



The Canadian Consortium for Arctic Data Interoperability

Presentation to RDA GORC WG, August 25th, 2022

Peter Pulsifer, CCADI Technical Lead, Associate Professor, GCRC/DGES, Carleton University

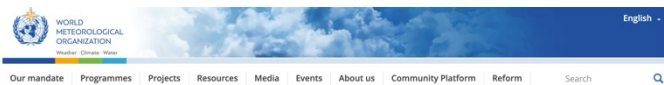
with Contributions from

Shannon Christoffersen, MLIS, DAS, ORCID: 0000-0002-4895-7747

Project Manager, CCADI, and Manager, Data and Information Services, Arctic Institute of North America

CCADI History

Canadian Polar Data Community



Home — Bulletin — International Polar Year 2007-2008



International Polar Year 2007-2008

Contact:
Bulletin n° : Vol 56 (4) - 2007

by I. Allison¹, M. Béland², D. Carlson³, D. Qin⁴, E. Sarukhanyan⁵ and C. Smith⁶



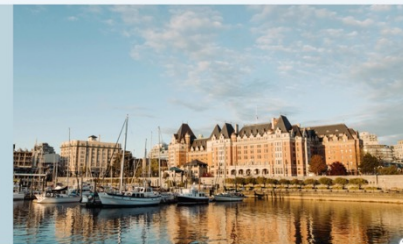
Canadian Polar Data Workshop IV

May 23-27, 2022 | Victoria, B.C.

[Home](#) [About](#) [Registration](#) [Sponsors & Exhibitors](#) [Agenda](#) [Venue](#) [Contact](#)

Register Now for CPDW4!

The Canadian Polar Data Workshop IV will be held **May 23-27, 2022 in Victoria, British Columbia.**



Canadian Polar Data Workshop Reports



CPDW3 was held in Banff, February 2020.

The final report of the Third Canadian Polar Data Workshop is due for release in January 2022.



CPDW2 was held in Ottawa, May 2017.

[CCADI/CCIN/PDC \(2018\) Final Report of the 2nd Canadian Polar Data Workshop: A Roadmap to the Future of Polar Data Management in Canada.](#)



CPDW1 was held in Ottawa, May 2015.

[CCIN/PDC \(2016\) Final Report of the First Canadian Polar Data Workshop: Canadian and international polar/Arctic research data management – Context and avenues to enhance collaboration.](#) (For the full report with appendices [click here](#))

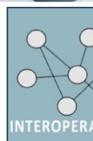


ADC News & Events

Polar Data Forum III - November 2019 - Helsinki, Finland
13 Mar 2019
Polar Data Architecture workshop 28-30 November 2018, Geneva, Switzerland
24 Aug 2018
Arctic Observing Summit, 24-26 June 2018, Geneva, Switzerland
3 Nov 2017



Arctic Data



Interoperability

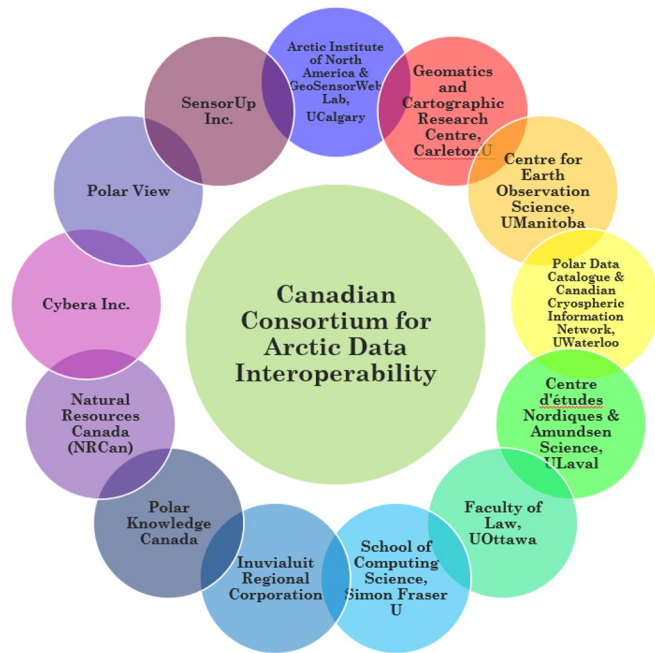


CCADI



Founded in 2015, The **Canadian Consortium for Arctic Data Interoperability (CCADI)** is an initiative to develop an integrated Canadian arctic data management system that will facilitate information discovery, establish sharing standards, enable interoperability among existing data infrastructures, and that will be co-designed with, and accessible to, a broad user base.

Priority on the Canadian “long tail” community



CCADI

Members

- Carleton University (Geomatics and Cartographic Research Centre)
- Inuvialuit Regional Corporation
- Simon Fraser University (School of Computer Sciences)
- **University of Calgary (Arctic Institute of North America & GeoSensor Web Lab)**
- Université Laval (Centre d'études nordiques)
- University of Manitoba (Centre for Earth Observation Science)
- University of Ottawa (Faculty of Law)
- University of Waterloo (Canadian Cryospheric Information Network and Polar Data Catalogue)

Partners

- Cybera
- Inuit Tapiriit Kanatami
- Natural Resources Canada
- PermafrostNet
- Polar Knowledge Canada
- Polar View
- Sensor-Up Inc.





CCADI has received funding from the Canadian Foundation for Innovation (CFI) to develop an Arctic Research Data Infrastructure (ARDI) that will facilitate data discovery and description, enabling data to be shared across systems for upload, analysis, and visualization.

The ARDI will support:

