

Name or GOOS Component:

Observation Coordination Group

Report submitted by:

Juliet Hermes, Emma Heslop, Champika Gallage, Mathieu Belbeoch, Kevin Obrien, Ann-Christine Zinkann, Nelly Florida Riama, Abed El Rahman Hassoun

Date submitted:

18th March 2026

Considerations for the GOOS Reform proposal

Draft proposal: <https://oceanexpert.org/document/37899>

A Note on the Feedback Format: Please note that we have opted not to use the specific, section-by-section questionnaire template provided for this review. Upon evaluating the reform proposal, the OCG executive team determined that providing granular answers regarding specific governance mechanisms, terms of reference, and implementation plans is premature at this stage. There are fundamental, high-level strategic issues presented in the first half of the document that must be definitively resolved before those operational details can be meaningfully addressed. Consequently, we have structured our feedback thematically. However, to ensure our input remains aligned with the review's objectives, each thematic section below explicitly addresses the three core questions posed by the template: highlighting our primary concerns, providing alternatives and rationales where we disagree, and outlining what practical implementation must look like for our component to make this work.

The OCG team has reviewed the Accenture reform proposal. Overall, we are excited by the momentum this reform process has generated and look forward to collaborating closely with the GOOS SC to refine these elements into a highly actionable, successful blueprint for the future. We commend the effort and strategic thinking that has gone into drafting this comprehensive document. While we appreciate the ambition and the new mission statement, which aligns well with our vision for a more responsive and integrated system and simplifies GOOS to the outside world, we have some serious concerns about the practical, technical, and resource realities in particular around the transitioning from OCG to the proposed Infrastructure Coordination Group (ICG).

While the GOOS mission is improved, the proposed scope and structure lack actual methods to evolve an integrated system that delivers insights to support resilient societies and protect ecosystems, as outlined. The reform feels very functional and focused on internal structural changes, but lacks ambition for increasing observing capacity, connecting the value chain, and linking to industry and technology. The reform also does not directly tackle additional significant issues which have been raised within GOOS, these have been highlighted below. Additionally, some of the proposed methods, especially around financing, are untested, will take years to create, and require heavy resources to support before we actually see any new funding. We would also like to see better differentiation between Member State (MS) needs and User needs. While MS are users, they have distinct concerns that need to be addressed, such as connection and support of WMO/IOC priorities, efficient use of MS funding, and visibility. Also, the reform should explicitly articulate the ocean observing value chain, and how GOOS works towards delivery of ocean information and services to societal users. Without this clarity, structural reform risks focusing on coordination of observations without ensuring delivery of societal value.

Most critically, OCG contributes much more to GOOS and the data providers than just data and infrastructure. All of the value-adds provided by OCG are not acknowledged here, and there is concern that the actual role of OCG was not clear to Accenture. Under the WMO and WIGOS framework, OCG also plays a vital role in linking GOOS networks to operational meteorological and ocean services, directly supporting forecasting and hazard warning systems. However, we view this reform process as a valuable opportunity to clarify and elevate OCG's critical contributions. OCG is already working well and brings a lot of value to its stakeholders and is a core driver/engine for GOOS, hence we have grouped our feedback into four main areas: things we are already moving on (BioEco); areas that present an opportunity but need major clarity - data and standards and regional coordination (GRAs); and hard "no-gos" - mandating over National Focal Points.

It should be noted that the OCG exec felt that giving detailed comments on the whole document was too much. We felt that in the first 20 pages there are significant issues to decide for GOOS that will underpin any further dive into ToRs, KPIs, functional structure, etc. We recommend identifying and making the major high level decisions at the GOOS SC, then re-setting the first 20 slides to align on this and work through the other type of exercises with the document as a resource.

Already moving: BioEco Integration and OceanOPS Resourcing

OCG is already starting to align with the BioEco communities, and we agree that this integration makes sense. OCG and the BioEco Panel already see the need for connection on attributes, metadata, practices, and data flow standards, and are working to this end. This pathway can be strengthened and resourced through the reform and will simplify GOOS to the outside world and improve delivery of information. OCG's operational approach can assist in reducing the complexity of biological data, and it is a positive step to see OceanOPS drawing metadata from across GOOS and rationalizing relationships with IODE NODCs and OBIS. This proactive

approach to breaking down silos between physical, biogeochemical, and biological observations is highly commendable and marks a significant leap forward for the community.

However, expanding OceanOPS and the ICG to handle biology, coastal data, and enhanced metadata standards requires a reality check on resourcing. There is no description of what an ICG really means in practice. Is it taking on all of OCG's current work, or just data, practices, and 'network' management? BioEco data is far more scattered and complex than physics and biogeochemistry, and the BioEco panel is already under-resourced. OCG would need significantly more resources (at least 3 to 4 more people) to undertake this larger mandate. The major risk is that core OCG work halts because we are stretched too thin. OceanOPS could start dimensioning the needs for this expansion additional staff (1 person minimum) would be required to carry on that initial survey and delivery of a minimum workplan/strategy.

