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Respondent
3 Anonymous

33:43
Time to complete

Basic information

1. Name of GRA *

- GRA: Black Sea GOOS
- GRA: CIOOS
- GRA: EuroGOOS
- GRA: GOOS Africa
- GRA: GRASP
- GRA: IOCARIBE-GOOS
- GRA: IMOS
- GRA: IOGOOS
- GRA: MonGOOS
- GRA: NEAR-GOOS
- GRA: OCEATLAN
- GRA: PI-GOOS
- GRA: SEAGOOS
- GRA: U.S. IOOS

2. Your name *

Anne-Sophie Ste-Marie

3. Your email *

anne-sophie.ste-marie@cioos.ca

4. Your role in the GRA *

Director - CIOOS Coordination Office

GRA Overview

5. Vision and mission of the GRA *

Vision As Canada's nucleus for ocean observing, CIOOS makes connections for a sustainable ocean future. // Mission To foster partnerships and grow a powerful online platform that generates information, knowledge, and place-based solutions to advance our understanding of the ocean.

6. Affiliated organisations and agencies of the GRA *

- Governments/Member States
- Academia
- Research Institutions
- Regional organisations
- Non-governmental Organisations (NGOs)
- Private sectors
- Other

7. Please list the national observing systems that the GRA is connecting to.

Ocean Tracking Network
Ocean Networks Canada
Amundsen Science
DataStream (Freshwater)

8. How does the GRA connect to GOOS National Focal Points (NFPs) in the respective countries? *

If so, please specify GOOS NFPs in which countries you are currently connecting to). Link to current GOOS NFPs is: <https://goosocean.org/who-we-are/goos-national-focal-points/group/>

Keith Lennon-Marine Environmental Data Section, Oceans Science Branch, Fisheries and Oceans Canada
DFO is a funder of CIOOS and Andrew Stewart, National Manager, Ocean Science for Fisheries and Oceans Canada, sits as an observing member of CIOOS Advisory Committee

9. Governance of the GRA. *

Please outline governing bodies of the GRA, including Chair, Secretariat, Steering Committee, etc.

(Governance page on CIOOS website can be visited at <https://cioos.ca/governance/>)

Strong governance and oversight is crucial to ensure the success of a cross-Canada and multi-partner initiative.

Currently consisting of three distinct Regional Associations and a national Coordination Office, the CIOOS national leadership and coordination is found through the Executive Committee, which is also responsible for strategic planning and decision-making for CIOOS according to its vision and mission. The National Advisory Committee provides external guidance and helps CIOOS maintain its relevance in the national and international ocean observing space. Finally, the national committees have representation from all Regional Associations, ensuring a consistent national approach and opportunity for sharing of best practices.

CIOOS Committees

1. National Executive Committee

Members: Leadership from the Coordinating Office (CO) and Regional Associations (RAs).

Purpose: Provide strategic advice, guide national and international planning, coordinate the RAs, and represent CIOOS nationally and internationally.

2. Operational Management Committee

Members: Leadership and technical leads from the CO and RAs, and standing committee leads.

Purpose: Align work priorities across national teams, ensure coordinated delivery of operations, and provide regular feedback to CIOOS committees.

3. Standing Committees

Purpose: Support national coordination and implementation of priorities. These committees are primarily operational but also contribute to planning.

IT Committee: Priorities related to cyberinfrastructure and data sharing tools (CDE, CKAN, ERDAPP, etc.)

Data Management Committee: Data standards, metadata, documentation, support for emerging EOVs

Communications Committee: Strategic leadership in communications, coordination of national activities

4. Advisory Committee

Members: Leadership from the CO and RAs (ex officio), and representatives from key partners.

Purpose: Advise on overall strategy, identify partnership opportunities, propose management approaches, support funding efforts, and guide national/international collaboration and communication.

10. Strategic documents of the GRA. *

Please list titles, dates, and relevant information of the most recently updated version of the governing documents, including the **links** if available. Strategic documents may include: MoU, Goals and Objectives, Planning documents (e.g. Strategic Plan, Work Plan, Implementation Plan), Data Policy, etc.

CIOOS 2026-2031 Strategic Plan will soon be published, however, the previous 2021-2026 Strategic Plan can be found here <https://cioos.ca/strategic-plan/>

CIOOS Data Management Plan (DMP) template can be found here <https://guide.cioos.ca/latest/en/pgd/pgdcioos/>

11. Communication tools of the GRA. *

Please list links of GRA website, contact person, newsletter, brochure, introductory video, etc., if any.

cioos.ca

About CIOOS video <https://vimeo.com/1087754452?fl=pl&fe=vl>

info@cioos.ca

<https://www.linkedin.com/company/cioos-siooc/>

12. Primary financial sources of the GRA. *

Please consider the investment in the ocean observing system itself as well as for GRA coordination.