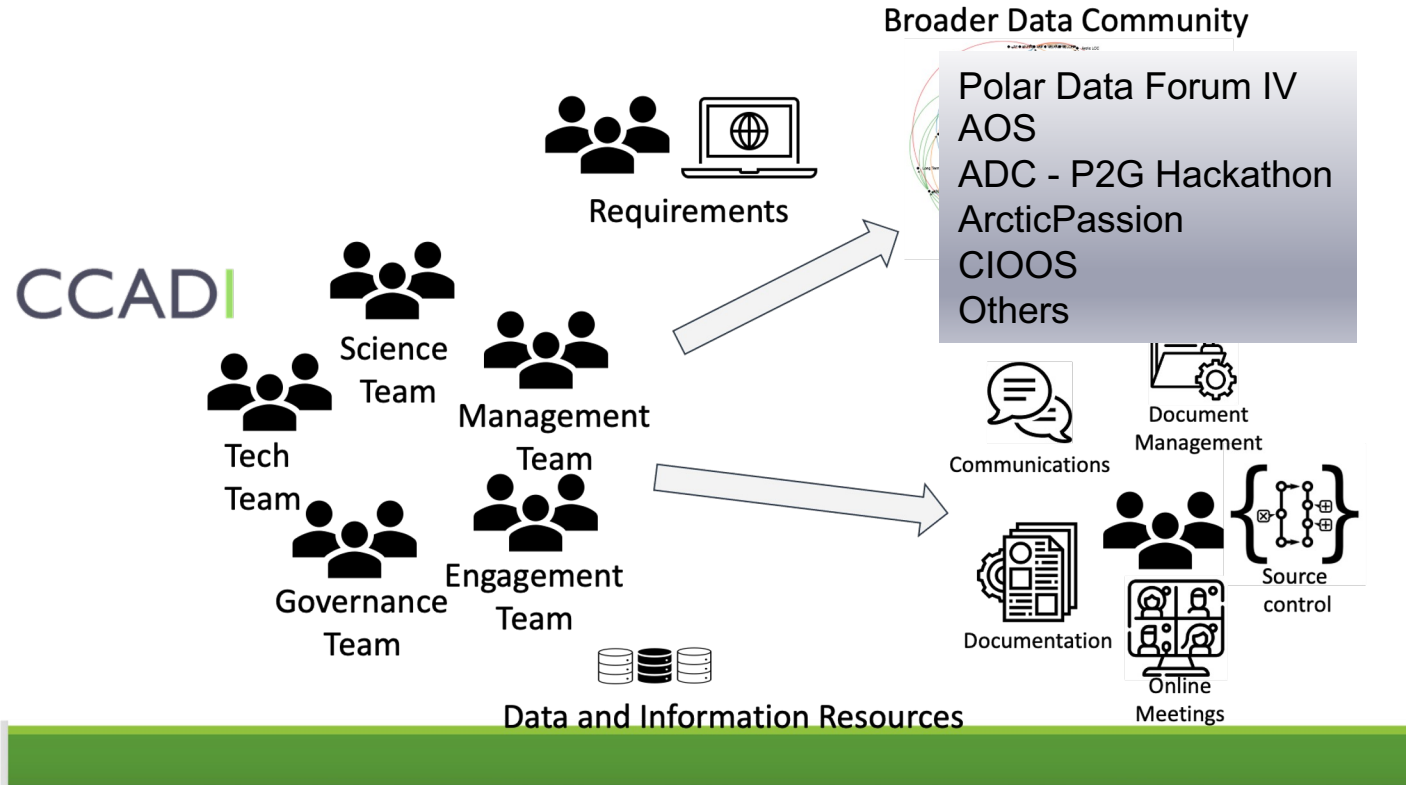
**Efficient, Effective
Data Usage**

**Operational
Activities**

**Inuit Self-
Determination**

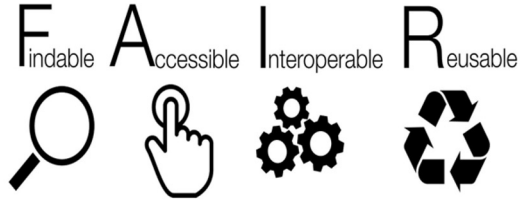
Policy Development

CCADI : human interoperability



CCADI Principles, Standards and Approaches

CCADI Principles, Standards and Approaches



<https://www.force11.org/group/fairgroup/fairprinciples>



<https://fnigc.ca/ocap>



National Inuit
Strategy on Research

<https://www.itk.ca/wp-content/uploads/2018/03/National-Inuit-Strategy-on-Research.pdf>

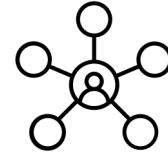
Manifesto for Agile Software Development

<http://agilemanifesto.org/>



CARE Principles
for Indigenous
Data Governance

<https://www.gida-global.org/care>



Information
Ecology



Human Centred
Design



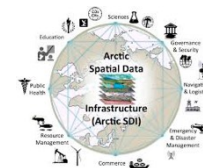
Use-Case Driven



Global



Local



ARCTIC DATA COMMITTEE

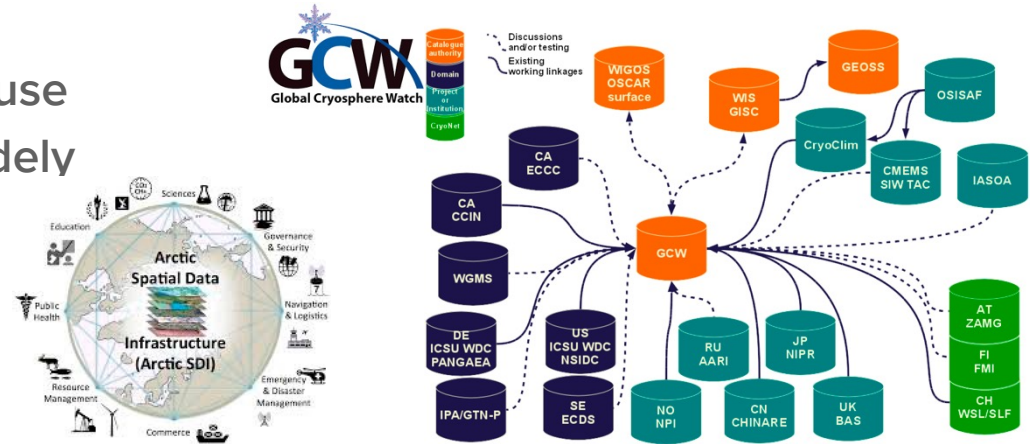


Data Interoperability



OAI-PMH

- “Live” data sharing between and among systems
- Standards and specifications
 - Discovery standards
 - Data standards
 - Semantic standards
- “Services” (**Data as a Service**) use standards to make the data widely available “on demand”



Indigenous Knowledge and Information Systems

- A growing group actively working to share Indigenous Knowledge, information and data + use other DIK
- Progress needed on bridging worldviews, concepts and semantics represented in information systems
- Indigenous Peoples must lead engagement and work with their knowledge – information governance important



