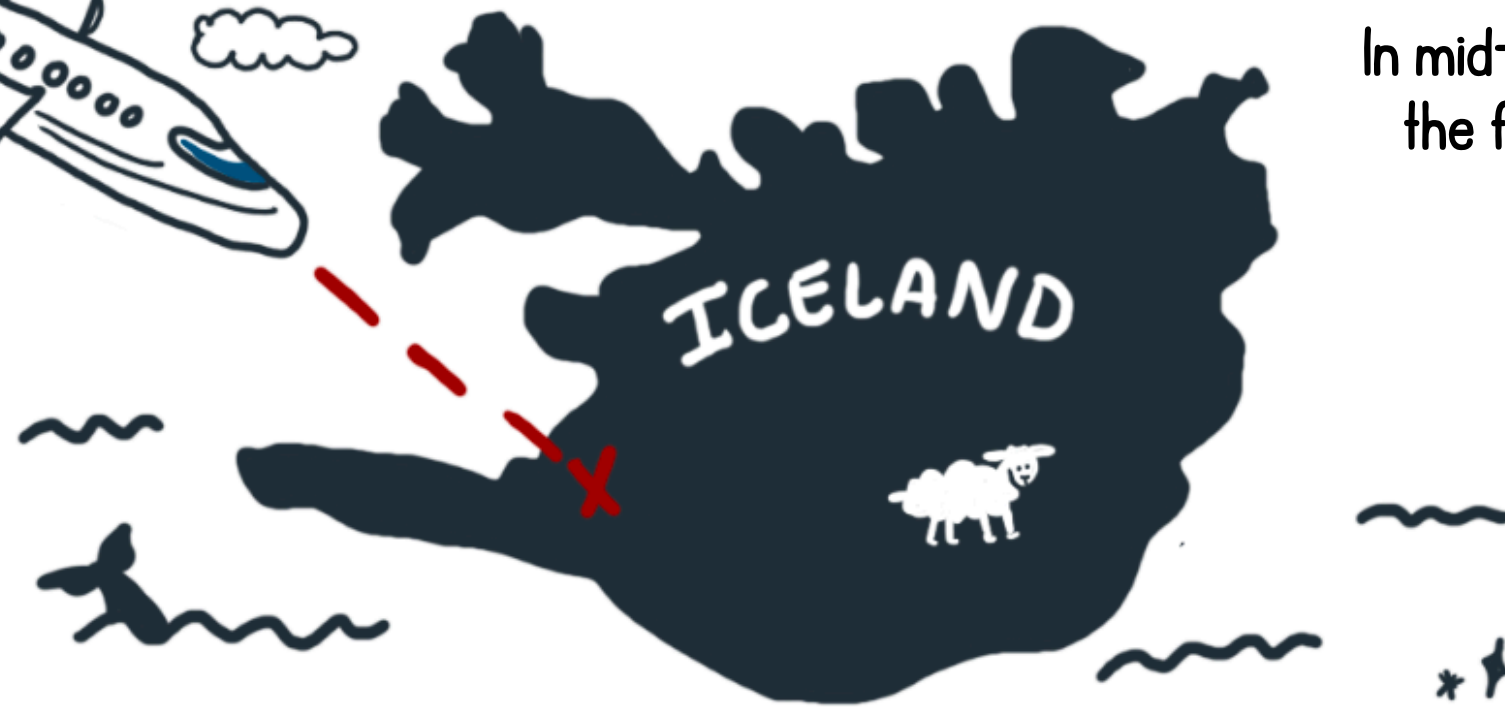




Reykjavik meeting



October 2025



In mid-October, a couple of FROSTIES met in person for the first time, halfway across the North, in Iceland.

They joined the NordForsk Kick-off Meeting, one of FROST's key funding partners, and held FROST's first in-person gathering.

It started as a way to improve hygiene, and became a cherished social tradition.

It's now a space for human connection!



At the same time, some took part in the Arctic Circle Assembly, sharing FROST's vision with the broader Arctic community.

In Iceland, public pools and geothermal baths are a cherished part of local culture. Before the kick-off meeting, some FROSTIES met there to relax, connect, and enjoy this uniquely Icelandic tradition together.

