

IOC IODE-GOOS Data Workshop

Timing: Monday 30 September - Wednesday 02 October

Location: VLIZ, InnovOcean Campus, Jacobsenstraat 1, 8400 Oostende

Event site: <https://oceanexpert.org/event/4556>

PURPOSE

To establish optimized collaboration between IODE and GOOS, develop an integrated view of the data landscape and lay the ground for the development of an integrated, efficient, future facing, and FAIR data landscape between GOOS and IODE and across GOOS OCG, BioEco and BGC data components

OBJECTIVES

1. Clear identification of mandates, roles, responsibilities, connections and synergies between GOOS and IODE components in the data landscape (for all EOVs)
2. A vision for and co-evolution towards an integrated, efficient, future facing, and FAIR, data landscape between GOOS and IODE and across GOOS OCG, BioEco and BGC data
3. Create the base for an integrated data landscape to be presented at IOC Assembly 2025 as part of the GOOS evolution process
4. Clear recognition and expression of the coordination between GOOS and IODE
5. Vision and process for future user needs

OUTCOMES

BACKGROUND & RATIONALE

IODE:

The IODE Committee 27th session, March 2023, instructed its Co-Chairs to engage with the OCG Data Strategy Implementation Plan to ensure that it is fit for purpose from the ocean data management community standpoint.

The IODE MG Action 8.1, Management Group meeting February 2024, requested GOOS to organize a joint GOOS-IODE meeting on data

GOOS:

IOC EC57 requested GOOS to provide a proposal to the IOC Assembly 2025 to evolve GOOS. Part of this proposal considers: Support for the work being undertaken within the Ocean Decade to create a functioning Digital Ecosystem that fully enables end-user applications, and that recognizes that such an ecosystem has three key underlying components, namely, 'observations and data collection', 'data management and sharing', and 'analytics modeling and predictions,' with the intention to weave, using co-design concepts, such a Digital Ecosystem into the fabric of GOOS

GOOS SC 13th meeting, April 2024, had as action item 9.1 to Create and adopt a cross GOOS Digital Infrastructure/Ecosystem Strategy in alignment with IODE, Ocean Decade Data Strategy and other partners.

BACKGROUND DOCUMENTS

OCG Data Implementation Strategy

WIS2 Background Paper <https://oceanexpert.org/document/34198>

Draft Technical Outline

Timetable Overview V3

Time	Monday 30 September 2024	Tuesday 01 October 2024	Wednesday 02 October 2024
9:00 - 12:30 (3h)	<ol style="list-style-type: none"> 1. Welcome 2. GOOS/IODE Welcome and introduction 3. Strategic Priorities for GOOS and IODE 4. Mapping the current situation <ol style="list-style-type: none"> a. IODE & ODIS b. OCG and OceanOPS 	7. Technically integrated structure - presenting and discussing a first sketch	9. Cont. e) Private sector data 10. Defining steps to integration
	Coffee break (10:30 - 11:00)		
	4. cont. <ol style="list-style-type: none"> c. WMO WIS 2.0 d. BioEco and OBIS e. BGC 	8. What are the defined actions that could be taken to support developing this?	10. Cont.
12:30 - 14:00	Lunch break (Lunch box options to be provided by VLIZ)		
14:00 - 17:30 (3h)	5. What are current weaknesses and strengths/what do we want	9. User and system needs across IOC and Decade <ol style="list-style-type: none"> a) Multi Hazard Early Warning Systems b) Research needs (science networks) 	11. Implementation considerations
	Coffee break (15:30-16:00)		
	6. What would be the ideal coordination structure to manage an integrated "data and information flow" in 2030	9 cont. <ol style="list-style-type: none"> c) Decade - Vision 2030 / Decade DCO/DCC d) Decade Data Strategy 	Finish early to facilitate travel
17:30 - end		Ad Hoc dinner	

IOC GOOS and IODE Data Workshop Agenda (Detailed)

Call in link: [TBD](#)

DAY 1 - Monday 30 September 2024 | 09:00 - 17:30 (In local time)

1. Welcome by local host [9:00 - 9:10]

2. GOOS/IODE opening [9:10 - 9:20]

Purpose, structure and goals of the workshop

3. Strategic Priorities for GOOS and IODE [09:20 - 10:00]

Aims: Outline the strategic priorities for both IODE and GOOS for the next years, where do both organisations want to be in 5 years time, how is an integrated GOOS-IODE data system a part of that vision, what do both organisations want out of such a system.

