Session 9
Cross-GOOS Data discussions

Emma Heslop - IOC/UNESCO GOOS

Thirteenth GOOS Steering Committee Meeting [SC-13]
Barcelona 13th-16th April 2024
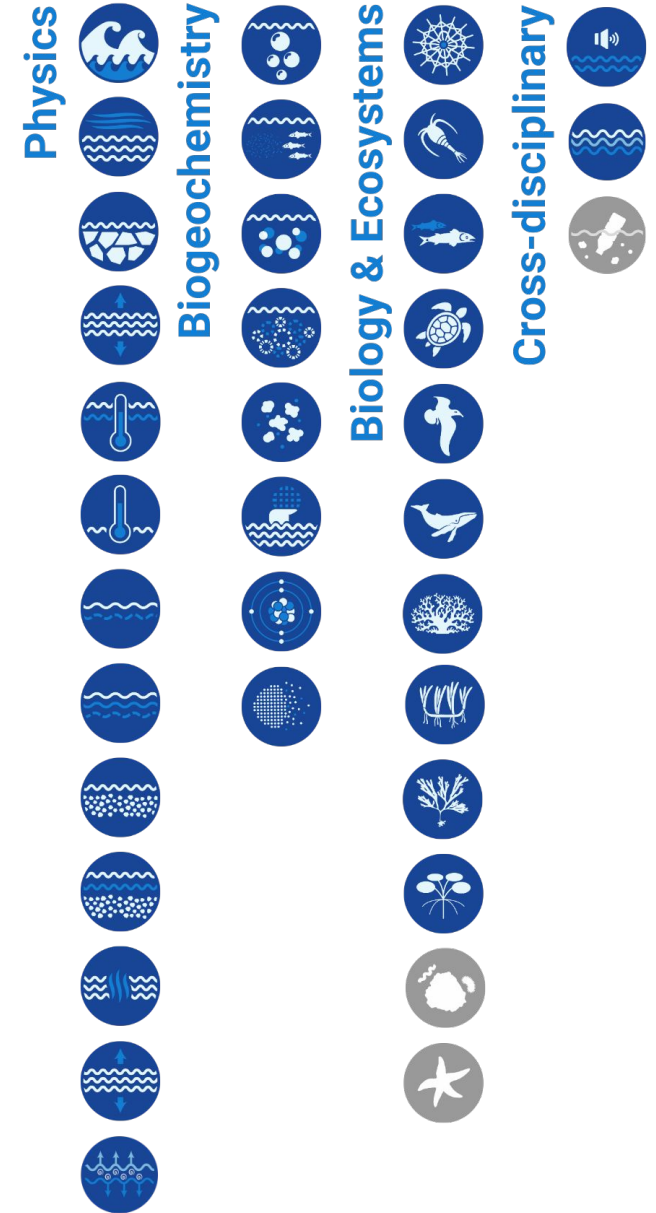
Session intention:

- View across GOOS data work

- Promote cross-GOOS vision for a strong, defined, GOOS digital ecosystem, as a component of a global digital ecosystem

- Adopt as a priority

- Define plan, identify gaps and resource needed >> adopt GOOS Digital Ecosystem Plan

Q1

What do our users want from a GOOS digital ecosystem infrastructure?

- Access for each EOV to all observational data, from wherever in the world, with a known uncertainty

    - *how represent uncertainty in different EOVs*

- EOV products to be user-led

    - *GOOS specify and partners produce (e.g. WOD)?*

    - *GOOS branded EOV products?*

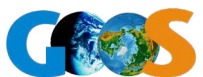- GOOS ocean data ecosystem that establishes/is foundation for the IODE 2030 Data, Decade 2030 Data IP, WMO WIS 2.0?

Physics

Biogeochemistry

Biology & Ecosystems

Cross-disciplinary

Q2 & Q3

What are the main first and what are the main barriers to a cross-GOOS strategy?

- Having an adopted/endorsed cross-GOOS strategy!

- Understanding how we build EOV data from our platform-based present situation

- Do we need more standards, vision, governance?

What are the opportunities?