Fisheries and Oceans Canada

MEOPAR Inc.

Digital Research Alliance of Canada

Canada's Ocean Supercluster

Achievements since last GRA Forum (April 2024)

13. Meetings and workshops the GRA organised or sponsored. *

CIOOS Meeting - Halifax 2025
CIOOS Strategic Planning Meeting - Quebec City - October 2025
CIOOS IT Workshop - Quebec City - October 2025
Understanding and Predicting the Ocean Using Artificial Intelligence - Halifax - November 2025 <https://event.fourwaves.com/understanding-the-ocean>
Upcoming: Ocean Data side event at the Canadian Polar Data Workshop 6 (CPDW6)

14. Contribution/Integration to the Global Ocean Observing Networks. *

If the GRA is currently contributing/integrating to other networks other than GOOS networks, please specify them in the field of 'Other'.

- Ship Observations Team (SOT)/Voluntary Observing Ships (VOS)
- Ship Observations Team (SOT)/XBT-Ship of Opportunity Programme (SOOP)
- Ship Observations Team (SOT)/Automated Shipboard Aerological Programme (ASAP)
- Global Ocean Ship-Based Hydrographic Investigations Programme (GO-SHIP)
- Global Sea Level Observing System (GLOSS)
- OceanSITES
- Data Buoy Cooperation Panel (DBCP)/Moored Buoys (MB)
- Data Buoy Cooperation Panel (DBCP)/Tsunami Buoys
- Data Buoy Cooperation Panel (DBCP)/Drifting Buoys (GDA)
- Argo
- The Global High Frequency Radar Network
- Ocean Gliders
- Animal-Borne Ocean Sensors (AniBOS)
- Emerging: Fishing Vessel Observing Network (FVON)
- Emerging: Surface Ocean CO2 Observing Network (SOCONET)
- Emerging: Science Monitoring And Reliable Telecommunications (SMART) Subsea Cables
- Emerging: SUN Fleet
- None
- in conversation with FVON. CIOOS ocean observing national and regional partners might directly be contributing to these networks and would require

15. Any other ocean observation projects and activities uniquely conducted by the GRA?

Data integration and management pipeline from our partners data holdings to the CIOOS data sharing tools. This includes the CIOOS metadata entry form, the Catalogue and the CIOOS Data Explorer, amongst other national and regionally specific tools. CIOOS regionally associations also develop regionally needed informations services tool like Ocean Connect in the Pacific, Nautilo in the St. Lawrence, and the Ocean Storm Viewer in CIOOS Atlantic.

16. **Contribution of data at local/national/regional/global level.** *

Please indicate other data centers and repositories in 'Other', if applicable.

- Ocean Data and Information System (ODIS)
- IODE National Ocean Data Center (NODC)
- IODE Associate Data Unit (ADU)
- IODE Associate Information Unit (AIU)
- WMO Information System (WIS)
- ADU: CIOOS has reached out to their NODC to become one

17. Describe the primary roles of the GRA in facilitating the **delivery of Information, Products and Services to end users** and how these are different/complementary to national activities. *

CIOOS developed data integration and management pipeline from our partners data holdings to the CIOOS data sharing tools. This includes the CIOOS metadata entry form, the Catalogue and the CIOOS Data Explorer, amongst other national and regionally specific tools. CIOOS regionally associations also develop regionally needed informations services tool like Ocean Connect in the Pacific, Nautilo in the St. Lawrence, and the Ocean Storm Viewer in CIOOS Atlantic. Visit <https://cioos.ca/data-tools/> to visit them

18. **In what areas (checklist is below) does the GRA enable co-designed/co-produced ocean observing solutions?** *

More detailed information & services, e.g. links, can be indicated in 'Other'

- Biodiversity conservation
- Sustainable fisheries
- Coastal resilience
- Climate resilience mitigation and adaptation
- Sustainable ocean planning
- Marine carbon capture and storage
- Safety of life at sea
- Coastal hazard warnings
- Disaster risk reductions
- Human health
- Ocean science
- Other

19. **Please list new Best Practice documents completed in 2025 (and submitted to the OBPS).** *

none

20. Capacity Building and Knowledge Sharing

Please state the capacity building activities organised in 2024-2025, and # of beneficiaries; expertise/experience shared with other GRAs in terms of capacity building.