<https://fnigc.ca/ocap>



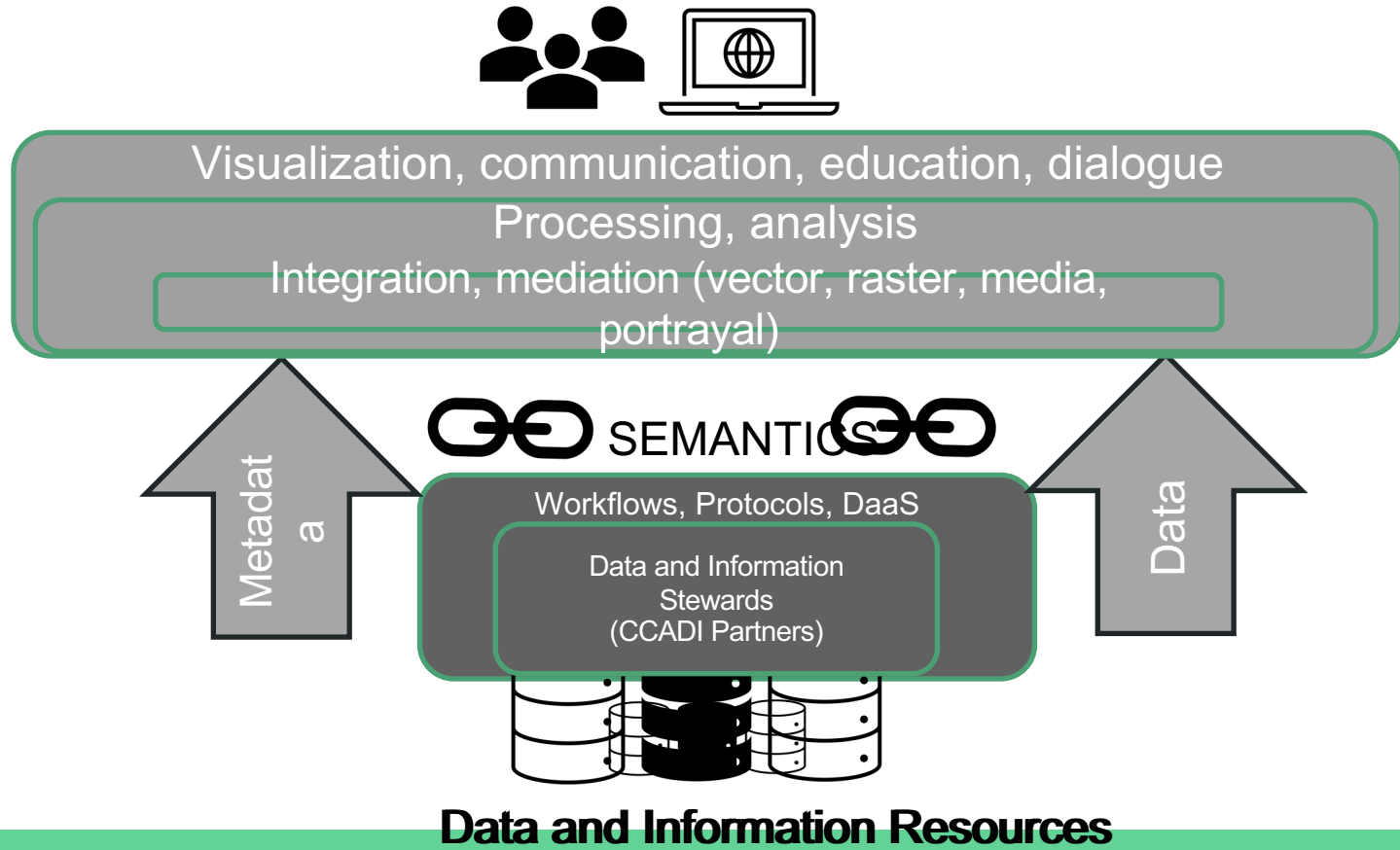
<https://www.gida-global.org/care>



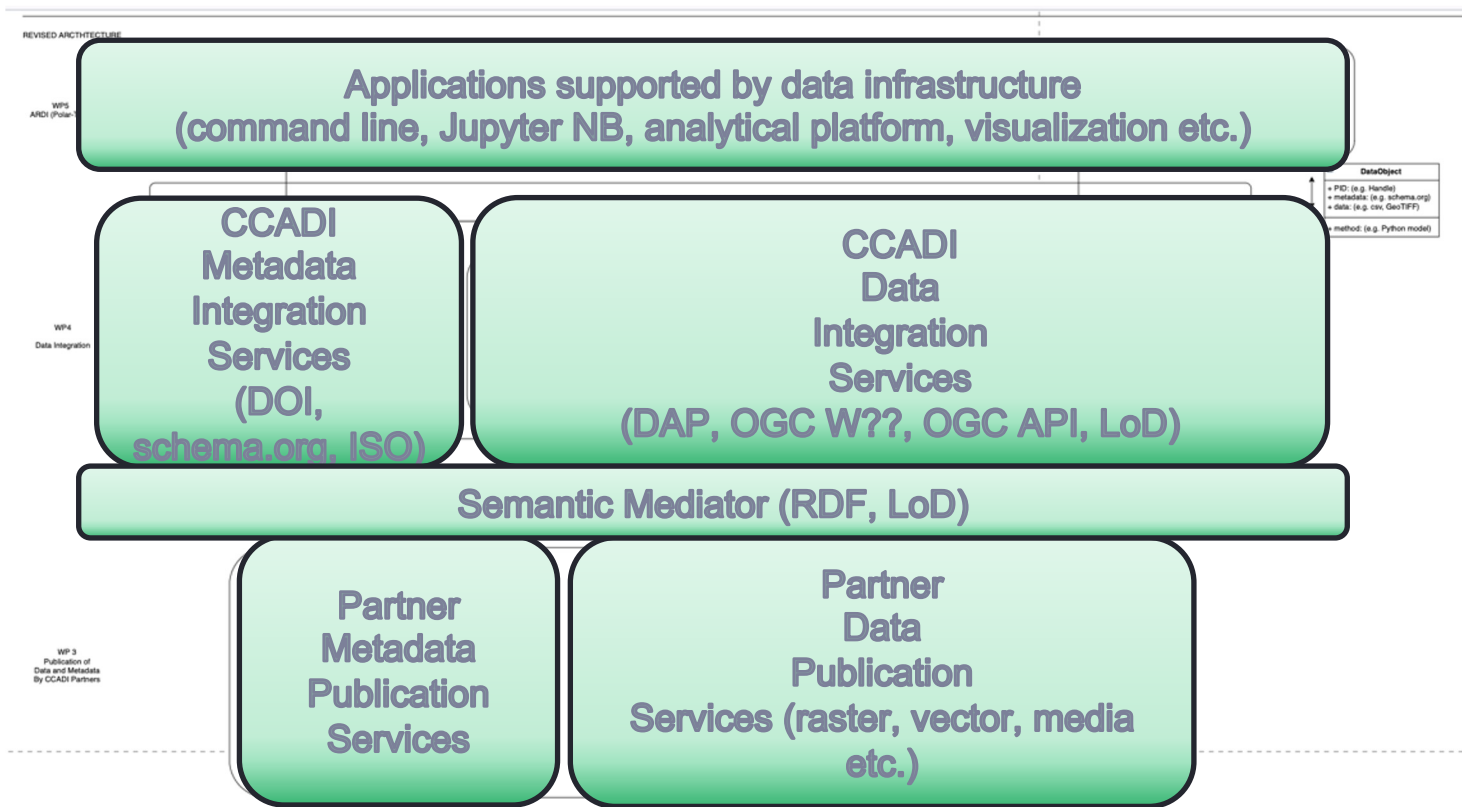


CCADI Architecture

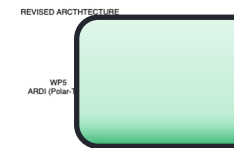
Serving Applications through Interoperability and Mediation: data and information flows



CCADI Architecture



CCADI Tools



About & Status

- Server Status
- GeoServer Logs
- Contact Information
- About GeoServer

Data

- Layer Preview
- Workspaces
- Stores
- Layers
- Layer Groups
- Styles

Welcome

Welcome

This GeoServer belongs to Geomatics and Cartographic Research Centre.

- 11 Layers Add layers
- 12 Stores Add stores
- 3 Workspaces Create workspaces

Please read the file security/masterpw.info and remove it afterwards. This file is a security risk.

Logged in as ppulsifer.

Logout

Service Capabilities

WCS

1.0.0
1.1.0
1.1.1
1.1
2.0.1

WFS

1.0.0
1.1.0
2.0.0

WMS

1.1.1
1.3.0

TMS

1.0.0

WMS-C

1.1.1

WMTS

1.0.0

Transactions in GIS



Full Access

A Comparison between WCS and OPeNDAP for Making Model Results and Data Products Available through the Internet

Fedor Baart, Gerben de Boer, Wim de Haas, Gennadii Donchyts, Marc Philippart, Mark van Koningsveld, Maarten Plieger,

First published: 13 April 2012 | <https://doi.org/10.1111/j.1467-9671.2012.01312.x> | Citations: 1

SECTIONS



PDF



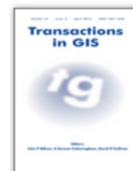
TOOLS



SHARE

Abstract

Numerical models produce output with a large number of variables, grid cells and time steps. The same applies to algorithms that produce gridded datasets from sparse or abundant raw data. Further use of the resulting data products has been challenging, especially for dissemination outside the institute of origin. Due to the gradually increasing size of data products, simply downloading copies of them is becoming



Volume 16, Issue 2

April 2012

Pages 249-265



Figures



References



Related



Information

Recommended

Interoperable and network-aware service ...

Pradeeban Kathiravelu, Peter Van Roy, ...

Concurrency and Computation: Practice and Experience

Data analytics for internet of ...

Chun-Wei Tsai, Pang-Wei Tsai, ...

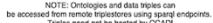
WIRES Data Mining and Knowledge Discovery



yrax.