OceanOPS is currently a 10-person joint center. They are the operational arm of the GOOS Secretariat, their visibility shouldn't be dissolved into the ICG, and they simply cannot take on this expanded scope without a dedicated budget and additional people power. In addition, OceanOPS is a Joint IOC-WMO centre, so its team is part of the GOOS overall Management team (plugged administratively to WMO) and should be visible next to the secretariat team strengthening the full GOOS internal human resources capacities. OceanOPS has rationalized its support to GOOS Networks through Service Level Agreements which offer a framework for any expansion. However the SLA for IOC, WMO for GOOS, GCOS remains to be detailed, agreed, and fully funded.

Recommendations:

- There is need for a clearer, agreed articulation of what the goal/mandate of the ICG actually is.
- The BioEco Panel and OCG should co-develop a pathway for partial or full merging of relevant work over a sensible 2-year period.
- A dedicated task is needed to dimension the resource implications, such as funding the new ICG Officer and adding support staff (see below). GOOS must articulate to the IOC Exec Council exactly what resources are needed to undertake this.
- Position clearly the OceanOPS team in the GOOS expanded secretariat workforce
- Staff OceanOPS with 2 to 3 Full Time Equivalents Technical Coordinators to support biology, coastal observing systems and emerging networks.
- Develop clear SLA with IOC and WMO for OceanOPS integrated services during the new Strategic Plan process (2026)

Opportunity but Needs Clarity: The "Data" Mandate and IODE Overlap

We share the vision of a seamless, highly accessible global data ecosystem and believe that with the right phased approach, this can be achieved. However, the reform places a huge emphasis

on the ICG as a "data provider" and explicitly tasks OceanOPS with aggregating actual data alongside metadata. Moving from metadata tracking to hosting actual data is a substantial addition to OceanOPS's current mandate and requires meaningful resources and strengthened cooperation with the major global data endpoints (France, Canada, US, Australia). The current strategy is aimed at building federated systems, which could then be harnessed to provide a thematic access point through OceanOPS. However, we need to continue federating the existing infrastructure (a pilot is on the horizon) in cooperation with the global network data endpoints. With investment and careful requirements setting, OceanOPS could coordinate the federated node and provide access to network data holdings. To avoid new fragmentation, any future ICG data architecture must carefully align and support the WMO Information System (WIS), IODE's long-term stewardship, and OceanOPS's operational metadata monitoring to ensure interoperability and reinforce coherence across these existing systems.

Recommendations:

- We need a clearly defined data architecture for GOOS including on how to work with IODE, noting WMO is already well integrated.
- OceanOPS existing mandate (www.ocean-ops.org/strategy) includes metadata harmonization, network support, reporting, and tracking how the infrastructure (EOVs/ECVs) address the requirements, as well as actively supporting the implementation of OCG Data Strategy. We need a decision within the new OceanOPS Strategic Plan (2026-30) to include the proposed broader data responsibility.
- The (future) role of an ICG in translating requirements (e.g. RRR, GBON) into recommendations and tracking capacity (networks blended as EOVs/ECVs supporting the work of WMO) is also fundamental. It is one of OCG/OceanOPS' ultimate goals, and OCG expertise, with OceanOPS tools will be the mechanism. This will take time, significant additional resources would speed implementation, in addition to Member States taking responsibility for aspects of a federated architecture.
- Staff OceanOPS with 1 Full Time Equivalent Technical Data Expert; a minimum to complete the current and address the expanded mandate towards setting up the foundations for a seamless access to interoperable data and information across GOOS Networks.

The "No-Go": Direct Coordination of National Networks

The proposal suggests the ICG will have an expanded mandate to coordinate *all* ocean observing data providers, which implies direct oversight of national and regional observing systems. We recognize and applaud the underlying intent to better integrate and elevate national contributions; however, national systems and focal points are fundamentally different in structure, scale, governance, and maturity.

The need for coordination of national systems by the ICG is very unclear, and OCG has no mandate to do this. Our coordination model is built on consensus and value, not top-down

enforcement. Expanding this mandate risks prioritizing visibility for National Focal Points (NFPs) in OceanOPS without addressing the practical realities, specifically, whether NFPs actually have the authority to mandate that their Principal Investigators follow existing protocols, and whether national datacentres are equipped to support this shift. OCG simply does not have the structure within GOOS to operate in this manner; it would require significant resources (an estimated 20 additional personnel) to work effectively at the national level. Trying to impose an OCG-like governance structure on national systems will just swamp the current team and paralyze OCG's core global work. In addition, the roles of IODE and WMO, who already have established national structures, remain unclear in this proposed model.

