



# Building Canada's Arctic Infrastructure for a Thriving Canada 2040

*A Roadmap for Northern Infrastructure Starts  
With a Collective Vision of Canada's North in 2040*



# Agenda & Objective

To finalise map data,  
consensus on three sessions  
and process, and plan for  
Year 1 Funding

10 min	Arrival & Introductions
10 min	Refresher on Map Concept and Conclusions of 1st Meeting
30 min	Discussion: Map Data
30 min	Discussion: 3 Sessions
25 min	Year 1 Funding
10 min	Brian Crombie Show/Media
5 min	Close & Next Steps



# Session Participants

## MEMBERS OF STEERING COMMITTEE

- **Derron Bain**, Managing Director, Concert Infrastructure
- **Clint Davis**, CEO, Nunasi Corporation
- **John English**, Co-Chair of Board, Arctic360
- **Peter Garapick**, Director, Industry Relations, Quark Expeditions
- **Michael Gordon**, Director General, Kativik Regional Government (KRG)
- **Paul Gruner**, CEO, Det'on Cho Corporation, NWT
- **Tom Henheffer**, Vice President, Arctic Research Foundation
- **Tom Hoefler**, Executive Director, NWT & Nunavut Chamber of Mines
- **Bob McLeod**, former Premier NWT
- **Tom Paddon**, Chair Baffinland Iron Mines
- **Patrick Tagoona**, President, Nunavut Investments Ltd and Kivalliq Chamber of Commerce

## SESSION HOSTS

- **Jessica Shadian**, President and CEO, Arctic360
- **Madeleine Redfern**, Executive Director, Northern Branch, Arctic360

## SESSION MODERATOR

- **Connor Oke**, M.A. student, Munk School of Global Affairs & Public Policy

# Interactive Map

- **Historical** narrative (present-2040)
- **Data rich** content about critical infrastructure in the Canadian North
- **Heuristic** and easily digestible
- **Focus - Critical Infrastructure:** energy; marine, air, and land transportation; broadband
- **Economic Data** Major economic sectors driving development in the Canadian North (e.g. mining, tourism, fisheries) and potential economic sectors
- **Data** Full project descriptions (e.g. all economic data)
- **Interactive Data** Visuals, interviews, videos, other relevant multimedia sources, ability to scroll over time

# Map Objective

**Audience:** Policy Makers, Northerners, Institutional Investors, Canadians at large

## **Policy makers:**

- 1) Provide critical information required to make informed decisions
- 2) To assist governments with research needs

## **Northerners:**

- 1) Provide an account of the variety of perspectives across communities and industries
- 2) Provide an account of the value propositions across activities: E.g. socio-economic, job creation, sustainability
- 3) Help Northerners reconcile economic choices, revenue mixes, wealth generation, trade-offs: Help in generating comprehensive data/knowledge for possibilities in Canadian North in 2040

## **Institutional Investors:**

- 1) Provide tangible investments possibilities: E.g. multiple projects, large-scale investment potential, possible pipeline of projects, project template for replication
- 2) Help change the mindset of the investment community (attract the attention of the investment community)

## **Canadians at Large:**

- 1) Provide Canadians a new visual narrative of the North - One that is full of possibility rather than impossible challenge

Always put northerners first on our northern work

Getting government to change it's mindset too - attract investment

Place a special focus on Indigenous people. Map should incorporate perspectives of people in specific regions - not north as one bloc

Map should allow people to click on projects, provide information for investors? Also, could indicate when the next update of the map's info will be done. Hotlinks too.

How many areas of land are off-limits for development? Where can be

# Establishing Criteria What Infrastructure is Included

## What qualifies as critical infrastructure to be included in the map?

We do know the focus is:

- 1) Energy
- 2) Telecommunications
- 3) Transportation

Process to determine this:

- a) Subcommittee to decide
- b) Circulating drafts for feedback and changes
- c) Doing individual interviews/calls - Can be in addition to b)

Some things are time sensitive - ice roads, when the ice breaks, sea lift. Many current maps don't give this data. So time sensitive within years, not just between years.

Can we include how and how easy it is to access areas - by air, by ship. If you show how areas can be accessed, it might come in handy to investors and planning projects. Separate transportation infrastructure by colour. Hydrographical maps - emphasize that it's not the same as the south. How to harbour/over-winter ships.

Geoscience infrastructure - layer on map that is just highs and lows of land. Another layer that is the geology of the area.

Should we be avoiding minor details - focus on the major investment projects? (e.g. not including sidewalks)

Could this process be done through a Google doc? - Yes. Will be shared, all can contribute.

Start with NTI report definition of infrastructure?

Separate public and private infrastructure. And a layer separating current/historic infrastructure and projects to come. Airports, roads, etc. Some may be PPPs. Differentiate existing vs. planned.

Power plants - age of plant, end of life. Include requirements for that infrastructure to be replaced.

Remember - map will evolve over time

Is it possible to geotag ship's location and include on the map, or just include where they usually are? General information about shipping? Or all shipping traffic from the previous year. Coast guard information.

