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Chair: Terry Duguid



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• (1540)

[English]

The Chair (Hon. Terry Duguid (Winnipeg South, Lib.)): I call this meeting to order.

Let me start, as I always do, by acknowledging that we are on the unceded territory of the Algonquin Anishinabe nation.

This is meeting number seven of the Standing Committee on Natural Resources. As you know, the meeting is taking place in a hybrid format, pursuant to the Standing Orders. We have a number of folks on Zoom today, including one of our committee members.

I would like to make a few comments for the benefit of witnesses and members.

For those participating by video conference, click on the microphone icon to activate your mic, and please mute yourself when you are not speaking. Also, at the bottom of your screen you can select the appropriate channel for interpretation: floor, English or French. For those in the room, you can use the earpiece and select the desired channel.

I'll give a reminder that all comments should be addressed through the chair.

Do remember, everyone, our incredible interpreters and take it easy on their ears. When you're not using your earpiece, place it on the decal in front of you, and please try not to speak too quickly.

Before we start, colleagues, at our last meeting we talked about the number of witnesses that we had to accommodate, and we are absolutely going to need a seventh meeting. Some of your top-priority witnesses that we saved and scheduled to the end will be able to make it if we have that last meeting. We also need to give drafting instructions to our amazing analysts, so we will need that meeting.

Then we will start the forestry study promptly on the Thursday. We're lining up witnesses, and this gives the clerk a little bit more time to line up some panels, colleagues. With your leave, we will proceed in that fashion.

Pursuant to Standing Order 108(2) and the motion adopted on Thursday, September 18, the committee will resume its study of the development of critical minerals in Canada.

I would like to welcome our witnesses, both online and in person.

We have Mark Tory, president and CEO of Defense Metals Corporation; Jeff Stibbard, CEO of JDS Mining and Energy; and Robin Goad, president and CEO of Fortune Minerals Limited.

You will each have five minutes for your opening remarks. We're going to start with Mr. Tory.

You have the floor, sir.

Mark Tory (President and Chief Executive Officer, Defense Metals Corp.): Thank you, Mr. Chair and members of the committee, for the opportunity to speak with you today.

My name is Mark Tory. I'm president and CEO of Defense Metals Corporation. I have over 30 years of experience in the resources industry and nearly 11 years in rare earths. I moved to Canada in January of this year just to take this role.

Defense Metals is a Canadian company focused on developing rare earth elements, REE. Our flagship project is the 100%-owned Wicheeda rare earth element project, which is about 80 kilometres from Prince George in British Columbia.

Wicheeda is one of the most advanced high-grade rare earth projects in North America, and outside of MP Materials, which is an operating rare earth mine in the U.S., it is the only North American rare earth company with reserves, not just resources.

An April 2025 prefeasibility study, PFS, confirmed our strong economics and world-class mineralogy. Our rare earth concentrate is among the highest grades globally, with excellent recoveries. The deposit is rich in neodymium and praseodymium, which are two essential elements used in the permanent magnets in electric vehicle motors, as well as in wind turbines, military applications, clean tech and robotics.

One of our advantages is our location and the infrastructure around it. We're accessible by road, we're near rail, we have hydro power and gas lines, and we're not too far from the port of Prince Rupert. We also have a skilled local workforce in the Prince George region.

Our project is ready now for the next step, which is the definitive feasibility study, DFS. We have completed the PFS and we've done the hydrometallurgical pilot plant test work, with product sampling. We're in commercial discussions with numerous downstream processors. With proper support, we hope to keep 100% of the value chain in Canada, including all hydrometallurgical separation. We've signed an MOU with a European processor to buy a significant share of Wicheeda's future production.

Indigenous partnership is at the heart of our project. We signed a codesign agreement with the McLeod Lake Indian Band in 2023, and in 2024 the McLeod Lake Indian Band became an equity partner, acquiring 2.6 million shares in Defense Metals. This is a real and growing partnership and a model for economic reconciliation.

We also have strong support from the Province of British Columbia. The B.C. Minister of Mining has written in support of our critical minerals infrastructure fund application, and the premier has been engaged and vocally supportive. Overall, the government has recognized the project as one of very high interest, and the project is seen as vital to B.C.'s clean economy and reconciliation goals.

Our ask today is clear and time sensitive. Companies in our situation need investment to complete critical work, such as the DFS. This funds key engineering, permitting, environmental and technical studies, and without this step Canadian projects risk delay while allies and competitors move ahead.

Price floors, as are being contemplated, are also a good policy. This will help protect against unfair Chinese competition and their attempts to quash our industry until a market pricing system is in place outside of China. These price floors would improve project economics, helping the full investment decision, and attract external investment.

China currently controls over 70% of global rare earths and over 90% of the downstream industries. They've imposed new export restrictions, and Canada has named rare earths as a critical mineral priority. Now we need action. Wicheeda is Canada's opportunity to build a domestic REE supply chain from mine to magnet. We're ready to lead this effort with our partners, but we can't do it alone and we need the federal government working with our allies to make it happen.

Thank you.

● (1545)

The Chair: Thank you, Mr. Tory. You're a brave man to move to Canada in January.

We go on now to Mr. Stibbard. You have five minutes.

Jeff Stibbard (Executive Chairman, JDS Energy and Mining Inc.): Thanks, Mr. Chair and members of the committee.

It's good to see you all today. Thanks for inviting me to testify before this committee.

I come today to add value and support to this important Canadian initiative. I look forward to our collective efforts yielding tangible actions and outcomes that enable us to increase responsible, prof-

itable resource development in all categories of the Canadian mineral resource sector, including strategic minerals.

I might add that by Canada's definition, there are about 32 strategic minerals. In the United States, there are about 55. In Canada, we're lucky to have an abundance of these.

Allow me to introduce myself. I'm a professional mining engineer. I've been doing this for 40-plus years in Canada throughout the north and from coast to coast, as well as around the world. I founded a company called JDS Energy and Mining, based in Vancouver, B.C., acting as consultants and contractors to the global mining industry.

My experience includes designing, building, financing, permitting, operating and reclaiming mines in Canada and worldwide, both as a contractor to and direct owner of these mining assets.

I have had the opportunity and pleasure to be directly involved in the senior leadership and development of several of Canada's premier mining assets, including the Ekati diamond mine, the Albion Sands oil sands mine, and many others in the energy, copper, gold, silver, lead, zinc and zirconium space.

Our portfolio of mining projects includes major equity partnership interests with local first nations that continue to advance capacity and trust in this important aspect of our industry.

My input today is based on my own personal observations from working in the Canadian resource industry. I have had the terrific experience of living in 12 northern towns across the country. I want to see other young Canadians from all parts of the country experience the exceptional career opportunities, diverse lifestyles and cultures coming together to make strong communities, strong families and strong individuals.