Questions:

What do IODE and GOOS want out of an integrated IODE-GOOS FAIR data landscape?

Presentations

- IODE - Peter Pissierssens
- GOOS - Joanna Post

Discussion

[2 x 10 min presentation + 20 min discussion]

4. Mapping the current situation [10:00 - 12:30]

Aims: Bring together presentations from the different elements that currently constitute the IODE-GOOS data landscape, from observations to data management and data access by users, across GOOS components, and across organisations including WMO. What are the data strategies, where is there convergence, what are the visions for an integrated digital ecosystem, what are the opportunities and the issues.

Questions:

What is the current landscape?

What are the current plans and strategies including OCG Data Strategy and IOC Strategic Plan for Ocean Data and Information Management and how they support observations and data communities.

Presentations from across the data landscape IODE, GOOS and WMO.

- IODE & ODIS - Peter Pissierssens
- OCG and OceanOPS - Kevin O'Brien and Mathieu Belbeoch

Coffee Break 10:30 - 12:00

- WMO WIS 2.0 - Tom Kralidis
- BioEco and OBIS - Ward Appeltans
- BGC - Nico Lange/Maciej Telszweski

Discussion

[15 min presentations and general discussion]

Lunch - 12:30 - 14:00

5. What are current weaknesses and strengths/what do we want? [14:00 - 15:30]

Aims: Work on Strengths and Weakness, moderated discussion around defining features of what we want, the key components, and how we make this future robust and take advantage of new technology already on the horizon.

Questions:

What do we want - in order to support users and meet mandates?

What are the strengths and weaknesses currently?

What are the key components?

Looking forward and considering AI, new data streams, new services and users, digital twins, etc. What do we want as a robust and integrated GOOS-IODE system?

How does new technology and innovation fit into the equation?

[Collectively workshop the strengths and weaknesses and general discussion]

Coffee Break 15:30 - 16:00

6. What would be the ideal coordination structure to manage an integrated "data and information flow" in 2030 -

Aim: Develop ideas around what an ideal coordination structure to manage and integrated IODE-GOOS system might look like. Currently the coordination is loose and based on trust, team members participate in each others planning processes to develop alignment, this has functioned well for a number of years, however in order to bring about the change we

want to see and develop a fully integrated system, that we can jointly advocate for, we will need to envision a coordination structure, to enable such a system to advance and evolve.

Questions:

How should we strengthen our GOOS-IODE connections?

Do we need a new coordination structure or just some better guidelines for the existing structure?

What functions would a coordination structure undertake?

What potential partnerships should we look for, within and beyond GOOS and IODE?

[Taking the strengths and weaknesses into consideration, discuss how we evolve a coordination structure, and identify the key functions and members that such a structure would have.]

ADJOURN - DAY 1

DAY 2 - Tuesday 1 October 2024 | 09:00 - 17:30 (In local time)

Call in link: **TBD**

7. Technically integrated structure - presenting and discussing a first sketch

Aims: Present a first sketch of a technical integrated system, and discuss how this functions for all the services and needs across IODE, and GOOS Physics, Biogeochemistry and BioEco data flows, and tracking or analysis services used by WMO and GOOS, plus the FAIR data accessibility across ODIS and other

Questions:

Can existing and future services be developed and delivered across this infrastructure?

What are the roles of the different GOOS - IODE components in this structure?

