



**SECOND ANNUAL CONFERENCE:**

*The Emerging Economy Of The North American Arctic:  
Investing In 21st Century Critical Infrastructure And  
Transportation Corridors*

2020

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## Forward

A few short weeks before the world went into lockdown, Arctic360 convened its Second Annual Conference: *'The Emerging Economy Of The North American Arctic: Investing In 21st Century Critical Infrastructure And Transportation Corridors'*. Our annual conference brings together leaders from around the North American Arctic from Indigenous development corporations, to Northern governments, the investment community, the Government of Canada, mining, IT, telecommunications executives, and other stakeholders. Our February 2020 conference focused on the challenges and opportunities to invest in the world's northernmost emerging economy.

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*Together, they discussed the challenges and opportunities to invest in the world's northernmost emerging economy.*



Despite the cold dreary weather outside, inside the University Club our group of Alaskans, Canadians, and Greenlanders, alongside financial institutions from Bay Street to London, took part in a marathon of conversations that delved deep into the challenges and opportunities for the North American Arctic.

Arctic360 does not intend for its annual meetings to be a forum for institutional self-promotion. Instead, they are for those with an earnest interest in listening and learning from one another. It is a conference meant for those willing to roll up their sleeves, stay for the duration, work to help advance the conversation on growing a sustainable and prosperous North American Arctic, and how to find the capital investments to do so.

Yes, Arctic geopolitics and climate change make great newspaper headlines. Yet, at the heart of those articles is the critical infrastructure deficit in the North American Arctic. In

This infrastructure gap makes it more difficult for communities to adapt to climate change and take advantage of the opportunities of a more accessible Arctic region. Further, it is impeding the ability of the region's states to protect their Arctic security and sovereignty. While there has been some positive momentum, the fact remains that there is a long way to go in filling that gap, knowing who will finance it, and finding precise components of the public-private partnerships required to bring global capital north successfully. To arrive at these answers insightful circumpolar Arctic thinking is required alongside new theoretical and applied economic approaches to harness the necessary investment into the region. The objective of Arctic360's annual conference is to help advance that conversation.

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*We would like to thank everyone who participated in our 2nd Annual Conference. We can say with certitude that we all learned a lot and met new colleagues. The challenges were laid bare, but thanks to those who brought their expertise to the table, we learned what we need to do going forward.*

*We want to pay a special thank you to our partners and our generous sponsors. Without your support, we could not work to accomplish our mission.*

Though COVID has stopped us from meeting in person for February 2021, we have continued to keep the conversation moving forward online through our podcast series, Breaking the Ice and other virtual events with our partners. We also continue to fundraise so we can carry out our initiatives, including our Annual Infrastructure Investment Opportunities Report, our Interactive 2040 Infrastructure Map, and accompanying projects.



the continued spirit of being Canada’s principal Arctic think tank for convening, building new networks and partnerships, and creating new knowledge to advance sustainable economic development in the North American Arctic – onward we go.

We look forward to seeing you all again in person.



**Jessica Shadian**

PhD., President and CEO,  
Arctic360

**Madeleine Redfern**

LL.B., Executive Director,  
Northern Branch, Arctic360





*I attended the arctic360 conference two years ago and I was absolutely fascinated by the people in the room and the desire and a determination to really work closely with us in the Arctic and sub-Arctic regions of Canada but also your real commitment to learn and to understand and be more involved. That was one of real takeaways that I had at the gathering at that time. So, when the invitation came this time, I said wow I would love to do that again*

**Yvonne Jones**

MP Labrador



## *Arctic360's Second Annual Conference:*

*The Emerging Economy of the North American Arctic: Investing in 21st Century Critical Infrastructure and Transportation Corridors*

**The Arctic** is undergoing unprecedented change on every front. Climate change is reshaping the environmental landscape of the region. With that, there is ever-increasing global economic and political interest in the Arctic. Now is the time to leverage this wide-sweeping change for the good of all stakeholders.

**Rather than representing a 'snow globe', the North American Arctic is eager for global investment**

in everything from its wealth of resources to the infrastructure required to connect to international markets by way of newly emerging global maritime corridors unfolding at the top of the world.

**The North American Arctic** also holds enormous promise as we already see in creating innovative solutions to the region's unique problems, from revolutionizing 21st-century transportation infrastructure to creating new means of food production, medical services, housing, and more. Moreover, the North American Arctic is home to Indigenous communities who have financial equity to bring to the table alongside legally rightful expectations to be full partners in the development of their region.

**Today, the North American Arctic is transforming into the world's newest and safest emerging economy**, leaving behind outdated myths and misperceptions. As Greenland often reminds us, the region is officially open for business. The question to ask is, 'who is already there and who will continue to take the lead in investing in the future of the region?' As the global economy pivots and brings the North American Arctic directly into its orbit, one thing is clear: global interest and activity in the region are only just beginning.

# Mission

*Arctic360 is Canada's principal Arctic-specific think tank.*

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**Our Mission:** To highlight and strengthen the emerging economy of the North American Arctic (Alaska, northern Canada, and Greenland). In this pursuit, Arctic360 works with Indigenous corporations and associations, Northern governments, the private sector, the federal government, Arctic leaders, and other stakeholders to help educate and attract Canadian and global investment to the North American Arctic.

We believe that a prosperous and sustainable North American Arctic relies on incorporating and expanding the intellectual and financial equity of those that live there. Further, we believe that only through earnest partnerships is it possible to generate a greater global understanding of the region as it attracts greater international attention and investment.



**As part of our mission, we seek to:**

- 1) Help close the economic and infrastructure gap between the North and the rest of Canada through public education, outreach, growing our partnerships, creating new knowledge, and focused activities; and
- 2) Provide an inclusive and coordinated platform for Canada to engage on the world stage and on equal footing with Arctic think tanks around the world.