I see this path continually threatened by misguided government leadership, with platitudes, expanding bureaucracy and a deficit of understanding and inspiration of the benefits and the perceived risks of the industry. Frankly, we don't need any more programs, committees or processes; we need fewer. We can look to our past to go forward.

We need to update Canadians on the mining and critical mineral opportunities that we presently have, which are well documented both provincially and federally. I believe that many of these resource opportunities are stranded and yet potentially commercial in their near term, requiring political leadership willing to lead the initiative to make them commercial. Specifically, I mean mineral assets north of the 60th parallel that are logistically stranded due to lack of energy, an example being Izok Lake, and technically stranded as a result of Canada falling behind in investment in the processing technology that is necessary to be competitive worldwide. We haven't built a new copper smelter, something we need to do, and we have limited leaching initiatives, REE processing, which we just heard about, and zirconium and hafnium processing.

These assets are also politically stranded because of narrow platitudes defining unrealistic outcomes born beyond our borders and our willingness to follow along on this path. UNDRIP would be an example.

They are also socio-economically stranded, as current education misinforms and underreaches potential young industry participants and local stakeholders about what is current and what we can be, the true future benefits and impacts.

There is a lack of forward-looking, empowered leadership. Leadership inspiration lays out the case for growing individual, community and national potential. Northern and offshore oil and gas resource discoveries previously shut in or under a moratorium are critical to resource development success. Vast resources are shut in due to lack of infrastructure. Large-scale power production and distribution—roads, ports, rails and purpose-built communities—are all required for the industry.

The stats for the Canadian mining and mineral sector are well known. The value is over \$117 billion, or 4% of the Canadian GDP. Adding in oil brings us close to 8%. As for employment, over 430,000 are directly involved in the mining business; indirectly, there are another 280,000, or up to 700,000 people. One in every 28 jobs in Canada relies on mining, so I don't have to explain how important it is. We export a record \$151 billion of mining products, of which gold is the top-ranked mineral value, with production valued at \$14 billion. Today, it's probably twice that.

As for critical minerals as a subset, in 2023, \$30 billion was contributed to the economy by critical minerals, and nearly 55,000 people were employed in that.

In terms of overall stability, despite global economic challenges and health challenges because of the global pandemic, mining remains a stable and significant part of the Canadian economy. Mines remained unshuttered throughout the pandemic and even expanded. The contribution from mining has remained consistently stable throughout Canada since 2011.

What has changed?

Canada usually works best when the two levels of government stick to their constitutional lanes. Mineral resource development is a provincial domain and should remain so.

• (1550)

The effects of the federal government, such as Bill C-69, the carbon tax, pollution abatement and energy regulation, have hampered the attractiveness of our industry. Let's honestly and comprehensively dive into these negative effects and undo them to the benefit of Canada and not be sidelined with this worldwide competitive space and source of real wealth creation. Canada can and must be a leading producer of strategic minerals.

On opportunities to improve our resource production business, value exists by embracing examples of best-in-class modern socio-economic resource development, such as what's carried out in Norway in the LNG space; Swedish copper-smelting technology; cooperative transprovincial infrastructure; and public-private development in the likes of co-development of necessary mining infrastructure, with the necessary military infrastructure as a support.

The construction of Far North ports, modern communities, ocean, air, road and rail transportation logistics, energy fuels, energy production, communications, education and affordable living all can be examples of codependent industry, government and military priority. I'll give as examples the towns of Yellowknife, Fort McMurray and Tumbler Ridge, towns born out of industry.

It's a call to action. It's important to industry to lead based on best perspective to define the technical requirements and economic outcomes. Government must provide the impetus to bring the industry to the table with a clear pathway of increased, immediate and attractive opportunity, of nation-building that is profitable, and without ambiguous external threats and barriers to success.

The timeline to development is currently unacceptable. This is primarily a result of an overly bureaucratic process of review—

The Chair: Mr. Stibbard, I will ask you to finish up. I know there will be questions where you can bring out the rest of your thoughts.

You're already two minutes over. Just out of respect for other witnesses, why don't you take 30 seconds to finish up?

• (1555)

Jeff Stibbard: The timeline to development—which is the most important threat—is currently unacceptable and primarily the result of the overly bureaucratic process of review and input considerations. This leads to uncertainty of approval and in turn becomes a serious risk to economic outcomes and drives investment away at the earliest and most critical stage of a project's gestation—it's unattractive.

I built the Ekati mine in 1994. It was discovered in 1992, geologically determined in 1994 and in operation by 1998. That mine—five years, really, from geological exploration to construction and operation—created an industry that generated over 80% of the GDP of the Northwest Territories. That is never going to be matched again. It created an industry.

That's the timeline we'd like to get back to instead of today's timeline of 10 to 15 years, which drives away business.

The Chair: Thank you for your testimony. It was very interesting.

We have one more witness.

Mr. Goad, you have the floor for five minutes.

Robin Goad (President and Chief Executive Officer, Fortune Minerals Limited): Thank you, Mr. Chair, and thank you to the rest of the committee.

Just on point from Jeff's very detailed presentation, I have provided a detailed PowerPoint. It was sent to you on Friday. I understand that it's in translation and you probably have not received that, but I couldn't possibly deliver in five minutes all the recommendations I would have. Right now, I'm going to concentrate on just telling you a little bit about who we are and also will concentrate on the high notes.

My name is Robin Goad. I'm the president and CEO of Fortune Minerals Limited. We're a Toronto Stock Exchange listed company that owns the vertically integrated NICO cobalt-gold-bismuth-copper project, which comprises a planned mine and concentrator up in the Northwest Territories and a hydrometallurgical refinery just outside Edmonton, Alberta, which will process our concentrates through to value-added products.

One of the highlights I'd like to mention is the importance of administering and processing—I'll touch on that a little later—because if we don't process our minerals here in Canada, then they're lost. In simply producing concentrates and shipping those to Asia, we don't have custody and control of the metals, and therefore those metals are not available for our industry here in Canada, which is really the most important thing we're trying to achieve in incubating a critical minerals industry here in Canada.

Our project has a 20-year mineral reserve, but being an IOCG-type deposit—that stands for “iron oxide copper-gold”—analogous to the giant Olympic Dam mine in Australia, we have the opportunity to find a billion tonnes of metal realistically. Right now, we have a 20-year reserve, which will be the primary source of feed for the hydrometallurgical refinery in the Edmonton area.

We also have a process collaboration with Rio Tinto, where we will take waste residues from the Kennecott smelter in Utah and process those through to value-added products in Edmonton. It's another good example of “build it and they will come”. Having downstream or mid-stream processing here in Canada will attract other sources of feeds to be processed and available to our industry.

