



Highlights from the Circumpolar Innovation Workshop

Whitehorse, Yukon

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*Workshop Report Prepared by
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DISCLAIMER

We have attempted to capture the opinions of innovation stakeholders at the workshop as accurately as possible, however, the views and opinions expressed in this report are those of the authors and do not necessarily reflect the views, policies and opinions of the funders or workshop participants.

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- International Centre for Northern Governance and Development, University of Saskatchewan
- Yukon College
- University of Tromsø, the Arctic University of Norway
- Yukon Economic Development

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Introduction

The Circumpolar North faces major challenges in the years ahead. Its future hinges, in substantial measure, on a truly Circumpolar initiative to capitalize on new technologies to address pressing Arctic needs. Circumpolar innovation, however, is at its infancy. To date, there have only been very localized and limited efforts to improving the quality of life through science and technology. Instead, Northern regions get later and smaller versions of southern innovations, with very few North-centred developments. Responding to the technological opportunities of the 21st century requires the rapid and effective mobilization of Arctic talent and resolve. No one northern nation by itself has the technological capabilities, research facilities, entrepreneurial acumen or risk capital necessary to attract sustained attention to Arctic challenges. Collectively, the Circumpolar World has a sizeable market, talent pool, business environment and human capacity to make more out of the greatest sustained, intense and remarkable period of scientific and technological change ever experienced. If this effort is left to national innovation eco-systems and existing free market solutions, the North will fall further technologically behind the rest of the developed world.

Meeting the challenges and opportunities of the 21st century requires a fundamental change in the North's approach to innovation and capacity building, with these two elements closely linked. To address this need, ICNGD and Yukon College co-hosted a Circumpolar Innovation Workshop to bring together industry, government and researchers from across North America and Scandinavia to set the framework for a Circumpolar Innovation Agenda as part of the *UArctic Thematic Network on the Commercialization of Science and Technology for the North*

Day 1 – Presentations & Discussions

KEYNOTE SPEAKER – TERRY HAYDEN, DEPUTY MINISTER ECONOMIC DEVELOPMENT, YUKON GOVERNMENT

- Focus on quality of life which is defined as sustainable infrastructure
- Spoke about power/hydro development
- Major hydro projects are long term while LNG is short term

WELCOME MESSAGE – KEN COATES, DIRECTOR - ICNGD & KAREN BARNES, PRESIDENT - YUKON COLLEGE

- Karen Barnes spoke about the relationship between University of Saskatchewan and Yukon College

- She noted that this workshop has a number of impressive people and is an impressive group from all over the world – northern countries and that this event is a great opportunity to learn from each other
- Ken spoke about the thematic network and where it came from, arctic frontiers and the reason for the workshop
- Karen noted that Yukon College started 52 years ago in the late 80's and 90's
- Focus is on building partnerships and view themselves as a facilitator
- Mining, climate change and cold weather climate are the focus
- Farming in cold climate
- Working with First Nations in Ross River on how to use traditional plants in mine sites – learning from Elders
- First Nations self-determination and self-governance are key
- Building degree program to ensure relations with First Nations is equal – strong community development
- Ken posed the question – can we create a circumpolar ecosystem?
- Can we work together and develop best practices and continue
- Does the north need this and what does that look like down the road?

ANNE HUSEBEKK, RECTOR, UNIVERSITY OF TROMSØ – THE ARCTIC UNIVERSITY OF NORWAY – “GROWTH FROM THE NORTH”

- Infrastructure in northern Norway is designed in such a way that is integrated into the rest of Norway and independent
- LNG and renewable energy – all is exported and not used in Norway or Sweden
- Hydro power covers almost all of the need in Norway
- Greener mining – Nordic mining schools
- Tourism is dynamic in Norway – focus on Northern lights/cultural aspects
- One voice/standard framework across the board (regulatory)
- One pool of talent and labour

Discussion

Question/Comment: Saami people should be a part of the work

- Joint approach at UiT is similar to the Yukon where they try to work together on things that make sense to be working together. While there is competition, the idea is to work together collaboratively. This isn't unique or the first approach that is collaborative.
- There was a discussion around the differences and similarities. One point was how Canada is one country and Anne is looking at 3 countries.