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### *Featured Speakers*

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<b>Sean Boyd</b>	Vice-Chairman & CEO, Agnico-Eagle Mines
<b>Yvonne Jones</b>	Member of the Canadian House of Commons, Labrador
<b>Hon. Vittus Qujaukitsoq</b>	Minister for Finance and Mineral Resources, Greenland
<b>Russell Read, CFA, Ph.D.</b>	Group Managing Partner, The C Change Group and former CEO of the Alaska Permanent Fund
<b>Keith Martell</b>	Director, President and Chief Executive Officer of First Nations Bank of Canada
<b>Ruben Shiffman</b>	Executive Chairman, Greenland Resources
<b>Gabe Friedman</b>	Financial Post
<b>Danielle Bochove</b>	Toronto Bureau Chief, Bloomberg News

### *The Conversation*

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- Northern Transportation Corridors and Routes: Building Project North
- Shipping Along the North American Arctic Ocean, NW Passage, and Financing the Arctic Maritime Infrastructure Gap
- Paying for Infrastructure: Public/Private Partnerships and Attracting Global Capital: Building the Business Case
- Innovation in Infrastructure for the Arctic
- Infrastructure Banks, Infrastructure Bonds, Indigenous Funds, Indigenous Bonds, and Other Mechanisms For Attracting Private Capital Investments in Arctic Infrastructure
- An Indigenous Development Corporation Conversation with Invest in Canada: Fostering and Supporting an Investment Climate in the North
- Mining Meets Infrastructure in the Canadian North and Greenland

## Executive Summary

From Alaska through Canada to Greenland, in the North American Arctic we know that every discussion – whether political, economic, social, or security – begins and ends with the gaping infrastructure gap. In Canada’s northern territory of Nunavut, roughly 20% of Canada’s landmass, the longest public road is 24 km long. There is no transportation ‘system’ to speak of. Looking around the Nordic Arctic, it becomes clear that the status quo in Canada is neither working nor inevitable. Further, with such a massive infrastructure deficit, Bay Street and global financial institutions will be a critical part of the solution.

In February 2020, Arctic360 hosted its Second Annual Infrastructure Investment Conference. The conference brought together Canadian Indigenous development corporations and Associations, Northern governments, Greenlanders, and Alaskans alongside financial institutions and government. Here, these varied stakeholders learned from one another and worked together to find a path forward to build the critical infrastructure that the North needs.

The conference began by recognising that the North does not need charity from banks and institutional investors. Instead, northerners want to grow partnerships with those institutions so that they can build strengthened business cases and help financial institutions build their internal Arctic strategies and Arctic portfolios. The conversations that transpired over the 2.5-day conference built on the opening fireside chat between Russell Read from C Change and the Financial Post’s Gabe Friedman. There, the stage was set as Russell eloquently explained that, in the North American Arctic, ‘we need to build the package’. We need to build the package so that institutional investors can become active investors in the region. From there, the conference participants set out to discuss the necessary pieces of the package to help connect communities to one another and the Arctic to the world.

### What did we learn?

There were **four** main takeaways:

0.1		Packaging: We have to do it ourselves	0.2		Diplomacy matters
0.3		There is no shortage of projects or ideas	0.4		The missing Canadian Arctic strategy





## Packaging

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We learned that the Arctic is not on the radar screen for most institutional investors today, though this is changing. Yet, the big question that remains is how will we find the trillion dollars of investment needed for the Arctic? To start, it requires a demonstration of low risk and that requires having the right packaging.

There are three types of institutions interested in investing in any region, including the Arctic. Each institution has distinctive roles and the three are much like the three legs of a stool. In the North American Arctic, two are more developed than the third. The first two legs are government investment and industrial companies. The third leg is the institutional investors. Up to now, projects in the North American Arctic are not being packaged in a digestible way, that makes sense, and that can generate the regularised cash flows that appeal to institutional investors. Yet, it is the institutional investors that can provide scale in a way that governments and industrial companies can never do.

Thus, to have scale-impact, the international investment community matters. In other places around the world, opportunities are packaged

and ready to go for institutional investors. In the Arctic, we still have to do our own packaging.

The Wilson Center's Polar Institute is developing an infrastructure inventory to help generate the baseline data needed to assemble the package. Mead Treadwell, co-chair of the Polar Institute, is also working with Arctic360 to produce an annual Arctic report card that will help provide the additional micro- and macro-economic data necessary to fully package infrastructure projects. This packaging includes demonstrating that the region is friendly to investment, and how the region fits into broader global trends. For example, how infrastructure investments can offer safer and better returns than the bond market.

Ultimately, institutional investors must be able to anticipate the capital needed for any project, or the risk will be too high. In Canada, Ottawa has a role to play by providing its data. In Greenland, the situation is different. There is much strategic capital in the quasi-sovereign banks, the Nordic Investment Bank, and the European Investment Bank set aside specifically for Greenland. However, the ability to deploy that capital needs to be more fully developed.



## Diplomacy

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Taking the cue from Greenland, we learned that diplomacy matters. We learned that Greenland opened its representation in Washington, DC to have a direct communication line to the United States (though its office also represents Canada). In addition to the US, Greenland also has representation in Brussels and Reykjavik, an office coming in Beijing, and possibly London.

When asked if Canada was on the list of potential places for diplomatic representation, the reply was that Greenland makes decisions strategically. While Greenland is not currently looking to have physical representation in Canada, MP Yvonne Jones stated her interest in strengthening bilateral relations. She added that a Greenland office in Canada would help foster

stronger ties. According to Jones, there are environmental and cultural similarities between Canada and Greenland that both regions can benefit from and use to build a stronger relationship.

However, diplomacy is also about economics. According to Ruben Shiffman, Executive Chairman of Greenland Resources (which has mines in Greenland and is headquartered in

Toronto), when it comes to helping to grow the mining sector and attract investment, diplomatic posts are critical. According to Shiffman, this aligns with the broader diplomatic changes taking place. For example, historically, the U.S. had a delegation in Greenland (because of Thule Air Base). Today, it is reopening its embassy, and this time, the focus is economic.



## No shortage of project ideas

We also learned that the lack of investment is certainly not due to a deficit of projects. Infrastructure project discussions included: the Grays Bay Port and Road Initiative, which includes an all-weather road and deep-sea ports; a railway that would connect Alaska and Alberta through Yukon; a hydro-fibre link that will run from Manitoba into the Kivalliq region of Nunavut; the Slave Geological Province all-weather road and the Tłıchǝ Highway and Taltson Hydroelectricity Expansion project in the NWT; the renewed Churchill rail and port project; and other critical infrastructure projects from less developed port ideas to low orbiting satellites and broadband internet initiatives. Projects abound, but will they find the financing?