NordForsk kick-off



Welcome to Reykjavík!

Sogi Einarsson

Iceland's Minister of Culture, Innovation and Higher Education of

« I'm delighted to see research uniting Canada and the Nordic countries, where true collaboration is built on trust. I strongly advocate for open science, inclusivity, resilience, and sustainability. »

From Sven Stafström, Chair of Call Committee - NordForsk :

NordForsk Funding for a Sustainable Arctic:
By the Numbers



199
applications

only 9
funded

FROST is one of them!!!

186



assembling 186
researchers

68



and 68
institutions, may
partners

NordForsk kick-off

• voices from the youth



I recommend taking part in local activities when you go to do research in the North. Taking time to listen, to build relationships.



PANINGUAQ
PhD Student
Youth Delegation, Inuit
Circumpolar Council (ICC)

Acknowledging Sámi knowledge is not enough. You need to respect it. It's a mutual relation through respect and collaboration.



PER-HENNING
Advisor for Arctic &
Environment Unit
Saami Council

Schedule should be planned together, be flexible and fit the seasonal work. Respect our timelines.



Julius
Saami Council



If you want to understand the Arctic, you need to understand the people living on that land.



- Per-Henning

The Eight Protocols provide a shared framework for ethical collaboration and trust-building with Inuit and other Indigenous partners across the Arctic.

8 PROTOCOLS

'Nothing About Us
Without Us'
- Always Engage with
Inuit

Recognize Indigenous
Knowledge in its Own
Right

Practice Good
Governance

Communication
with Intent

Exercising
Accountability -
Building Trust

Building Meaningful
Partnerships

Information, Data
Sharing, Ownership
and Permissions

Equitably Fund Inuit
Representation and
Knowledge

Under each Protocol are
directives needed to move
toward equitable and ethical
engagement.

These are not boxes to
check, they are a collective
pathway to equitable and
ethical engagement.

See Circumpolar Inuit Protocols for Equitable and Ethical Engagement

DATA MANAGEMENT

Guiding Principles for scientific data management and stewardship

FAIR principles focus on making data shareable but do not address Indigenous rights, historical context, or power imbalances.

Be

FAIR + CARE

Findable, Accessible,
Interoperable, Reusable

Collective Benefit, Authority to Control,
Responsibility, Ethics

There is also SODA, which is CARE in Sami
context.

Integrating CARE ensures
data practices respect
Indigenous peoples,
support self-
determination, and create
value aligned with their
worldviews.



NordForsk Kick-off

• Working groups #1

NordForsk
Funded
Project
Presentation

Kim Douglas
New Frontiers in Research Fund

Sofia
Ribeiro
lead of PHATE Project, GEUS

Marie-Christine
FROST Communications Officer

Jackie Dawson
lead of SustainME, UOttawa

Milla
lead of FROST,
UQAC

Part of the morning was dedicated to three working groups, where participants showcased their funded projects, research hypothesis, discussed challenges, and shared methodological insights

①

PHATE

• Marine phycotoxins in the Arctic : an emerging climate change risk

It's great that Canada joined, to learn from community co-design!



Sofia Ribeiro

As Arctic warming transforms marine ecosystems, harmful algal blooms are emerging as a new **risk to northern food systems**. Phycotoxin symptoms in fish are similar to mercury poisoning. The PHATE project seeks to understand where toxic algae occur, what drives their growth, and how their toxins move through the food web, essential knowledge to safeguard communities and marine life.



• Sustainable Human Use of the Marine Environment

②

SUSTAIN ME



The Arctic is changing faster than ever, with its sea ice disappearing decades earlier than predicted. These shifts ripple through ecosystems and societies, reshaping livelihoods, food security, and geopolitics. By uniting Indigenous and scientific knowledge, this research aims to better grasp these cascading changes and co-develop solutions for a sustainable Arctic future.

Shipping routes are projected to be open for a bigger part of the year, which may increase human pressure but also reduce food prices for community. Effects are not just negative.



