

## **Enabling the coproduction of Inuit and Science knowledge through integrated information management**

### *Project Leader*

Nickels, Scot (Inuit Tapiriit Kanatami)

### *Collaborators and Research Associates*

Carrie Grable, Karen Kelley, Martin Lougheed, Peter Pulsifer (Inuit Tapiriit Kanatami); Qaujivalliaqatigiiliqtaa (Working together towards shared learning)

### *MSc Students*

Rebecca Mearns (Nunavut Sivuniksavut)

### *Undergraduate Student*

James Kuptana (Inuit Circumpolar Council (Canada))

### *Technical Staff*

Craig Clark (Inuit Tapiriit Kanatami)

## Abstract

There is a growing need for knowledge sharing and coproduction among Inuit and Northern researchers as the Arctic continues to experience rapid and unprecedented changes and there is a plethora of new information and data becoming available. Initiatives such as the International Polar Year and ArcticNet have allowed for an enormous increase in Arctic research resulting in the production of large amounts of new information and data that are important for Inuit. Led by Inuit Qaujisarvingat: Inuit Knowledge Centre (IQ), the research centre at Inuit Tapiriit Kanatami (ITK), the goal of this project is to develop and maintain an Inuit-specific integrated information management system (IIMS) that supports the ethical collection, discovery, preservation and use of Inuit knowledge and provide access to this information. This project would first identify Inuit needs for environmental, cultural, socio-economic, human health, and other data as well as requirements to develop new ways to manage, interact and share information. Member of the team will consult, develop options, and implement them to meet the needs of all stakeholders (including Northern researchers and Inuit). Feedback from partners, including the IQ National Committee, along with ethical and technical considerations will drive decisions on selection of processes, informational needs, methodologies, and the design of tools. Recognizing that information resources are available from a wide range of sources and locations, and that establishing a 'central repository' may be neither desirable nor feasible because of the dispersed nature of Inuit communities and regional initiatives, we will focus on building a distributed model with interoperability at its core. IQ will initially focus on: (1) Procedural tools, (2) Database of funded Arctic research projects, and (3) Data sets including Bibliographic Databases, Inuit Health Data, Local Environmental Knowledge Data. These are areas identified as priorities by IQ's National Committee, are in keeping with the interests of ArcticNet's mandate, address the priorities of the Canadian Northern Strategy, and connect Inuit interests at the community, regional, national, and international level. Success

measures for this project would be the development of an appropriate platform for the preservation, curation, and sharing of information about Inuit and the Arctic for Inuit, northern researchers, educators, policy and decision-makers at the community, regional, national and international levels. The development of this IIMS will give Inuit and Northern researchers in Canada and abroad the appropriate levels of data and information required to prepare for the changes to their world. Further, Inuit and Northern researchers will be brought together through the co-production of new and clearly articulated knowledge and processes to access and share information as well as through the production and use of new online tools and communication networks that would grow throughout and beyond the duration of ArcticNet.

## Key Messages

- To improve connections between Inuit and Arctic researchers, this project has allowed us to expand and foster partnerships to take advantage of expertise in the areas of knowledge, training, data management, and the development of further funding proposals.
- Supporting Inuit-specific research and providing access to Inuit data and knowledge situates IQ as a focal point for knowledge sharing from which to inform sustainable arctic policy.
- Given the growing international data management movement, Inuit stand to benefit from being engaged through the development, use and maintenance of an Inuit-specific integrated information management system (IIMS) that supports the ethical collection, discovery, preservation and use in the coproduction of Inuit and scientific knowledge.
- IQ and the Polar Data Catalogue (PDC) team and management committee are committed to working together to ensure Inuit needs and interests are incorporated into a fully functioning PDC, including PDC-light and search functionality.