Our project is very advanced. We've spent \$150 million to date and are in the process of updating our bankable feasibility study, FEED engineering and, as well, doing some metallurgical optimization.

Three critical minerals are hosted in the deposit, cobalt being traditionally the most dominant metal, but we also have 1.1 million ounces of gold, which today is worth just a little over \$5 billion Canadian on the ground.

We have the largest deposit of bismuth in the world, with 12% of global reserves. That's an important metal used in environmental applications, as well as some important defence applications.

The cobalt, of course, will go into rechargeable batteries, which will enable the energy transition and transformation of the auto industry to e-mobility.

We were the very first Canadian project to receive a U.S. Department of Defense grant, and that was quickly matched by the Canadian government. We have about \$17 million in support coming primarily from the U.S. Department of Defense and Natural Resources Canada. We also have a small grant that comes from Alberta Innovates, so the Government of Alberta is also contributing to our project.

We have tremendous support for our projects through indigenous relationships. We have co-operation agreements with the Tłı̨chǫ, who have a settled land claim with the governments of Canada and the Northwest Territories. We're hoping that with the work that's being partially funded by government to get a construction decision in late 2026.

There are a number of recommendations we would like to point out and also some challenges.

Probably just to start off, exploration is a very high-risk industry. Only one in 1,000 projects is successfully developed into a mine. Only one in 3,000 projects is a tier one asset. We've allowed our mining industry to deteriorate, for a number of reasons, and I think the biggest threat to our industry is that we don't have a pipeline of new projects to be developed to maintain the knowledge and expertise we've developed here in Canada.

• (1600)

There are certainly challenges with the manipulation of metal prices from China and other actors, so we think there's a role for government in that.

Jeff mentioned the importance of infrastructure development, particularly in Canada's north. We're working in the Northwest Territories. We think that's very important in developing projects in the north, where 45% of GDP comes from the resource industry.

The Chair: Mr. Goad, we're at time. You'll have a chance to amplify with questions coming from the committee. Thank you.

We will start our round of questions with Mrs. Stubbs.

Mrs. Stubbs, go ahead for six minutes.

Shannon Stubbs (Lakeland, CPC): Thank you, Chair.

I appreciate all the witnesses being here. I encourage everyone to submit written submissions for the consideration of the committee. As one witness pointed out, the time constraints on substantive conversations are always crazy here.

Thank you all for being here. All of you, to some degree or another, have pointed out how critical mineral development in Canada is being held back by government red tape and bureaucracy but is also absolutely inextricably linked with national security, job creation and affordability for all Canadians everywhere.

Mr. Stibbard, given your extensive experience as an individual private sector proponent and also as an adviser, I wonder if it's your general view that the regulatory environment for energy and mining proponents has deteriorated over the last 10 years. I would invite you to expand more on some of your recommendations for clarity and certainty so that big projects can be built by individual private sector proponents and companies, not taxpayers.

Jeff Stibbard: Exactly. The answer is yes, it has deteriorated.

As I mentioned, from 1994 to 1998, building Ekati mine and mines shortly thereafter, it was roughly five years from substantial resource discovery—as Robin said, the one in 3,000 number—to construction. Today that number is more like 15 years. As Robin pointed out quite accurately, the problem is that a lot of money goes into the exploration and it might not ever come back out. There's a big risk just on the odds. If you know you're faced with 15 years of regulatory review for a lot of inputs that aren't necessarily reflective of the area or the impacts on the area, people just turn away. We're not attractive, when you can imagine that's all Canada needs to be.

We used to be attractive. That's why I'm here today. I'm trying to make Canada mining attractive for outside investors to come. We need a lot of capital. That's really the number one threat to our success.

Shannon Stubbs: The same government several years ago announced a so-called critical minerals strategy, but as you've pointed out, Canada has fallen far behind major global mining competitors. We're in a race to get to global markets.

Do you have comments on the disproportionate red tape or timelines that proponents face in Canada as compared with, say, the United States or other major global mining competitors?

Jeff Stibbard: First of all, we have the two levels of government, provincial and federal, and the federal process makes us consider things that are almost coast to coast in potential impact. It's not relevant. Again, you don't need to cast the net that wide to see that. I get it that we're one Canadian economy and that this is what it all rolls up to, but we're a microcosm of culture and economies across the way. Certain people do things differently in other parts of the region. We do not break the law. That's the rule. Whether they be provincial or federal, that's standard. But we don't need to get input from all corners of the country, including on things like gender and the likes of that. Those are just way too deep for people to consider all the potential impacts that might be reflected.

I can tell you that the mining business is very progressive in terms of employment of males, females and others. I personally experienced the changes throughout my career of over 42 years in the mining business. The workforce has changed. The participation of people has changed, including first nations being directly involved as direct owners. Over 14,000 first nations in Canada make their living in the mining business directly. It's the largest employer of first nations by any sector.

• (1605)

Shannon Stubbs: Exactly.

Jeff Stibbard: We don't need to be told by up high or out east, with all due respect, how we should manage our affairs. That's a big impediment, and it's an impediment to investment. I work around the world. About 50% of my business is outside Canada. People outside Canada ask me all the time what's happening, and I can't tell them. I can't tell them what our direction is anymore.

That is an impediment, real or perceived, and a bit of both. We need to correct that. We need to put our shoulders to the wheel, correct the process, make it simple, make it rigorous as far as its outcome and win. We need to win the attractiveness game so that we can bring the capital here.

I just finished building a diamond mine in south Africa, in Botswana, and it was the same thing: It was start to finish in five years.

What I was doing 30 years ago in Canada—

Shannon Stubbs: In Canada, today, it takes 15 to 18.

Jeff Stibbard: Yes. I have to make a living. My employees have to be working. I have to go where the money is. I'd prefer not to.

Shannon Stubbs: That's the reality. That's the travesty. The government-imposed red tape and roadblocks drive jobs and investment like yours into other countries.

Would you say that part of the actual fix would be to fix and to repeal bills like Bill C-69, which stand in the way of infrastructure being built up? For example, the Ring of Fire is led, and was initiated, by first nations, yet it's Bill C-69 that is holding back even that basic infrastructure and other development. Are there any other recommendations you would make to increase the timelines so that big projects can actually get built in Canada?

The Chair: You have 30 seconds.

Jeff Stibbard: I guess I could. I have them written down. I can submit them to you, so I'll not stumble through that.

I just want to add one other aspect to it and that's the inspiration of young people in Canada—southerners looking north and realizing that the north is our future. It was our front door when the explorers came here. That's how they came here. We need to look back at that again. When the fur trade fizzled out, we moved south, but we have to get back to that, and we have to inspire young people.