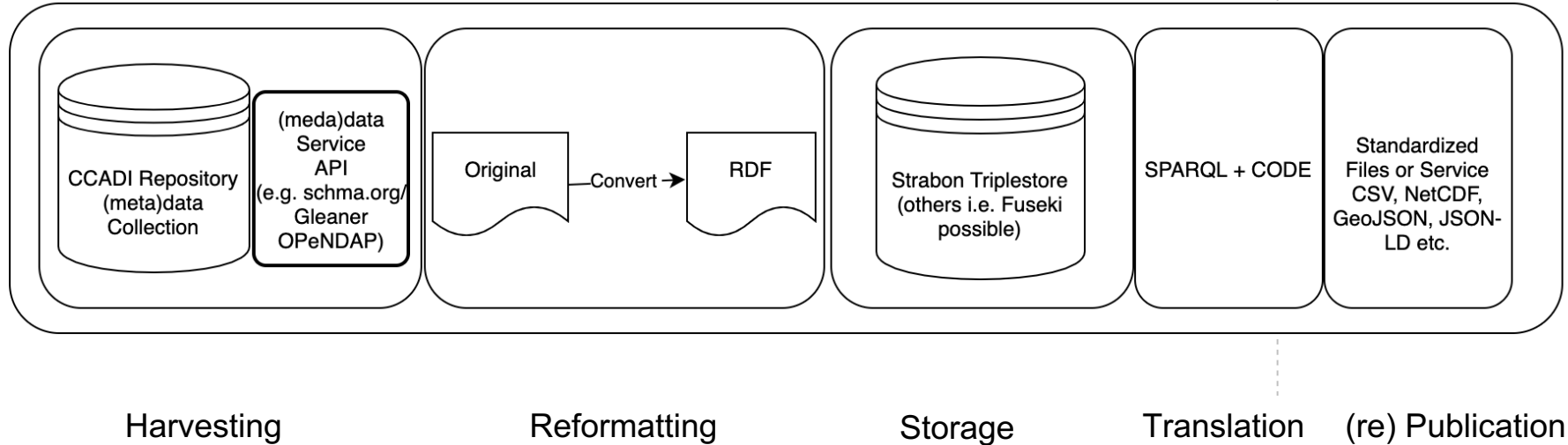
more secure than

◆

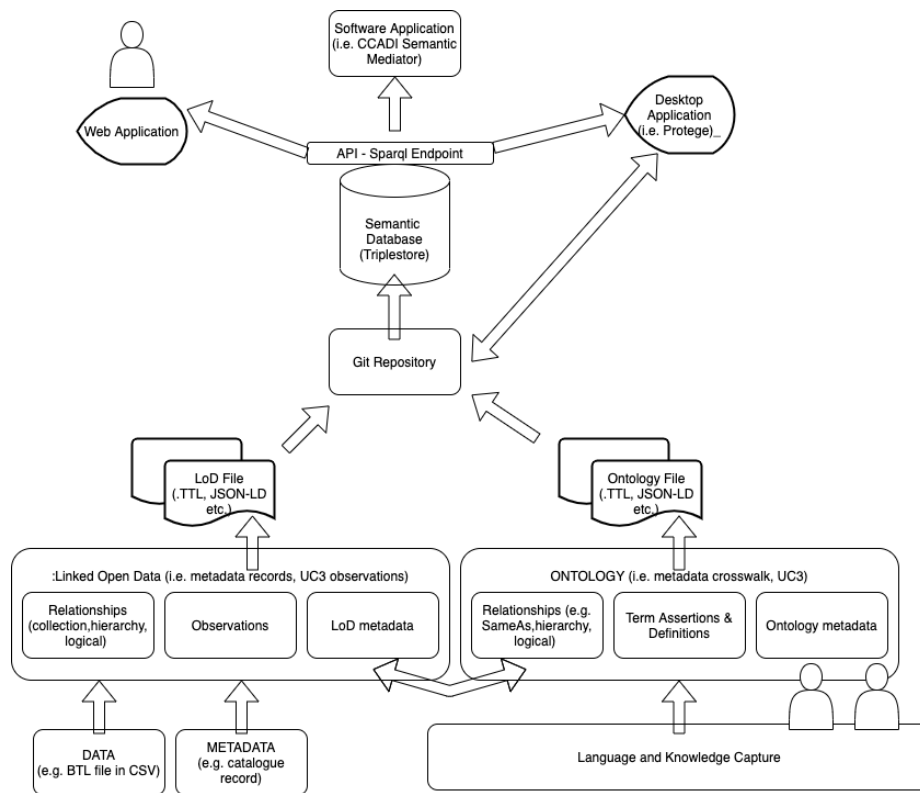


Semantic Mediator (Generalized View)

Semantic Mediator



Semantics Workflows



Semantics

```
<2> amds:filename      "GreenedgeFile2";
    amds:amds:latitude_degrees_north "50.340668";
    amds:longitude_degrees_east "-58.5175";
    amds:Pres_Z "191.665";
    amds:CTDTmp90      "5.1463";
    amds:P_sal_CTD      "34.0867";
    amds:CTD_Sound_Vel "1473.3";
    amds:Sigma_T        "26.9343".
```

```
<3> amds:filename      "GreenedgeFile2";
    amds:amds:latitude_degrees_north "50.340668";
    amds:longitude_degrees_east "-58.5175";
    amds:Pres_Z "191.665";
    amds:CTDTmp90      "5.1463";
    amds:P_sal_CTD      "34.0867";
    amds:CTD_Sound_Vel "1473.3";
    amds:Sigma_T        "26.9343".
```

**Data
Represented as
Linked Open Data**

```
<5>
```

```
amds:CTD_Sound_Vel "1473.29";
amds:Sigma_T "26.9337".
```

```
@prefix : <http://localhost/default#> .
@prefix amundsen: <http://localhost/amundsen#> .
@prefix bodc: <http://localhost/bodc#> .
@prefix CF: <http://localhost/CF#> .
@prefix owl: <http://www.w3.org/2002/07/owl#> .
@prefix xsd: <http://www.w3.org/2001/XMLSchema#> .
@prefix rdfs: <http://www.w3.org/2000/01/rdf-schema#> .
@prefix daml: <http://www.daml.org/2001/03/daml+oil#> .
@prefix BODC: <http://localhost/BODC#> .
@prefix ex: <http://localhost/default#> .
@prefix rdf: <http://www.w3.org/1999/02/22-rdf-syntax-ns#> .
@prefix RDGS: <http://localhost/RDGS#> .
@prefix RDFS: <http://www.w3.org/2000/01/rdf-schema#> .
@prefix SKOS: <http://www.w3.org/2004/02/skos#> .
@prefix sdn: <http://vocab.nerc.ac.uk/collect#> .
@prefix SDN: <http://vocab.nerc.ac.uk/collect#> .
```

```
<urn:uuid:4a727...>
    :subject "SDN:P01::FLU0ZZZ" .

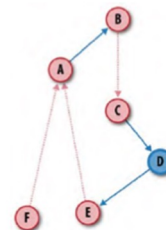
<urn:uuid:e1972...>
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    ex:predicate "SDN:P01::FLU0ZZZ" .
    ex:object "SDN:P01::FLU0ZZZ" .

<urn:uuid:d61b8...>
    :subject "SDN:P01::FLU0ZZZ" .
    ex:predicate "SDN:P01::FLU0ZZZ" .
    ex:object "SDN:P01::FLU0ZZZ" .

<urn:uuid:32d5f15b...>
    :subject "CCADI: BK_SBE43" ;
    ex:predicate "OWL:SameAs" ;
    ex:object "SDN:P01::OXYSSC01" .

<urn:uuid:8a482ed7-d3c5-4b21-ab21-5a482dbd98f9>
    :subject "SDN:P01::FLU0ZZZ" ;
    ex:predicate "OWL:SameAs" ;
    ex:object "http://vocab.nerc.ac.uk/collect#>
```

**Ontologies for Semantic
Mediation**



Graphs 1 and 2

CCADI Use Cases and Products



Currently, the ARDI supports three use cases centred on:

1. Vulnerability Assessment of Coastal Archaeological Sites in the Western Canadian Arctic
2. MOD-AAT (Merged Observatory Data for Arctic Air Temperature): mobilizing records of air temperature from station operators in the circumpolar Arctic
3. Ocean Acidification in the Surface Layer - South Beaufort Sea

Additional use cases in development through CFI funding include...

Sea ice chart distribution

Ground-air temperature modeling

Community-based atlases



SERVICE PRODUCTS:

- Institutional CCADI Metadata API(s)
- PDC/CCADI Federated Metadata Catalogue APIs
- CCADI Semantic Mediator APIs
- CCADI Data Service Endpoints
- CCADI WP5 “platform” service endpoints



APPLICATION PRODUCTS:



Data Scientist



Data Scientist

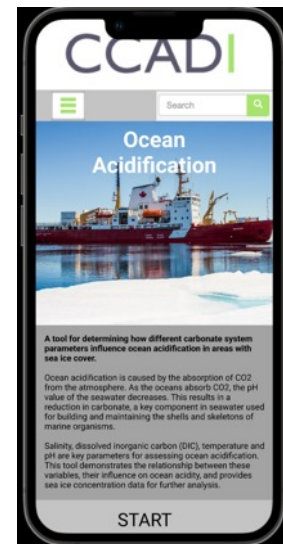


Data Scientist



Data Scientist

- Coastal Erosion Application
- CCADI Client-side Map Visualization App
- CCADI Ocean Acidification Web Application
- MODAAT/CCADI Application
- PDC/CCADI Federated Metadata Catalogue
- CCADI Data Buffet





DOCUMENTATION PRODUCTS:

- CCADI MOD-AAT Command Line Cookbook
- CCADI Ocean Acidification Command Line Cookbook
- CCADI Ocean Acidification Jupyter Notebook
- General documentation for Service and Application Products



Metadata Aggregator: Metadata Integration Service

WP2 - Foundational Pr...

Project information

Repository

Files

Commits

Branches

Tags

Contributors

Graph

Compare

Locked Files

Issues 16

Merge requests 0

CI/CD

Security & Compliance

Deployments

Monitor

Metadata Application Programming Interface

Polar Data Catalogue (pdc@uwaterloo.ca)

Date Published: 01-05-2022

Date of Last Update: 09-05-2022

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1. INTRODUCTION
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5. TROUBLESHOOTING/COMMON ERRORS
 - Malformed API requests
6. CONCLUSION
7. APPENDIX
 - Acronyms
 - Links

Making API Requests

The API provides access to publicly available CCADI metadata records

Find records by page

<http://hedeby.uwaterloo.ca/aggregator/metadata/{page}>

Parameters	Description
page	A page number used to retrieve a corresponding batch of record. Omitting a page number will return the first batch of records

A GET request to the API for page 5 would look like this

```
curl -X GET "http://hedeby.uwaterloo.ca/aggregator/metadata/{page}?page=5" -H "accept: */*"
```

Responses

Code	Description
200	OK
401	Unauthorized
403	Forbidden
404	Not Found

Content Author: Greg Vey

Use Case 2: MODAAT Data Publication Service



ERDDAP

Accès amélioré aux données scientifiques - Easier access to scientific data

ERDDAP > List of All Datasets

8 matching datasets, listed in alphabetical order.