- Through the IQ website and ITK/IQ Library, we collect, preserve, share and connect complex data sets and documentation informed by Inuit knowledge and Arctic community-based research.
  - In direct response to the growing demand for Inuit involvement in arctic research, IQ is building a more effective and efficient system to streamline the research request process among Inuit organizations and arctic researchers.
  - As there is no central database that monitors and provides the specific details of funded arctic research projects, IQ is bringing forth Inuit interests to explore the feasibility of building such a platform.
  - In an effort to make more Inuit-specific reports, publications and grey literature publicly available, IQ is establishing a bibliographic database and associated protocols as well as refining methods for conducting systematic literature reviews on subjects of importance to Inuit.
  - Given the popularity of Naasautit as a user-friendly online resource, IQ will continue to investigate appropriate processes and systems that build on the technical framework in order to expand and make available important Inuit health data sets.
  - Using the Circumpolar Flaw Lead Team 10 data as a case study and in collaboration with Inuvialuit partners, IQ facilitates the exchange of Local Environmental Knowledge information with the academic community to develop innovative forms of coproduced knowledge.
2. Conduct environmental scan and needs assessment with Inuit and non-Inuit partners, on the following: (a) service needs, (b) informational needs, (c) process needs, and (d) structural needs,
  3. Consult with Inuit and non-Inuit partners on the development and operationalization, in participation with ArcticNet researchers, of an Inuit-specific process for responding to outside information and research requests (including research support letters),
  4. Investigate feasibility of establishing a database of funded Arctic research projects, through discussions with representatives of larger Arctic research programs and PDC partners,
  5. Operationalize data discovery and documentation systems developed through previous ITK and IQ projects starting with: (a) bibliographic documentation, (b) Inuit Health Data (Naasautit informational database), (c) Local Environmental Knowledge Data (the International Polar Year funded Circumpolar Flaw Lead project),
  6. Train IQ staff on information management techniques, tools, upload, and data manipulation. Training to come from external and internal IM/IT partner expertise, including The PDMC and our Research fellow from ELOKA,
  7. Establish selected data stores to move towards our goal of developing and maintaining existing systems - website, bibliographies, library and databases. Build on existing connections with the PDC and data/information resource documentation and sharing.

## Objectives

1. Build on previous and ongoing consultations with Inuit and non-Inuit partners, including international aspects, to expand the information and technical network, and to operationalize these relationships (i.e., data sharing infrastructure and agreements, MoUs, develop methodologies and processes, etc.),

## Introduction

The Arctic is rapidly changing from the effects of climate change, resource development, and globalization. These changes emphasize the need for knowledge sharing among Northern researchers and Inuit to identify strategies for adaptation, sustainable development, and governance to benefit all Canadians. ArcticNet's Strategic Plan for the

second funding cycle (2011-2018) has evolved to forge the much-needed alliance between researchers and Inuit in the study of the changing Arctic. Inuit representatives on the ArcticNet Board of Directors, the Research Management Committee, the Inuit Advisory Committee, and support for the Inuit Research Advisors have ensured Inuit involvement in the Network. This alliance has also been ensured through the support of IQ, the research centre at ITK. The mission of IQ is to lead efforts to ensure an increasingly active role for Inuit in research that leads to the generation of innovative knowledge for improved research, science, and policy decision-making within a Canadian, circumpolar and global context. Immediate priorities of IQ are to invest in and build research capacity, and improve research connections within and between IQ, Inuit organizations and Northern researchers. This mission to support Inuit-specific research and improve access to Inuit data and knowledge will situate IQ as a focal point for knowledge sharing from which to inform sustainable arctic policy. Crucial to the IQ is establishing the infrastructure and data management needs in a strategic way, which includes mechanisms to assist Inuit and their representative organizations in identifying their information and research needs. The goal of this project is to develop and maintain an Inuit-specific integrated information management system (IIMS) that supports the ethical collection, discovery, preservation and use of Inuit knowledge and provide access to this information. Recognizing that information resources are available from a wide range of sources and locations, and that establishing a 'central repository' may be neither desirable nor feasible in all situations because of the dispersed nature of Inuit communities, and regional initiatives, we will focus on building a distributed model with interoperability at its core. This project first identifies Inuit needs for environmental, cultural, socio-economic, human health, and other data sets as well as requirements to develop new ways to manage, interact and share information with each other. Members of the team will continue to consult, develop options, and implement the most appropriate option to meet the needs of all stakeholders. Feedback