Then, there are the innovation projects from terrestrial microwaves, solar energy, and the potential of biomass to create heat and

electricity, to new techniques of pulling heavy metals out of mine tailings, the role of higher-pigmented asphalt to stave off permafrost melt, Northern housing, and pulling plastic from compost. But it does not end there. There are the electric skidoos, fuel cells, pop-up ports, and Lily Pad barges that essentially create their own energy, unmanned vehicles, indoor garden projects, a miniaturized version of an auto-gasification system, and another looking at data security through the need to keep cryptocurrency cold.

A further innovation project takes AI data and fuses it to study behavior regarding information and another consists of a factory in a box with tiny robots that build things. The opportunities for innovation in the Arctic are clear. What is needed is the strategy to bring the venture capital north, secure the IP, and scale them.



## The missing Arctic Strategy

The right packaging, diplomacy, and a smorgasbord of scattered and siloed

projects all fit under the larger umbrella of the fact that Canada does not have a long-

term Arctic strategy when it comes to its role as an Arctic state on the global stage. At home, for decades, a lack of political willpower has left the Canadian Arctic behind southern Canada when it comes to critical infrastructure. Indigenous communities are the most significantly impacted by this deficit. Northerners are continuously told that they should develop business cases to build roads, Internet, healthcare, education, and other critical infrastructure in their own communities. Moreover, no one seems to find this out of step with the rest of Canada. Are community members asked to provide a business case to have sewage, Internet, or health care in Toronto?

Agnico Eagle's CEO, Sean Boyd echoed this sentiment. According to Sean, the impression outside of the country is that there is no coherent strategy or widespread support for resource development in the North. The consequence is that investors are discouraged from putting their capital into Northern projects. Whereas Agnico has been willing to build 170 km of road, the North is not teaming with investors eager to contribute.

Given that northern Canadians will ultimately bear the brunt of the changes created by climate change, the North would be the best place to start building an infrastructure investment strategy for the 21st-century. What was repeated, however, is that Canadians need to be better big-picture thinkers. Too often, Canadians get caught up in localized issues, and consequently, Canada is not getting products to market – much less those in the North which are largely cut off from global supply chains, altogether.

It is not a surprise that politics are often at the centre of any infrastructure discussion, and this is especially the case when it comes to developing an infrastructure investment strategy for the North. Infrastructure experts pointed to the fact that the Trudeau government

is focused first on the environment. Thus, when it comes to any infrastructure investment policy, green energy is often the leading priority. And, where the Canadian federal government has given attention to the North – for example, its stated intention to eliminate the infrastructure deficit between the Inuit and the rest of Canada by 2030 – there is little knowledge of how big that gap is, what it will take to close it, and what the plan will be to do so.

Closing the infrastructure gap will ultimately require a broader regional strategy – one that includes attracting the right kind of capital to the North, including foreign direct investment (FDI). Unlike the Canadian provinces, when it comes to the Territorial North institutions such as Invest In Canada, do not have specific offices dedicated to the Northern regions. According to Invest In Canada's Greg Da Re, it would be difficult for a foreign investor to come into the Northern space. As an institution, Invest In Canada does not have a good sense of what are investable projects in the North. When asked by Naomi Powell from the Financial Post if it would be helpful for Canada to have an investment strategy for the North, Da Re's answer was simple: immensely.

What shape should an Arctic strategy take? The participants stated that Arctic infrastructure projects should be done under the narrative of nation-building projects. It needs to be a long-term strategy with enormous up-front investment. This strategy would bring immediate benefits for Northerners and long-term returns for the Canadian economy. As the world's second-largest country with the longest coastline in the world in its Arctic, Canada is well-positioned to provide commodities and Arctic leadership across the globe. The challenge for Canada in creating a long-term investment strategy is building a strategy and accompanying institutions that can survive successive governments. Nation-building exercises have a return horizon of 50–75 years. Investing in the Arctic is a long game to play, and Canadians need to start playing it immediately and strategically.

# Preconference Dinner and Fireside Chat



## *Fireside Chat Videos:*

- [▶ https://www.youtube.com/watch?v=RKWntV7wFy4](https://www.youtube.com/watch?v=RKWntV7wFy4)
- [▶ https://www.youtube.com/watch?v=0X1WxhCYHoE](https://www.youtube.com/watch?v=0X1WxhCYHoE)
- [▶ https://www.youtube.com/watch?v=4Ueog8rAR9o](https://www.youtube.com/watch?v=4Ueog8rAR9o)





*Without the government role of being able to change the game on pre-development money [for] infrastructure, nothing will happen.... In other places in the world, the opportunities are packaged and ready to go for institutional investors. And in the Arctic, that generally is not the case. We have to do our own packaging.*

### Russell Read

- Dr. Russell Read, Group Managing Partner, The C Change Group
- Gabe Friedman, Staff Writer, Finance Post

Gabe kicked off the fireside discussion with a simple question that directly spoke to the elephant in the room: Is the North American Arctic on the radar of institutional investors? Russell's answer was a simple no, but not without caveats. According to Russell, the Arctic is not on the radar screen for most institutional investors today; however, this is changing. Whereas government investment and the industrial companies are more developed, institutional investment is largely missing. Opportunities need to be packaged to demonstrate the regularized cash flows that investors are in search of, among other aspects.

To help address this gap, Read discussed how his financial institution, C Change Group, is evaluating Arctic infrastructure projects along five themes: logistics (e.g., seaports, maritime infrastructure, air infrastructure, communications), energy (e.g., LNG, hydrogen), mining, tourism, and food. The intent is to find where business cases can be built and packaged accordingly. Read emphasized that in all five of these areas the role of government is critical in de-risking the pre-development stage. Without that, nothing will happen. Ottawa, we are looking at you.