- Recommendation: Leave the direct coordination of national and coastal networks to the Member States and NFPs. The ICG should stick to providing advice (when requested), global requirements, standards, and best practices, rather than trying to absorb national efforts into global infrastructure management. If there is a strong desire to pursue this, we suggest running a pilot with a few nations to assess the appetite for change, actual needs, and scalability before rewriting mandates.
- To progress still towards the integration of national components into GOOS, and noting some degree of overlap between National GOOS programmes and GOOS networks, it is recommended to National programmes to designate a technical focal point to work with OceanOPS and gradually align on data/metadata standards.

Regional Coordination (GRAs)

The reform proposal notes that “GRAs role and position is still under revision”. However, treating the future of GRAs as a choice between absorbing them into sub-commissions or leaving them entirely independent does not solve the core issue. There should rather be a focus on what they actually deliver by setting a baseline of common tasks that directly relate to their utility as regional bodies within GOOS.

- Recommendation: GOOS should issue a new contract/mandate requiring GRAs to produce a regional design (coastal and open ocean) for their region every two years. They must support an integrated operational oceanography approach (observing and modelling) and actively engage in the co-design of regional priorities. We must insist on evidence of stakeholder engagement and integration with global networks in these regional designs.

Standards Governance and Meaningful Accountability

Standards and best practices are core system infrastructure, but the proposal creates ambiguity between the Secretariat, the ICG, and the Panels regarding who actually owns them. It also does not rationalize the additional products' work that the BGC Panel does. We strongly agree with the reform's premise that robust, universally adopted standards are the backbone of a trusted and interoperable observing system. Overall, maybe the reform should focus less on simplification as

a structural exercise and more on simplification as an operating model. What is currently missing from the reform is a clear statement of what must be globally standardized and what can remain distributed. For example, the items that must be globally standardized are: EOVS definitions and requirements; network specification sheets; minimum metadata/passport standards (aligned with WIGOS metadata requirements); endorsed best practice pathways and revision cycles; maturity and health metrics; minimum data lifecycle elements (calibration, QC, data stewardship, and FAIR metadata); network/system reporting templates; and structured user feedback loops linking observations to modelling and services. Many other elements, such as methodological refinements or regional implementation choices, can remain flexible. Without this clarity, a new organisational structure alone will not resolve the underlying coordination challenges.

- Recommendation: We propose a clear federated standards chain: Panels define scientific requirements and EOVS specifications; the ICG coordinates operational implementation (network specification sheets, minimum metadata passports, lifecycle coverage, and best-practice endorsement pathways); and the Secretariat supports visibility, partnerships, and uptake. To ensure meaningful accountability, GOOS should track operational indicators, such as the proportion of networks adhering to minimum metadata passports and implementing endorsed best practices across the observation lifecycle.

To practically realize the ambition of this reform, the proposed structural changes must be matched by additional resources. Considering the expanded mandates outlined above, the transition to an ICG model cannot be absorbed by the current team. While we do not detail the full operational breakdown here, the minimum baseline resource requirements to make this transition feasible are clear. OceanOPS would require the addition of one data expert, two BioEco technical coordinators, and one network support person. Concurrently, the GOOS Secretariat would need one dedicated data coordinator and one BioEco coordinator. An expansion of this magnitude requires a firm commitment to securing the dedicated budget to support these critical roles before any structural shifts are finalized.

Appendix: Additional Ad hoc Comments

- The proposed meeting layout is confusing. Removing the OCG exec biweekly meetings will mean OCG does not function. Also, the proposed ICG co-chair model (one for networks, one for data) removes the Vice Chairs, which are currently essential to how OCG functions. In addition, having an “Ocean Observing Data Providers Meetings e.g., GOOS Networks” without ICG coordination or participation of the vice chairs makes absolutely no sense.
- The reform tasks NFPs with a lot of heavy coordination and reporting duties that many Member States currently lack the institutional setup to handle. Because NFP capacities and resources vary widely across Member States, the reform risks becoming more aspirational than operational. To prevent this, GOOS should provide a mandatory “enablement package”, including standard templates and metadata guidance, to help members meet these expanded expectations.

Considerations for GOOS reform - SC15 Background paper

- We need a clear onboarding pathway for major advancing initiatives like CoastPredict or TPOS. Co-design needs to be explicitly embedded in GOOS thinking right now.
- The text says the ICG will report to the SC on behalf of all ocean observing data providers, but that connection is completely missing from the National Coordination organogram. This needs to be clarified visually and functionally.
- There isn't much emphasis on sustainability anywhere.
- The value proposition to the data providers is listed as 'advance groundbreaking research and relevant operational ocean science' this seems to misrepresent the value provided by GOOS, which focuses on supporting essential, sustainable infrastructure and data provision (which enables impactful research) as well as the many other things GOOS does.