Does this meet the strategic aims of IODE and GOOS?

Do we understand what constitutes minimum FAIR metadata?

Presentations:

- A 'first sketch' for integrated and future ready technical infrastructure - Pier Luigi Buttigeig, Ward Appeltrans, Kevin O'Brien

[Discuss across IODE, GOOS, and disciplines]

COFFEE BREAK - 10:30 - 11:00

8. What are the defined actions that could be taken to support developing this?

Aims: Identify tangible steps that could be taken now in order to develop an integrated GOOS-IODE data system, at the technical level.

Discussion questions:

What are the defined actions that could be taken to support developing this, GOOS and IODE?

LUNCH BREAK 12:30-14:00

9. User and system needs across IOC and Decade [14:00 - 17:00]

Aims: With an IODE-GOOS integrated system in mind, broaden the view point and consider users within global and national services, the decade and within science. Understand how an integrated GOOS-IODE system supports users - services and science.

Questions:

What are cross IOC priorities to address in the next 5 years?

How are the needs for ocean data and information going to evolve?

What would be the ideal structure for collecting, managing and serving ocean data/information to end-users?

What rules/guidelines are needed for the FAIR ocean data and information ecosystem – i.e. implement Ocean Decade Data Strategy?

Does the proposed integrated system meet these needs? What role does it play?

Presentations:

- Multi Hazard Early Warning Systems - TBC
- Research needs (science networks) - Kirsten Isensee

Discussion

Coffee Break 15:30 - 16:00

- Decade Vision 2030/Decade DCO/DCC - Observations, Data, Prediction - (Jan Bart Calewart / Enrique Alvarez TBC)
- Decade Data Strategy (TBC)

Discussion

[PPTs of 10 minutes, with discussion 20 minutes, and general discussion]

ADJOURN - DAY 2

GROUP DINNER - 19:00-22:00 - TBC

DAY 3 - Wednesday 2 October 2024 | 09:00 - 15:30 (In local time)

Call in link:

9. Continued [09:00 - 09:30]

- Private and/or community science data - Louis

10. Defining steps to integration [09:30 - 12:30]

Aims: To outline the elements of a GOOS–IODE integrated data landscape and discuss steps to implementation

Discussion questions:

What are the barriers to implementation?

What are the concrete steps that can be taken now, what will require further work?

How do we make this change happen - short/mid/long term?

What will require communication or decision at GOOS, IODE, IOC level?

What will be the obstacles? Who will be the blockers and what can we do to bring them on board?

Who do we need as partners?

Presentation:

- Recap of the understanding from the sessions in the first days - Joanna Post, Emma Heslop

COFFEE BREAK - 10:30 - 11:00

10. Continued

LUNCH BREAK 12:30-14:00

11. Implementation roadmap [14:00 - 15:30]

Aims: Map out the actions that need to be taken and the sequence of events.

What are the main elements of short term and long terms actions that can be taken:

- Organisational changes
- Technical implementation
- work towards a proposal to IOC Assembly for GOOS

- Response to IODE Management Action 8.1

Finish early to facilitate travel

Closing of GOOS and IODE Date Meeting

Note: This agenda item can be modified based on the specific needs and focus of the meeting. The format, duration, and topics can be adjusted as needed.

Meeting Guidelines & Roles and Responsibilities

For in-person participants

- If you have a name tag from previous meetings please bring one to encourage reusing these.
- Please arrive at least 15 minutes prior to the start of the meeting.
- Please ensure that you are engaging with both in-person and online participants.

For online participants

- Keep your microphone muted unless you are speaking. We will try to use video, unless it presents a problem for bandwidth, so join with your camera on.
- If you have a question and indicate by raising your hand in order to be called upon
- Please be succinct in both your questions and answers.
- At the end of each item, please expect to be called upon to ensure all OCG members have had the chance to comment.
- The sessions will be recorded for the purpose of writing the report, and the recordings deleted afterwards.