**DAY 1: 4 FEBRUARY 2020**

## Keynote Address

**See Video:** <https://www.youtube.com/watch?v=U4rwu167-BQ>



- Dr. Jessica Shadian, President and CEO, Arctic360
- Mead Treadwell, Co-Chair, Polar Institute, Wilson Center, Washington



*[In the North American Arctic] we have the resources, we have the institutions, we have Indigenous equity, we have [the will]...all the pieces and elements...to be...a really successful emerging economy.*

**Jessica Shadian**

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*[In the Arctic] we feed the world, fuel the world, provision the world, protect the world. We also connect the world... And I should just say we also inspire the world.*

**Mead Treadwell**

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*There's four million of us living in the Arctic, we don't have enough money in our mattresses to do what we can do for the world. We have to understand that going for the flow of capital is going to be essential to our success.*

**Mead Treadwell**

Jessica opened the keynote with a simple message: when it comes to the North, Canada needs a new narrative. Currently, the Canadian Arctic is a region filled with untapped potential. Most Canadians do not even realise the economic and strategic opportunity present in the North. As the only Arctic-focused think tank in the country, Arctic360 aims to harness that energy to envision a brighter Northern future.

Creating a more economically prosperous North is an investment that needs to be made strategically and soon. Without access to 21st century infrastructure, Canada's Arctic has some of the worst poverty in the OECD. And without access to affordable transportation, housing, food, or broadband, the wealth disparity will only grow, as will Canada's insecurity in the region. The longer investment is ignored, the greater the costs become, and the greater the opportunities missed. A Canadian Arctic strategy and accompanying roadmap, to attract the needed capital is necessary to build the social infrastructure that is critically lacking. Yet, as China's Arctic ambitions grow (including the addition of its Polar Silk Road strategy to its BRI), Canada needs to assert itself now as the geopolitical importance of this region increases. Melting ice has created new maritime waterways which requires new forms of international cooperation. Instead of taking on a leadership role in domestic and international Arctic policy, Shadian argues that Canada is passing up a critical opportunity.

If Canada does not move to strategically strengthen the Arctic at home, it may find itself soon outmanoeuvred from abroad.

Mead Treadwell carried this message forward. Picking up on Russell's Pre-Conference fireside chat, Treadwell kicked off his keynote by discussing the three legs of the stool. There are government investments and there are company investments but what has been lacking in the Arctic are the institutional investments. The question, then, is

how to find the trillion dollars to bring investment to the Arctic?

The Wilson Center's Polar Institute is looking for that trillion dollars. The Polar Institute is developing an infrastructure inventory to help make the case to institutional investors that the Arctic is a place where you should invest. But it does not end there. Treadwell exclaimed that he looks forward to helping Arctic360 produce an Arctic report card help further those

efforts. The report card is going to help build the business case by providing the micro- and macro- economic data and trends to help assure investors that the Arctic is a good risk. The data generated by the Report Card will help make the Arctic more friendly and accessible to institutions. This includes the argument that infrastructure investments provide a structured return that can even be considered safer and provide better returns than other markets such as the bond market.

#### MORNING FIRESIDE CHAT:

## *Strengthening Canada-Greenland Bi-lateral Relations*

**See Video:** <https://www.youtube.com/watch?v=CZ-AtyeYbbg>



- Moderator: Madeleine Redfern, Executive Director, Northern Branch, Arctic360
- Yvonne Jones, M.P., Labrador
- The Hon. Vittus Qujaukitsoq, Minister for Finance and Mineral Resources, Government of Greenland



When it comes to Arctic strategy, few countries are better positioned to talk strategy than Greenland. As Vittus Qujaukitsoq reminded the panel, Greenland does not have a specific ‘Arctic strategy’ because everything Greenland does is rooted in the Arctic with a focus on how Greenland policy can best benefit the country. In the 40 years since gaining self-governance from Denmark, Greenland has aimed to use its rich mineral resources strategically to create a self-sustaining economy. As a country with a similar landscape to Nunavut, Canadians can learn a lot from the leadership Greenland displays through its Arctic policy.

Beyond its representation in Brussels, Reykjavik and its plans for Beijing and possibly London, Minister Qujaukitsoq also emphasized Greenland’s commitment to NATO as demonstrated by its representation in Washington DC. Labrador MP Jones talked about her own interests for Canada to strengthen its bi-lateral relations with Greenland including the prospects of Greenlandic representation in Canada. MP Jones noted that beyond environmental similarities, there are also cultural similarities between Canada and Greenland which both regions can use to build a stronger relationship.

Despite investment and policy challenges in the Arctic, MP Jones remains optimistic about the growing trend of international cooperation in the North American Arctic. Domestically and abroad, Northern communities have a renewed sense of agency, independence, and pride in their communities that will continue to grow in the decades to come. In Canada, Inuit resilience means that Inuit organizations are in a stronger position to build relationships with other North American Arctic nations, especially ones so similar to Canada.



*...we opened up our representation in Washington, DC, because it made sense for us to have a direct communication line to United States...We also have offices in Brussels and in Reykjavik, and we are working on starting an office in Beijing...and perhaps London...we make strategic decisions on where it makes sense. It’s based on trade, it’s based on investments, commerce, etc., so it’s based on the economic interest of Greenland where we open offices abroad.*

### **The Hon. Vittus Qujaukitsoq**

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*So, not Canada yet.*

### **Madeleine Redfern**

Executive Director,  
Northern Branch, Arctic360

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*How fast do we need to go? A lot faster than we’re going today, unfortunately, and that requires huge capital investment.*

### **Yvonne Jones**

M.P., Labrador



**SESSION I:***Northern Transportation Corridors and Routes:  
Building Project North*

**See Video:** <https://youtu.be/CXZ3wiwxoGU>



- Moderator: Andrew Macklin, Managing Editor, Renew Canada | The Infrastructure Magazine
- Sonya Saunders, NWT Strategic Infrastructure Corridors, Director, Strategic Infrastructure, Department of Infrastructure, Government of the Northwest Territories
- Stanley Anablak, Grays Bay Port and Road, Nunavut, President, Kitikmeot Inuit Association (KIA)
- Mead Treadwell, COO, A2A Railway
- Joe Coccimiglio, Churchill Port and Rail, Fairfax Financial
- Philip Duguay, Kivalliq Hydro-Fibre Link, Vice President Canada, Anbaric Development Partners



*[W]e have to look down the road at...value-added opportunities, and see what we can do to make them work here...there's actually tremendous opportunity with products that are coming from all over the North...If you go to Dalian in China, you'll find pretty much ships from all our [Alaska] mines...to go into the Chinese system, and I think we could look at being value-added providers here in the North.*

**Mead Treadwell**

COO, A2A Railway

A century ago, the Canadian Pacific Railway linked the country from coast to coast and created a lasting economic corridor that strengthened Canada's new and burgeoning economy. Today, leaders from across industries are looking to build 21st century transportation infrastructure to and through the Canadian North, the final untapped coast of Canada.