« We want to organize North-to-North capacity building »

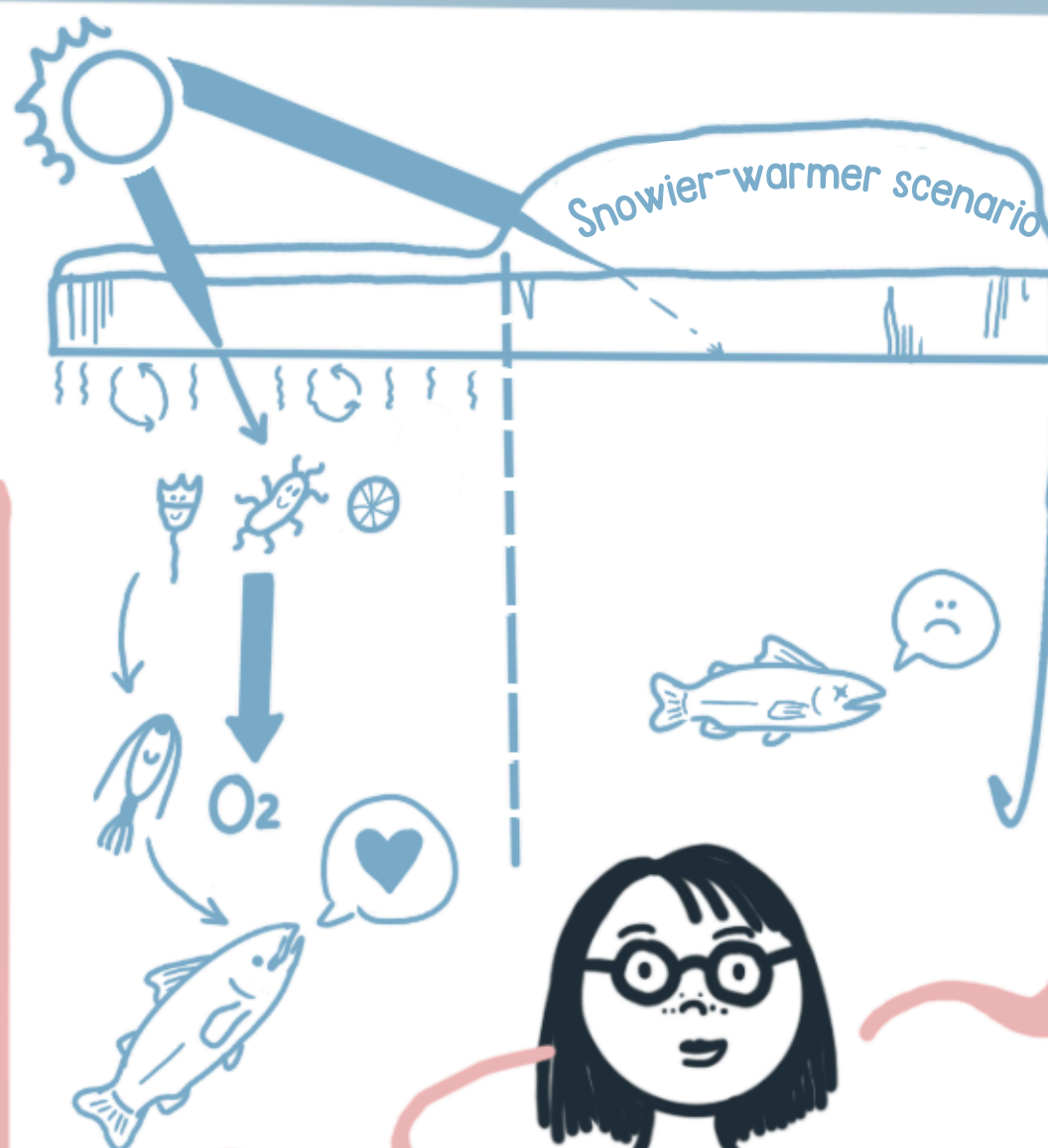
③

FROST

• Arctic freshwater food systems

"Mild winter and then it's a bit strange when in between there is an impossible amount of snow, and then there's not much. If this isn't climate change, then nothing is," said a Sámi herder.

