

Welcome to SmartICE



Carolann Harding
CEO



Who We Are

- SmartICE is a community-oriented social enterprise offering climate change adaptation tools, designed to incorporate sea-ice monitoring data with local Indigenous knowledge of sea ice conditions, which can contribute to more informed decisions regarding safe land, water, and sea ice use.
- An award-winning social enterprise servicing Canada's north, SmartICE is working with Indigenous youth to locally manufacture and deliver SmartICE's advanced sea-ice environmental monitoring systems.





SMARICE

Community Operations



VALUES

Inuit-Driven

Inuit communities shape and drive direction.

Benefits

Community

Inuit and their communities are the primary beneficiaries.

Innovative

Combining Inuit knowledge and technology.

Youth Focus

Youth have opportunities to learn and work.



Inuit Societal Values



- Caring for the environment (*Avatittinnik Kamatsiarniq*) and community (*Pijitsirniq*)
- Being innovative and resourceful (*Qanuqtuurniq*)

With climate change, sea ice is changing and is less predictable.



With communities...

The SmartICE corporate video can be found [linked here](#).

Why SmartICE?

- Climate change is transforming environments around the world.
- Nowhere faster than in Canada's North and Indigenous communities.
- Sea ice is decreasing and less predictable, which is increasing travel risk for Indigenous peoples and northern communities.
- Sea ice connects communities and essentially serves as a highway for people to travel the land and hunt for country food.





On 'very thin ice': Warm winter causing problems along Labrador's north coast



Ice will likely be thinner throughout the season: Canadian Ice Service

CBC News · Posted: Jan 22, 2021 6:00 AM NST | Last Updated: January 22, 2021



SMARTICE

Climate Change

- The temperatures in the Arctic continue to rise at **three times the global annual average**
- Snow and ice are melting at an increasing rate.
- Arctic annual air temperatures from October 2021 to September 2022 were the sixth warmest dating back to 1900.
- Arctic air temperatures have warmed faster than the global average.
- The Arctic's seven warmest years since 1900 have been the last seven years.

**“Travelling on the sea ice
is essential to maintain our
way of life”**

**Andrew Arreak,
Regional Operations Lead
Pond Inlet**



For SmartICE it starts in the community...

Dr. Trevor Bell



Community Management Committee



Dr. Trevor Bell

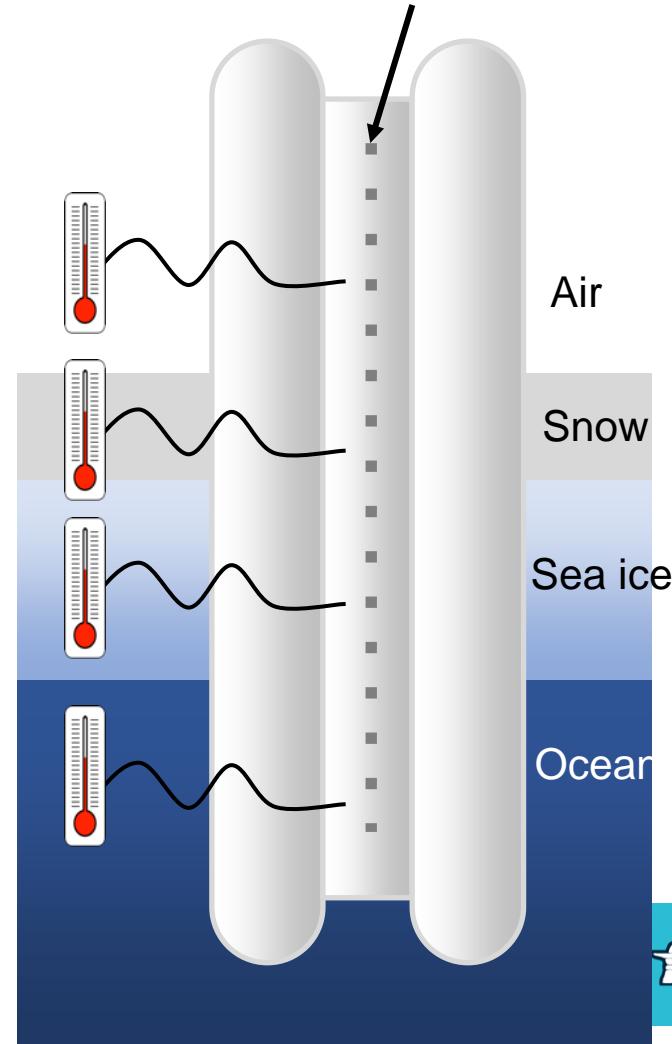
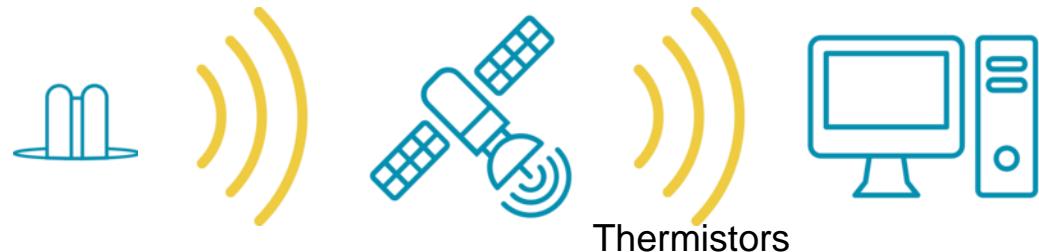