from partners, along with ethical and technical considerations drive decisions on selection of processes, informational needs, methodologies, and the design of tools. Previous ITK reports revealed many possible information resources of importance (Canadian Cryospheric Information Network, government sources, Inuit Organizational sources, Spatial Data Inventories, Polar Data Catalogue, etc.). IQ is, therefore, endeavoring to include a large number of sources and to make these resources available to a wide range of users while respecting access/consent models established by resource holders. This project is focused on developing information technology infrastructure (physical, policies, procedures, etc.) to support the overarching goal of making Inuit knowledge more accessible to science/policy-makers and making science/policy resources more accessible to Inuit and their representational organizations.

## Activities

### Relationship Building

- Early 2012, Scot approached the following individuals to collaborate in this initiative:
  - » Chris Furgal, Assistant Professor, Indigenous Studies Department, Trent University, Peterborough, ON K9J 7B8, [chrisfurgal@trentu.ca](mailto:chrisfurgal@trentu.ca) 705-748-1011 – April 2012
  - » Ellsworth F. LeDrew, Ph.D., F.IEEE, F.CASI, Director, Polar Data Catalogue/ Canadian Cryospheric Information Network, Department of Geography and Environmental Management, University of Waterloo, 200 University Avenue West, Waterloo, ON N2L 3G1, [ells@uwaterloo.ca](mailto:ells@uwaterloo.ca), 519-888-4567 x.32783 – April 2012
  - » Julie E. Friddell, Ph.D., Manager, Canadian Cryospheric Information Network/Polar Data Catalogue, Department of Geography & Environmental Management, University

of Waterloo, 200 University Avenue West, Waterloo, Ontario, Canada, N2L 3G1, julie.friddell@uwaterloo.ca, <http://www.polardata.ca/>, 519-888-4567 x.32689 – April 2012

- » Professor Warwick Vincent, Canadian Aquatic Ecosystems Research Chair, Department of Biology, University of Laval, Pavillon Alexandre-Vachon, room 3037-B, 1045, avenue de la Médecine, Université Laval, Québec, Québec, Canada, G1V 0A6, warwick.vincent@cen.ulaval.ca, 418-656-5739 – April 2012
- June 2012, in Nain, Nunatsiavut, the Inuit Qaujisarvingat National Committee (IQNC) had a face-to-face meeting where Carrie, Karen and Martin attended and updated the IQNC on the objectives of this large three year project. IQNC representatives provided feedback and direction on the project's development.
- In May 2012, the IRA's held a meeting in Iqaluit. Karen attended this meeting, building stronger connections between the IRAs and IQ, and sharing information about this larger IIMS project. The IRAs all agreed that they would be interested in collaborating on this project and discussed possible future information management, training and research needs, as well as further connections with the IQ and the IQNC.
- In December 2012, Scot, Martin and Karen attended the ArcticNet Annual Scientific Meeting in Vancouver. This was an opportunity for Martin and Karen to become more familiar with ArcticNet as well as to network.
- In January 2013, in collaboration with the Department of Environment and Wildlife, IQ assisted in the submission of a proposal to the Northern Contaminants Program to develop and add IRA sections to the existing IQ website. This would include a public page open for anyone to view that gives a general overview of the IRA program and provides contact information

for each IRA. In addition, this would include a private IRA area, where they can connect and communicate. Overall this will enable the IRAs and IQ to better provide information on the roles and responsibilities of IRAs to researchers and the general public.

- December and January 2012-2013, through networks fostered by this project, IQ partnered on a Social Science and Humanities Research Council Letter Of Interest submitted by Fraser Taylor and the Geomatics and Cartographic Research Centre entitled Sharing Information in the Arctic: Technical, Social, Legal and Policy issues in the Arctic Spatial Data Infrastructure.
- December and January 2012-2013 through networks fostered by this project, IQ partnered on writing with Ellsworth LeDrew on a Notice of Intent for the Networks of Centers of Excellence entitled ConnectNorth Partnership.
- March 2013, an IQNC face-to-face meeting is scheduled in Ottawa where aspects of this project will be further discussed and input sought.