Grid DAP Data	Sub-set	Table DAP Data	Make A Graph	W M S	Source Data Files	Title	Summary	FGDC, ISO, Metadata	Background Info	RSS	E mail	Institution	Dataset ID
	set	data	graph			* The List of All Active Datasets in this ERDDAP *	?	M	background			Universite Laval,...	allDatasets
	set	data	graph			[AINA-57] Kluane Lake Research Station Air Temperature	?	F I M	background	RSS		AINA UCalgary	modaat_aina-57
	set	data	graph			[BYLCAMP] Bylot Island Air Temperature	?	F I M	background	RSS		CEN ULaval	modaat_bylcamp
	set	data	graph			[BYLOSIL] Bylot Island Air Temperature	?	F I M	background	RSS		CEN ULaval	modaat_bylosil
	set	data	graph			[ELLPURPLEVALLEY] Purple Valley Air Temperature	?	F I M	background	RSS		Laboratory for Cr...	modaat_ellpurplevalley
	set	data	graph		files	[ELLWARH] Ward Hunt Island Air Temperature	?	F I M	background	RSS		CEN ULaval	modaat_ellwarh
	set	data	graph			[KJRAPIK] Whapmagoostui-Kuujuarapik Air Temperature	?	F I M	background	RSS		CEN ULaval	modaat_kjrapik
	set	data	graph			[WARDHIB] Ward Hunt Island Air Temperature	?	F I M	background	RSS		CEN ULaval	modaat_wardhib

The information in the table above is also available in other file formats (.csv, .htmlTable, .itx, .json, .jsonCSV1, .jsonCSV, .jsonKVP, .mat, .nc, .nccsv, .tsv, .xhtml) [via a RESTful web service](#).

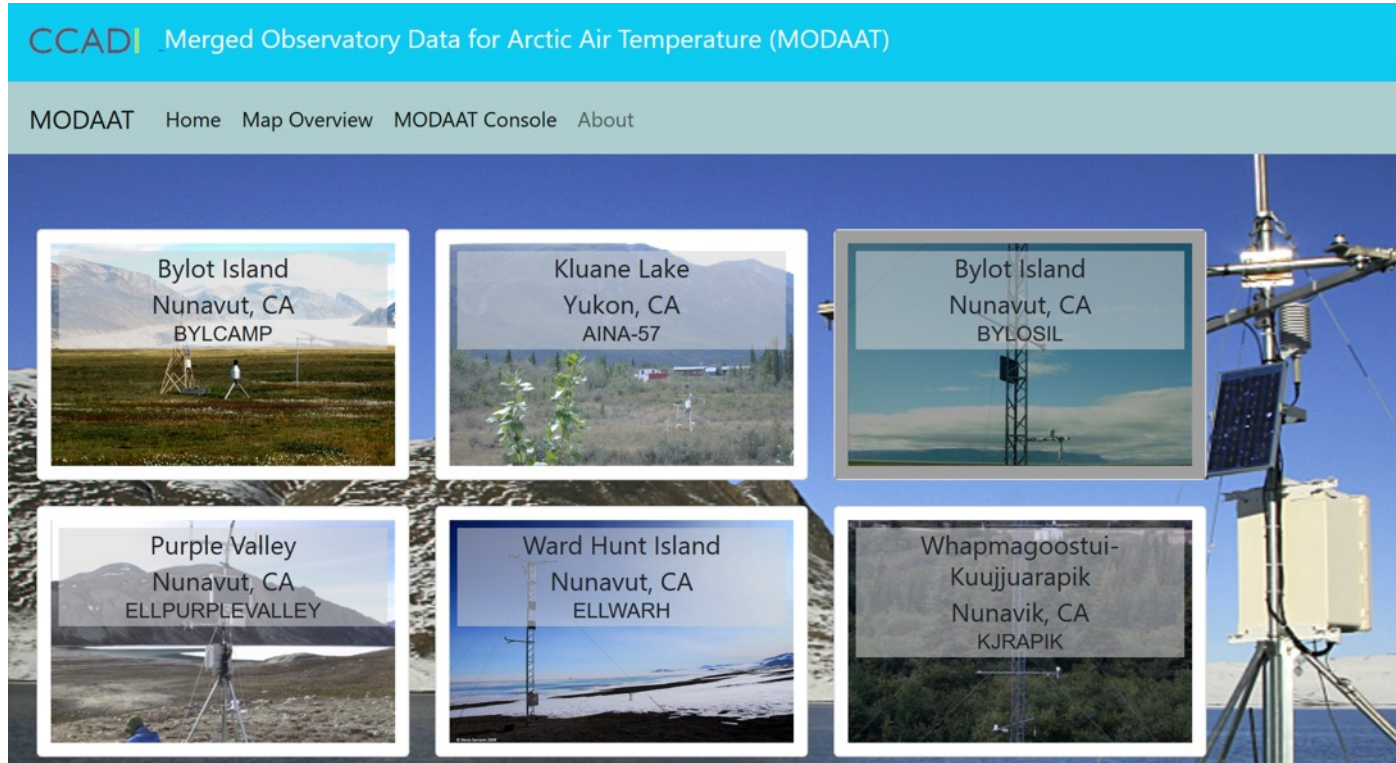
ERDDAP, Version 2.14

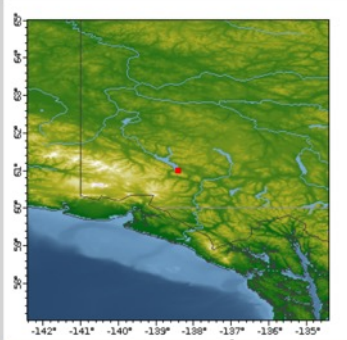
[Disclaimers](#) | [Privacy Policy](#) | [Contact](#)

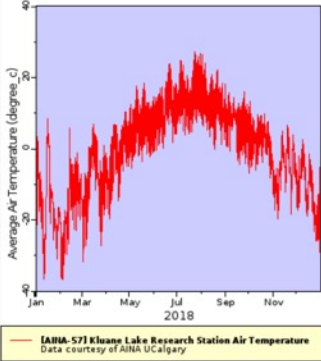

Graphic: Etienne Godin

<https://sig-gis.cen.ulaval.ca/erddap/index.html>

Use Case 2: MODAAT Application



Title:	AINA-57
Description:	Kluane Lake
Dataset ID:	modaat_aina-57
DOI:	10.5885/modaat/aina-57
Available time coverage:	From 2017-11-07T19:30.00Z to 2019-04-20T19:00.00Z
Maintainer name:	University of Calgary, Arctic Institute of North America
Maintainer email:	kirs@ucalgary.ca
Summary:	KLRS was established in 1961. It is managed by the Arctic Institute of North America at the University of Calgary. KLRS supports research in the physical, biological and social sciences. KLRS provides infrastructure for a variety of research and monitoring services on a year round basis to the Canadian and International communities.
Keywords:	america, arctic, calgary, code, data, identifier, institute, kluane, lake, latitude, longitude, measured, measuredData, network, networkId, north, quality, qualityCode, research, station, stationCode, sub, subStationCode, time, university
Coordinates:	61.02759208 degrees_north, -138.4104501 degrees_east, 793.0 m up
Regional Map for AINA-57:	

2018 temperature record for AINA-57:	
Field view of AINA-57:	
Conventions:	COARDS, CF-1.6, ACDD-1.3
Standard name vocabulary:	CF Standard Name Table v55
License:	https://www.ucalgary.ca/legal-services/university-policies-procedures/acceptable-use-electronic-resources-and-information-policy
Download AINA-57:	<ul style="list-style-type: none"> 10 day sample data from 2018-01-01 to 2018-10-01. Format is csv. 1 full year: from 2018-01-01 to 2018-12-31. Format is csv. The whole dataset. Format is csv. Custom downloads (time interval, variable, file format).

The screenshot shows a QGIS desktop environment. The main window displays a map of North America with a data table overlay. The table lists various datasets from the ERDDAP system, including air temperature and lake data. The left sidebar shows the QGIS interface with layers and project settings. The top bar indicates the application is running on a Windows operating system.

Grid Sub-set Data	Table DAP Data	Make A Graph	W M Data Files	Source Title	Summary	FOGIC, ISO, Metadata	Background Info	RGS	E-mail	Institution	Dataset ID
set	data	graph		* The List of All Active Datasets in this ERDDAP *			background			University of Utah	allDatasets
set	data	graph		[MNA-57] Kluane Lake Research Station Air Temperature			background			AFSA UC Calgary	modest_ams_57
set	data	graph		[BYLCAMP] Bylin Island Air Temperature			background			CERN L'Arvie	modest_bylinamp
set	data	graph		[BYLINISL] Bylin Island Air Temperature			background			CERN L'Arvie	modest_bylinamp
set	data	graph		[JLPLRPLRPLVALL] Purple Valley Air Temperature			background			University of Gt.	modest_elliporevalley
set	data	graph	Yes	[JELLWARR] Ward Hunt Island Air Temperature			background			CERN L'Arvie	modest_ellwarr
set	data	graph		[KURAPAK] Whapmagouk-Kagoumagouk Air Temperature			background			CERN L'Arvie	modest_ayrak
set	data	graph		[MORRIS] Wood Hunt Island Air Temperature			background			CERN L'Arvie	modest_worshill

The information in the table above is also available in other formats (see ItemTable, file, json, pointCloud, pointCloud, pointCloud, mod, etc, mod, etc, etc) via a RESTful web service.