- Use our skilled people - Kevin, Pier Luigi, Pieter, Mathieu, etc., support GOOS effort (happening)

- Harmonise metadata inc. GRAs, and extending metadata standards to sensor manufacturer

- Harmonise best practices with OBPS

- Adopt ODIS framework - metadata aggregator - key for cross Bio-Physics-BGC
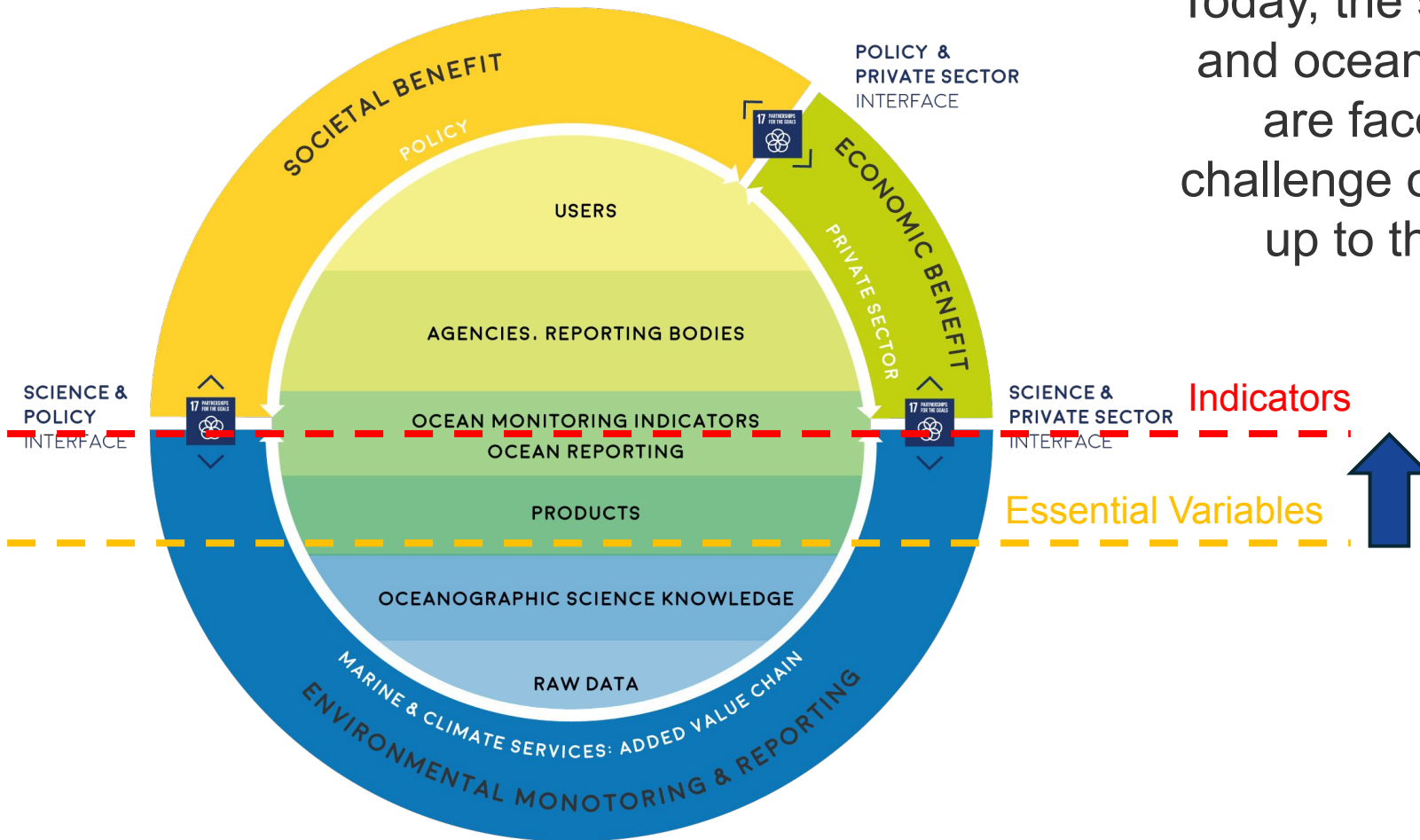
- We have many of the building blocks…

Q4

How do we see branding and products in this strategy?