If you can't afford a property in Toronto or Vancouver, move north. Get some experience. Make a good living. Enjoy yourself. Meet some people from all over the country and build Canada. That's what we have to do. That comes from education at the university level, the high school level, the elementary school level and in the communities. The government needs to enforce that.

The Chair: Thank you both.

We're on to Mr. McKinnon for six minutes.

Mr. McKinnon.

Ron McKinnon (Coquitlam—Port Coquitlam, Lib.): Thank you, Chair.

I was going to talk about regulations, but I think Ms. Stubbs has dealt with that fairly well.

Mr. Tory, I'm going to ask you about the Wicheeda mine. You mentioned that China has 70% of the world's minerals in critical mineral production. I wonder how we can make projects such as Wicheeda take a substantial chunk of that business. What is standing in the way?

Mark Tory: It's a great question. From our PFS that we did for Wicheeda, our output would be roughly 7% to 9% of global production. It is a significant operation.

Obviously, we've already talked about regulations in relation to permitting. That's obviously one thing that could be a stumbling block for us. The second part also comes from that first part in relation to permitting. It's the attraction of money to be able to build it.

I'm not one of these people who sits here, puts their hands out to the government and says that you have to help us in relation to funding this. It's obviously nice to get support from the government, but at the end of the day, we have to attract enough investors who think the project is attractive and is going to be up and running as quickly as possible.

Everyone wants cash flow. Everyone wants to get the cash flow, and if they think the project itself is not going to be cash flow-positive in five to 10 years down the track because of permitting issues or anything else like that, we don't attract the investment to be able

to build it. From our PFS, we're talking about a \$1.4-billion capital project.

• (1610)

Ron McKinnon: Would you suggest that we streamline the permitting process to make that more effective and faster?

Mark Tory: Absolutely. Part of my discussions in the nine months I've been here in Canada is trying to get things in relation to permitting to move concurrently so that it does hasten the permitting process.

Again, it's still working within the parameters of making sure that you have the support of the local community and that you're doing everything right within the environment. We're not trying to run over anyone in relation to environmental standards or communities. We want all of that to be ticked off as well. We just want it to be done quicker.

Ron McKinnon: I quickly looked up the Wicheeda mine. It looks like it's around 100 miles northeast of Yellowknife. What's getting equipment up there like? Are there decent roads? Winter roads aren't as reliable as they once were. What volume of ore do you have move out of there? How do you do that? What do you need to make that work?

Mark Tory: We're obviously in the early stages because it's a PFS, so we're not moving anything at this point, but we're lucky. We have forestry roads that go all the way to the mine. We have access to it through winter and summer.

When we talk about how much product we're going to take out and we're going to build our beneficiation plant there, we're not talking about a lot of product that needs to move, but we're obviously going to need that road infrastructure upgraded for us to get the project up and running.

Ron McKinnon: What's it like working with the territorial government and the federal government together and individually?

Mark Tory: Discussions are happening at the moment around who takes control over that whole permitting process. The size of our mine at the moment means that it's a federal environmental process and permitting process, whereas when I was in Ottawa talking to federal people, they were telling me that this would push it down to the provincial level anyway, and most of the work would be done at the province. It's really us talking to the provincial level and making sure that the federal government doesn't take its time in signing off on the work that's done by the provincial government.

Ron McKinnon: Are you going to be able to build power generation facilities up there, or do you need to, or are you going to be able to bring power in from somewhere else?

Mark Tory: The power should come from the hydro power line that's up there. We're not far from that. That's a discussion we'll be having with the relevant company.

Ron McKinnon: What kind of time frame are you looking at currently for this project to come online?

Mark Tory: Well, I always say to people and the potential investors that if all the planets align, everything works properly and we get all the money at the right timing, we look to start construction in probably 2027 or 2028 and to be in production for 2029 or 2030.

Ron McKinnon: Thank you.

The Chair: Ron, we'll have to move on.

[Translation]

Mr. Simard, you have the floor for six minutes.

Mario Simard (Jonquière, BQ): Thank you very much, Mr. Chair.

Mr. Tory, I understand that you have a rare earth project. I'm not too familiar with that sector's development, but I do know that a number of elements and processes are complex. My understanding is that the risk is fairly high, but that Vital Metals, Commerce Resources—who appeared before us—and other stakeholders have set up a consortium to reduce the risks associated with rare earth procedures.

Is that something you might be interested in?

• (1615)

[English]

Mark Tory: Thank you, Monsieur Simard.

Yes, I'm part of that consortium. Defense Metals is part of that consortium as well. We joined in March of this year, when we first brought it together.

Certainly, for me, having been in the industry for 11 years, my view of the rare earth world is that there should be only about five or six really large hydrometallurgical facilities for rare earth globally, outside of China. There's already one in the U.S., at Mountain Pass, and I think there needs to be one more in North America.

For the size that we're doing, we're talking about potentially using ours as the bigger one but then building it slightly larger so that we'll take feeds from other sources.

[Translation]

Mario Simard: I understand it's quite a complex process to extract a permanent element from rare earths. What kind of infrastructure is needed to make this process happen? This is not a competition, but back home in Quebec, Torngat Metals seems to be moving fairly quickly. I understand the process is very complex. In terms of the research, development and deployment of these critical minerals, what kind of infrastructure needs to be in place for projects like yours and the Torngat Metals project to succeed, and for processing to take place in Quebec or Canada?

To summarize, here is what I'd like to know. Do we currently have an ecosystem in Canada for processing rare earths?

[English]

Mark Tory: We don't have it currently. No really large hydrometallurgical facility that would be economic has been built yet. I think that's what we're all contemplating at the moment.

When you talk about it being technical and difficult, you know, this is obviously being done around the world. China has been doing all of this for a number of years. Lynas has been doing it with the deposit out of Australia and processing in Malaysia. MP Materials has been doing it down in the U.S. near California and Nevada. These are processes that we know about. We're not talking about anything brand new. We're talking about things that people do know how to do. We're using the best people possible. We have a metallurgist consultant, John Goode, who is in his seventies. He's been around the industry and has been working in rare earths and separation since the seventies and eighties. He's been around for a long time. He knows what he's talking about. He understands the flow sheets.

The one thing I will say in relation to what we need to do in Canada is that we have the ability to build these. What we don't have is the experience to be able to run them. China has done a great job in making sure they have all of the universities developing and producing chemical engineers who are able to run hydrometallurgical plants and separation plants. That's the one thing I think we need to do in Canada. We need to make sure we get all of those in place now for us to be able to service industries in five, seven and 10 years' time.

[Translation]

Mario Simard: I gather from your remarks that, if a rare earth mine were operational tomorrow morning, that mine could produce concentrate in the short or medium term, but that, before processing it, a number of steps would be required to develop the necessary expertise.

