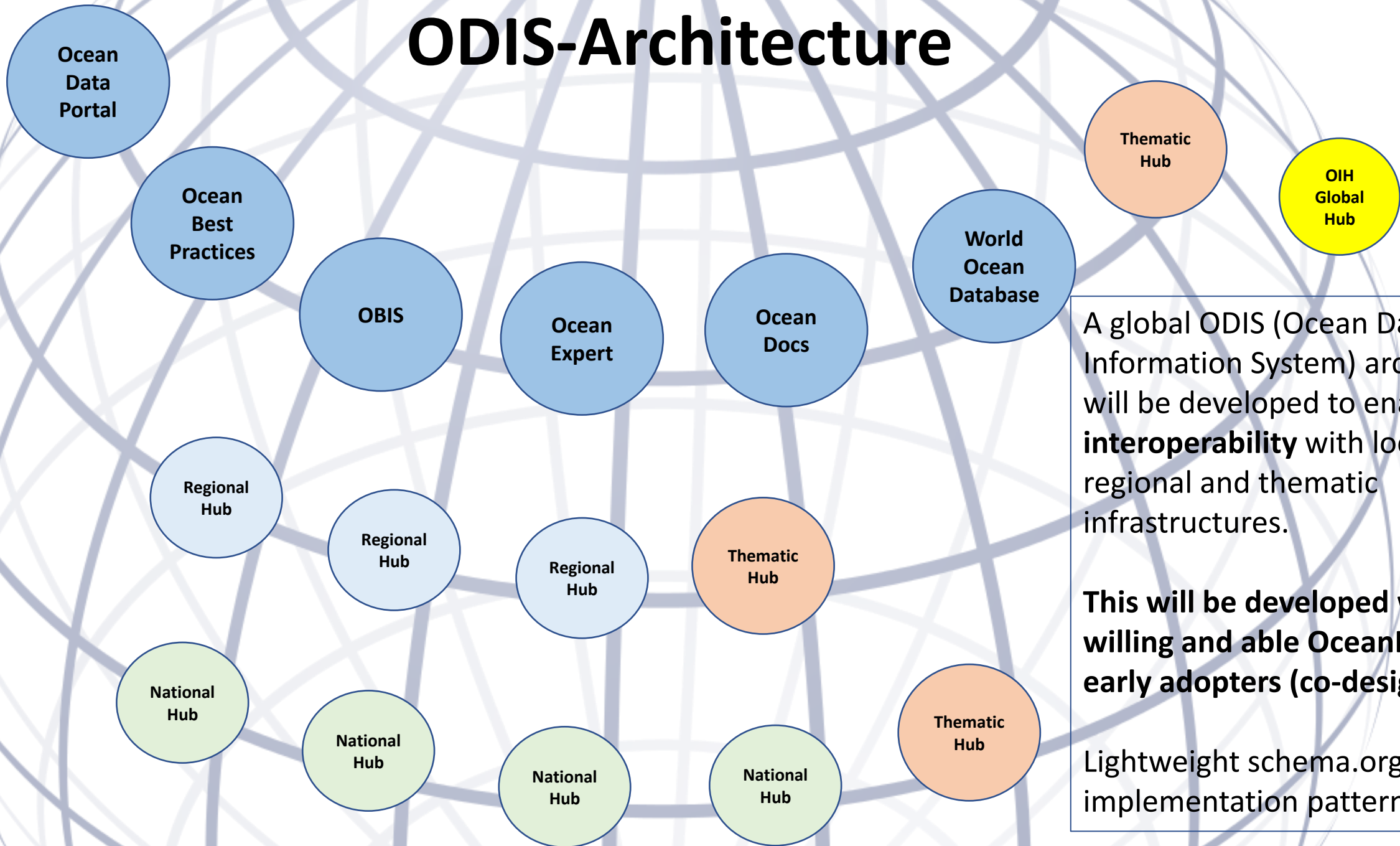
OIH links IOC databases

The OIH will first work with global IOC-associated online resources – including:

- OceanExpert : *People*
- AquaDocs : *Documents and Publications*
- The GOOS/IODE Ocean Best Practices System (OBPS)
- Data: the Ocean Biodiversity Information System (OBIS)
- Data: the World Ocean Database (WOD)

- extended by partnerships with EurOcean, Marinetraining.eu, EMODNET, and other sources in the IOC ODIS Catalogue of Sources (ODIScat).
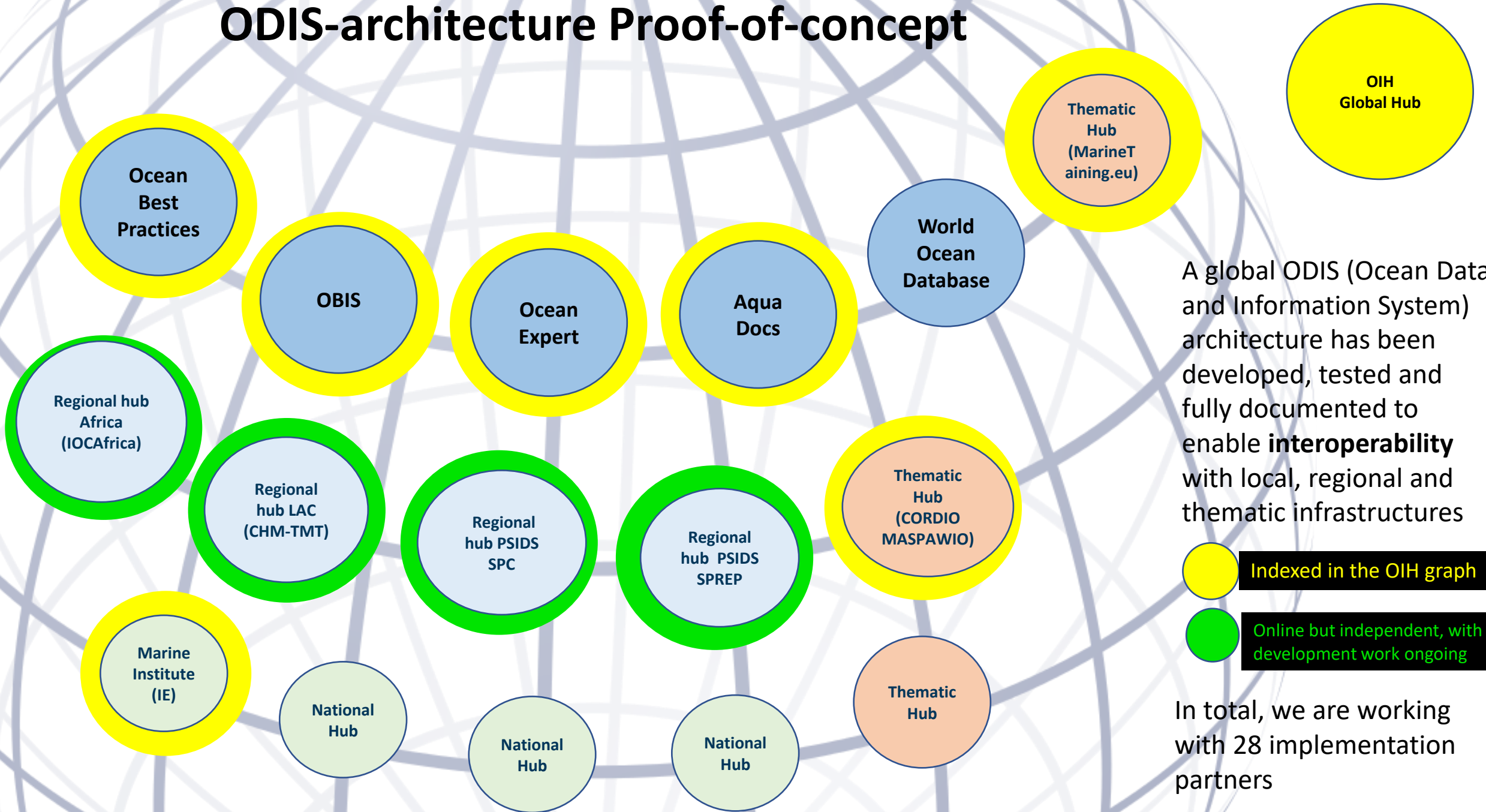
ODIS-Architecture

A global ODIS (Ocean Data and Information System) architecture will be developed to enable **interoperability** with local, regional and thematic infrastructures.

