



The Canadian Consortium for Arctic Data Interoperability: An Emerging Initiative for Sharing Data Across Disciplines

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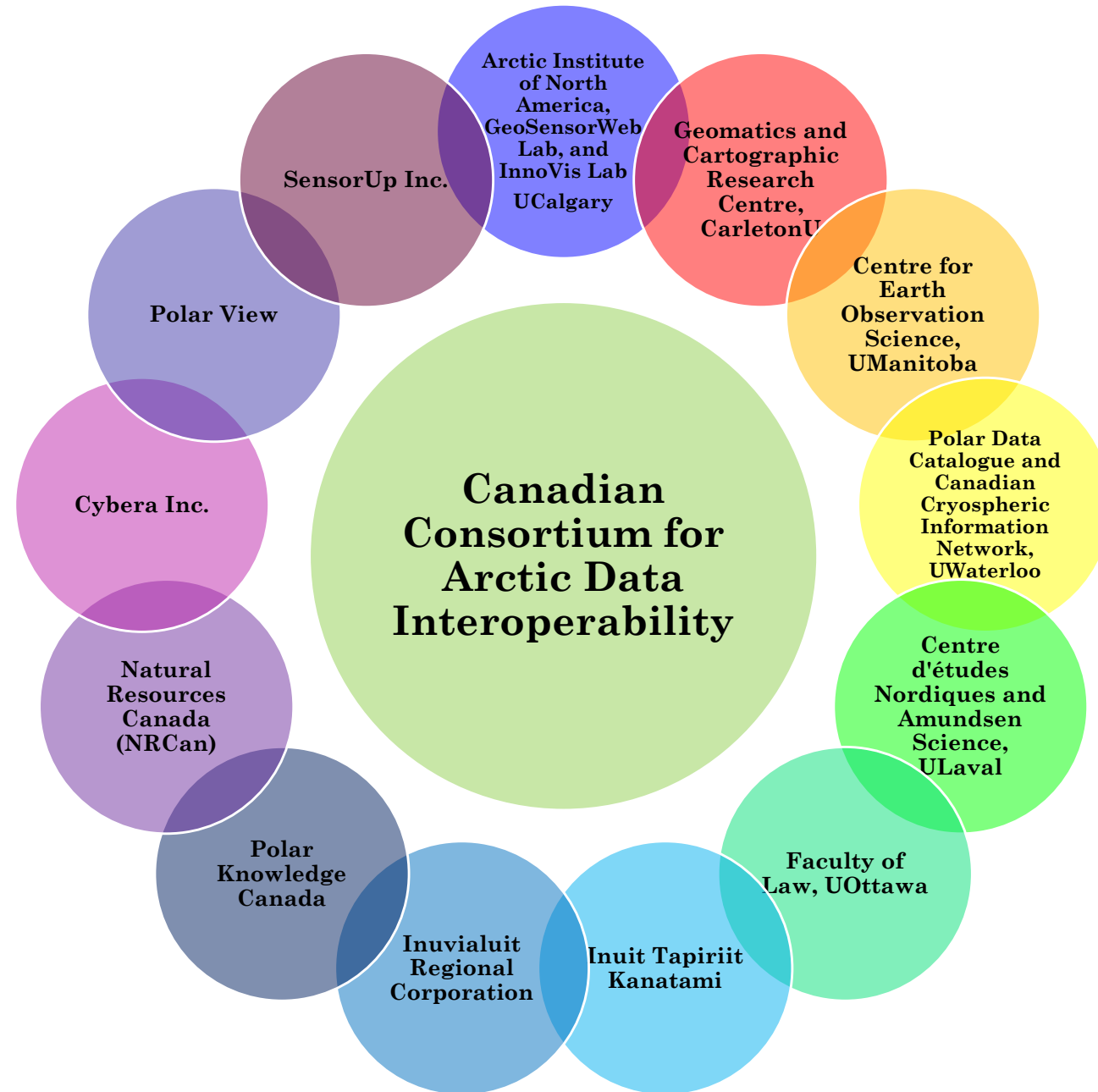
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Current Membership





CCADI Objectives

Establish an integrated Canadian Arctic data management system that will:

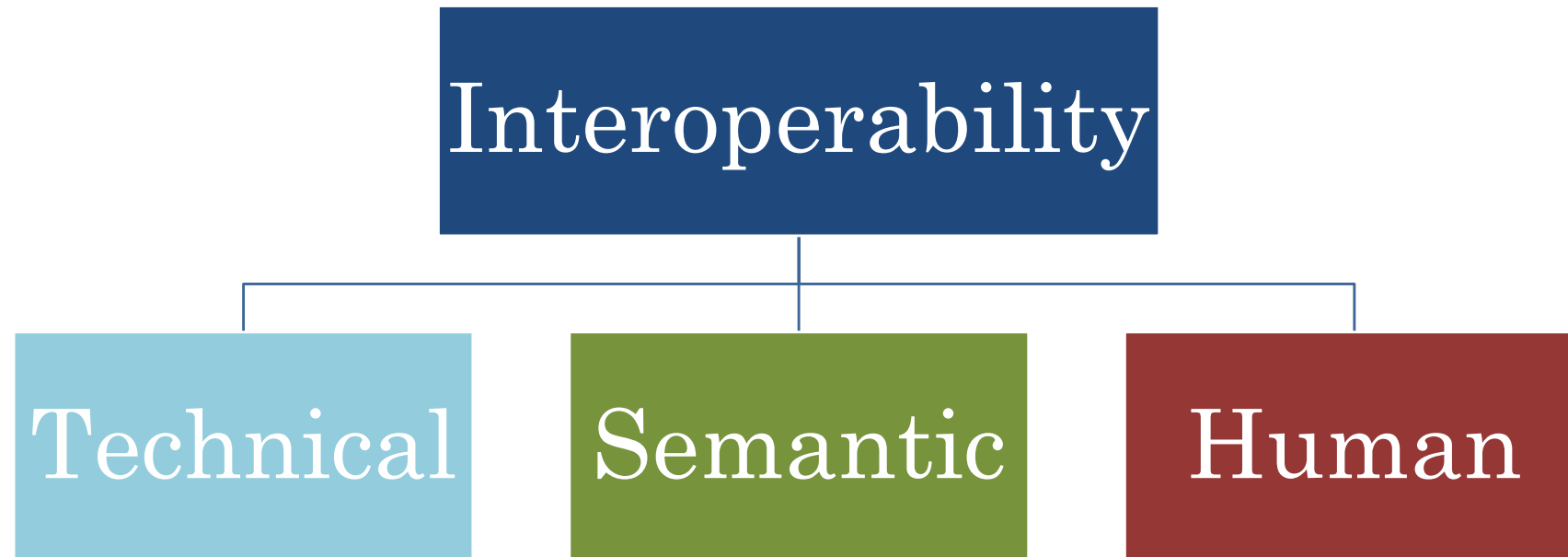
- Facilitate transformative research on priority science questions about the Arctic system;
- Empower Inuit communities to address their data priorities;
- Demonstrate Canada's ability to lead in providing accessible, interoperable, and useable data to the international community; and
- Enable translation of complex scientific information and Inuit TK into policy-relevant material.

Key Elements

- Standards and mechanisms for metadata interoperability, semantic interoperability and implementation of these.
- Distributed data exchange platform for contributors, users and repositories.
- Streamlined data services with common entry, access, search, match, analysis, visualization & output tools.
- Intellectual property and sensitive data service.
- Data stewardship capacity.



“The ability of computer systems or software to exchange and make use of information” - OED