# Three Sessions and Process

- 1) Economic Data
- 2) Infrastructure Needs
- 3) Institutional Investments

## Process:

- Participants of each session will receive a packet of pre-reading materials, discussion topics, list of information to gather for the meeting, and the format for the session .
- Following each session there will be a summary of discussions, information derived, and conclusions. This will become central to the pre-reading materials for the following sessions
- Established Timeline for Sessions

# Session 1: Envisioning Canada's Northern Economy in 2040

## Convene Industry Leaders: Discussion/Data Collection

- 1) What is the potential for your Industry/Economic Sector/Company in 2040 - based on current projections / and IF necessary infrastructure was built
- 2) Economic contributions each sector can potentially deliver for their Northern region/ Canadian North/ and Canadian economy
- 3) Identify Cross Sectoral Infrastructure Collaboration
- 4) Identify unaccounted economic sectors

## Participants from following Sectors:

- Mining
- Energy
- Tourism
- Fisheries
- IT/Communications
- Air Transportation
- Marine Transportation and Shipbuilding
- Land/Rail Transportation
- Research

## Session 1: Next Step in the Project

Emphasize where we want to be in 2040 - what should the Arctic look like and how do we get there? What will the population be? Breakdown of demographics? Key industries. And then what are the primary infrastructure projects we need to get there. Create a narrative to support the strategic planning.



# Session 2: Mapping Out Northern Transportation Enabling Infrastructure for 2042

## Convene Construction Engineers in the following areas:

Transportation  
Tech / Innovation  
Smart Cities Infrastructure

How could capacity building, education and similar aspects be brought into the map. How could the map in 2040 be more alive, tell a bigger story? Story needs to be told. Perhaps think about having more words, a narrative in the map. Or something around the map, which tells the story and the map helps that., such as videos, interviews, discussions.

**Aim:** Based on Economic data from Session 1 and additional existing data (e.g. existing critical infrastructure):\*\*

Participants will work together to think through and begin to map out the requisite critical Northern transportation infrastructure for the North in 2040.

## Infrastructure Focus:

- To support economic sectors and sustainable economic development
- To connect the North to national and global trade and supply chains
- Building 21st century / smart infrastructure

## Participants:

- Northern Infrastructure Companies
- Global Infrastructure Engineering Experts on Design of Smart Cities
- Canadian/Global Infrastructure Engineer Companies with Experience in the North

Patrick: in 2040, opening Churchill as a port. Connecting the roads. Instead of building north-south, linking the communities in the north. Transportation infrastructure. Focus also on local capacity building. Include a specific category of construction - of all types. Tied into educational capacity building. Helping Northerners get housing. Opportunity to bring in other money. Can housing be added into map - to show where new projects are needed?

Michael G: In 2040, mining deposits, only become economically feasible if the areas can be accessed. Transportation is key. Once mapped, how do you get to it and send to the market? Hydro development, other examples.

**\*\*To convene Session 2 we will have to compile a list of existing infrastructure that falls within our criteria\*\***

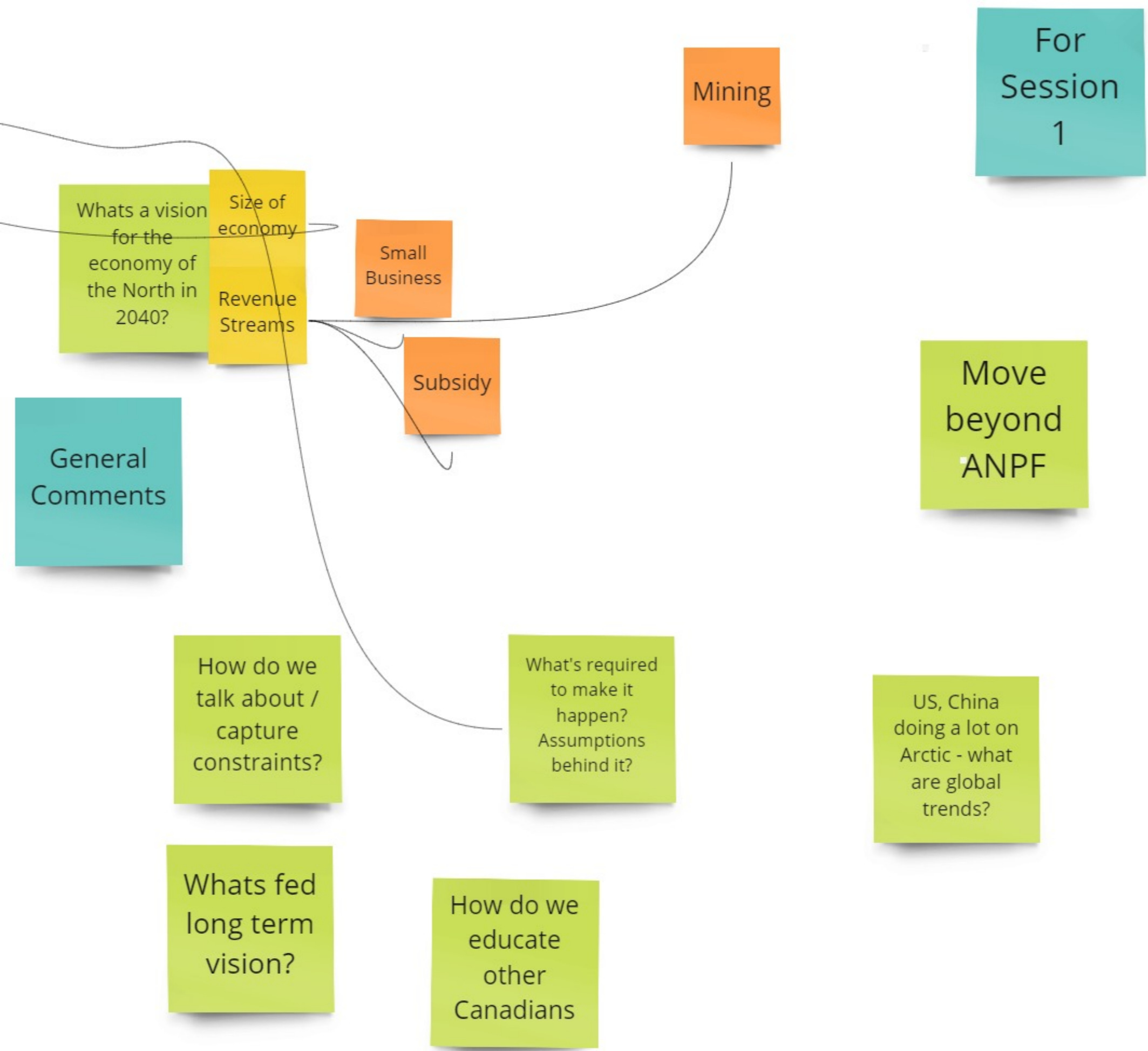
# Session 3: Financing Northern Infrastructure