Arctic Lakes are controlled by winter processes, however winter is not well studied.



How DOES IT AFFECT LOCAL COMMUNITIES?

Across the Arctic, unpredictable winters are transforming lakes, food systems, and livelihoods.

The FROST project unites Indigenous and scientific knowledge to study how **changing ice and snow reshape northern ecosystems and communities** and to build sustainable, community-led paths forward.



Milla Rautio
Lead of FROST, UQAC

« Many voices, one vision »

« Co-production of knowledge is a long-term commitment »



NordForsk Kick-off

- Reflections & learning outcomes from each working group

Thorbjørn
Gilbert,
Special Advisor,
NordForsk



What did you
discuss or learn
from each
other?

We talked about how valuable it is to show up beyond formal spaces—to meet, connect, and collaborate in more informal settings.



Rico Kongsager
LostToClimate, KP

We noticed that the words we use can mean different things across disciplines and communities. These differences can lead to misunderstandings—but also spark valuable conversations.



Mats Ingulstad
CRIMINA, NTNU

We discussed community research fatigue and how to better coordinate our consultation and outreach efforts. The concept of North-to-North events was especially inspiring, enabling northern communities to connect and exchange experiences, challenges, and solutions...



Sofia Ribeiro
PHATE, GEUS

• Communications

How many of you want to do more in communications?
or... have more time to do it?

NordForsk wants to support your research objectives by highlighting impact stories

« Communicating impact is about more than sharing results—it's about showing why your research matters and building trust through transparency. »



Guttorm Aanes,
Communications,
Public Relation and
Impact,
NordForsk

Researchers are eager to communicate more and better, the idea of a Communications Officer within the team really resonates!

• Canadian involvement



Kim Douglas,

Director of
New Frontiers
in Research
Fund (NFRF)
[CA]

NFRF launched in 2018 to support interdisciplinary, international or high-risk/high-reward, transformative research. It's designed with flexibility in mind and naturally evolved to fund Indigenous Research.

Knowledge isn't just knowledge, it is an action that can embrace intellectual, physical, and spiritual meaning or perspectives.

There are 4 key principles to our Strategy to support Indigenous Research

- Self Determination
- Decolonization of Research
- Data Sovereignty
- Community Engagement

Canada is home to

>50

Indigenous nations (Inuit, Metis, First Nations)



NordForsk Kick-off

• Working group #2: Indigenous Perspective in Arctic research

? HOW WILL YOU ENSURE THE SUCCESSFUL INTEGRATION OF INDIGENOUS PERSPECTIVE ?



LORI BRADFORD

Social Scientist with FROST, USask (CA)

Words carry important meaning in Indigenous research, especially when working with communities that have experienced historical oppression. We don't "integrate" – we co-consider. That nuance is essential for building trust. Another example is the word scientist, using it to mean only white-occidental science reinforces hierarchy. It's more accurate to say Western science.

Thank you for pointing that out – it's a reminder that there's always more to learn. Perhaps we can discuss the challenges and ways to improve?



Perhaps we should return to the first principle of the Eight Protocols: "Nothing about us without us." More community members should be involved in formal meetings like this, so we can learn collectively. Each community and even individuals within them, has different needs and may prefer different types of involvement. The best way to know is to ask them directly.

«NOTHING ABOUT US WITHOUT US»



Kim Douglas, NFRF

One factor contributing to research fatigue in Canada is the lack of visibility about who is working where and with which communities. Creating an online space or to share this information could help acknowledge ongoing work, avoid duplication, and reduce research fatigue.



Another important point is that money isn't everything. Building trust and sharing knowledge are even more valuable, but these processes take time, which is often not adequately accounted for in research plans.



Kimmo Kahilainen
FROST Co-lead, U of Helsinki



Sofia Ribeiro,
PHATE Project, GEUS

Always ask your partners on how they would want to be compensated. Compensating is about finding the right price. This needs dialogue, being close with community.



Research priorities have to be co-designed, just like data management.



Audrey Limoges,
PHATE Project, New-Brunswick U.