This will be developed with willing and able OceanInfoHub early adopters (co-design)

Lightweight schema.org based implementation patterns

ODIS-architecture Proof-of-concept

OIH Global Hub

Thematic Hub (MarineTraining.eu)

Ocean Best Practices

OBIS

Ocean Expert

Aqua Docs

World Ocean Database

Regional hub Africa (IOCAfrica)

Regional hub LAC (CHM-TMT)

Regional hub PSIDS SPC

Regional hub PSIDS SPREP

Thematic Hub (CORDIO MASPAWIO)

Marine Institute (IE)

National Hub

National Hub

National Hub

Thematic Hub

A global ODIS (Ocean Data and Information System) architecture has been developed, tested and fully documented to enable **interoperability** with local, regional and thematic infrastructures

Indexed in the OIH graph

Online but independent, with development work ongoing

In total, we are working with 28 implementation partners

Initial data types

1. People and institutions/organizations

2. Documents

3. Spatial data/maps

4. Training opportunities

5. Vessels (research opportunities)

6. Projects

Data categories in ODIS-Cat

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)

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Revision of IOC Oceanographic Data Exchange Policy

- IODE XXVI <u>adopted</u> Recommendation IODE-XXVI.6.4: Revision of the IOC Oceanographic Data Exchange Policy (2003, 2019)

- The Recommendation defines the <u>Terms of Reference</u> of the IOC Inter-sessional Working Group on the Revision of the IOC Oceanographic Data Exchange Policy (**IWG-DATAPOLICY**)

Revision of IOC Oceanographic Data Exchange Policy

- Create an inventory of existing international, national and organizational data policies

- Review and compare existing international, national and organizational data policies

- Develop a glossary with clear definitions (e.g. open vs free and unrestricted; data vs metadata vs information, licence options)

- Investigate the expansion of scope and name of the IOC Oceanographic Data Exchange Policy

- Gather further updated information from partner/sister organizations and recognized data provider/manager organizations

- Take into consideration the data policy requirements of the UN Decade of Ocean Science for Sustainable Development

- Prepare a first draft/discussion document of a revised IOC Oceanographic Data Exchange Policy for review and discussion by the IWG-DATAPOLICY

Current status/Timeline

1. Implementation of desk study on existing policies (IOC, UN, non-UN) by the IOC/IODE Secretariat: IN PROGESS, TO BE COMPLETED FEB. 2022

2. IODE Secretariat to invite IOC regional subsidiary bodies and IOC programmes to designate representatives to the IWG-DATAPOLICY: TO BE COMPLETED FEB. 2022

3. IWG-DATAPOLICY to discuss the issue and draft a first version of the new policy: March–May 2022

4. IWG-DATAPOLICY to share the draft with selected UN and non-UN organizations and partners and seek their comments : May–July 2022

5. Information session will be organized for IOC Member States to provide feedback: Aug/Sept 2022

6. IWG-DATAPOLICY to revise the first draft of new IOC data policy based on input: Sept–Nov 2022

7. IWG-DATAPOLICY to submit first draft of new data policy to IODE Committee at its 27th session: Feb/Mar 2023

8. IWG-DATAPOLICY to submit final draft of new policy to the IOC 32nd Assembly: May/June 2023

First International Ocean Data Conference Poland, 14-16 February 2022

- 3 days - 5 sessions- hybrid event (81 oral presentations 50% on site- 50% remotely)
  - Session 1: global strategies and policy (27 presentations)
  - Session 2: implementing the digital commons (42 presentations)
  - Session 3: Looking forward (10 presentations)
  - Session 4: Delivering the ocean data decade vision (2 presentations + panel discussion)
  - Session 5: conference decalaration and closing
- Information: https://oceandataconference.org/
- Registrations open: on-site possible until 31 January 2022 (limited availability)- remotely: possible until 11 February 2022