### IIMS

- IQ staff consulted extensively with internal and external information management and technical experts to establish system and infrastructure needs for the IIMS.
- With funding from the Federal International Polar Year Office throughout the 2011-12 fiscal year, Peter, Martin and Carrie worked closely with IT experts (internal and external to ITK) to establish a harvesting connection between the Polar Data Catalogue (PDC) and the IQ website ([www.inuitknowledge.ca](http://www.inuitknowledge.ca)). Martin and Carrie continued to work with external IT experts (including a teleconference call November 2012) to plan the next steps in the OAI-PMH (Open Archives Initiative Protocol for Metadata Harvesting) and to improve access and relevance to Inuit.

- In terms of metadata interoperability with the PDC, 2012-13 was used for setting up connections to share metadata. Successful harvesting via OAI-PMH has been realized with the PDC and we hope to do the same eventually with other polar data portals. Additional work to investigate the establishment of metadata sharing via Web Map Service/Web Feature Service (WMS/WFS). We are also investigating a three-way link between ASTIS and the PDC, linking our publications with their associated record or dataset in the PDC and ASTIS, and vice-versa.
- April 2012: The Polar Data Management Committee (PDMC) had a face-to-face meeting at the IPY Conference in Montreal. With IPY wrapping up, discussions centered around the task of finding funds to sustain the PDC, including the possibility of approaching the Tri-Council for direct support of polar data management at the PDC. We also discussed Inuit interests with respect to the PDC including the PDC-light and specific search functionality (e.g., searching by community).
- November 2012: The PDMC held a teleconference to provide updates on the different activities of the members and to discuss strategies to ensure long-term viability of the PDC. This includes the utilization of models to calculate the true cost of building, enhancing, and maintaining the PDC, including costs for submission, approval, public availability, and archiving data files and metadata, trying to capture the true "end to end" costs.
- December 2012: The PDMC has a face-to-face meeting at the ArcticNet ASM in Vancouver. The cost schedule for PDC activities was further discussed. Yves Cevier from Canadian Space Agency and Michael Svoboda from the coordination office (Environment Canada) of the Circumpolar Biodiversity Monitoring Program were formally invited to join the PDMC. We also discussed Inuit interests with respect to the PDC including the PDC-light and search functionality, as well as progress with the harvesting via OAI-PMH and a discussion on Inuit connecting eventually with other polar data portals.
- Internal and external IT experts assisted in reviewing the IQ website framework to develop an overarching site map and infrastructure to better situate the deliverables of this project (i.e., bibliographies, resources, maps etc.).
- Monthly, Carrie reviewed a selection of PubMed records to identify Inuit-specific records and to explore the feasibility of connecting and sharing through IQ's IIMS.
- The ITK/IQ library secured funding from a Foundation to expand the size of the physical and virtual IQ library and increase its usability and accessibility for Inuit. Measurements were taken to determine the current ITK/IQ physical library holdings and it was determined that there is minimally 200 linear feet of resources. James conducted a preliminary inventory in November 2012 of IQ's existing physical collection of Inuit-specific information which includes Inuit knowledge, health, social development, economy, environment, wildlife, heritage, language and education. In addition, with the closing of the National Aboriginal Health Organization (NAHO) this year, ITK has acquired several of NAHO's library holdings (i.e bibliographies, websites, and physical holdings, including research fact sheets) and will work to ensure this information remains available and is integrated into the IQ library.

#### Procedural Research Tools

ITK, IQ and the offices of many Inuit Organizations are inundated with requests to be involved in research, provide reviews and comments, provide information, participate in interviews, and provide letters of support, etc. At the same time, through discussions with the IQNC, we are aware that the Regional Organizations face a similar abundance of requests. Further, we continually hear from Arctic researchers that they have difficulty finding the most effective, efficient and appropriate channels to make these requests of Inuit representatives and organizations. Clearly some work needs to be done here to improve things for all involved. In order to systematically deal with these requests:

- Scot, Martin, Carrie and Karen met in August 2012 to outline the flow of research request for ITK and our partner Inuit Organizations.
- In consultation with ITK departments and executive, the decision was made for IQ, given its role within the organization, to work towards becoming the main point of contact for research requests.
- Based on the outline, a research request template was developed by Carrie and Martin in the Summer 2012. This request template was designed to put the “information gathering” onus on the requester and provide IQ with the appropriate information with which to be able to quickly and easily respond to the request, or forward the request to the appropriate person.
- Throughout the Fall 2012, IQ sent out approximately a dozen templates in response to requests that came directly to the IQ. Through use of the draft template, and responses from requesters, the template underwent further adaptations.
- In December 2012 and January 2013, the request template was shared with colleagues in the Department of Health and Social Development to assist them in dealing with two file specific requests. We feel confident that this template can now be shared with our Regional Inuit Organizations to further adapt it to a National Inuit-specific process.

#### Database of funded Arctic research projects

- In December 2012, Scot had preliminary conversations with individuals from the PDC, Northern Contaminants Program and ArcticNet regarding the feasibility of constructing a database (central repository) of funded Arctic research projects, as each program collect appropriate information that would be useful to such a database.
- Given the discussions we have participated in, sufficient information is collected by each program, however it is not shared among the

programs nor accessible to the public, including Inuit organizations. There is a need and desire for a central repository to collect and make this information available.

- A viable option to explore is the expansion of the PDC and the Canadian Polar Commission to house this.
- IQ’s role in further discussions will be to ensure that Inuit interests and priorities are included.

#### Data Sets

##### *Bibliographic Databases*

In an effort to make more Inuit-specific reports, publications and grey literature publically available, IQ has been working on establishing a bibliographic database and associated protocols, as well as methods for conducting systematic literature reviews. The bibliographic protocol using existing software (EndNote) was developed by Martin and the team from McGill University for use in the Climate Change Adaptation Gap Analysis funded by Aboriginal Affairs and Northern Development in 2011.

- This protocol has been adapted and further revised by Martin with support from other IQ staff. Over the summer 2012, Martin worked closely with James to train him on the systematic literature review protocol and process.
- September 2012, James completed an Inuit-specific climate change adaptation grey literature review that expanded on the academic focused McGill project.
- Based on this same protocol, a Security, Patriotism and Sovereignty Bibliography was developed with financial support from the Walter Duncan Gordon Foundation from July 2012 – January 2013.
- Based on this same protocol the Department of Health and Social Development is working to create a Food Security grey literature bibliography from November 2012 – February 2013.

- All of these bibliographies were informed by the IQ protocols, and have been, or will be, made accessible on the IQ website, as well as through the creation of PDC metadata records.
- We have been working with ASTIS on bibliographic datasets, specifically the Climate Change Adaptation Gap Analysis dataset which they used to compare and expand their own collection. We will further investigate a bibliographic partnership with ASTIS.

### *Inuit Health Data*

- Following the IQNC face-to-face in Nain, the IQNC met with the National Inuit Committee on Health (NICoH). This meeting was focused around determining Inuit Health Research Priorities. Partial funding for this meeting came from a Canadian Institute for Health Research (CIHR) grant. The results of this meeting, and subsequent meetings, have assisted ITK and the IQ in moving forward Inuit Health Research and Data. IQ, the ITK Health Department and NICoH have made some progress on identifying what types and where Inuit health data sits, which data sets are most important to make available, and what the process will be to make these determinations.
- Further consultations took place with the IQNC to investigate a process and system that builds on Naasautit's technical framework.
- Internal and external IM/IT partner expertise provided Martin and Carrie with additional training on information management techniques, tools, upload, and data manipulation, particularly for Naasautit. This included specifically designed tutorials, which are available on the website (need administrative privileges), on the process for uploading data to Naasautit in June 2012. Tobacco data, which is the newest data set added to Naasautit was used during the training.
- As identified by NICoH as a priority, Martin worked on developing an Inuit Health Indicators

paper that is an overview of the current status during the Fall 2012. NICoH, for their March 2013 meeting, will be provided with recommendations for decision making around developing national Inuit health indicators.