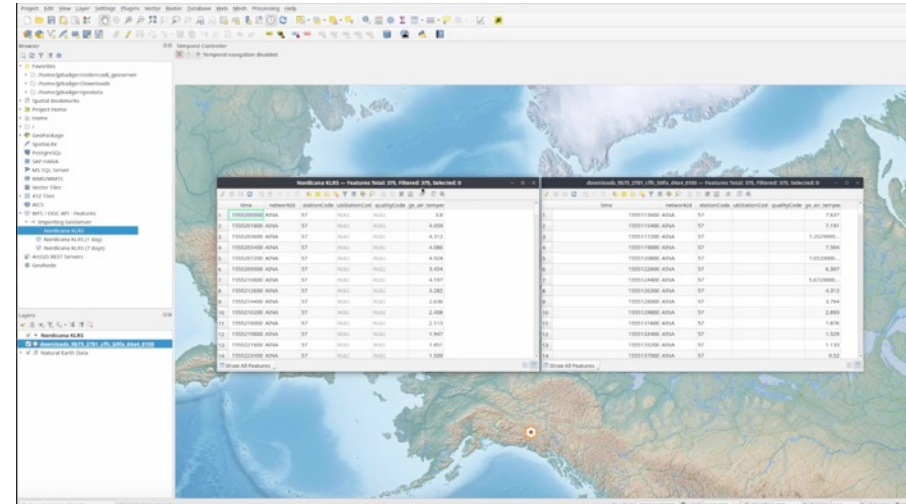
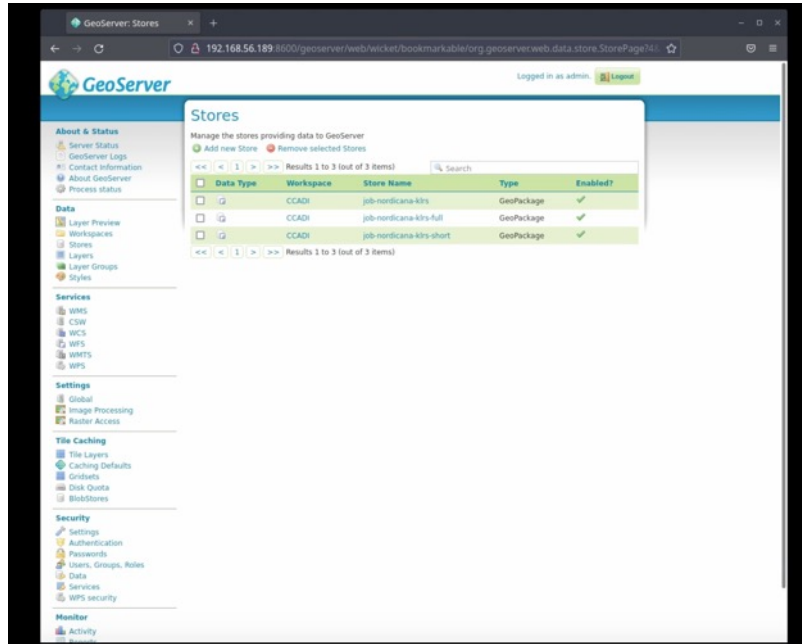
ERDDAP Version 2.14
 Documents | Privacy Policy | Contact

Layers

- ✓ Natural Earth Data
- ✓ ne_10m_roads_north_america
- ✓ ne_10m_lakes_north_america
- ✓ ne_10m_lakes
- ✓ ne_10m_rivers_lake_centerlines
- ✓ HY-HR-SR-OB-9536

Part 1/2:
Nordicana ERDDAP in QGIS

Cascading Services



Graphic: James Badger

Meta Services: CCADI Registry

CCADI
Registry

 Accounts  List  Profile  Logout

- Description
- Technical
- Administrative
- Passwords

Please provide a description of your CCADI service or application in the following form. If you have any question please send an email to munish.madan@ucalgary.ca.

Service Name

CCADI General

Physical Location

Carleton University

Work Package

- ☐ Work Package 1 - Management
- ☐ Work Package 2 - Foundational Protocols
- ☒ Work Package 3 - Data Prep
- ☐ Work Package 4 - ARDI Research Data
- ☐ Work Package 5 - ARDI Mediation
- ☐ Work Package 6 - ARDI UI
- ☐ Work Package 7 - ARDI Beta Testing

Use Case

- ☐ Use Case 1 - Coastal Erosion

Development by Munish Madin

CCADI Partnerships



NSERC PermafrostNet

A collaborative partnership for climate change adaptation

FIND OUT MORE

Thawing permafrost increases risk for ecosystems and people. Permafrost underlies more than a third of Canada and a warming world will drastically change the environment. Thawing permafrost directly impacts

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Ocean Data For Our Ocean Future

Data access for Canada's:

- Ocean Health
- Ocean People
- Ocean Economy

[Data Explorer](#)[Search Data Catalogue](#)

Want to learn more about CIOOS? [Click here >](#)



The Canadian Integrated Ocean Observing System (CIOOS) is Canada's nucleus for integrated ocean science and observing activities.

PKC, ARF and others – (de jure standards)



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Polar Knowledge Canada (POLAR) is responsible for advancing Canada's knowledge of the Arctic, strengthening Canadian leadership in polar science and technology, and promoting the development and distribution of knowledge of other circumpolar regions, including Antarctica. POLAR operates the Canadian High Arctic Research Station (CHARS) campus and conducts world-class cutting edge Arctic research out of this extraordinary facility.

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ABOUT

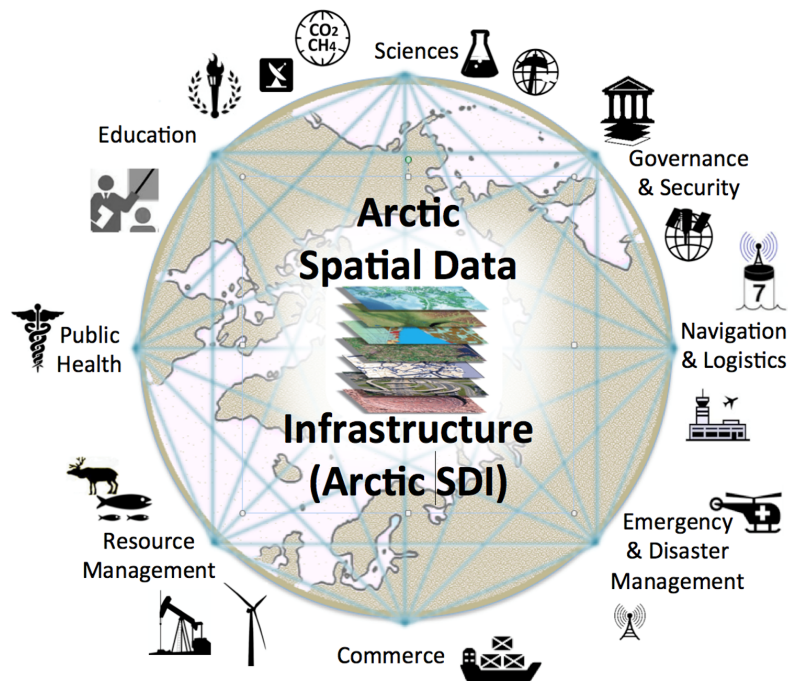
About the Arctic Research Foundation

Arctic Research Foundation (ARF) is a private, non-profit organization creating a new kind of scientific infrastructure for the Canadian Arctic, through our operation of efficient, cutting-edge research vessels and self-powered mobile labs.

ARF coordinates and catalyzes scientific, cultural and economic research in the Arctic. We partner with governments, universities and other research institutions that require access to innovative infrastructure to conduct program initiatives in the Arctic. We build relationships with Arctic Indigenous peoples to advance the understanding of the region with traditional knowledge.

ARF is the proud host of Arctic Focus, a collaborative, online platform where Arctic explorers, researchers and communities converge to share stories of the Arctic. At Arctic Focus, ARF and its partners share perspectives about the most critical, understudied and unknown regions of the North directly from the people who are on the ground (or at sea!).