CIOOS Atlantic: data management training delivered to ~35 people (in-person over two sessions) SLGO : (information pending) CIOOS Pacific (information pending) Coordination Office : the CO didn't exist in 2024-2025

Essential Ocean Variables (EOVs) Measurement

GOOS Essential Ocean Variables (EOVs) are defined as the *minimum set of ocean variables* that are needed to assess ocean state and variability for important global ocean phenomena, and to provide essential data for applications that support societal benefit. Please see more detailed information and specification sheet for each EOV via <https://goosocean.org/what-we-do/framework/essential-ocean-variables/>

21. Please indicate the **physics EOVs** that have been/are being measured by your GRA. *

	Yes	No	No info
Sea state	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ocean surface stress	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sea ice	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sea surface height	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sea surface temperature	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Subsurface temperature	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Surface currents	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Subsurface currents	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sea surface salinity	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Subsurface salinity	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ocean surface heat flux	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ocean bottom pressure	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Turbulent diapycnal fluxes (*pilot)	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>

22. Please indicate the **biochemistry EOVs** that have been/are being measured by your GRA. *

	Yes	No	No info
Oxygen	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Nutrients	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Inorganic carbon	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Transient tracers	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Particulate matter	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Nitrous oxide	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Stable carbon isotopes	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Dissolved organic carbon	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>

23. Please indicate the **biology and ecosystems EOVs** that have been/are being measured by your GRA. *

	Yes	No	No info
Phytoplankton biomass and diversity	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Zooplankton biomass and diversity	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Fish abundance and distribution	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sea turtles abundance and distribution	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Seabirds abundance and distribution	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Marine mammal abundance and distribution	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Coral cover and composition	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Seagrass cover and composition	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Macroalgal canopy cover and composition	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Mangrove cover and composition	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Microbe biomass and diversity (*pilot)	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Benthic invertebrate abundance and distribution (*pilot)	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>

24. Please indicate the **cross-disciplinary (including human impact) EOVs** that have been/are being measured by your GRA. *

	Yes	No	No info
Ocean colour	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ocean sound	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Marine debris (*pilot)	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>

25. **Additional comments on EOV measurement by your GRA.**

CIOOS Catalogue main page is organized by EOV <https://catalogue.cioos.ca/>

Planning and Support

26. **Top 3 Challenges and Opportunities ***

To highlight the **challenges** for operation of GRA and how to address them; as well as the **opportunities** for new partnerships with regional networks, programme/project, countries; new funding opportunities including cooperation with industries; emerging requirements for delivery of information and services, and etc.

Challenges : 1) Fluctuating financial situation(per project funding), 2) Cohesion or collaboration between different regional teams, 3) Lack of standardization in processes and work tools

Opportunities : 1) Increase of external awareness of CIOOS's mission, identity and services 2) Leveraging sovereign and capable data and AI infrastructure 3) Development of regionally/locally specific information services

27. **Planning for 2026-2027 ***

To highlight top 3-5 priorities of the GRA over next two years.

1. Affirm CIOOS's vital role as the trusted national source for key ocean data in Canada.
2. Empower ocean research and knowledge, connecting Canadian decision-makers and ocean-connected and Indigenous communities with high-quality, culturally informed, and FAIR ocean data and information products
3. Define the organizational structure of CIOOS to include all ocean and coastal bodies of water including the Great Lakes and the Arctic and clarify CIOOS's relationship to its key partners.
4. Design or leverage existing, resilient and capable sovereign Canadian digital infrastructure to store, protect and distribute ocean data to the public.

28. **Requested Support from GOOS ***

May include but not limited to communication support; capacity building support; partnership building support; leveraging support from member states, etc. Indicate priority or urgency.

CIOOS requests that GOOS continue to provide formal recognition, visibility, and institutional backing to CIOOS as Canada's Ocean Observing System (currently designated as a Regional Alliance) under GOOS Governance reform, including continued acknowledgment of CIOOS as the national coordination mechanism for Canadian ocean observations aligned with GOOS strategies and Essential Ocean Variables. This recognition is critical to sustaining national coherence, engaging federal and regional partners, and ensuring Canada's effective participation in the global ocean observing system

In addition, CIOOS seeks the following support from GOOS:

- Connection to international networks and initiatives
- Capacity building and training opportunities
- Communication and visibility support - Support in amplifying CIOOS activities
- Targeted peer-to-peer exchanges with other GOOS Regional Alliances or components to share lessons learned on, not limited to, governance models, sustainability, and national integration.