Abstract: The arctic areas are the direction of growth in the future. Activities are strongly defined by natural resources and their location. Especially gas, oil and mining industry serve as big drivers of growth. In addition to these updating the power grid, tourism, transport and logistics, fishing industry and marine transports create new possibilities of growth. The arctic area attracts a considerable number of investments from around the world which also means demand for Finnish arctic know-how. According to the estimate of the Chamber of commerce of Lapland (Arctic Business Forum 2015) investments worth 50-80 billion are started in the Barents region during the next 5 years. Political focus towards Arctic regions is strong at global and EU level. Arctic counties have their own arctic strategies and co-operation is developing. Finland’s Strategy for the Arctic Region (2013) states that Finland possesses diverse Arctic expertise and interest in being involved in the development of the arctic region.

In the Arctic opening Roadmap to smart Arctic specialization (SMARCTIC) funded by The Finnish Funding Agency for Innovation (Tekes) was formed a vision and a roadmap for the development and utilization of the Finnish arctic expertise. Focus areas of the project were: environmental information and mobile technology, smart logistics, infra and living environment, natural resources management and economics and human in the north. After the project a need arose to clarify what should be done in practice in the area of North Ostrobothnia. This has acted as an impulse for the project of Arctic business, research, development and innovation activity in the North Ostrobothnia. Investing in the operations related to arctic know-how and expertise by following Finland’s Strategy for the Arctic Region has been highlighted as one of the most important objectives by the Council of Oulu region. The objective is to make optimal use of the possibilities by developing clusters between companies and research institutions.

- Innovation research in Finland focusing on technology readiness
- Prospects – data hub in the north – data connection
- Finland and Russia – Arctic Valley
 - 1) Raising awareness and position in Arctic regions
- Polar bear pitching – arena for start-ups, much like Dragon’s Den in Canada
- Arctic Frontiers and innovation group, Arctic Innovation Alliance, Demola

Discussion

Question/Comment: How do you differentiate logistics and infrastructure?

- Logistics and infrastructure were mentioned as both equally important. It was suggested that we rarely talk about logistics in the Canadian north but rather more about infrastructure and the focus is on efficiencies.



HÅKAN YLINENPÄÄ, PROFESSOR, ENTREPRENEURSHIP & INNOVATION, RESEARCH DIRECTOR
CENTRE FOR INTERORGANIZATIONAL INNOVATION RESEARCH (CIIR), LULEÅ UNIVERSITY OF
TECHNOLOGY – “THE STATE OF INNOVATION IN SWEDEN AND ITS REGIONS”

Abstract: Sweden has a longstanding track record of being an innovative economy. After 1970, however, the Swedish economy has faced several crises implicating higher unemployment rates, a reduction and reconstruction of an over-sized public sector and high taxes on labor and capital, high inflation rates as well as institutional problems related to the Swedish model with dysfunctional effects on incitements for entrepreneurship and innovation. From the mid of 1990s and onwards, Sweden due to structural reforms and a government policy more directed towards supporting entrepreneurship and innovation has managed to regain a more favorable position. Institutional reforms and a reoriented policy have been accompanied also by new innovative companies entering the market, e.g. service-based companies in the music and media industry and in tourism industry. The heritage from its historical industrial successes however still influences Swedish priorities regarding the content and the value of different kinds of innovation, implicating that Swedes normally cherish technical and radical innovations more than even so clever-made better versions of something that already exist on the market. “Copy-cats” relying on open innovation and improving something already existing and thereby creating obvious dynamic effects in the economy are therefore far less honored than innovative industrialists relying on conventional patent rights and technical degree of newness.

To measure innovativeness through patent data is however not unproblematic. One problem relates to that we normally are interested to understand how different degrees of innovativeness relates to different degrees of economic and social effects – a challenge that patent data only to a very limited degree addresses. This means that patent data disregards from the fact that incremental innovations “new to the region” or “new to the firm” might be powerful routes to a more dynamic development path, maybe especially in more peripheral regions.