- Scot and Carrie supported the Department of Health and Social Development in September 2012 the preliminary development of an inventory of health researchers that conduct work in Inuit Nunangat.

### *Local Environmental Knowledge Data*

- James, who worked on the original IPY funded CFL project, spent the Summer 2012 transferring this data from ICC Canada and the Geomatics and Cartographic Research Centre (GCRC) Carleton University servers to the IQ server and data base. He verified existing data to ensure that all data sets were transferred and that no duplication existed. He further verified the accuracy of the data sets and ensured that the sets were searchable and usable. This began with training on information management techniques, tools, upload, and data manipulation, particularly for the Circumpolar Flaw Lead project data. This training came from external and internal IM/IT partner expertise, as well as IQ's Visiting Research fellow, Peter Pulsifer, from University of Colorado at Boulder.
- To date, Scot, James and Martin, Craig, Peter, and GCRC Technical manager Amos Hayes have been involved in infrastructure consultation and development.
- Scot and James consulted with Peter to establish requirements for two new computers. Once requirements were established, the IQ team worked with IQ IT staff Craig Clark and Jaymes Ellsworth to specify, procure, and install the computers (November 2012). One computer is a high-end workstation that is configured with GIS, database, bibliographic, metadata authoring and other software required to support IQ activities. The second system has been established as an

Intranet server. PostgreSQL/PostGIS spatial relational database management server software has been installed to host geospatial and attribute data related to existing and planned IQ projects. Towards the end of Year 1 and early in Year 2 additional server software will be installed. Specifically, the open source GeoNetwork metadata authoring and management software, GeoServer spatial Web Services software, and the Nunaliit Atlas development framework.

- December 2012, stemming from a discussion at the ArcticNet ASM, Scot worked with Bill Kemp (one of the original Inuit Land Use and Occupancy researchers) to submit a proposal to the Department of Fisheries and Oceans (DFO). This proposal was designed as a pilot project to convert all Inuvialuit Settlement Region Inuit Land Use and Occupancy Project (1973-1975) maps and supporting documentation into a comprehensive digital record of baseline information.

## Results

### Relationship Building

- Expanded the network to include new partners who were not yet ArcticNet members (Amos Hayes and Fraser Taylor)
- Continued to build strong connections among partners, including the incorporation of regional, national and international perspectives
- Through networks fostered, submitted research proposals that complement the work under this project

### IIMS

- Successful harvesting via OAI-PMH between the IQ website and the PDC. Expanded the PDC IQ dialogue to include ASTIS. The new PDC-light and search functionality by community has been

incorporated through Inuit partnership and IQ suggestions and is seen as a success.

- Through Inuit engagement, IQ began the identification and establishment of information and research needs, infrastructure and data management requirements.
- IQ website Site Map and Wireframes was established using the information architecture to better situate the deliverables of this project
- Secured funding to expand and advance physical and virtual ITK/IQ library. Acquired NAHO's library holdings.

### Procedural Research Tools

- Research request template was developed and further adapted. Template is being used by ITK/IQ staff to improve the research connections between academics and Inuit organizations. 100% of templates sent out to requesters were returned and completed.

### Database of funded Arctic research projects

- The feasibility of this is still being determined and will be discussed at the IQNC March 2013 workshop.
- IQ has a better understanding the scope of this undertaking, the current relevant information being gathered by large research programs, and where it might best be located and maintained.

### Data sets

#### *Bibliographic Databases*

- Having a systematic literature review protocol and process assisted ITK staff in addressing further research issues that are of interest to Inuit.
- Two IQ staff, Martin and James, are well versed in collecting bibliographic references.
- Successfully created and informed the

development of three bibliographies: Climate Change Adaptation Grey Literature; Security, Patriotism and Sovereignty; and Food Security.

#### *Inuit Health Data*

- Some progress has been made determining the identification of what and where Inuit health data sits, which data sets are most important to make available, and what the process will be to make these determinations.
- Martin and Carrie were trained on information management techniques, tools, uploading and data manipulation, including a tutorial developed for any future Naasautit administrators
- A draft Inuit health Indicators paper was developed to assist the ITK DHSD and NiCoH to better understand the collection of health indicators to be used to better assess health status and health determinants. A presentation was given by Scot on health indicators to Health Canada (Fall 2012).