Our Solutions



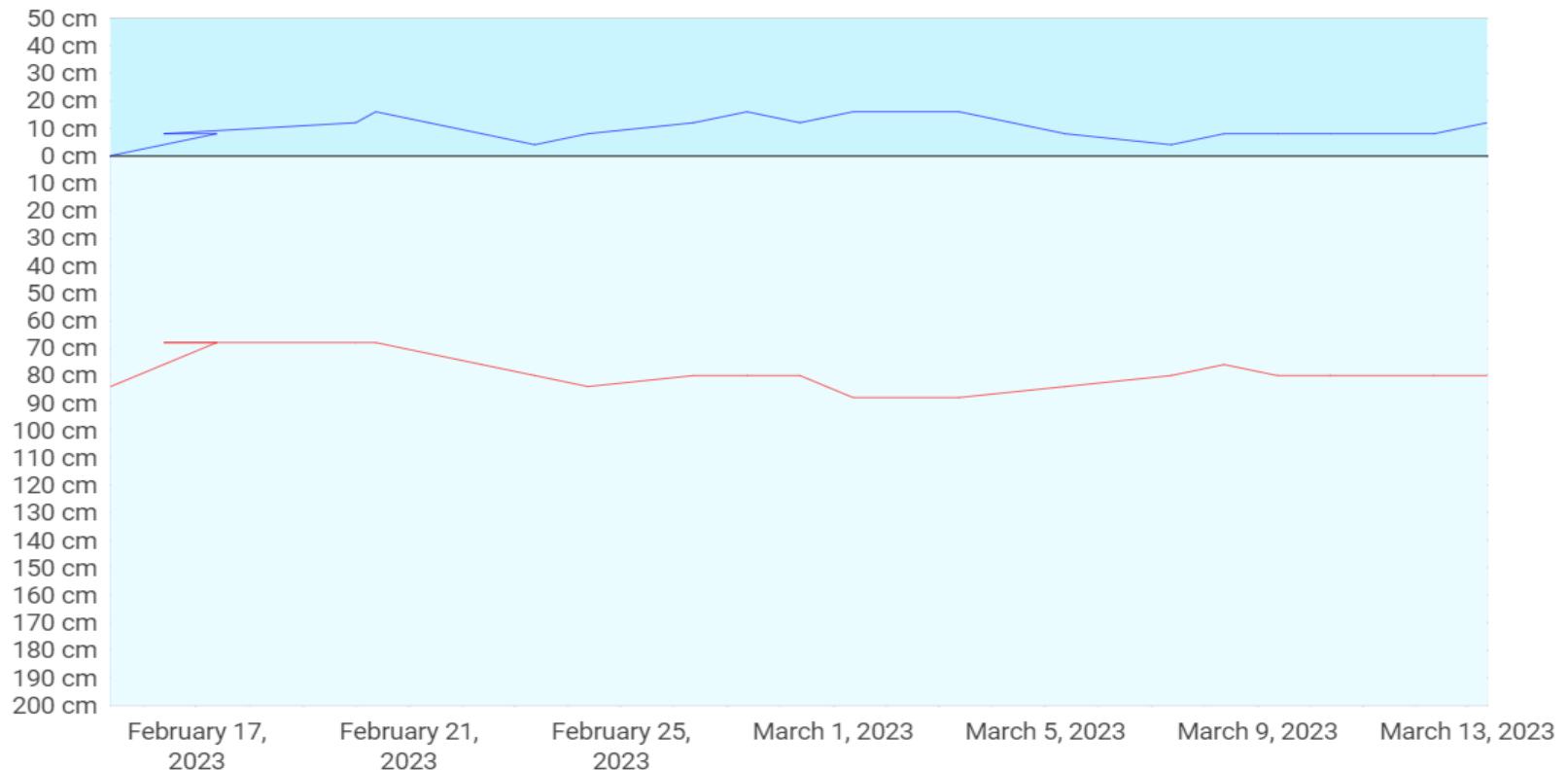
SmartBUOY

sea-ice thickness sensor

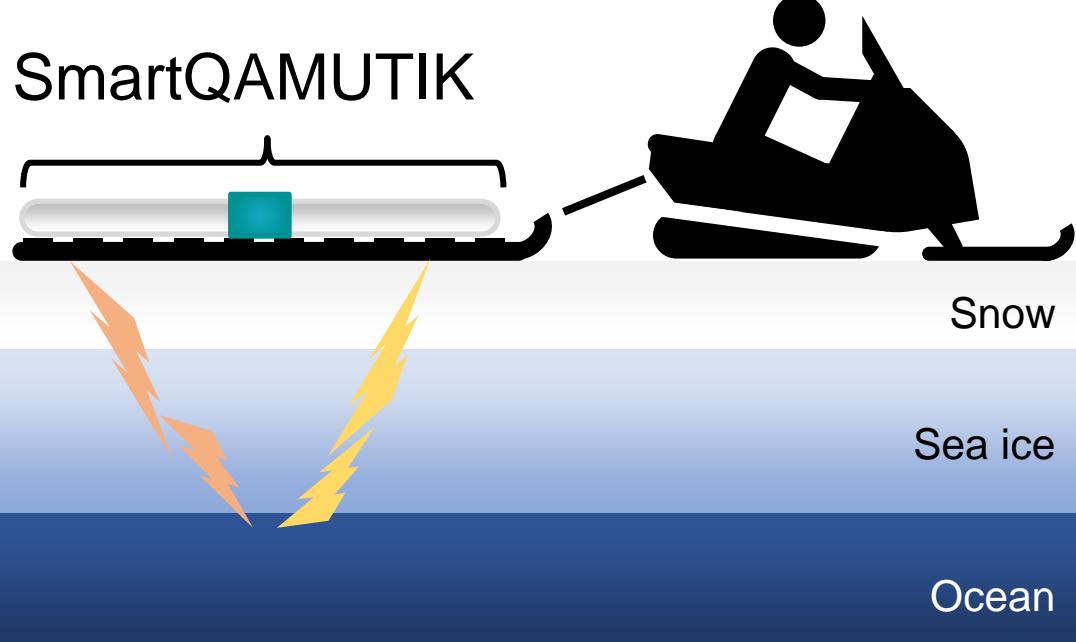


SmartBUOY Data on SIKU

Nain SmartBUOY 2023-2



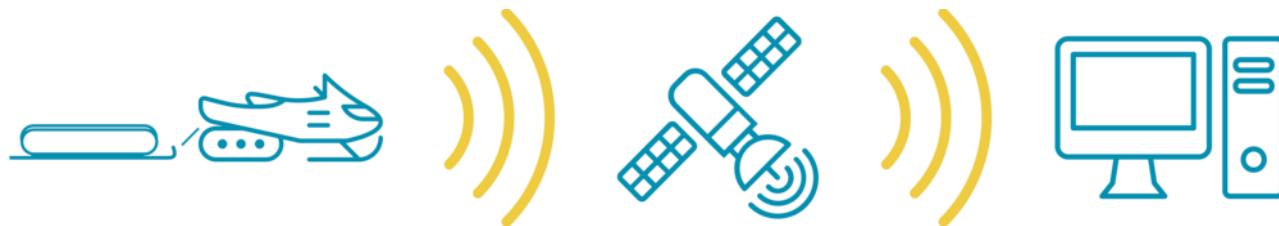
SmartQAMUTIK



Snow

Sea ice

Ocean





SMARTICE

SmartQAMUTIK Data on SIKU

SIKU Explore + Post nain

2022 Ice Watch Challenge has begun! Make ice posts for a chance to win Northern gift cards or a free Skidoo from Contant. [Learn more](#)

⚠ Winter storm watch issued 3 hours ago. [More details](#)

Mostly Cloudy -5.9° 32

Nain

SMARTICE

+ Set My Community Filter Map Share ...

Feed Ice Reports About People

Filter Reset / Refresh

Trip March 20th, 2022 at 5:51pm More Details >

Heather Angnatok went on a trip near Nain - ⚠ Breakdown

40km

Nain

Natuashish

SmartQAMUTIK • Nain

Satellite Off 2022 - JAN - 27

< 1ft 1-3 ft 3-5 ft 5-7 ft 7+ ft

Snow & Ice Thickness (Feet)

Use at your own risk. [Learn more](#)