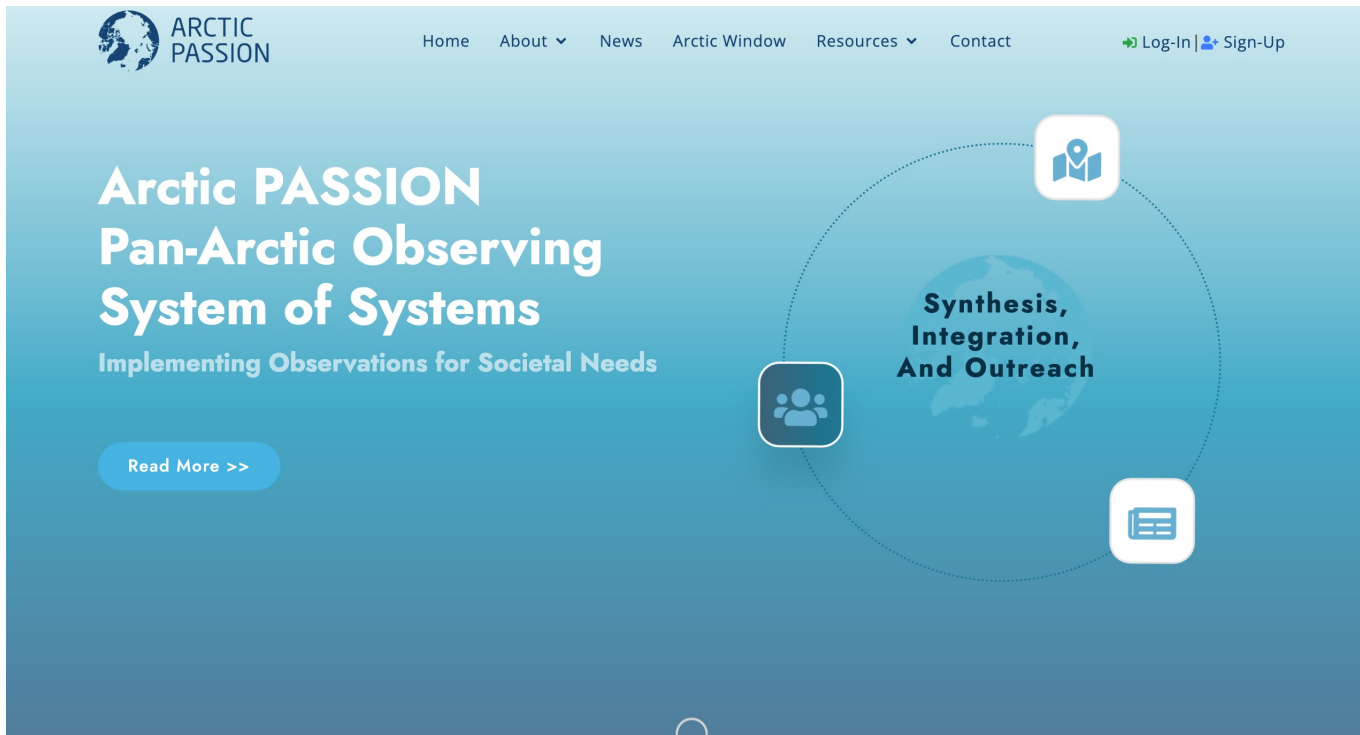
A Cooperative Model in the Arctic SDI



The Arctic SDI is focused on:

- Working with organizations to make their data available,
- Understanding the needs and requirements stakeholders
- Information Management best practices (lifecycle of geospatial data),
- Open data standards and provision of authoritative data,
- Helping users and data contributors understand how to participate.

ArcticPASSION



The image shows the header and main content area of the ArcticPASSION website. The header features the ArcticPASSION logo (a globe icon and the text 'ARCTIC PASSION') on the left, a navigation menu with links for Home, About, News, Arctic Window, Resources, and Contact in the center, and a user login section with 'Log-In' and 'Sign-Up' links on the right. The main content area has a blue gradient background. On the left, the title 'Arctic PASSION Pan-Arctic Observing System of Systems' is displayed in large white text, followed by the subtitle 'Implementing Observations for Societal Needs' in smaller white text. Below this is a blue button with the text 'Read More >>'. On the right, there is a circular diagram with a globe in the center. The text 'Synthesis, Integration, And Outreach' is written in bold white text over the globe. Three white icons are positioned around the circle: a location pin icon at the top, a group of people icon on the left, and a document icon at the bottom.

ARCTIC PASSION

Home About News Arctic Window Resources Contact

Log-In Sign-Up

Arctic PASSION

Pan-Arctic Observing System of Systems

Implementing Observations for Societal Needs

Read More >>

Synthesis, Integration, And Outreach

ADC (P2G, POLDER, SVWG etc.)

ARCTIC DATA COMMITTEE



[HOME](#) [ABOUT US](#) [ACTIVITIES](#) [MEETINGS](#) [PRODUCTS](#) [MEMBER AREA](#)

Picture by NASA / Kathryn Hansen



ADC News & Events

Polar Data Forum III - November 2019 - Helsinki, Finland
13 Mar 2019

Polar Data Architecture workshop 28-30 November 2018, Geneva, Switzerland
24 Aug 2018

Arctic Observing Summit, 24-26 June 2018, Davos, Switzerland
3 Nov 2017



ARCTIC DATA

Arctic Data



INTEROPERABILITY

Interoperability



GET INVOLVED!

Get Involved!

MPDE

Mapping the Polar Data Ecosystem

POLDER

Welcome

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Mapping the Polar Data Ecosystem

🔍

Help

Language

Mapping the Polar Data Ecosystem

Understanding polar environmental and social systems requires constant monitoring and access to the best available sources of data and information. This is particularly challenging in polar regions due to complex responses to significant environmental, economic and societal changes. Identifying, documenting and understanding the polar components of the global information system will allow us to target gaps in information resources, as well as guide the ongoing development of the increasingly interconnected global information system in support of governance, research, livelihoods and a myriad of other applications.

The Mapping the Polar Data Ecosystem project[1] aims to use the established conceptual framework of information ecology (IE) as an analytical tool to help organize ideas and comprehend complexity of the Arctic and polar data ecosystem. Here we define a data ecosystem as a system of interrelated and interdependent human actors, institutions, norms and practices (including standards), technologies, informal relationships and the broader socio-technical environment in which it exists. This website provides interactive visualizations of different elements of the Arctic and Antarctic data ecosystem(s). The data were collected by the Arctic Data Ecosystem Project, the Polar Data Discovery Enhancement Research (POLDER) Working Group, and participants in the Polar Data Planning summit (Boulder, USA) prototype allows users to filter and visualize a database of nodes and relationships in the data ecosystem. As the database grows, additional analysis functions will be added.

Task lead: Peter Pulsifer, NSIDC/ELOKA, University of Colorado, USA

[1] formerly named the Mapping the Arctic Data Ecosystem (MADE) project. See Pulsifer, P. L., Kortar, Y., Berkman, P. A., & Taylor, D. F. (2020). Information Ecology to Map the Arctic Information Ecosystem. Governing Arctic Seas: Regional Lessons from the Bering Strait and Barents Sea (pp. 269-291). Springer, Cham.

Mapping the Polar Data Ecosystem

POLDER

Welcome

Login

Mapping the Polar Data Ecosystem

Create Document

🔍

Help

Language

POLDER: Organization Map

POLDER: Organization Map

Home

Harvesting Graph

Organization Relationships Graph

Nationality Graph

About

Mapping the Polar Data Ecosystem

POLDER

POLDER: Organization Graph

Filter Catalogs

Create Document

POLDER: Organ

This graph shows the harvest metadata catalogues that o regions. It shows the network harvested from one system denote harvesting with arro that consumes the harvest. harvesting and can be seer

The information presented POLDER and participants v (Boulder, USA, 2018) to ex in existing data discovery f

The default graph contains filter the graph you can sek from the 'Filter Catalogs' dr