## Convene Financial Institutions and Venture Capital

Based on Expected Infrastructure Needs for 2040 Discussion will Focus on the Following Items:

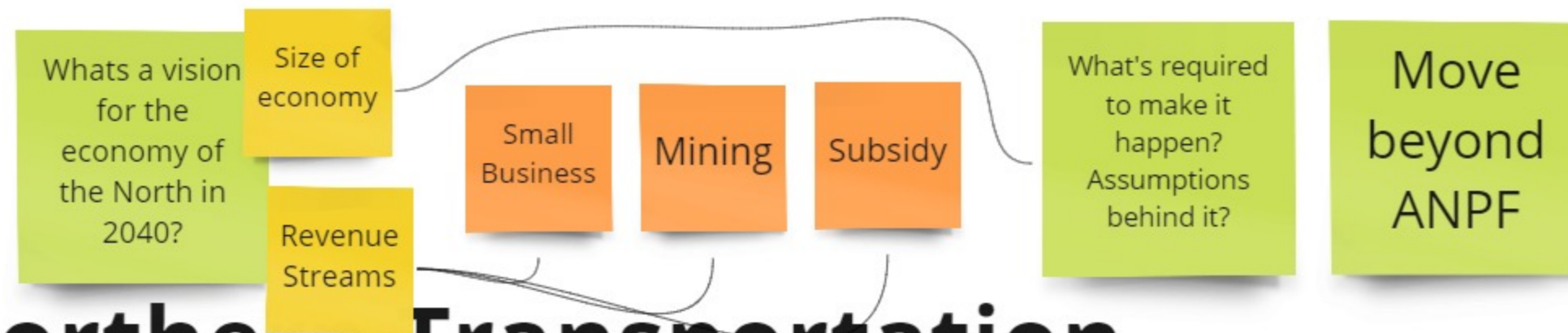
- 1) Understand the requirements investors need satisfied to invest in potential infrastructure projects outlined
- 2) Understand what is needed for Canadian institutional investors (e.g. pension funds) to invest in long-term greenfield critical transportation infrastructure projects in the Canadian North - see the North as an alternative to other emerging economies in other parts of the world
- 3) Understand the role the federal government must play to make Public-Private partnerships possible / interesting for institutional investors
- 4) **How can the map best help facilitate achieving the necessary requirements through data and other analyses, information, etc.**

Note VC is high-risk, startup investing, not really infrastructure investing. Vocabulary question.



## Session 2: Envisioning Canada's Northern Economy in

**2040:** Convene Northern Industry Leaders and map out potential state of the Northern economy and the economic contributions each sector can potentially deliver for the North and the whole of Canada.



## Session 3: Mapping Out Northern Transportation

**Enabling Infrastructure for 2040:** Use information from previous section to convene Transportation, IT infrastructure, engineering and related Tech companies. Begin to map out the requisite transportation infrastructure for North, Northern economy and that links Canadian North to national and global trade and supply chains.

# Session 4: Public-Private partnership

## mechanisms to finance Northern

**infrastructure:** Use information from previous sessions participants focus on what requirements capital investors need satisfied to be able to make long-term greenfield investments in critical transportation infrastructure for the Canadian North; answering what steps are required and what can be done now to help facilitate that process.

How do we  
talk about /  
capture  
constraints?