NordForsk Kick-off

- Reflections & learning outcomes from each working group

SHARING

In terms of capacity building, what were you discussing or what are you doing?

Chelsi McNeill-Jewer
FROST



Interestingly, Canada began its reconciliation with Indigenous communities 10 years ago, while some Nordic countries only started two years ago. This difference may be reflected in how Indigenous perspectives are included in research.

An important part of my work with communities is helping them build networks, which can support their greater autonomy in research.

Audrey Limoges
PHATE



A third of our team comes from the community. They receive funding, giving them the capacity to hire, contribute to research expands, and strengthen their community's autonomy.

They also have an equal voice in all meetings and communicate better with their community.

Richard Fraser
SPECIES



We reflected on the importance of recognizing that Indigenous perspectives are plural and should not be homogenized. There are many ways communities may want to be involved in research: authorship, films or videos, social media., reports, etc.

It's important to give them the choice.

• Concluding Remarks

Well, thank you all for your efforts today and for contributing to this first in-person kick-off meeting of the NordForsk Path for a Sustainable Arctic. It has been an eye-opening experience to explore these diverse perspectives, and I'm grateful for the opportunity to strengthen human connections and institutional relationships. We've also learned a great deal from our Canadian partners. I warmly invite you all to join our panel this Friday morning at the Arctic Circle Assembly.



Arne Flåøyen
Director of NordForsk

« You're welcome to join for the Tapas! »



FRIDAY 8:30 - 9:30

BRIDGING THE NORTH : NORDIC-CANADIAN RESEARCH CO-OPERATION

with key-note speakers

Jackie Dawson, full professor at University of Ottawa, and
Milla Rautio, full professor at University of Québec in Chicoutimi.

ARCTIC CIRCLE



JACKIE



MILLA

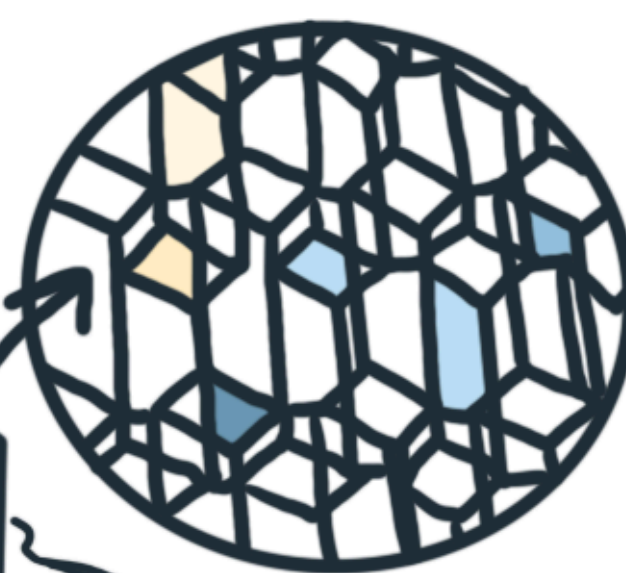
I'm very excited to share more about how we co-design research with communities. The conference room is also impressive, with its stunning views of Reykjavik Bay and more...



ARCTIC CIRCLE ASSEMBLY



HARPA
center



The design evokes a basalt mountain rising from the coast.

Harpa, meaning the first month of spring in Icelandic, was conceived as a dynamic structure whose façade reflects and shifts with the changing colors of its surroundings

Good morning everyone! Thank you for joining us early for our panel Bridging the North: Nordic-Canadian Research Cooperation. Let's hear from our two Canadian panelists about their multidisciplinary research projects contributing to a sustainable Arctic.

Whale-watching while attending a conference!



The FROST Project is co-designed with communities to address concerns about Arctic warming, especially its impact on freshwater food systems and cultural connections. Ice is not just ice, it holds cultural meaning, which we prioritize in our research. By combining food web studies, ice and snow modelling, and community input, we aim to create food security maps and adaptation strategies. **A community member from Cambridge Bay even designed our logo, with the Ulu base symbolizing how a community holds everything together.** At the end of the project, we will launch a travelling exhibition across Canada and Nordic countries to celebrate both Western science and Indigenous knowledge.