There is therefore a well-documented need for new approaches measuring innovation. One such approach is developed and presented in a recent article published in the well-reputed scientific journal of *Regional Studies*. This study presents an approach based upon Data Envelopment Analysis (DEA) and the Malmquist productivity index and illustrates how they may be utilized to assess and make sense of regional technological innovation. By using a Swedish longitudinal data set that contains information on all twenty-one Swedish counties over a five-year period the authors are able to simultaneously explicate regional technological expansions (introducing genuinely new, better technologies), regional catching-up improvements in technologies aimed to close the gap between the lagging and leading regions, and mere shifts in regionally used technologies that do not necessarily lead to catching up or expanding the technological frontier. Using this kind of measures



implies that other and more peripheral regions may appear as front-runners compared to when using patent data as a decisive indicator.

Using these new insights, this article is concluded by discussing the conditions for development and smart specialization in one specific region of Sweden – the Norrbotten region in the northernmost part of the country.

Discussion

- One participant commented on the shift in the technological frontier in Sweden (region of Norrbotten) and discussed how state owned companies have little understanding of entrepreneurship.
- Regional development – the view that smart specialization should be used.

HEATHER HALL, POSTDOCTORAL FELLOW, ICNGD & STEPHEN MOONEY, DIRECTION, COLD CLIMATE INNOVATION YUKON RESEARCH CENTRE, YUKON COLLEGE – “INNOVATION IN NORTHERN CANADA”

Abstract: Northern Canada includes what is often called the Provincial North and the Territorial North. This includes roughly 1.6 million people and 7 million square kilometers or nearly 70% of Canada’s land mass. The North is where the bulk of our resource extraction occurs and it’s hard to ignore the contributions that the resource sectors make to our national and provincial economies. Much of the literature on innovation and the new economy in Canada is focused on large city-regions that offer diversity and dense concentrations of people, firms, and institutions with global reaches. While this literature does offer important insights, we know there are a number of significant differences that face more peripheral regions in the North. This presentation shared examples from Yukon College and findings from several research projects in Northern Ontario and Newfoundland and Labrador that focused on: 1) identifying innovative firms on the periphery; 2) understanding the challenges and opportunities facing firms on the periphery but also more generally speaking for regional economic development.; 3) and making recommendations for policy and practice.

Discussion

- Topics of discussion include:
 - Innovation in Canada
 - Networking
 - Surrogate Agglomerations
 - Northerners as innovative

Abstract: There exists now a very substantial body of knowledge and evidence about the role of public policy in science technology and innovation – what works, what doesn't, and why? Most of it has been produced under the direct mandate of OECD governments. And yet, the actions and programs pursued by most of these governments run significantly counter to the evidence. As governments complain more loudly about the ineffectiveness of current policies in this domain, their typical remedy has been simply to do more of what is known already not to work. This talk will unpack some of the key discrepancies between evidence and practice, and suggest some reasons for their persistence. For circumpolar regions, many of which have been peripheral to this policy domain until recently, a huge opportunity exists to think and act in new ways, leaping ahead by circumventing the chronic failures that plague their southern neighbors.

Day 1 Discussions

- One participant commented on the topic of standardization and innovation using the example of laptops/PCs with 30-40k standards. They noted that there is no point in trying to have an individual or standard approach.
- Platform is heavily standardized where applications use a logical platform.
- Motion forward is the way we tend to think of innovation but that is not necessarily true.
- One comment made was regarding the way innovation is not innovation if it has already been done.
- Facebook was used as an example – the participant talked about his experience in Alberta during the economic boom and how this may also be possible in New Brunswick and other locations.
- A comment was made regarding medical applications referring back to previous discussions about medical innovations.
- There was a question regarding whether there was somebody trying to get Facebook in Sweden. It was noted that Sweden approached many companies, looking to attract American companies as well.
- A comment was made about crowd funded solutions to medical problems (ex. Ulcers).
- Another participant mentioned that serendipity needs to be manufactured and create spaces for those conversations to happen – i.e. create networking spaces and meeting spaces.
 - One risk discussed is that we rely too much on in house resources and people from outside need to get together.