The Grays Bay Port and Road Initiative is one such venture that, if built, will finally see an all-weather road connect the deep-sea ports of Nunavut to the Canadian highway system. Stanley Anablak expressed that the new road system will help deliver supplies to communities, facilitate trade from a mineral-rich region, and open-up defence possibilities from icebreakers and the Coast Guard. We also heard from Mead Treadwell about the plans for a railway that would connect Alaska to Alberta through the Yukon, saving days of travel time and billions of dollars.

But in the 21st century, effective transportation infrastructure is not just formed through steel rails and paved roads. Philip Duguay reminded us of the critical need for fibre optic cables and access to broadband internet, something akin to a basic human

right in the information age. You cannot put a price on the benefits fibre optic connectivity will bring to a region that is so often shut out. That is why Anbaric has partnered with the Kivalliq Inuit Association to build the Kivalliq Hydro-Fibre Link that will run from Manitoba into the Kivalliq region of Nunavut.

Sony Saunders discussed a number of projects in the NWT including the Slave Geological Province all weather road, the Tł̥ch̥ Highway, and the Taltson Hydroelectricity Expansion project. Joe Coccimiglio turned attention to the rail and port at Churchill which has moved from idea to reality serving as a gateway to the North.

When it comes to establishing a grid similar to southern Canada, all panellists made it clear that Indigenous involvement and ownership will be essential. Indigenous communities in the Arctic have been deprived for so long of the basic government infrastructure that is taken for granted in southern Canada. That is why there is wide community support and Indigenous and Northern governments have increasing institutional strength to advocate for their needs. Unfortunately, as the panel reminded us, all too often the lack of transportation infrastructure is a very real roadblock to lasting change.

## Lunch and Fireside Chat

See Video: <https://youtu.be/3L6MSBEdArM>



- Keith Martell, Director, President and Chief Executive Officer of First Nations Bank of Canada
- Shirley Ong, Senior Policy Advisor, Canadian International Arctic Centre, Global Affairs Canada

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*I think the one thing that we've got to start with is just the agreement that the North is Canada – period. And I think that's something that's always missed in the discussions. Northerners [are continuously told that they] should develop some business case for them to have roads and internet and... healthcare and education, and it really is concerning to me, because nobody in Toronto has to get a business case for their sewer water to be put down the new street of their development in Mississauga.*

### Keith Martell

Director, President and Chief Executive Officer of First Nations Bank of Canada

An investment policy for climate change took centre stage during a fireside conversation between Keith Martell and Shirley Ong. They discussed the perceived difficulty in aligning climate friendly policies with a robust economic agenda. Are these things really polar opposites? Or, is it possible to create a vibrant 21st century economy with new green technology?

There is a perception in southern Canada that any type of development in the North will ruin a pristine and untouched landscape. But Indigenous and Northern communities carry the costs of this lack of infrastructure and the indignity of being told what not to do with the resources they have ownership over. Even worse, Keith points out that Northerners have to make a business case just for their right to exist in a functioning

modern society, something southern Canadians would never be asked to do. Northern Canadians will ultimately bear the brunt of the changes created by climate change. So, when it comes to an investment strategy for a 21st century economy, the North is a good place to start.

Shirley asked how we can change the narrative on this false choice between climate and the economy. Although there

are no easy answers, our panellists both agree that understanding is key. When it comes to Northerners, and especially Indigenous Northerners, we must understand their own goals and aspirations for the climate and the economy, their societies, and the traditions and languages they wish to protect. At the end of the day, Northern Canadians are the people we should trust the most when it comes to decisions about their own land and lives.

## SESSION II:

# *Paying for Infrastructure: Public/Private Partnerships and Attracting Global Capital: Building the Business Case*

**See Video:** <https://youtu.be/snNLXmLXE3I>



- Moderator: Gabe Friedman, Staff Writer, Financial Post
- Russell Read, Group Managing Partner, The C Change Group
- Andrew Macklin, Managing Editor, Renew Canada | The Infrastructure Magazine
- Rick Doman, Chairman and CEO, Abell Corporation; Member of Board, Arctic Gateway, Executive Chairman, AMIRA Medical Technologies
- Scott Northey, COO, Nunavut Resources Corporation

After decades of neglect, the Arctic Infrastructure deficit has grown too large for any one organization to take on. In this session, Canadian leaders from across the investment and financial sector gathered to discuss what is required to create sustainable public-private partnerships in the North.

When it comes to partnerships across the private and public sphere, Andrew Macklin recognizes that there is a political angle involved whenever there is public money. In the case of the Canadian North, that political angle is climate-friendly policy, something the Trudeau government has been actively trying to incorporate into any infrastructure investment. The Arctic is most heavily impacted by climate change and melting ice, and therefore all infrastructure developments in the Northern Canada must be anchored to the green economy.

The North, however, is not just the intersection of economy and climate policy. It is also a region of growing geopolitical importance. Scott Northey believes that Arctic infrastructure projects should be done under the narrative of nation-building projects, which will bring short-term living benefits for Arctic inhabitants, and long term returns for the Canadian economy. It is a long-term strategy with a huge investment, but one that is better than having no strategy at all. The challenge is that Canada needs to create an Arctic strategy that that can survive changes in political authority. According to Northey, nation-building exercises have a return horizon of 50—75 years. Investing in the Arctic is a long game to play, but Canadians need to start playing it immediately and strategically.



