

The Global Ocean Observing System



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Canadian Integrated Ocean Observing System (CIOOS) Regional and National Updates

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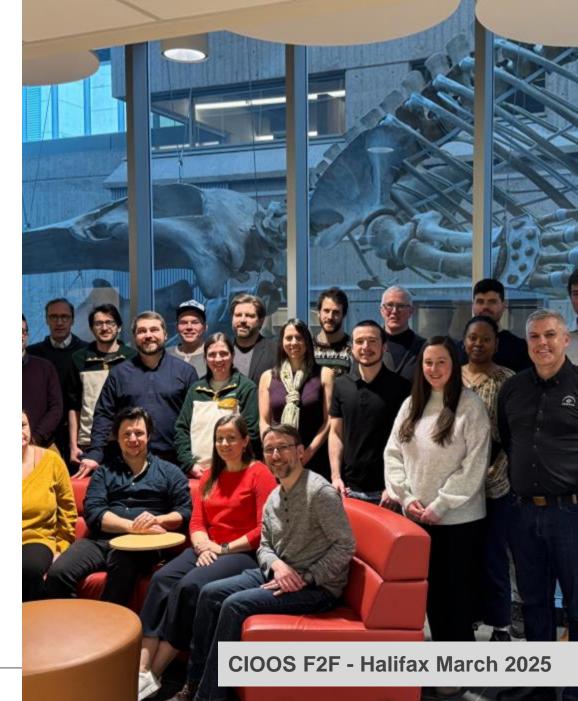
CIOOS

Progress and Achievement in 2024/2025

- Navigating uncertainty
 - Tula Foundation had offered funding for a national office
 - This unlocked additional funding from DFO
 - Tula withdrew, had to renegotiate with DFO
 - Stuck for most of the year, shifting infrastructure from Tula and rebuilding what was lost
- Coordinating Office
 - MEOPAR forward and provided some funding for Coordinating office
 - DFO provided additional funding
 - Presently recruiting a Director and additional staff
- Regional Associations
 - DFO funding for three years (previously two years) to March 31, 2027
 - DFO strongly supports CIOOS
 - MEOPAR provides key funding to CIOOS Regions
- Present activities
 - CIOOS F2F Halifax March 2025
 - Building Bridges : AI tools for CIOOS
 - Supporting acoustic data and QA/QC
 - Discussing a public API





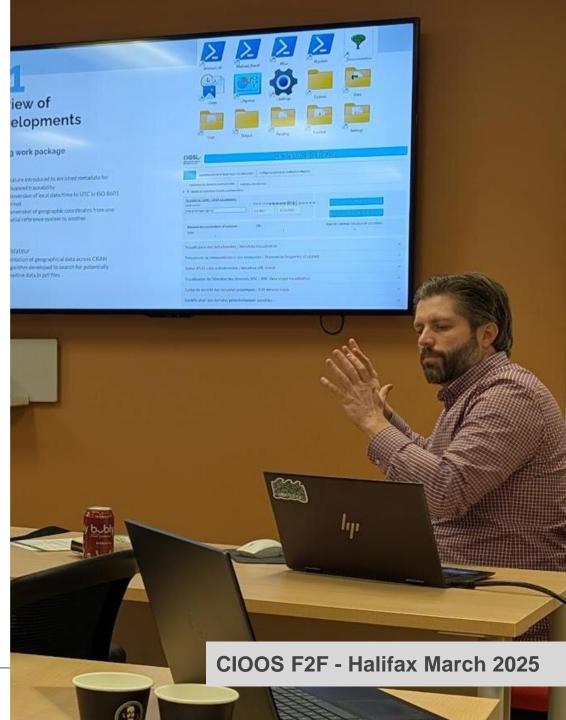


Work plan 2025 and onward

- Developing New Strategic Plan 2026-2031
- Setting up the Coordinating Office
 - New national resources to increase efficiency, effectiveness
- Interregional collaboration opportunities
 - Transforming Climate Action program
 - AI in CIOOS tools: metadata generation including EOVs, refined data research,
 - Common documentation (training, DMP, resources)
- Communities of practice (Modelling, OA, ...)
- Sustainability : increase and diversify funding
- Extension (Arctic, Great Lakes)







Challenges & Opportunities

- Changing Political landscape
 - Canadian Federal Government Election on April 28th
- Changing landscape in US-based partner organisations
- New CIOOS Coordinating Office as opportunity to launch CIOOS into a new momentum
- Need for Information Services to serve wider audience demonstrate value







Supports needed from GOOS

- International standardization
 - Standards from GOOS and international coordination to converge on standards, methodologies and software/data tools
- International interoperability
 - Ocean InfoHub as an example
 - Help coordinate increased interoperability of CIOOS regions with OBIS, GTS, other international systems
 - Would benefit from study cases to show value of international data interoperability past the data integration step ?

| Biogeochemical | | | | | | |
|--|---|-----------------------------------|-------------------------|---------------------------|-------------------------|--|
| Dissolved Organic Carbon | CO ₂ Inorganic Carbon | N ₂ O Nitrous axide | N P. Si Nutrients | O ₂ Cxygen | Particulate mat- ter | |
| 12 13 Stable carbon isotopes | CFC-11 • CFC-12 Transient trac- ers • | | | | | |
| Cross-disciplinary | | | | | | |
| Marine debris | Ocean colour 3 |)))) Ocean sound © | | | | |
| Physical | | | | | | |
| Ocean Boltom Pressure | Ocean surface heat flux | Ocean surface stress | Sea Ice | Sea State | Sea Surface Height | |
| | Ω | | | | | |
| CIOOS Data Catalogue organized by GOOS EOV | | | | | | |
| Sea Surface Salinity | Sea Surface Temperature | Subsurface Currents | Subsurface Salinity | Subsurface Temperature | Surface Currents | |
| m | m | 3 | | 617 | 0 | |



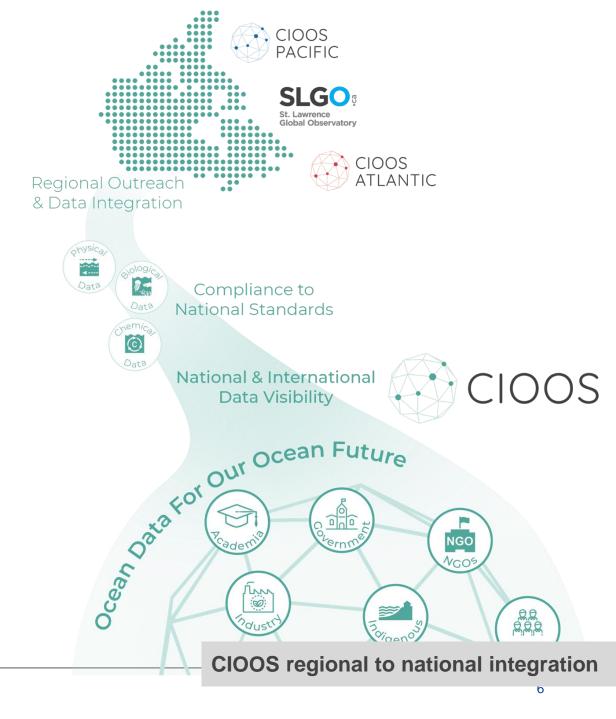


Best Practices/Lessons Learned

- Data is important, but information services / tools help broaden reach
- Delicate but necessary to maintaining a balance between back-end (development and optimization of cyberinfrastructure and security) versus improving front-end enduser tools and features
- Resilience capacity needed to face uncertainty and funding delays
 - Have knowledge in multiple places
 - Interregional collaboration accelerated









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Thank you









International Science Council