- There is the need to develop strategies to create meeting places in the circumpolar world.
- It was noted that the capacity of governance needs to be looked at particularly with respect to NGOs.
- Discussed was the negative structural importance of organization structures and their ability to work together as critical to innovation.
- It was noted that some of the best innovations do not cost that much and that there is the need to create more critical mass.
- There is the lack of targets for venture capitals to meet and a need to bring in others and create mixes of people.
- Mentioned in discussions was the need to embrace failure; some people need to succeed and others need to fail. As a result there is the need to be strategic.
- Canada ranks high on entrepreneurship. There are venture capitals in Canada among Aboriginal groups and Aboriginal entrepreneurship is important.
 - Example: 2 billion in Nunavut Development Corp.
- A point on institutions was made, discussing that there are structural issues; i.e. if there is a problem, create a program.
 - Denmark has a knowledge economy
 - Embedded in Canada with the way people think
 - Create programs that respond to needs different from others
 - Human dimension to all of this → there are not many small scale entrepreneurs in this group
- On the topic of this workshop, the commercialization of science and technology, it was asked: how can entrepreneurs use this knowledge?
- Business people are the new grant writers which is an unfortunate use of skills and time, etc.
- MITACS, does things differently, turning the grant writing model upside down and focuses on demand driven innovation.
 - i.e. Here is a problem/how do we solve it?
- It was acknowledged that these are global problems and the question should be about how to address this; i.e. talk about resources but focus on 1-2 major problems specifically.
- It was noted that a number of themes have come out of the workshop discussions such as: who is needed at the table and how this is an example of or an exercise of brokerage. The discussions centre on academic, industry, and government.
- There is the need to look at how to fill the gaps because there is no innovation formula, but rather gaps and problems. When there is a technical or scientific problem, how do we solve it? At the same time, we have to be certain how results impact this process.
 - In order to do so, we need to know how a cell develops → need to ask yourself if that can be a commercial idea.
- There are different perspective on how innovation happens but both linear

- One participant posed the question: how do we build innovation capacity and generate new ideas never done before?
 - Key areas: 1) Food security, 2) cold climate housing and 3) energy
 - These are the top three issues in the arctic, in the Canadian context.
- It was noted that we spend roughly 67million dollars shipping food to the north.
- One participant talked about/challenged assumptions about the value added. (Example: best hewers of wood and water).
 - Another approach that isn't economic at all – 4x cost to value add oil is refining work. We can become more efficient.
 - Market situations in China and India; there is a significant issue there.
- Need government industry, institutions and investment:
 - Drive for efficiency → work
- Business plan – there is no creativity which has killed ambition and is viewed as a paradox
 - Nokia – the situation had changed. Microsoft – huge amount of spin offs and start-ups now.

Day 2 – Presentations & Discussions

KEYNOTE - ANJA JEFFREY, ACTING VP, CANNOR

- Spoke about CanNor's operations and how they fit into the Northern Canadian context.
- Head office is in Iqaluit, NU
- Not food at responding to innovative trends or changes but attributed to government
 - Change with the recent new government from conservative to liberal will be interesting
- Need to be creative and think outside of the box
- Minister Banes – on innovation
- Shift in government is exciting and new opportunities for change
- 6 regional development agencies across Canada
 - Put together to coordinate and can learn from each other
 - Minister is meeting with all 6 agencies – see how they contribute to innovation and development

Discussion

Questions/comments: please describe CanNor's focus

- CanNor has 2 streams of funding – Northern Aboriginal opportunities economic program and community readiness planning program.

- One stream focuses on: 1) Indigenous people; and the other on 2) all northerners
 - Business is another part of that program.
 - All northerners are included: programs, investments, diversification, and partnerships. There is also an innovation piece and another suite that focuses on partnership building.
- This was viewed as a timely conference.
- Look at what northerners want to do but not southerners.
- Question looking at cold climate – innovation and knowledge fund is the flagship program = teaching program
 - The program disappears next year but they are looking to continue to get funding; meaning more money/more years and permanency
 - The program is “A-based” which means it stays/permanent vs. B-based which is temporary
 - CanNor is 6 years old.
- One participant commented that the main challenges has been looking at the opportunities from a government perspective for Indigenous peoples.
- New government fosters a different relationship with Indigenous peoples
 - Prime Minister Harper (previous Canadian PM) was not interested in meeting Aboriginal organizations in the past and now there is a shift with the Trudeau government – i.e. a number of programs being developed
 - Commission on missing and murdered Aboriginal women.
- Focus is on rebuilding that relationship with Indigenous peoples in Canada including more funds to support Indigenous people compared to the past.
- One participant commented that we will see a rebalancing of relationships.
- Another participant shared that there is a seamless approach to get things done in Denmark, Greenland.
- A disconnect exists where we need to continue to hammer home and this can be a detriment to innovation.
 - i.e. defensiveness of northerners of people coming from the South – had to build trust
 - cultural barrier viewed as “those in the south don’t get us in the north”