Milla Rautio
Lead of FROST Project

We are now approaching a "best-case" scenario of +2.7°C global warming, which could bring ice-free summers in the Arctic by 2030. The pace is too rapid for full adaptation and will impact shipping, shorten Northwest Passage routes, and affect food security—potentially lowering food prices in some areas. **Equally important as the science itself is how we engage communities:** we will organize North-to-North activities to co-analyze data and understand its meaning for local communities.



Jackie Dawson,
SustainME Project

Panel : From your experience in Canada, what key lessons or approaches can guide us in building meaningful collaborations with communities?

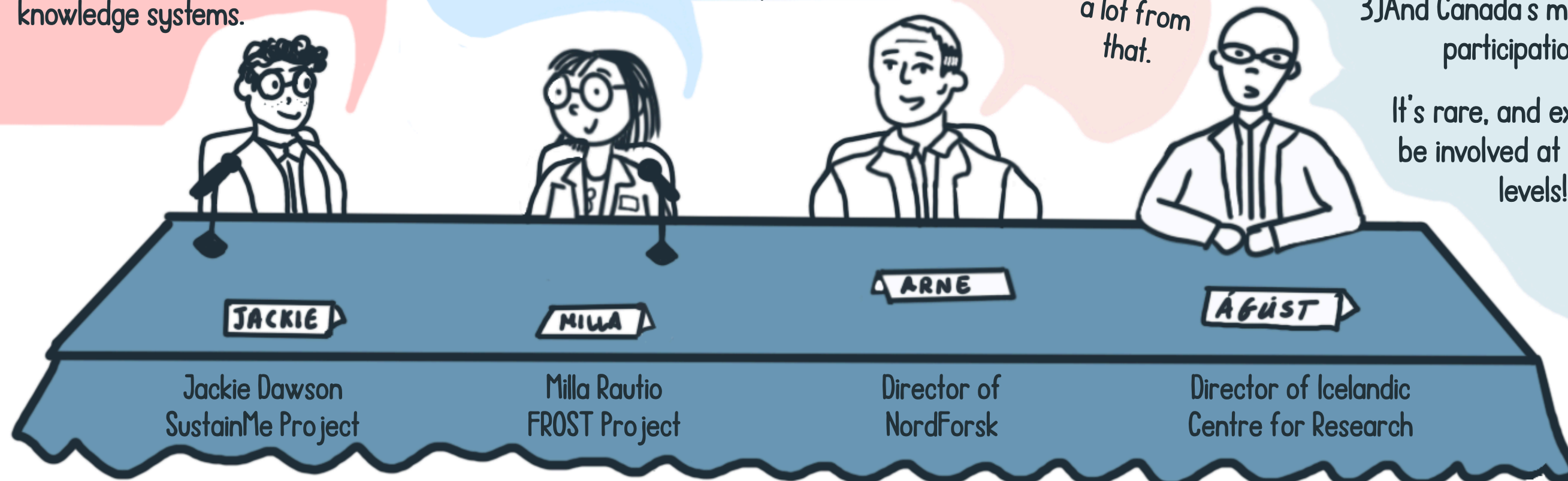
Relationships are the basis of a great and meaningful science. Go meet the community, hang in the grocery store, you could learn a lot. In Canada, there are great programs (ex: ArcticNet) that taught us to equally value indigenous knowledge systems.

Interdisciplinary work requires projects and funding of this scale. It brought together new people and expertise we haven't collaborated with before. When visiting communities, we also asked questions like, "Who do you usually work with on social science topics?" to build on existing relationships.

It's great to see projects collaborate with the nordic regions instead of just 1 region or 1 community. We can learn a lot from that.

I'm happy 3x!
1) We're continuing our collaboration with Nordic communities.
2) The strong engagement from Nordic countries.
3) And Canada's meaningful participation.

It's rare, and exciting, to be involved at so many levels!



Jackie Dawson
SustainMe Project

Milla Rautio
FROST Project

Arne
Director of NordForsk

Agust
Director of Icelandic Centre for Research