Harvesting Statu

Present

Planned

Unknown

Complicated

Made with Naniid

Filter Selection

Graph Selection

Reset Graph

Organization

Country

Nationality

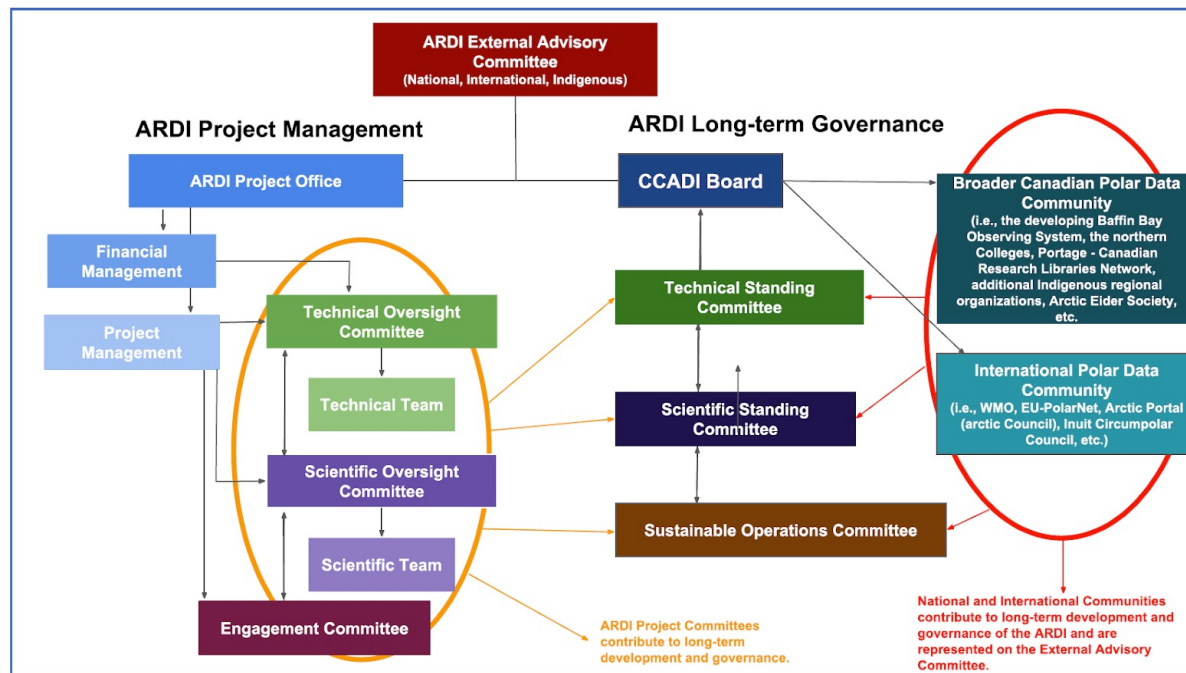
Made with Naniid

Partnership Development Model

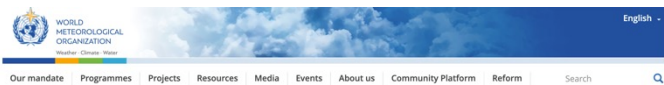
- Currently informal
- Developing through CPDW and related activities with broader community
- Priority on funded, targeted activities

CCADI Community Building

CCADI Governance



Canadian Polar Data Community



Home — Bulletin — International Polar Year 2007-2008



International Polar Year 2007-2008

Contact:
Bulletin n° : Vol 56 (4) - 2007

by I. Allison¹, M. Béland², D. Carlson³, D. Qin⁴, E. Sarukhanyan⁵ and C. Smith⁶



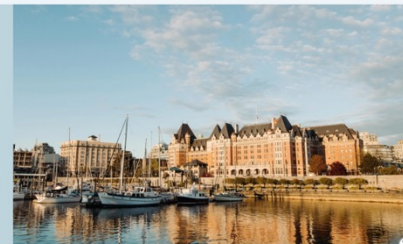
Canadian Polar Data Workshop IV

May 23-27, 2022 | Victoria, B.C.

[Home](#) [About](#) [Registration](#) [Sponsors & Exhibitors](#) [Agenda](#) [Venue](#) [Contact](#)

Register Now for CPDW4!

The Canadian Polar Data Workshop IV will be held **May 23-27, 2022 in Victoria, British Columbia.**



Canadian Polar Data Workshop Reports



CPDW3 was held in Banff, February 2020.

The final report of the Third Canadian Polar Data Workshop is due for release in January 2022.



CPDW2 was held in Ottawa, May 2017.

[CCADI/CCIN/PDC \(2018\) Final Report of the 2nd Canadian Polar Data Workshop: A Roadmap to the Future of Polar Data Management in Canada.](#)



CPDW1 was held in Ottawa, May 2015.

[CCIN/PDC \(2016\) Final Report of the First Canadian Polar Data Workshop: Canadian and international polar/Arctic research data management – Context and avenues to enhance collaboration.](#) (For the full report with appendices [click here](#))

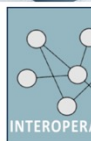


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3 Nov 2017



Arctic Data



Interoperability

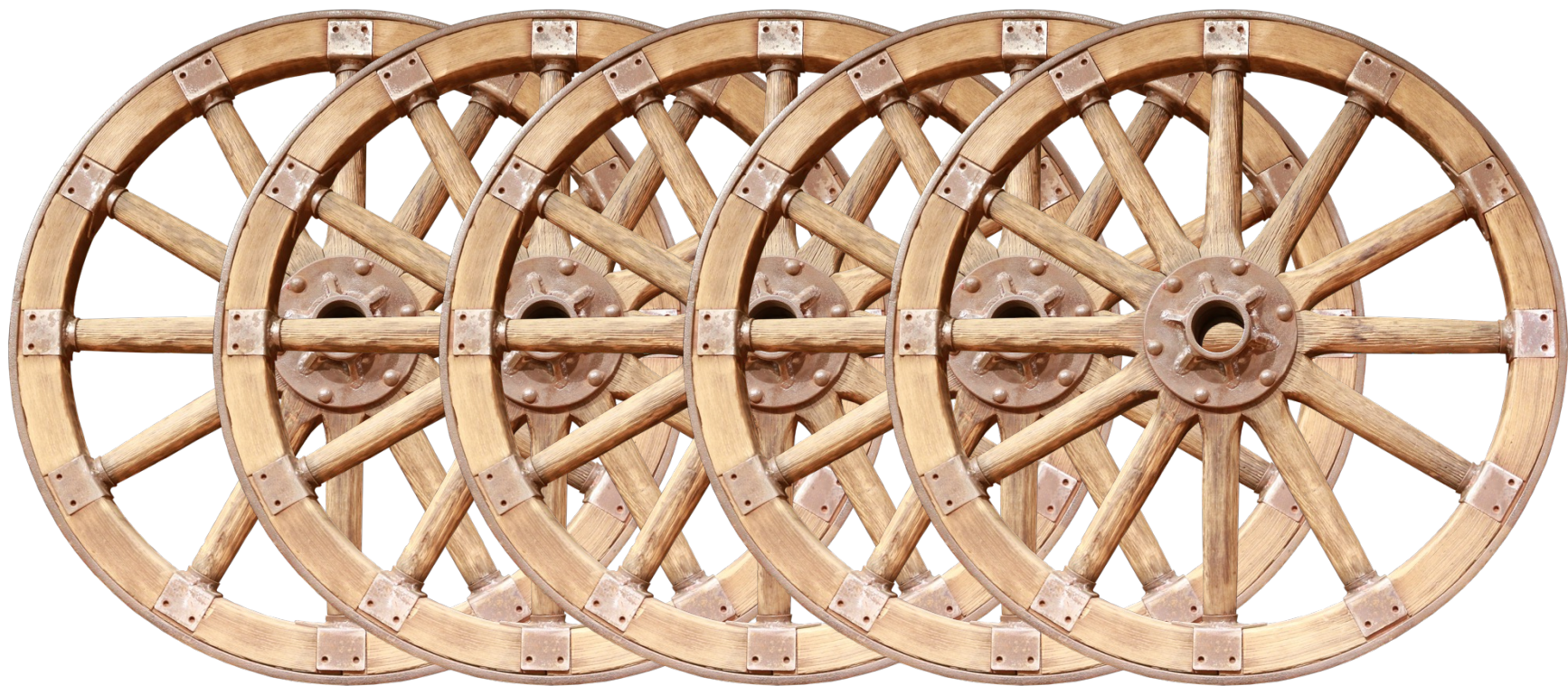


Riding Together



The Peloton:

Individual leadership and shared effort (and recognition) for collective good



[nature](#) > [news & views](#) > [article](#)

NEWS AND VIEWS | 07 April 2021

Adding is favoured over subtracting in problem solving

A series of problem-solving experiments reveal that people are more likely to consider solutions that add features than solutions that remove them, even when removing features is more efficient.

[Tom Meyvis](#) ✉ & [Heeyoung Yoon](#) ✉



Next Steps

- Completion of architecture components
- Migration to production environments
- Documentation
- **Sustainability plan (governance + technical (e.g. system wide security, hosting etc.)**
- New projects...

CCADI

The Canadian Consortium for Arctic Data Interoperability



Geomatics and Cartographic
Research Centre



uOttawa



Natural Resources
Canada

Ressources naturelles
Canada



Polar Knowledge
Canada

Savoir polaire
Canada



PermafrostNet
NSERC | CRSNG

Thank You