Nain Bay

Tasiuyak-suk Brook

Nain-shipu

Labrador S. Me on Labrador

Pipitsheu-minishistik

482m

Paul Island

40km

Topo Map

Staying Calm and Problem Solving



Andrew Arreak,
Regional Operations Lead, Qikiqtaaluk Region
Pond Inlet, Nunavut

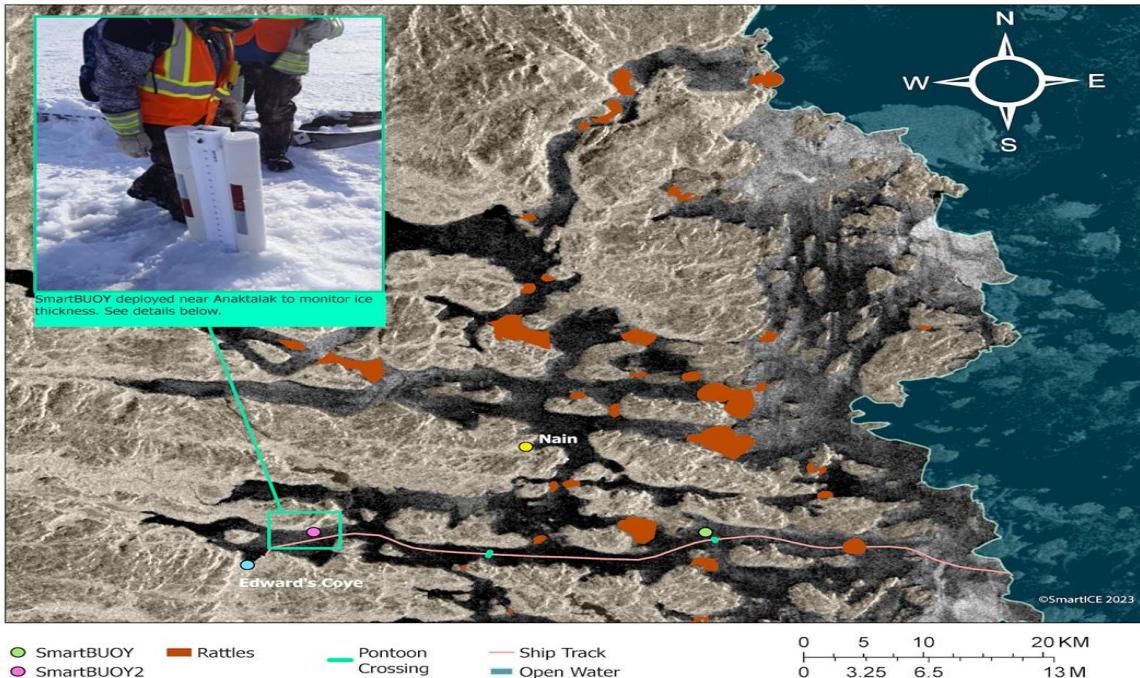
S M A R T I C E

S M A R T I C E

Satellite Imagery – Weekly Maps



February 8, 2023 Ice Conditions around Nain



To find the SmartBUOY ice thickness information, go to SIKU.org. Go to the Nain Community Page and click on **SMARTICE**, then select Nain SmartBUOY 2.

This map indicates sea ice conditions around Nain on February 08, 2023. Rattles shown in red, may or may not freeze over during this time so take extreme caution when travelling in these areas. The pink line is the ship track. Everything in blue is open water. This map is meant to act as a guide and not a safety map. Please exercise care when travelling on the sea ice. If unsure of ice thickness, check manually with your harpoon or axe and always carry an emergency communication device. Be aware of the ice conditions when travelling and don't travel alone.

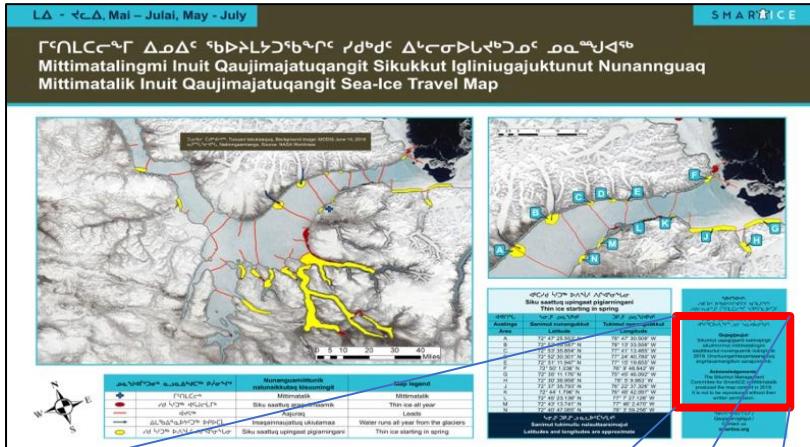
Cartographer: Shawna Dicker.



Esri, NASA, NGA, USGS, Esri Canada, Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, NRCAN, Parks Canada