ADRIAN HEALY, SCHOOL OF PLANNING AND GEOGRAPHY, CARDIFF UNIVERSITY - RESEARCH AND INNOVATION STRATEGIES IN REMOTE AND PERIPHERAL REGIONS: LESSONS FOR AND FROM THE CONCEPT OF SMART SPECIALISATION

Abstract: The challenging economic context for remote and peripheral regions is well documented. Distant from major centres of population and with a limited industrial base many struggle to support thriving economies, resulting in reduced levels of prosperity, restricted access to services and the out-migration of population. For some, the exploitation of natural resource endowments offers higher economic returns, but leaves the economy susceptible to the vagaries of global commodity markets; vulnerable to changing tastes and preferences, and exposed to resource depletion.

Developing a more innovation-orientated economy now lies at the heart of approaches seeking to promote economic growth and higher-quality employment opportunities. Academic and policy thinking have evolved together to stress the importance of the regional innovation environment, or eco-system, with policy initiatives emphasizing the role of regional innovation strategies. In the EU, this evolution of policy has most recently culminated in the promotion of Research and Innovation Strategies for Smart Specialisation across the whole of the EU.

The concept of Smart Specialisation was a response to the observation that many regions simply seek to imitate the innovation practices of more advanced regions, seeking to transplant high-technology activities with insufficient thought given to the particularities of the local context. Rather than reproducing mimetic strategies, the smart specialization approach argues that regions, or nations, should focus on those activities in which they have a comparative advantage. In doing so they should be led by an entrepreneurial discovery process, rather than political selection or the continuation of historic legacies.

Yet the innovation difficulties of peripheral regions, and those with less developed research and innovation systems, has led some to question the appropriateness of this approach to these places. They suggest that an approach that may be appropriate in more advanced regions is ill-equipped to deal with the challenges of less-innovative regions. Using lessons from a major EU research project addressing the smart specialization concept, this presentation will reflect on this question.

Drawing on the underlying principles of smart specialization, along with a number of practical examples, it will consider the insights offered by the approach for the development of remote regions, such as the Yukon in Canada. It will argue that with the appropriate consideration, the approach has much to offer, whilst highlighting aspects that have proved problematic in other places.

Our research finds that broadly the concept of smart specialization can have value to peripheral regions. However, the experience of peripheral regions and those with less-developed research and innovation systems demonstrate areas where the



concept itself needs to evolve, or where policy-makers can learn from alternative approaches. The process of developing a Research and Innovation Strategy for Smart Specialisation is, in itself, a valuable learning exercise, however, the value of this is realised only in the eventual policy mix.

Whilst the concept cannot provide a blueprint for the development of a particular area, it is hoped that this presentation can offer the basis for a discussion of appropriate responses to the innovation challenges faced by remote and peripheral regions.

Discussion

Topics discussed:

- Research and innovation in remote/peripheral regions
- Smart specialization – integrated, place-based economic transformation
- Agendas that focus on policy support and investment on key national/regional priorities and challenges
- Technological + practice based innovations are not just technical
- Principals of smart specialization include:
 - Choices and critical mass
 - Competitive advantage
 - Connectivity + clusters
 - Collaborative leadership
- Learn from other innovations but don't copy them
- Develop own strategy for your own region

Panel (1) Adapting Science & Technology for the North

TAO HENDERSON, GROUNDTRUTH EXPLORATION

- “Drones to Drills”
- New technology for trenching
- Minimal footprint – leaves very little scars
- Won a most innovative company award
- Alternative to diamond drilling – GT drones – developed a machine
- Low impact on environment
- can go 100 meters but can go deeper if needed – adaptable to climate and what they are working on
- use of rubber mats on ground to protect earth and use drone imagery