#### *Local Environmental Knowledge Data*

- Technical infrastructure (hardware/software/policies) is in place.
- James was trained by Peter on information management techniques, tools, and data upload information particularly for the CFL project data. This represents a successful exchange of knowledge and mentoring from external and internal partner expertise.
- CFL data was moved from previous locations to IQ server and verified. Information is now in a form to begin exploring the appropriate sharing mechanisms of data with the broader academic community.
- Proposal to work on Inuvialuit Settlement Region Inuit Land Use and Occupancy Project (1973-1975) maps and supporting documentation was successful and IQ will work closely with the project team on this pilot project.

## **Discussion**

The development of and Inuit-specific IIMS will give Inuit and northern researchers in Canada and abroad the appropriate levels of data and information required to prepare for the changing Arctic. IQ has made progress to meet the outlined measures of success for this project by developing an appropriate platform for the preservation, curation, and sharing of information about Inuit and the Arctic for Inuit, northern researchers, educators, policy and decision-makers at the community, regional, national and international levels. This year IQ has reached a number of key milestones including: (1) the expansion and fostering of partnerships, (2) support of Inuit-specific research and providing access to Inuit-specific data, (3) connecting Inuit to the growing international data management movement, (4) ensuring Inuit needs and interests are incorporated into a fully functioning Polar Data Catalogue, (5) collecting, preserving, sharing and connecting complex data sets and documentation informed by Inuit knowledge and community based research, (6) built a more effective and efficient system to stream line the research requests process among Inuit organizations and arctic researchers, (7) brought forth Inuit interests to explore the feasibility of building a composite index of arctic research funded projects, (8) established a bibliographic database and associated protocols as well as refining methods for conducting systematic literature reviews on subjects of importance to Inuit, (9) investigated appropriate processes and systems that build on the Naasautit framework in order to expand and make available important Inuit health data sets, and (10) facilitated the exchange of local environmental knowledge information with the academic community to develop innovative forms of coproduced knowledge. Inuit will continue to be brought together through the development of new and clearly articulated processes to access and share information as well as through the production and use of new online tools and communication networks that will grow throughout and beyond the duration of ArcticNet.

## Conclusion

As a newly funded ArcticNet proponent, IQ is uniquely situated outside of academia, while holding strong ties through various partnerships with academia. This brings certain challenges and benefits.

While certain challenges are recognized (limited access to academic students, limited access to funding pots, competing interests between Inuit priorities and funding priorities, as well as a lack of access to subscription journal vendors), the funding for this project from ArcticNet, gives IQ the flexibility to build and maintain sound research relationships and address Inuit priorities as they arise (i.e. assisting in the development of an ArcticNet call for proposals on Inuit education research and meeting a priority of the Amaujaq Education Centre).

Through the activities of this project, IQ in collaboration with its partners (academic, Inuit organizations, and government), is leading efforts in innovation with respect to creating an Inuit-specific integrated information management system and frameworks for accessing information relevant to decision-makers to inform policy and strategy development. This work will also allow us to foster the development of the next generation of competent, qualified Inuit researchers and leaders.

Support for this project represents an achievement, putting ArcticNet at the forefront of a lasting and meaningful institutional legacy that advances Inuit and Inuit knowledge for sustainable Arctic science and policy. This project also improves the conditions whereby the co-production of knowledge by Inuit and Arctic researchers can occur. It would establish Canada among world leaders such as Australia and New Zealand in recognizing the value of indigenous knowledge and of collaborating proactively with Inuit to identify, preserve and actualize this knowledge for the lasting benefit of Arctic communities, regions, Canadians and global citizens.

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## References

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- Inuit Qaujisarvingat: Inuit Knowledge Centre (IQ). 2012. Implementation of an IPY Data Assembly Centre: Inuit Integrated Information Management System Needs Assessment (Phase 2). A report to International Polar Year Federal Program Office. Ottawa.

## Publications

*(There are no publications in this project.)*