*I think we could probably all agree that Canadians need to be better big picture thinkers.*

### **Gabe Friedman**

Staff Writer, Financial Post

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*Canada doesn't think big enough in this world, and we get caught up in an localized issues, and we're not getting our products to the market, but we have a lot to offer, including in the Territories, and I think there's tremendous potential for our country...*

### **Rick Doman**

Chairman and CEO, Abell Corporation; Member of Board, Arctic Gateway, Executive Chairman, AMIRA Medical Technologies

**SESSION III:**

## *Infrastructure Banks, Infrastructure Bonds, Indigenous Funds, Indigenous Bonds, and Other Mechanisms For Attracting Private Capital Investments in Arctic Infrastructure*

**See Video:** <https://youtu.be/BCL-yOWRX1o>



- Moderator: Drew Fagan, Professor, University of Toronto and former Ontario Deputy Minister of Infrastructure
- Jake Dockstator, VP, Business Development, Bridging Finance Inc.
- John Casola, Chief Investment Officer, Canada Infrastructure Bank
- Max Skudra, Director, Research & Government Relations, Canadian Council for Aboriginal Business (CCAB)
- Keith Martell, Director, President, and Chief Executive Officer of First Nations Bank of Canada

For decades, a lack of political willpower has left the Canadian Arctic without the critical infrastructure required for businesses and communities to be sustainable and to flourish. Indigenous communities are most negatively impacted by this deficit, both in terms of inaccessibility to daily necessities and the inability to attract capital into the North. Through their work, each of the panellists aim to create change.

Max Skurda reminds us that, although the Canadian federal government has planned to eliminate the infrastructure deficit between the Inuit and the rest of Canada by 2030, there is little assessment of how big that gap is or what it will take to close it. If companies cannot anticipate the capital needed to support and maintain business, the risk will be too high. This is data that Ottawa could provide to increase Northern economic activity.



*We are focused on building greenfield, new infrastructure in Canada, full stop... There is lots of focus on the North, and northern infrastructure... we're looking for those projects. It's been difficult to find the right projects once you apply the rest of our criteria to our mandate.*

### **John Casola**

Chief Investment Officer,  
Canada Infrastructure Bank

While Ottawa could provide the policy incentives, Indigenous economic associations are not waiting around for others to make the call, and the panellists from southern Canada recognize the potential to help. Keith Martell represents a commercial bank where 90 percent of its loans go towards Indigenous groups. Jack Dockstator works with Bridging Finance, a private debt provider in Toronto that specializes in commercial lending with a focus on Indigenous lending. More recently, Bridging Finance created an Indigenous Impact Fund. Although a focus on Indigenous lending was not popular with investors early on, he says it has proven successful and has demonstrated success. Where the Arctic is concerned, the resources are there. The capital is not.

As Drew Fagan says, the infrastructure gap is not likely to be closed by government initiative alone but will need public-private partnerships and innovation to mend. It will need Indigenous solutions and ownership to create solutions for the Arctic that originate in the Arctic.

## **SESSION IV:**

# *Financing the Infrastructure Gap: Shipping in the North American Arctic Ocean*

**See Video:** <https://youtu.be/5EF7u4xyg0l>



- Moderator: Jessica Shadian, President and CEO, Arctic360
- Mead Treadwell, Chair, Arctic Circle's Mission Council on Shipping and Ports; Co-chair Polar Institute, Wilson Center
- Matthew Lewis, VP, Marine Manager for Canada, CNA
- Neil O'Rourke, Assistant Commissioner, Arctic Region, Canadian Coast Guard
- Peter Garapick, Director, Industry Relations, Quark Expedition

As the Arctic Ocean warms and ship traffic continues to rise, this panel focused on the infrastructure needed so shipping can be safe, reliable, functioning, and well-financed. This panel convened leaders from Canada and the US including the tourism sector, the Canadian Coast Guard, and the marine insurance industry to bring different perspectives to a problem with an unpredictable future. Neil O'Rourke discussed the Coast Guard's Arctic operations from community resupply to search-and-rescue and safe marine navigation. The Coast Guard is also working with Transport Canada on a Corridors Project to create an appropriate governance model that is co-managed with Northerners to ascertain priority areas on which the Canadian government should focus investments.

Mead Treadwell questioned how we will pay for the infrastructure that is necessary to cope with the opening of the Arctic Ocean, including the NW Passage. Whereas Russia has a fully developed plan for shipping through its Northern Sea Route, Treadwell asked whether there is there an opportunity to create an international seaway concept for the North American Arctic allowing for the US and Canada to jointly govern the waters in the North American Arctic. The participants were told that there has already been positive responses from parliamentarians in Japan, China, Korea, and Norway.

Peter Garapick also picked up on the lack of ports, hospitals, and basic infrastructure which limits the operations of cruise tourism. The lack of infrastructure limits the capabilities and reach of tour boats, further cutting off visitors from experiencing the full beauty of the region. Add to this, Garapick discussed the multilayered, complex, and ever shifting permitting landscape.



*We have to decide, as Arctic residents, do we want Russia to be a monopoly in transit, in transcontinental shipping? I don't think it's in Canada's and the US' interests*

### **Mead Treadwell**

Chair, Arctic Circle's Mission Council on Shipping and Ports; Co-chair Polar Institute, Wilson Center

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*[W]ith regards to some kind of northern seaway authority, for want of a better term, absolutely that's of interest to insurance... [it] helps to reduce the risk that is involved with navigating in that area, whether that's improving charts and navigation aids, or the sort of thing that Russia does with the icebreaker convoys... search-and-rescue operations... the ability to clean up a spill... safe harbors, points of refuge for crew members and passengers, training of seafarers - all of those things help to influence the risk.*

### **Matthew Lewis**

VP, Marine Manager for Canada, CNA





Yet, at the heart of the discussion on Arctic shipping is the issue of risk management.

Matthew Lewis from the Marine Insurance Industry pointed to the fact that you cannot ship in the Arctic without insurance as a facilitator. Therefore, insurance absolutely has a role to play in financing Arctic infrastructure. The industry needs to be comfortable with the risks and

exposures and currently the industry is feeling rather uncomfortable when it comes to Arctic shipping. When you start talking about transiting the entire NW Passage there are more unknowns than knowns. Risk mitigation has to do with infrastructure, and the more infrastructure there is, the more you can mitigate risk and bring down premium costs. The lack of Infrastructure along the NW Passage creates greater risks which ultimately means that Canada is losing out on the economic opportunities that shipping can bring. As Jessica Shadian remarked, with both seriousness and a smirk, 'build it and they will come!'