• (1620)

[English]

Mark Tory: Our PFS goes to a state that we call a carbonate, which has pretty pure rare earth elements in it, mainly neodymium and praseodymium, which go into the permanent magnets for the EV industry, wind turbines, robotics, etc. The next stage down from what we had in our PFS is to have a fully separated neodymium and praseodymium oxide. That would be sold directly to metal-makers, who then sell on to magnet-makers. The magnets then go into those EVs and wind turbines.

[Translation]

Mario Simard: Thank you.

[English]

The Chair: Colleagues, we'll go now to our second round. Mr. Tochor and Mr. Guay will have five minutes each. Monsieur Simard will have 2.5 minutes.

We'll start with you, Mr. Tochor.

Corey Tochor (Saskatoon—University, CPC): Thank you, Chair.

Thank you to our witnesses.

Mr. Stibbard, can you just unpack a little bit more your project in the Northwest Territories? I understand that something like 80% of the GDP that was created in the Northwest Territories came from that project. Just talk a little bit about the infrastructure that was built for that project up there. With the dual use for our defence of the Arctic, a lot of it comes from our private sector right now.

Jeff Stibbard: First of all, 80% of the GDP was from the diamond industry itself. The mine started it, and then the second one that came on board and the third one that came on board became 80% of the GDP of the Northwest Territories. That was not including the sorting facilities and outside contractors who supported the mine.

When that mine was built, there was an ice road. First it was primarily aviation-supported with an airstrip. There was the building of a Herc strip, a 737 landing strip, an ice road to get going and a camp and major infrastructure. I think it became the fifth-largest town in the Northwest Territories. It had the largest telephone exchange and most modern water treatment, three-stage water treatment that didn't exist in the Northwest Territories, both incoming and outgoing. It was a town of about 1,600 people and it was modern, obviously, in terms of facilities, recreation, food and, most importantly, the work—the paycheques.

Corey Tochor: Those paycheques are important, but this infrastructure is... The allies are trusting us to protect our north, and Canadians are trusting our government to protect the north. The dual use that comes from industry helps us build out our ability to defend ourselves in the north. We used to have a system where a private sector would invest in the north, and through the dual use of this infrastructure, we would be stronger and more able to defend our borders against enemies.

Fast-forward to now, and it takes 18 years officially to get a mine up and running in Canada. There's nothing that's going to be back-filling right now those diamond mines up in the north, which has a negative effect on that infrastructure that we need to obtain, so then Canadians from all over Canada have to pay their taxes, and the government's going to have to—or it's proposing to—spend billions and billions of dollars in the north to keep that infrastructure up, which makes no sense at all.

It is frustrating to know that it's mostly regulation—as we've heard from countless witnesses—that has a layering effect that has killed this industry and its ability to expand.

Another government office that they're talking about is the Major Projects Office. What is your view on that project? Is it needed?

Jeff Stibbard: Again, it's just another layer.

I'd just like to echo the point on the infrastructure. There's a phenomenal asset in Canada's north on Baffin Island called the Mary River iron mine, the Baffinland mine. It has a port there right now, and it ships about six million tonnes of iron ore direct. It's in the process of trying to get an expansion to go to 12 million tonnes to

be economical. Really, it's uneconomical at today's prices and throughput. It's a phenomenal shared resource for, potentially, the military. Obviously, there's power, and there's infrastructure for living, communications and shipping. However, this group has been forced to build a port on the other side of Baffin Island, on the west coast inland, 120-some-odd kilometres away, in the interest of environmental impacts that I think are a little bit overstated.

So, with regard to national interest, there's a reason that we should be pushing that. It's not just for the jobs and the economy of that project but also because it's an ideal spot for a port for the navy and the air force.

Corey Tochor: It's interesting that you bring up national interest because we just had Bill C-5. We tried to get amendments in there that would force the government to actually have a definition of “national interest”, and it wouldn't do that. You just outlined a perfect one that would be of national interest and that would make sense. It's so frustrating.

• (1625)

Jeff Stibbard: Absolutely.

McIlvenna Bay in Saskatchewan and Red Chris in British Columbia are two projects that have been funded and that are well under way and permitted, so I don't know what the impetus was to add money to something that already exists. We're trying to get the ball rolling, not to add fuel to it.

Corey Tochor: I agree with that.

We should be celebrating. It's the first Canadian-owned manufacturing facility making high-tech rare earth-based magnets for use in electric vehicles. All Canadians should be celebrating because this is the first Canadian-owned manufacturing facility. Unfortunately, it's not in Canada; it's in Estonia.

What do you think about that: that it's easier to get permitting done in the EU than in Canada?

Jeff Stibbard: I think it's obvious what I think about it. It just needs to be stopped.

Again, we need to be attractive. That's the bottom line. Attractive means policies, procedures, the will to make these things happen and our young people who are signing up to meet the challenge of technology. It's an exciting business, but it's not known enough. We're not doing enough to encourage people to join the party and advance technology.

Like I said, with regard to copper smelting, we only have one left in the country. We need to build another one.

We need to embrace that into the most modern technology taken from afar, whether it's Sweden, Estonia or Slovakia. Wherever it comes from, we can bring it here.

The Chair: Thanks, Mr. Stibbard.

We're going to go on to Mr. Guay for five minutes.

Claude Guay (LaSalle—Émard—Verdun, Lib.): Thank you, Mr. Chair.

This question is for Mr. Tory and Mr. Goad.

We've all talked and heard about the Chinese manipulating the market for both rare earth and other critical minerals. I've heard mention of MP Materials also, the U.S. company that's being supported by the U.S. government, the U.S. government also being on a race to secure rare earth and critical minerals.

As part of the G7, the Minister of Energy and Natural Resources here in Canada announced a potential offtake agreement for stockpiling and ideas like that.

I'm interested in both your ideas. Talk to me about the dynamics between China and U.S., the role that Canada can play and how the government can help you play that role.

We'll start with Mr. Tory.

Mark Tory: China's been doing this for a long time. I tip my hat to China. It hasn't been silent about it. If you go through its five-year plans, it talks about the fact that it wants to dominate the rare earth industry and the downstream processing related to the rare earth industry, and it's been manipulating prices over that period of time.

I've been saying for over 10 years now that the western world needs to come up with a different pricing mechanism for rare earth minerals outside of China. The unfortunate fact is that China has dominated the whole downstream industry to have over 90% of magnet manufacturing.

The way I see it, in Canada we need to build the whole downstream processing ability, which goes right through to magnet manufacturing, to be able to supply the western world. That's not an easy thing, because you have to grow industries such as the magnet-makers. You talk about Estonia. Get those built here. Get the metal-makers that supply the magnet industry to be built in Canada, and then you have resources like ours that will then have the ability to supply those manufacturers and there will be no need for China. That's where we need to head.