TANNER STEWART, NUTRAPONICS

- Nutraponics' focus is on food security
- Grise Fiord– cooperative subsistence based economy

Discussion:

- Q: For Nutraponics: Does Nutraponics have a facility in Grise Fiord?
- A: No, we have a large scale facility on a farm outside of Edmonton
- Q: For Nutraponics: What about using Arctic Char as a possible option for use in the Northern regions?
- A: Tilapia is used currently but would use Arctic Char in northern contexts but would have to hire an expert
 - It costs more because they could have to heat water
 - Want to work with Icy Waters (fish farm tour)
 - Tilapia is easier
- Q: For Nutraponics: What about Indigenous traditional foods? Currently looking at tropical foods (fruit/vegetables not native to the traditional lifestyle) – aren't these southern foods?
- A: True but there are worse things (i.e. potato chips), than tomatoes
 - Can we work with you to grow food
 - Access to food is the issue
- Q: For Groundtruth: Who have they worked with or stakeholders in creating business?
- A: One presenter noted that Yukon government and the college (YC) helped Groundtruth with their driller program – they hired youth from communities from all over the Yukon
 - Worked with Indigenous communities
 - SR&ED funding, MITACS opportunities
 - Bringing ideas to the table to solve issues in innovative ways
- Q: For Groundtruth: Others are doing the same thing. Isn't that duplication?
- A: That is the reality but comes down to the technology being used – how the process moves forward
 - Original inventor is mother nature – copied her
- Q: For Groundtruth: Any focusing on the Arctic?
- A: No, other regions/markets
- Q: For Groundtruth: Guidelines for Indigenous people – at home there is conflicts/protests between industry and mineral mining – how do you manage that? Do you emphasize environmental protection?

- A: Example in Dawson Cree – they have a major deposit they sit on which is going to be a mine
 - They work closely with First Nations in their region and employ First Nations
 - Camarak – program to renew Indigenous plants/return environment to natural state
 - Allison isn't here which is too bad because she could talk about that – showed a video instead to speak to Camarak
- Q: For Nutraponics: Question regarding the hydroponics plan and having to import seeds and nutrients – have you thought about fresh fish? One thing not abundant is fish food but have you looked at that in terms of abundance or not?
- A: The risk due to business model is left with nutrient problem – without the circulation of water they don't have a viable ecosystem
 - Multiple angles – First Nations in SK want to work with them and their facility to create economy + reliable distribution – becomes community based
 - Simple question of how can we find solutions for problems
- Q: For Groundtruth: Are you not connected with any companies such as exploration or mining companies?
- A: Independent team that has been approached and offer services/contracts but not with any company
 - Majority is contract based
 - Can use drone/imaging for other types of mining not just exploration
- Q: For Nutraponics: Major difference with adult/youth entrepreneurial activity?
- A: Food security – community gardens and trying to work around (someone may take all veggies)
 - Kids love growing vegetables and gets them excited about where food comes from and integrated in school

Panel (2) Collaboration & Northern Development

CHIEF MATHIEYA ALATINI, KLUANE FIRST NATION

- Chief spoke about her First Nation and the Yukon First Nations as a whole but from the perspective of collaboration and development

- She noted that 7 other First Nations partnered on lands and Natural Resources Act
- 7 generations
- Culture/history/vision/future important alongside economic development
- Need to have these (innovative)
- Renewable energy project on heating for social housing – diesel to power
- Looking at solar, wind and geothermal

ALLAN MOORE, AIR NORTH

- CEO of Air North spoke about their support and collaboration with First Nations to create a northern focused company – started small but grew into a larger company that services the north
- Collaboration with Old Crow – Gwitchen First Nation

Discussion:

- Q: Where does Air North fly to?
- A: Many places – i.e. Vancouver, Kelowna, etc.
- Q: How is competition?
- A: Steered away from competition
 - Only one is Vancouver – Air Canada which has 2 flights and ds does Air North
 - Air North is not Government subsidized
 - Government is asking that they get into online booking – but cost is high \$5million – working with government but they won't give the \$5mil
 - They have a mail contract
- Q: Features of cooperation – any conflicts?
- A: Corporations need to build partnerships and benefits
- Involvement in food services, joint venture, soil samples, guaranteed work (employment), financial shares and compensation for infrastructure and education
- Some companies not willing to work with us
- Q: Is there any local conflict – services/employee?
- A: Only employ locally
 - Pref. to any First Nation person that applies
 - Have to have qualified people
 - Open apprenticeships
 - Proud of human resources side