## *Morning Fireside Chat*

**See Video:** <https://youtu.be/LSRY6JJnVSA>



- Dr. Ruben Shiffman, Executive Chairman, Greenland Resources
- Dr. Jessica Shadian, President and CEO, Arctic360

On...well...in the ground in Greenland and much like Canada's North, Greenland's mining economy already plays an important role now and is expected to play an even greater role in the future of its economy. Ruben exclaimed, '[t]he interesting thing about Greenland is that there's a lot of minerals.' That said, you also need success. Money will flow whenever there are returns; it is not going to flow for nothing. Money needs to be invested and there is a lot of strategic capital in the quasi-sovereign banks, the Nordic Investment Bank and the European Investment Bank,



*We've been talking to major financial institutions on funds and government, quasi-government funds, that are interested in this project, so, the big money is easy to get, the small money is not so easy to get.*

**Rueben Shiffman**

Executive Chairman,  
Greenland Resources

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specifically for Greenland. However, the ability to deploy that capital still needs to be developed. When you work in the Arctic, operating costs must be low, and the grade of the mineral must be relatively high compared to the average to offset conditions such as the likelihood of insufficient infrastructure and low-cost energy.

As the ice continues to melt, Greenland could be able to supply up to 35% of the world demand of molybdenum; however, without supporting infrastructure, the difficulty of supporting this project increases.

Turning to politics, Jessica asked whether it makes sense to have Greenlandic representation here specifically in Canada, and specifically in terms of helping to build out Greenland's mining sector and to attract investment. Rueben replied that it is especially important. He used the case of the US as an example of the broader diplomatic changes taking place. Historically the U.S. had a delegation in Greenland. Today, the US is reopening its embassy but with a different approach; today the focus is economic.

Reuben explained that as Greenland continues to grow as an independent realm, the development of infrastructure and external investment from states like the U.S. will generate substantial sums money and provide a better life for the Greenlandic people. At the end of the day, Greenland must become less reliant on the annual 700 million US dollars from Denmark for the 56,000 people. To do so, it requires external investment in the resource sector to grow its local GDP.

## SESSION I

*Innovation in Infrastructure for the Arctic*

**See Video:** [https://youtu.be/\\_T0HaHDYlio](https://youtu.be/_T0HaHDYlio)



- Moderator: Dr. David Scott, CEO, Polar Knowledge Canada
- Stephen Mooney, Interim Dean Applied Science and Management Division  
Director, Northern Housing Innovation
- Cdr/Capf Meiz Majdoub, Technology Manager, DGMEPM, Royal Canadian Navy,  
Canadian Armed Forces
- Sandeep Taxali, Director, Public-Private Partnerships, OneWeb
- Dr. Paul Barrette, Project manager, Ice Mechanics and Hydraulics, National Research Council Canada

In the Arctic innovation is everywhere. David Scott kicked off this panel with a rundown of Polar Knowledge Canada, which is a small, relatively new, federal agency. Its prime asset is the Canadian High Arctic Research Station in Cambridge Bay, Nunavut and its main focus of inquiry is how the northern climate is changing and what that means for Northerners. Stephen Mooney then discussed research being undertaken at Yukon University to support communities and bring technology and innovation into the North. This work ranges from terrestrial microwaves, solar energy (e.g. Old Crow during the summer solstice will rely entirely on solar rather than diesel), biomass in its potential role for creating heat and electricity, to new techniques of pulling heavy metals out of mine tailings, the role of higher-pigmented asphalt to stave off permafrost melt, Northern housing, and pulling plastic from composting.

Meiz Majdoub then discussed the Naval Technical Innovation Program including reforming the procurement branch to better bring people together. Setting up an innovation portal, the Innovation Program has begun funding project ideas that are able to generate a gross margin of 300% return on investment. Examples range from electric skidoos to fuel cells, pop-up ports, and



a Lily Pad (essentially a barge that creates its own energy), to unmanned vehicles, a Growcer indoor farming project, a miniaturized version of an auto-gasification system, and a project looking at data security through the need to keep cryptocurrency cold. There is a project that takes AI data and fuses it to study behavior in information security, and another that consists of a factory in a box complete with miniature robots that build things. In a nutshell, there is no shortages when it comes to new ideas.

Looking to the stars, Sandeep Taxali turned the conversation to OneWeb's efforts to provide high-speed, low-latency services across the entire Arctic region – land, air, and sea. One Web's services will include fixed and mobile services that target several markets; most of them are relevant to the Arctic region with a particular focus on connecting schools. Back on earth, Paul Barrette discussed the research and innovation work of the National Research Council focused on strengthening infrastructure impacted by permafrost melt such as ice reinforcements that will prevent breakthrough cracking, steel cables in polypropylene grid, as well as the role of hovercrafts to help guide navigation. Whoever said that there is nothing going on up North?



*Our main currency is knowledge, creation of new knowledge, interpretation of existing knowledge, and mobilizing that knowledge into the hands of Northerners to make better informed decisions.*

### **David Scott**

talking about Polar Knowledge

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*[I will end with] a quote from an elder in Tuktoyaktuk, and this is a classic. If you jump into a community and give them technology and then take off, like we've been doing with housing for 30 years and giving them keys and then running away, it doesn't work. But if you involve them, educate them, work with them, then they will understand, and they will succeed.*

### **Stephen Mooney**

quoting an elder from Tuktoyaktuk

**FIRESIDE CHAT:**

## *Fostering and Supporting an Investment Climate in the North: An Indigenous Development Corporation Conversation with Invest in Canada*

**See Video:** [https://youtu.be/8dG\\_LA7tqAY](https://youtu.be/8dG_LA7tqAY)



- Moderator: Naomi Powell, Financial Post
- Greg Da Re, Regional Director, Ontario, Invest in Canada
- Darrell Beaulieu, CEO, Denendeh Investment Corporation, NWT Indigenous Coalition on the Economy
- Albert Drapeau, Albert Drapeau, Executive Director, Yukon First Nation Chamber Of Commerce
- Sheldon Nimchuk, Director of Project Development and Partnerships, Qikiqtaaluk Corporation (QC) and Inuit Development Corporation Association

So, what is Canada's story of its North? Building that story is at the heart of Darrell Beaulieu, Albert Drapeau, and Sheldon Nimchuk's work and the aim of this conversation with Invest In Canada's Greg Da Re. Darrell Beaulieu explained how Denendeh Investment, owned by the 27 First Nations of the NWT, is working with other Indigenous groups to find ways to stimulate the Northern economy. As part of that, the NWT Indigenous Economic Coalition was recently created to look for 'projects of significance' to Denendeh communities.