As far as the government is concerned, the issue we have as junior companies—that's what we're called, but I don't see us as junior; we have a really strong management team and board—is money. We need help to get through to do the feasibility study. We'll be able to fund it with the help of the government. We already have a letter of interest from EDC for \$250 million U.S. in relation to funding our capital costs, but we need to get through the feasibility study. The feasibility study will cost us between \$30 million and \$50 million to do because it's a \$1.4-billion capital project. We

want to do it properly. We're looking for help with the feasibility study costings.

• (1630)

Claude Guay: Mr. Goad, what are your thoughts?

Robin Goad: Yes. It's a very complex and interesting question.

About 75% of the global cobalt mine supply comes from the not-so-Democratic Republic of the Congo and about 60% of that mining production is controlled by Chinese state-owned enterprises. China controls, I think, over 83% of all cobalt refining and 90% of the cobalt chemical supply. This is a result of a proactive active investment strategy. You're dealing with the Chinese government, and it just doesn't operate with the same economic models that we do. With respect to bismuth, of which we have 12% of the global reserves, China controls 80% of the mine supply and 90% of the refining supply.

The challenge has been overproduction, particularly of cobalt by China, driving the price down to a point where it's not economical to be extracting cobalt in many parts of the world. The Democratic Republic of the Congo got wise to that and started putting in export quotas, because China is overproducing and driving the price down to below the cost of production. That enables its industry, which captures all of that metal, to produce electric cars at a discount to the global market. Where it loses on the mineral production, it's gaining on selling back manufactured goods to us—

The Chair: I apologize, but we are out of time. Thank you.

You have two and a half minutes, Monsieur Simard.

[*Translation*]

Mario Simard: Mr. Goad, I'll give you a chance to come back to that.

Several witnesses have talked about the difficulty of conducting the feasibility study, including you and Mr. Tory.

Mr. Goad and Mr. Tory, I would like you to tell the committee what specifically could help you conduct this much-discussed feasibility study. I'd also like to hear your comments surrounding infrastructure. Many mining projects struggle to get off the ground due to a lack of infrastructure for extracting minerals. What would help you in terms of infrastructure?

I know those are two substantial questions and my time is limited, but I'd like to hear your comments.

Robin Goad: Thank you, Mr. Simard.

[*English*]

I will try to answer these very quickly.

One comment I would have made is that we've given tremendous subsidies to the battery industry, and there was no requirement for domestically sourced raw materials to be used with those subsidies. I would argue that could have been easily done.

For feasibility studies, I have an actionable item. We have a big gap between what's called Canadian exploration expense and Canadian development expense, if you're familiar with flow-through financing. I would add that we should enable the expenditures associated with feasibility studies, environmental baseline studies, indigenous engagement, detailed engineering and piloting. Those should all be allowable Canadian exploration expenses to help companies navigate the feasibility process.

We receive funding primarily from the U.S. Department of Defense to fund our feasibility study, but we were in a period when the markets were effectively closed for five years, and we didn't advance our project because we just couldn't raise money to do those studies. That has been resolved from the government support, which we appreciate both from Canada as well as from the U.S.

● (1635)

The Chair: Thank you, Mr. Goad.

We have to move on to our two next questioners. Remember, witnesses, to please submit a brief with any additional information you want to provide. It will be considered by the committee and the analysts, and we would appreciate that. This is just to keep us on time. We have another set of witnesses coming in about 10 minutes.

Now, we will go on to Mr. Malette for five minutes.

Gaétan Malette (Kapuskaing—Timmins—Mushkegowuk, CPC): Thank you.

I have a question for Mr. Tory. You were asked a question on infrastructure, and you got me thinking about when you mentioned that some of your infrastructure included logging roads.

Sometimes, something that is often forgotten is that forestry has opened up the country with logging roads. They opened it for exploration and for building mines. I know of at least a dozen mines within the region I live in. I would like to remind the committee that it's something we shouldn't forget.

Mr. Tory, how important is it to have these two industries work together?

Mark Tory: I've asked the same question. I've only been here nine months in Canada. I'm trying to understand how everything works. I'm obviously still getting the hang of everything. To me—

Gaétan Malette: How did it benefit you in your region on your project?

Mark Tory: As I said, where we are right now, forestry has forestry roads going all through the area and right past our project. They enabled our geologists and everyone else to access the site easily, and it saved costs. If there were no roads going in there, we would have to do a helicopter exploration, which obviously is a very expensive type of exploration work. Having the roads going directly to the projects is fantastic. I would love to be able to work with forestry to help clear some of our lands. That would work really well.

Gaétan Malette: Thank you.

The next question is to Mr. Stibbard. I will give you the opportunity to continue your answers.

You previously managed BHP and Ekati Diamond Mine in the Northwest Territories. That was a different time. How would you explain the changes, with Bill C-69, and how complex and...? I'll just give you an opportunity to continue on with what you hadn't finished.

What could we do to improve?

Jeff Stibbard: From my perspective, immediately repeal Bill C-69's specifically provincially contentious components where there is overlap, including review criteria. Review participants who are included and why. Review the definition of those. Review the timelines. The mandatory obligations for climate, gender and identity issues have to be curtailed, removed or adjusted.

The federal minister's discretion of final say and replacement of the existing boards and regulators by the Impact Assessment Agency is usurping some of the roles there. Initiate a federal descope, replace with extreme rigour accountability to timelines, and consider outsourcing to private project management consultants for execution under Canadian government oversight. Reduce the potential for the Canadian government to pick favourites. Inspire and lead the call for business and the regions to move forward based on guaranteed federal accountability to timelines and existing regulations.

Again, I give Ekati as an example of a five-year timeline versus a 10-year timeline going to a 15-year timeline. It's not like we did anything wrong 30 years ago as far as development is concerned. Obviously, a lot of things have improved in energy efficiency, relations with people and first nations. All of those are included.

I'll add that in those first nations communities affected by the mine in the Northwest Territories when the diamond mining business came about, there was only one post-secondary graduate when we started. Now there are 28 annual post-secondary graduates in the affected communities. You have to have that anchor and that attraction. I keep using that word. You have to attract people, like a moth to a flame, to move people and the economy forward, and the process is not top-down. The initiative, the idea and the leadership inspiration have to come from the top if they don't come within naturally from a lot of our people in leadership in the regions. After that, the industry is very well versed in working through these issues in a positive way.

We talked about the processing. Again, Canada used to have an abundance of smelters in places like Flin Flon and Thompson in Manitoba. British Columbia had 12. Today we have two: an aluminum smelter and a lead and zinc smelter.

● (1640)

The Chair: Thanks, Mr. Stibbard.