- Whole station in Old Crow is ran by Gwitchen
- Quality control – 1/15 in Yukon have a stake in the airline
- Give a dividend to Yukon people – voucher for flight and to appreciate locals

Panel (3) Supporting Innovation

ENGIN OZBERK, INTERNATIONAL MINERALS INNOVATION INSTITUTE (IMII),

- 39% northern SK and 35% south SK
- Education and training = 4 programs
- Providing training
- Get involved before they get into the program/learning
- Idea + Funding + execution = Innovation
- To have innovation you need all three

DUNCAN PHILIPS, MITACS

- The innovation catalyst
- Funding agency that does things differently by turning the grant/proposal writing process on its head
- Not reject proposals but to make them successful
- Try out new programs
- 12k research projects
- \$90 million private investment 3k industry partners 60 universities
- Federal and provincial government + regional development agencies
- 6 programs: 1. Accelerate, 2. Elevate, 3. Converge, 4. Step 5. Globalink, 6, Science policy fellowships
- Key that MITACS does – every project work with partner and find an issue – academic partner and get to work on that issue

TIM GOLTZ, STONECUTTERS GROUP

- Sovereign wealth fund – SWF is a state owned fund or entity established from balance of surplus ownership of resources
- UNDRIP 2007 – UN relations article 20,23
- Value transfer system – why we are transferring value

Discussion:

- Q: How do companies become proactive?

- A: CSR – pushing that corporate social responsibility and being clear on expectations for mining company and open to partnerships and joint ventures
 - Jurisdiction – can say no – not a threat but a reality
 - Respect – they are a government
- Q: Fishing and hunting permits?
- A: Fishing permit at Yukon Government \$15 – hunting 5K
- Power of communication and trust
- Q: Nation in Greenland is similar to Canada – what are the education levels in the Indigenous communities in Canada/Yukon? Is it higher/lower?
- A: Ba or MA several PhDs
 - Majority of students get grade 12 and go onto university in the Yukon
- Greenland needs to educate more too
- Q: Question on SWF – What is the Indigenous capacity for sovereign wealth fund?
- A: Goal to empower it themselves by training Indigenous people

Panel (4) Innovative Approaches to Northern Development

EVA JOSEFSEN, UIT THE ARCTIC UNIVERSITY OF NORWAY/CENTRE FOR SAMI STUDIES

- Finnmark estate as an innovative body when looking at Indigenous land rights
- Consultations on the Finnmark Act proposal 2003-2005
- Consultation agreement between the Norwegian Government and the Samediggi

ELLACARIN LILIAN BLIND, SÁMIID RIIKKASEARVI

- Innovative Approaches to Northern Development - National Association of the Saami people in Sweden – NGO nationwide
- Business project to connect sapmi – boot camp
- “Shop in Sapmi”
- Challenges – venture capital, network, professional association

Looking Ahead - Staying Connected

SUMMARY OF KEY OUTCOMES

- Another Circumpolar Innovation Workshop possibly in Norway
- Joint research initiatives

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- Staying connected Email and social media updates
 - Updating and sending content for the Circumpolar Innovation website
 - Special issue for the Northern Review on Circumpolar Innovation
 - Some interest in doing a report like the State of Rural Canada
 - Create a more formal structure for the network



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FOLLOW US ON THE WEB AND SOCIAL MEDIA

Website: Circumpolarinnovation.com

Facebook: <https://www.facebook.com/circumpolarinnovation?ref=hl>

Twitter: <https://twitter.com/CircumpolrNorth>

YouTube: <https://www.youtube.com/playlist?list=PLBkiuxQkoZxnE0FQB1QyT5kIUis9aLb-Y>

LinkedIn: https://www.linkedin.com/groups/Circumpolar-Innovation-6947452?home=&gid=6947452&trk=anet_ug_hm



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