
# OUTCOMES AND ACHIEVEMENTS FROM THE PAST DECADE

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# PERSISTENT THEMES FROM 2013-2024

Technology, including innovation, design, optimization and implementation of observing systems

Data management

Support for Arctic observing, including from the public and private sectors

Indigenous rights-holders' priorities, needs and expertise

Public and private sector need, engagement and support

Arctic observation in a global context

# 2024 WORKING GROUPS

- WG 1 Local to Global Observing
- WG 2 Data Sharing
- WG 3 System Implementation/SAON Roads
- WG 4 Observing System Benefits

# RECOMMENDATIONS

- Ca. 65 recommendations from Working Groups, Breakout Groups, Short Statements
- Prioritizing these is underway but rising to the top are:
  - Equity
  - Flexible Funding
  - Data Sovereignty, Interoperability, Access
  - Develop Training Opportunities
  - Documentation of Current Successes
  - Support Coordination Activities
  - Leveraging Existing Infrastructure and Instrumentation

# LOCAL TO GLOBAL

- Arctic research funders should fund networking efforts across Community- Driven Monitoring Programs
- Academic institutions with community partners should develop training programs that can be conducted in place to support youth engagement in community-driven monitoring and support engagement in academic research
- Policy- makers, elected government officials, and regional, national and international agency officials need to develop communication products on the importance of local and community-driven priorities to global policy (bi-directional connections) and develop a clear, detailed process for transfer of Institutional knowledge considering staff turnover.

# DATA SHARING

- Ensure Indigenous data sovereignty concepts, as described in CARE principles and OCAP are incorporated in federal Data Management Plan (DMP) guidelines to researchers seeking grant funding or seeking to adopt best practices in data management where appropriate
- Develop a framework for aggregating information from diverse observing systems that includes Indigenous Knowledge, community-led monitoring, and Western scientific observing data and continued support of federated tooling systems (Polar Data Search, Ocean Info hub, etc.)
- Standardized data documentation is required to "connect the dots" and create a whole; These are well governed and represent rich use metadata with a semantic context (E.g. use CF-NetCDF or Darwin Core Archives when appropriate)

# SYSTEM IMPLEMENTATION SAON ROADS GUIDING PRINCIPLES

- Indigenous Peoples' equitable partnership and funding in every step of creating an observing system
- Coordinating observing for societal impact
- Complement and integrate planning approaches used by existing networks
- Flexible and evolving structure with community feedback, co-produced panel structure (shared arctic variables)
- Specific recommendations to SAON Advisory Panel
  - Clarify Communications
  - Facilitate Connections

# OBSERVING SYSTEM BENEFITS

- Governments, funders etc. need to invest and maintain long-term operation of observational infrastructure and ongoing enhancement of existing infrastructure, including human-centered observing programs
- SAON should maintain a pan-Arctic inventory of observing infrastructure that includes where and when observational activities that includes where and when observational activities are occurring, and includes other relevant metadata
- Leverage existing infrastructure (i.e., navigational buoys) and instrumentation to track/identify pollutants over a wide variety of temporal and spatial scales