We're going to our final speaker in this round, Mr. Hogan

Corey Hogan (Calgary Confederation, Lib.): Thank you, Chair.

There seem to be common themes of infrastructure, capital and regulatory easing. I really hope we keep Mr. Malette's comments about logging roads in mind as we go through this study and the next one. I think they're excellent. Forestry is an integral part of this.

I'm sure all witnesses will be heartened to know there is broad agreement on the need to move more quickly. The Prime Minister has set targets to that effect that would still meet Canada's expectations and the court's expectations on the environmental, social and indigenous components.

Mr. Tory, I want to take advantage of your long résumé and ask if you could compare and contrast the Canadian approach with Australia's. In particular, could you identify what Canada can learn from Australia?

I'm not trying to get you in trouble with your countrymen, so feel free to frame it in the positive. I'm wondering if you'd be comfortable sharing what you believe is working well in Australia and what we should be careful about.

Mark Tory: I'll be honest. I don't think there's too much of a difference. We struggle with the same things in Australia around permitting, environmental issues and indigenous communities. It all means that mining projects are taking longer and longer to get permitted and up and running.

When you ask who does it better, I don't think anyone is doing it better at this stage. Both countries need to improve, and we need to improve to get those permitting timelines as short as we possibly can, as I said. My morals are very much around our having to do it in a very environmentally friendly manner and making sure we bring the community along with us. If you can demonstrate you're doing that, you should get to the top of the pile and make sure that these things happen quickly.

Corey Hogan: I totally agree.

One thing we've heard about is Australia's well-funded mapping of critical minerals and the deposits that exist. Often, we peer over the fence and view things through rose-tinted glasses. If there are lessons to be learned on that, I'd love to learn them. If there are cautions, I'd love to hear those as well.

Mark Tory: Yes, I have to be careful. The Australian government has done a good job in trying to pick winners in relation to the way that it's funding people. I'm not necessarily sure that it has done it the right way, but it's putting a lot of money into limited companies. I'm not sure that's the right approach. I'm not sure it's the right approach to give money to existing companies that have their own cash flows, can actually fund themselves and do things.

What it has to do is look more at funding some of the up-and-comers and the more junior companies. To me, if it went through a wider range of companies, sure, it's not going to pick winners every time, but at least it would potentially get someone up and running who is not actually going and get a brand new deposit happening.

I don't know. I look at it, and I just say, "You know, I think funding big companies is not the way to go."

Corey Hogan: Fair ball, and that does lead into my last question. I'll try to be really quick.

You and Mr. Goad both noted the high risk nature of exploration, being a "junior"—I'm putting it in quotes, because you put it in quotes—and other witnesses have said similar things. I was intrigued by Mr. Goad's comments around filling the gap through different allowable expenses.

I'm wondering if either of you could give your thoughts, very briefly, on how we can increase access to capital uniquely to juniors in exploration companies.

• (1645)

Mark Tory: Are you talking about you as a government itself?

Corey Hogan: Yes, I'm sorry, a government.

Mark Tory: Whenever I talk to potential investors, they always ask, "What support are you getting from your government, what support are you getting from the provincial government, and what support are you getting from the federal government?" If you can say, "Yes, they're looking at it, and they're looking to support us in X, Y, and Z", you will get far more positive answers than you would if you said, "They don't have any money to give us, or they don't want to support the industry."

The Chair: Mr. Goad, do you have a short comment? You have about 40 seconds.

Robin Goad: I sure do.

Essentially, the problem with the capital market system right now is that we just don't make money in mining. That's because we've been having poor returns on our investment. There are many issues around that, and they are mainly the regulatory issues that we've already talked about, but there are some others.

For example, the chartered banks basically control the brokerage and capital markets in Canada. They don't allow investors to invest in junior companies because of compliance issues. Our pension funds don't invest in Canadian equities, let alone junior equities.

That's a problem. We basically have to make the industry more profitable. Part of that is through getting our projects through the regulatory system quicker and making our industry profitable.

The Chair: That's a good place to end. We have another panel waiting.

Let me thank all of our witnesses for a very stimulating round of presentations, questions and answers. We really appreciate it. Again, if you have other information you'd like to convey through a brief, we'd welcome it.

Thank you very much.

Colleagues, we are going to suspend for about five minutes.

• (1645) _____ (Pause) _____

• (1650)

The Chair: I am bringing this meeting to order once again.

I have a few comments for the benefit of our witnesses online.

For those of you participating by video conference, click on the microphone icon to activate your mic, and please mute yourself when you are not speaking. Also, at the bottom of your screen, you can select the appropriate channel for interpretation: floor, English or French.

I remind you that all comments should be addressed through the chair.

I would like to welcome our witnesses on this second panel.

From CN Rail, we have Kelly Levis, vice-president, industrial products, and Chris Cariglia, director, marketing, metals and minerals.

We are also joined by Réjean Girard, geologist, IOS Géosciences.

• (1655)

[*Translation*]

We also have Louis Ouellet, president of the Union des préfets du Saguenay—Lac-Saint-Jean.

[*English*]

Finally, we have Daniel Alessi, professor, department of earth and atmospheric sciences, University of Alberta.

You will each have five minutes for your opening remarks.

We are going to start with Ms. Levis.

You have the floor.

[*Translation*]

Kelly Levis (Vice-President, Industrial Products, Canadian National Railway Company): Good afternoon, Mr. Chair and members of the committee.

Thank you for the opportunity to speak with you today.

My name is Kelly Levis. I'm vice president of industrial products at CN. With me today is Chris Cariglia, director of marketing for industrial products.

We welcome this opportunity to discuss the critical role of logistics in promoting Canada's emerging critical minerals sector. These minerals, such as lithium, nickel and copper, as well as rare earth elements, are essential to modern technologies, economic growth and national security. Yet their supply chain remains vulnerable to disruptions, especially in remote areas with limited infrastructure.

[*English*]

CN actively engages with mining companies and shippers early in their development cycles to ensure we can support the movement of ores and concentrates as soon as they come out of the ground.

We've identified over 50 mine projects across Canada and the U.S. Midwest, with major volume potential in northern Quebec, northern Ontario, Manitoba, British Columbia, Michigan and Minnesota. Many of these sites are in areas where building real infrastructure would be prohibitively expensive.

To address this, CN is focusing on strategically located transload hubs as key locations across our rail network. Many of these are northernmost points in our network. We are also exploring other sites based on demand and are committed to working with indigenous partners so they can own and operate these facilities, ensuring inclusive economic development. These hubs enable truck-to-rail transfers, bridging the gap between remote mines and the national transportation rail grid.