- Branding 'GOOS data', though metadata markers, for the digital lakes. GOOS provenance an important concept as the data is merged into higher level products

- AI will be instrumental for producing gridded products for mapping EOVs. Developing ML/AI tools to obtain products should be run in parallel to get all GOOS data "in order"
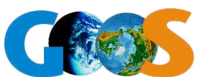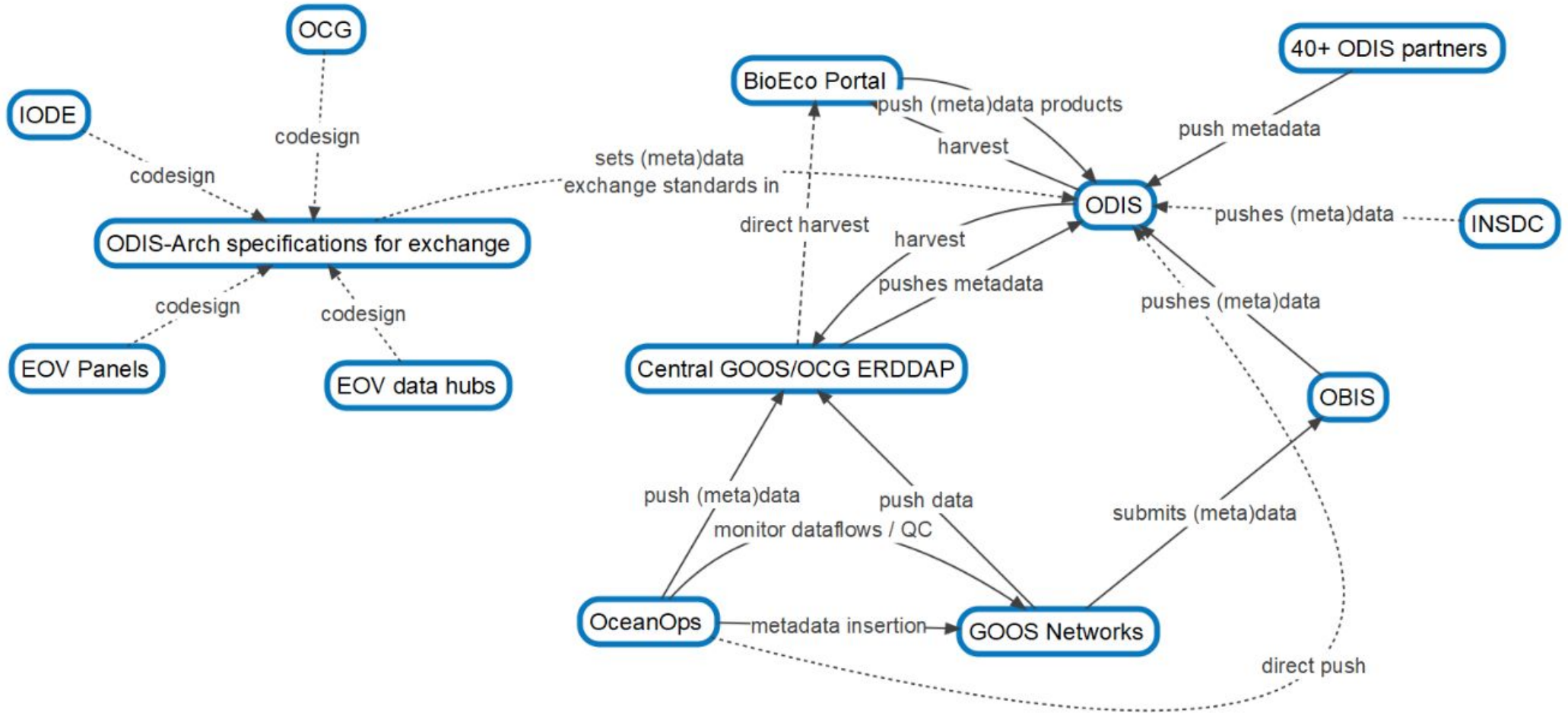
Ocean indicators: Challenge today