Albert Drapeau turned the conversation over to the Yukon and the First Nations Chamber of Commerce, which supports the First Nation Development Corporations' goals to become major players in the Yukon's economy. The Chamber builds awareness, especially for the many southern Canadians who do not understand First Nations final agreements and their authority. Ultimately, 'to invest in Yukon, you need to take the time, you've got to get to know our people, our communities.

We have differing protocols, we have differing governing structures, and we have to be able to trust.'

Sheldon Nimchuk spoke about Qikiqtaaluk Corporation (QC) in Nunavut and the broader efforts of the newly established Inuit Development Corporation Association. Nimchuk spoke of several projects, many being a wish list that he hopes to see for Nunavut. Projects in process include a deep energy retrofit of an existing building and a hotel in Iqaluit that was fabricated in and imported from China. On his wish list is a privately owned port in Qikiqtarjuaq, a fibre-optic line to tie Europe, Asia, and North America, and a training centre in Pond Inlet. The challenges remain in formulating a clear business case to attract investments, including a lack of needed data and in one instance where the company is a 'paper company as a telecom, with no experience'.

Finally, Greg Da Ra discussed how Invest In Canada was created in order to help diversify Canada's trade. With very earnest intentions and a clear desire to learning more about Canada's story of its North, the participants also learned that, up to that point, no one at Invest In Canada is explicitly responsible for the Territories. He further stated that colleagues at other institutions such as the Canadian Infrastructure Bank will need to be at the table when Invest In Canada is promoting investment in projects.



*[Invest In Canada works] almost exclusively with foreign investors... to tell them a 'why Canada' story.*

**Greg Da Re**

As it is, Da Re stated, it would be very difficult for a foreign investor to come into the Northern space. Moreover, Invest In Canada does not yet have a good sense of what investable projects exist in the North. When asked by Naomi Powell from the Financial Post if it would be helpful for Canada to have an Arctic investment strategy – something similar to other Arctic countries such as Russia who invested substantial resources into studying the region, developing a vision, and a subsequent economic road map for how to pursue its vision – his answer was simple: immensely. When Naomi then turned to the panellists to ask if Indigenous communities are themselves interested in development and investment in the North, Darrell Beaulieu summed it up quite succinctly by exclaiming that 'Denendeh has a 100% owned mining and exploration company...[meaning], we have mining properties. Now, that is clear indicator that the Dene are interested in resource development'.

DAY 2: 5 FEBRUARY 2020

## Keynote Address

See Video: <https://youtu.be/9mAKmShxeo8>



- Sean Boyd, Vice Chairman, President and CEO, Agnico Eagle Mines
- Danielle Bochove, Bloomberg News

Agnico Eagle is one of the oldest mining companies in Canada. Agnico Eagle's President and CEO, Sean Boyd has been with the company for 35 years and CEO for more than 20. He has made the Harvard Business Review's list of the best-performing CEOs in the world three times. According to Bloomberg News', Danielle Bochove, though 'an accountant by trade [Sean] knows the gold space inside out, and Canada's North really quite intimately'.

Almost two decades into operating in the North, Boyd sees the cost of operation as the biggest challenge to Northern mining projects. Danielle Bochove questioned Boyd about where he sees Canada in terms of Northern infrastructure. Boyd reiterated that a strategy where investors see the government making investments in infrastructure would go a long way. According to Boyd, the impression outside of the country is that there is not a coherent strategy or widespread support for resource development in the Canadian North. The consequence is that investors are inhibited to put their capital into Northern projects. Agnico alone has built 170 km of roads in Nunavut (among other infrastructure). As he sees it, it is essential that infrastructure is provided to the North – it's an investment, not least it is an investment in basic things required to live a good life.

With this knowledge in tow, about one-year prior, Agnico decided enough was enough. Recognising that Agnico has a good story to tell, it was time to call on governments to act. If government and investors do not see the opportunity, they are not going to make the investment. Being in the North every day, Agnico sees opportunity. The rest of Canada does not see the opportunity. Iqaluit, Rankin Inlet, or other areas could be a place to train pilots, or air traffic controllers, but Canada is not doing this. Efforts such as these should be part of a comprehensive strategy that not only involves transportation, but also involves connectivity, ports, and training.

Agnico first went to Baker Lake, Nunavut in 2007. At that time, it was new area for the company and their knowledge about region was limited. What they did know then was that it was going to be difficult to build a business there. Yet, what equally struck everyone during that first trip was the fact that the people were so warm and welcoming and ultimately if they did not feel welcome, they likely would not be there today. At a town hall meeting as part of their visit, the mayor asked, ‘how quickly can you get this mine built?’ By 2008, ‘Agnico found favorable rocks and after several years of negotiations with NTI (Nunavut Tunngavik Incorporated) an Agreement was reached. Agnico got on the site and within the first couple of weeks, gold was discovered.’

There have been gold miners that have tried,



*We’ve talked enough; we’ve talked for 60 years. Let’s get going*

**Sean Boyd**

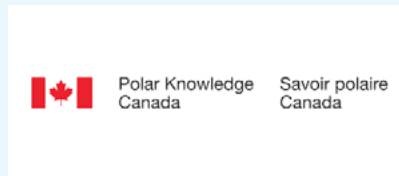
CEO, Agnico Eagle Mines

and failed, in the North. What then, Bochove asked, is Agnico doing different? At the end of the day, according to Boyd, you need a long-term vision, skills, and perseverance. You also need a business that is sustainable, and you need to be resilient. Boyd believes that Agnico has demonstrated that several times over with its 60-year history, ‘You can’t go up and be fearful – you have to have a positive outlook and work together with everybody, including the governments, to create those conditions to make things work. Infrastructure is going to be critical though, to allow that base to be built so it can support that sort of long-term business thinking.’

Wrapping up, Boyd looks North and today and says, ‘we can point to Nunavut and say, well, here’s an actual, good example where you can work with communities, you can work with Indigenous people, you can work with governments, and you can actually develop resources in a responsible way.’



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