Community ownership of SmartICE data

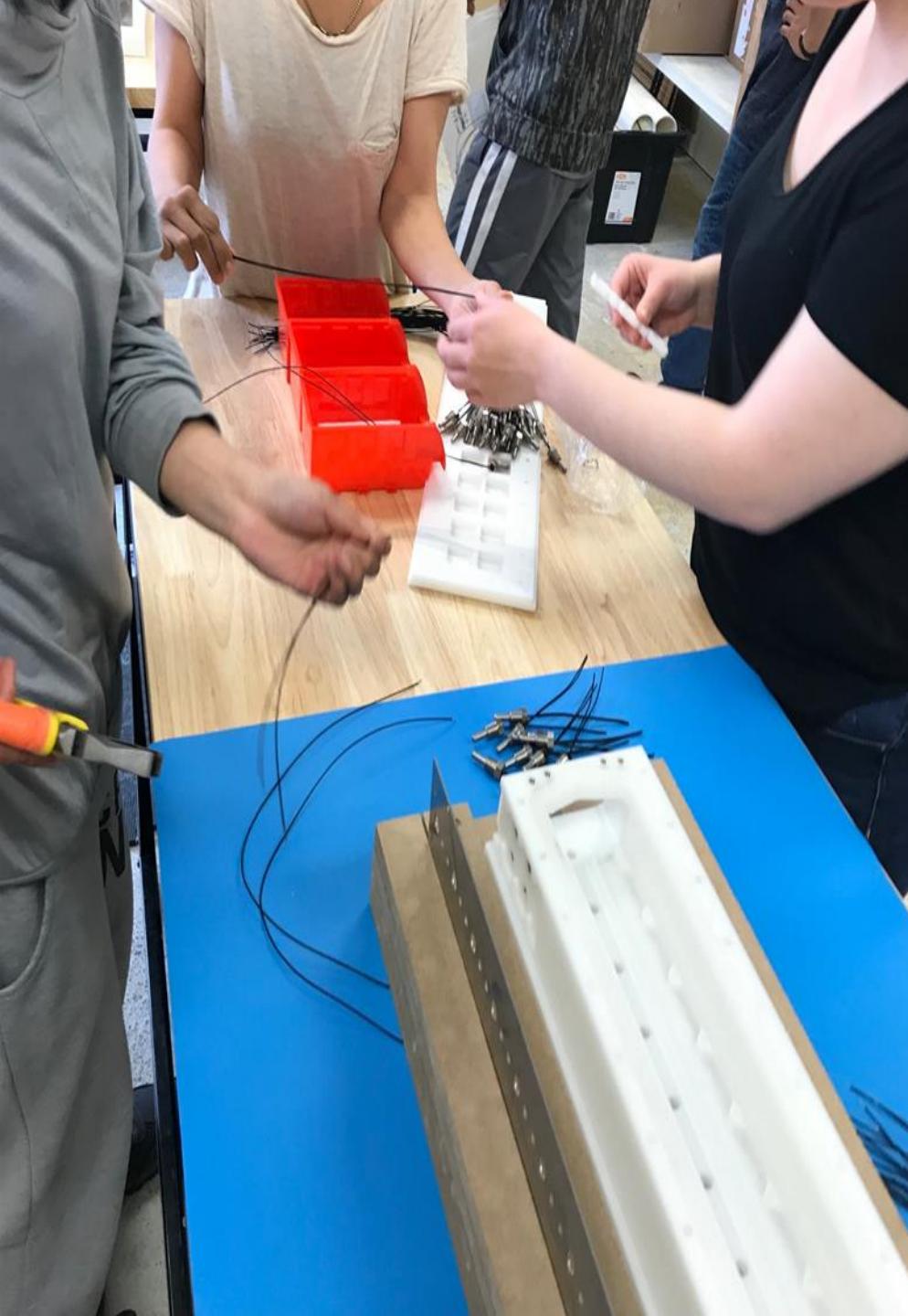


Qujagijaujut:
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Acknowledgements:
The Sikumiut Management Committee for SmartICE in Mittimatalik produced the map content in 2019. It is not to be reproduced without their written permission.



Travel Safety – Traditional Knowledge



Northern Production Centre

Nain, Nunatsiavut





SMARTICE

We are a WISE

- SmartICE is a Work Integrated Social Enterprise (WISE)
- In May 2019, SmartICE opened the Northern Production Centre (NPC) in Nain, Nunatsiavut where local indigenous youth participate in the unique **SmartICE Employment Readiness and Technology Development Program**.
- This project delivers training to youth, especially those “not in education, employment or training” (NEET), aims to reduce barriers for education and employment and also focuses on individual well-being.



- Technical training
- Translatable employment skills
- Certifications, workplace training
- Social and emotional learning
- Traditional activities
- Safe and supportive environment
- Build confidence

SmartICE Employment Readiness and
Technology Development Program





2023 Operator Training



SMARICE

Maximizing Social Impact



Smart MOVES 2022-2023 Ice Season



Nakummek

Thank you

SMARTICE