Today, the scientific community and ocean & climate services are faced to the current challenge of lifting our capacity up to the indicator level

von Schuckmann et al., 2020

Start of mapping visualising digital infrastructure across GOOS - BioEco - OCG
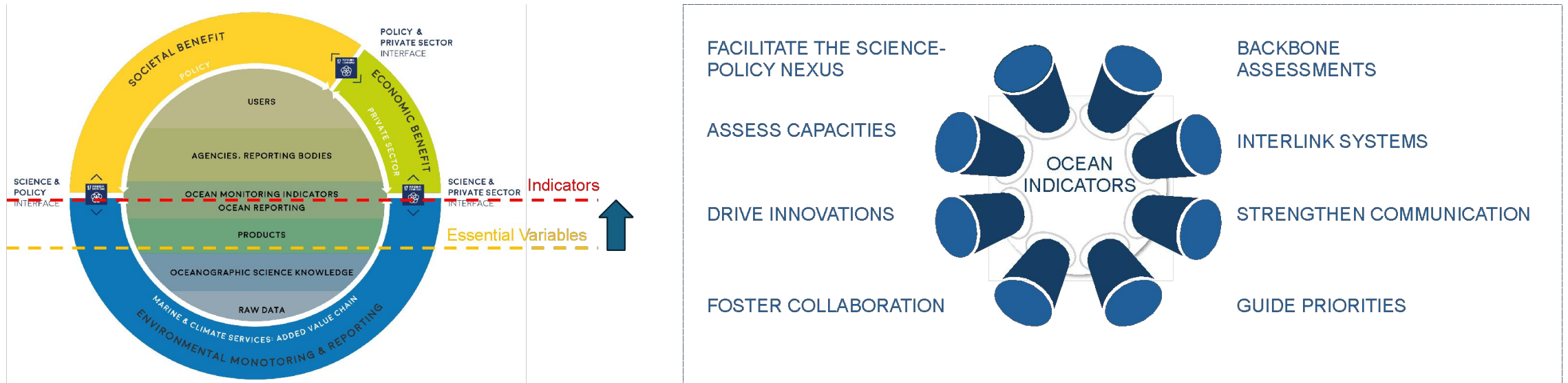

von Schuckmann et al., 2020

Solutions

- **Create and adopt a cross GOOS Digital Infrastructure/Ecosystem Strategy**

- **2 day meeting** data experts, to develop core of this - working-writing group - in the next months, timeline, resources - for adoption end 2024

- **EOV data products are an element** of this strategy. ERDDAP/ODIS means we have the means to draw EOV data together - but we need to **define what we mean as an EOV product**

- **Consider a GOOS data brand** - data and EOV products

- **Identify key partners -** EOV products process/deliver GOOS EOV products, support in-kind, financing

- **Set up a persistent cross GOOS data team -** (not TT-) data experts across components to manage strategy and implementation - connected to DCO, WMO, IODE

Questions

- Can we agree a strategic ambition across GOOS - characteristics of a GOOS digital ecosystem - connected to global systems
- Define elements of work - e.g. OCG-BioEco-national systems (through ODIS/national nodes - data strategy) data on existing platforms, technical what possible/what efficient, schema/who does what, metadata and data flows, integrated and connected system
- What will we need to support future ambition - envision a supported infrastructure and to lead the cross vision ask for a high level loan 18 months to lead this - e.g. Kevin, CIOOS, IMOS, IOOS…????
- how do we label, map, support - EOV products, indicators, goos branding along the on data value chain such that it is visible in a 'data lake' ?

von Schuckmann et al., 2020

Albeit of wide-reaching use and applications, clear criteria and definition of ocean indicators are today lacking

There is currently no internationally-agreed comprehensive set of ocean indicators to characterize ocean processes, nor a common framework with agreed methodologies that would unite these individual efforts to create the common understanding and baselines required to monitor changes in the ocean environment in a transparent and authoritative way.

Session Content

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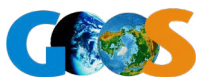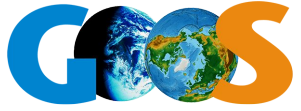
Questions & discussion points

Level one is for general text

Level two is for subheadings within body copy

Level three is for introduction text

- Level four is the first level of bullets
  - Level five is the second level of bullets

The Global Ocean Observing System

Thank you

goosocean.org

unesco
Intergovernmental
Oceanographic
Commission

WORLD
METEOROLOGICAL
ORGANIZATION

UN
environment
programme

International
Science Council
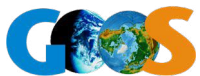
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Using image placeholders

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Click the button in the middle of the field to select and import the picture you want to use. The picture field will automatically fill the field with the image.

You can edit the position of the image using the crop tool, which is in the 'Picture Tools > Format menu. This menu appears when you click on an image.

The crop tool allows you to enlarge, adjust position or crop the image to fit.

Example title

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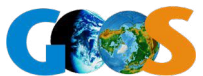
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