

BGC Panel

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Strengthening operational capacity, metadata and data flow

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GOOS SC-13, Barcelona, 16.04.2024

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Current Status and Gaps

1. Data collected by GOOS networks provided by
 - National and regional data centers (BSH, BCO-DMO, SeaDataNet)
 - Specific GDACs (Ifremer, CCHDO)
 - Data products (WOD, GLODAP, EMODnet)

 2. Data collected outside of GOOS networks with limited impact on global products

 3. Multiple synthesis products developed (terminated; living)
 - Cross-platform and/or cross-EOV
 - Specific scientific rationales in mind
 - Often underfunded (i.e., based upon substantial 'volunteer work')
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- Different data/metadata schemes; levels of quality; interconnections between data sources
 - Weak (non-existent) often unstructured, chaotic (meta)data links from data source to global data provision

Goals and Envisioned Actions

1. BGC (Meta)Data Portal

- GOOS Strategic Objective 7.3
- Establish automated links from NODCs to (partly non-existing) GDACs
- Improve synergies with existing entities (OceanOPS, ODIS, etc.)
- Implement “submit once – use many times”
- Embrace FAIR principles
- Develop consistent metadata across EOVS (and platforms)
- Develop tools utilizing templates to enable more automated data flows (ETL: extract; transform; load)
- Funding (1FTE) secured with GEF-8 (FAO, IOC UNESCO) starting Feb-Mar 2025 for EOVS O2

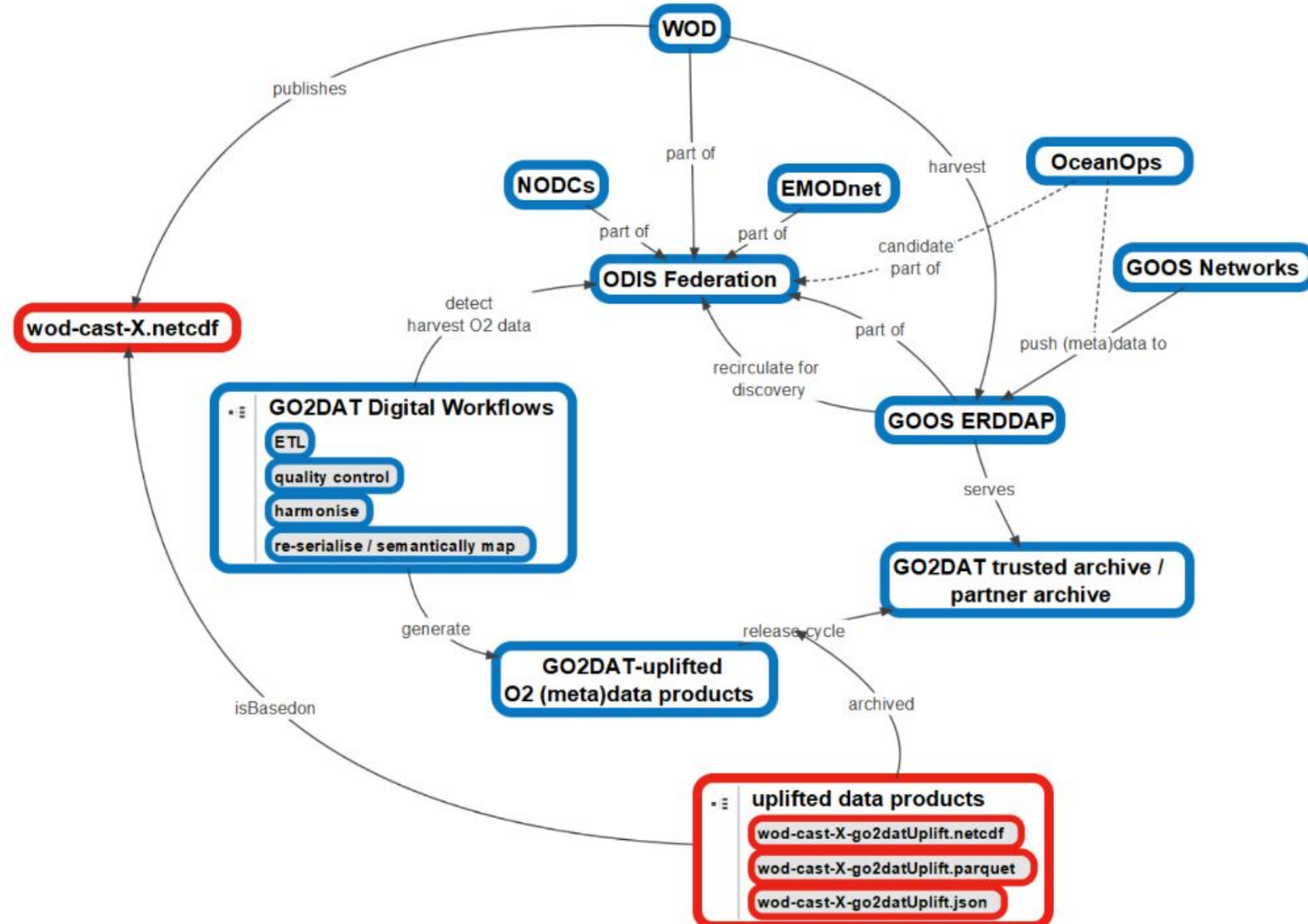
2. Declaration on Operationalising the Surface Ocean Carbon Value Chain

- Formalize a new observing network: SOCONET
- Enforce surface carbon value chain tryptic (SOCONET □ SOCAT □ SOCCOM)
- Link to WMO (G3W) and GCOS IP

Developing the BGC (Meta)Data Portal

GO2DAT Prototype

- O2 highest ranked EOV in feasibility and impact
- Builds upon existing structures and common structured metadata
- Utilizes ODIS-federation (IODE initiative) for (meta)data harvesting
- Automates data ETL
- Utilizes ERDDAP as a service for flexible data extraction (single access point)
- Establishes feedback loops to original data sources



Recommendations to GOOS-SC

- Document BGC EOVS data currently being collected by the GOOS networks and GRAs
- Document the associated data pathways (focus on what kind of / when / where) as a primary step in progressing
- At the provider and data management level, push the adaptation of
 - Common vocabularies
 - Structured metadata templates
- Identify resources/staff that can develop an automated connection and “translation” service between different data sources