Proposed Canadian Arctic Research Data Infrastructure

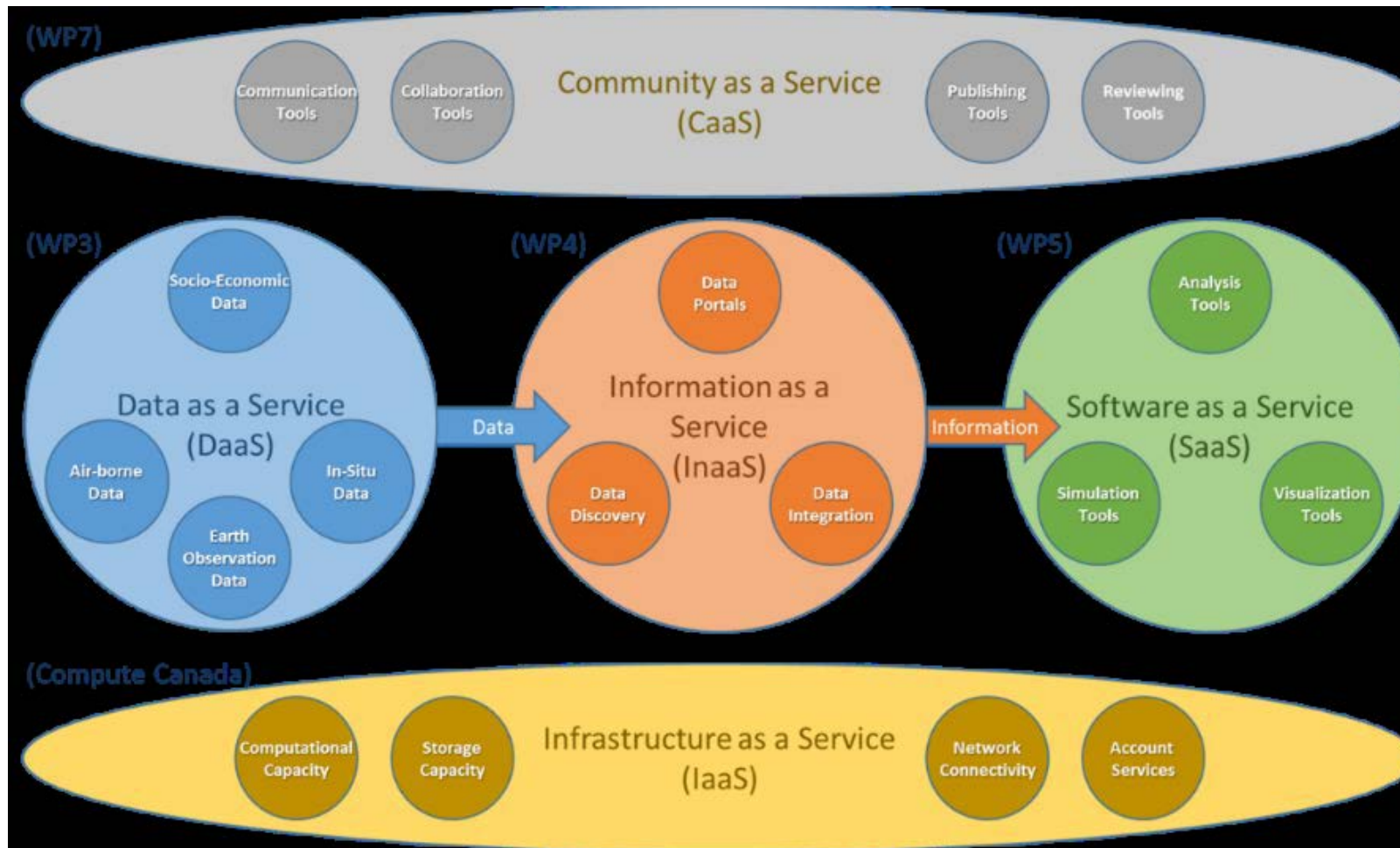


Diagram
courtesy of
S. Liang



Ethically Open Data

Data are made available fully, freely, and openly with minimal delay. The only exceptions to this requirement of full, free, and open access are:

- where human subjects are involved, confidentiality shall be protected as appropriate and guided by the principles of informed consent;
- where local and traditional knowledge is concerned, rights of the knowledge holders shall not be compromised;
- where data release may cause harm, specific aspects of the data may need to be kept protected (for example, locations of nests of endangered birds or locations of sacred sites).

- IASC Statement of Principles and Practices for Arctic
Data Management, April 16, 2013

http://www.iasc.info/images/pdf/IASC_data_statement.pdf

Inuit Knowledge Objectives

- Achieve better understanding of opportunities for and barriers to ICT use by Inuit and others;
- Achieve better understanding of how existing Arctic data infrastructure is used, and how co-design can transform it to support Inuit, academic, and other needs;
- Establish a pathway to resolving inequities in information access to by identifying best practices for ICT development that meet Inuit needs and facilitate use;
- Develop an ethical framework for information sharing that respects Inuit rights, protects sensitive data, and advances integration of social/natural science data with Inuit Knowledge (IK).



The Canadian Consortium for Arctic Data Interoperability

The CCADI is currently composed of a group of Canada's foremost Arctic scholars and Arctic data managers at the University of Calgary (Arctic Institute of North America), the University of Waterloo (Canadian Cryospheric Information Network and Polar Data Catalogue), Carleton University (Geomatics and Cartographic Research Centre), the University of Manitoba (Centre for Earth Observation Science), Université Laval (Centre d'études nordiques), University of Ottawa (Faculty of Law) Inuit Tapiriit Kanatami, Inuvialuit Regional Corporation, Natural Resources Canada, Polar Knowledge Canada, Cybera Inc., Polar View, and Sensor-Up Inc.

[Read more](#)

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CCADI aims to advance collaboration, nationally and internationally, through development of an integrated Canadian arctic data management system that facilitates information discovery, establishes metadata and data sharing standards, enables interoperability among existing data infrastructures, and is accessible to the broadest possible audience of users.

CCADI.ca

Thank You!

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