Port access and storage are also critical. While Canada's domestic market has growing demand for these minerals, North American processing capacity for less traditional raw materials like spodumene is still developing. In the interim, access to international markets is essential. Our logistics model supports movement from mine to rail to storage, then break-bulk shipping via global ports, such as Halifax, Montreal, Quebec, Trois-Rivières, Vancouver and, in the future, Prince Rupert.

From a policy perspective, there are several areas where government support could accelerate progress.

The first is railcar manufacturing incentives. Nearly all ore and concentrate move in privately owned cars. There's an opportunity for government to support mining companies in the sourcing of railcars built in Canada using Canadian steel, strengthening both the mining and manufacturing sectors.

Streamlined mine approvals would be the second area. Streamlining or simplifying regulatory approvals would help bring projects online more quickly, allowing Canada to capitalize on its resource potential while maintaining higher environmental and community standards.

The third is strengthening Canada's labour frameworks. Canada's labour relations climate is increasingly unstable, threatening national productivity. Strikes in critical transportation sectors—marine, rail and aviation—have severely impacted supply chain reliability. These disruptions slow the movement of goods, undermining Canada's ability to maintain a productive economy and meet global trade demands, as well as its credibility as a global trading partner. A modern framework that includes effective enforcement and real incentives for timely resolution is essential to safeguarding Canada's economy while maintaining fair labour relations.

On top of this issue, there have been unintended consequences of labour regulations, like the stacking of sick leave and personal leave benefits, and duty and rest-period rules. These have seriously reduced employee availability and forced CN to hire 350 to 400 additional employees. If we want to grow our economy, we need to address these by-products of policy decisions.

CN currently transports over 41,000 carloads of critical minerals annually. By 2032, we project the potential for significantly more volume, which could represent 15,000 to 25,000 additional carloads of emerging minerals like lithium, cobalt, graphite and rare earth elements, as well as new sources of copper and nickel. We're evolving our equipment and services to meet this equally evolving demand from raw materials to future battery chemicals. We're also developing new solutions like Rotainers on flatcars and expanding our use of covered hoppers, gondolas and bulk containers to handle products at various stages of refinement.

In closing, CN is committed to being a reliable and innovative partner in Canada's critical minerals strategy. With coordinated planning, infrastructure investment and strong collaboration among industry, indigenous communities and government, we can build a resilient supply chain that positions Canada as a global leader in the energy transition.

- (1700)

Thank you. We welcome your questions.

The Chair: Thank you very much, Ms. Levis. You were right on the money there at five minutes.

We'll go on to Monsieur Girard.

You have five minutes.

[*Translation*]

Réjean Girard (Geologist, IOS Géosciences): Good morning. I will address you in French, if I may.

I would like to begin by thanking members of Parliament for the work they do, regardless of political affiliation. I have a great deal of respect for their work.

I am an exploration geologist and have been working in mineral exploration for 43 years as an independent consultant. I will have to condense my presentation somewhat, so I apologize in advance to the interpreters.

Canada is recognized for its expertise and leadership in mineral exploration. Unfortunately, that expertise stops at the exploration stage. We have an extremely low batting average when it comes to

bringing mines into production. This aligns with statements made by previous witnesses.

Remember that the only way the mineral industry can create wealth is by casting ingots. Stock market speculation of junior exploration companies does not generate wealth; there is only growth when mines are producing.

I've had the opportunity to work on hundreds of projects, many of which have reached the feasibility stage. After 43 years, none of these projects have been completed. In Quebec, the last critical mineral mine, if we exclude gold, copper and nickel, is over 40 years old. It's a graphite mine in Saint-Aimé-du-Lac-des-Îles. Since then, not a single project has come to fruition. There's no denying that we have a problem.

Given the current profitability of mining projects, their development costs are too high to justify. The majority of critical mineral projects are not in large mines. A lithium mine, for example, will produce 50,000 to 100,000 tonnes a year, which is not a lot. These are small mines.

In terms of development costs, we invest about \$10 million in resource definition and development, and about \$20 million in metallurgy, feasibility and environmental impact studies. To get to the feasibility stage, you generally do pretty well with a budget of about \$30 million.

The problem starts when the feasibility stage is reached. You have to conduct an environmental audit and a market study, in addition to ensuring the project's acceptability, among other things. If there is a modification, you have to start all over again. Ultimately, project development costs can easily reach \$80 million to \$100 million.

In Saguenay, for example, the BlackRock project has cost \$400 million to date. Arianne Phosphate has invested nearly \$100 million in its projects, which are still not developed. When the development and construction costs of a mine reach \$500 million and it costs \$100 million for the studies, there's a problem.

It's therefore unrealistic to ask junior companies to go through all those stages of funding and work, because they don't have the in-house expertise for it. They're unable to do that. The only way companies can succeed is by partnering with major players, multinationals that partner with the projects.

One of the problems in Canada is that just about every diversified mining company has disappeared. Mines Noranda and Falconbridge, among others, no longer exist, which means that very few players are able to carry out rare mineral development projects.

One problem facing junior companies is that most of them have little expertise and aren't able to build a technical team capable of carrying a project through. Managing environmental and metallurgy issues requires a lot of qualified staff. Naturally, they then have to turn to engineering companies, which don't always have the same goals as the mining company itself. As a result, the cost of conducting studies is exploding.

When we say that metallurgical trials usually cost \$5 million for the mining sector, it's to produce the concentrate. That doesn't include primary processing, smelting and hydrometallurgy, among other things. To develop such projects, you will easily need a further \$100 million. That's what it took for the Nemaska Lithium and Nouveau Monde Graphite projects, for example.

• (1705)

[English]

The Chair: Thank you, Professor Girard.

I'm sure there will be questions that will allow you to speak further about the topic.

[Translation]

Réjean Girard: Okay, thank you.

[English]

The Chair: We'll go now to Monsieur Ouellet for five minutes.

[Translation]

Louis Ouellet (President, Union des Préfets-Saguenay-Lac-Saint-Jean): Thank you, Mr. Chair.

Thank you to the members of the committee for allowing me to speak to you.

I am the president of the Union des préfets du Saguenay—Lac-Saint-Jean, which represents five regional county municipalities. Our organization is the voice of the mayors of 49 municipalities and more than 285,000 citizens. We work particularly closely with the Mashteuiatsh first nation. In fact, it is a model co-operation that, in my opinion, should be extended across the country.

Our mission is to develop a shared vision, assert a strong regional identity and support promising projects that address regional and even national challenges. One such project is the Canadian northern corridor, which I would like to present to you today.

For the past four years, our organization has been working to improve our region's rail network so that our deepwater port can accommodate mineral resource development in our province's north. We have invested nearly \$1.3 million to find solutions to secure the existing rail lines in all our communities and to determine the lesser impact route of the new rail line to connect our region to the Chibougamau-Chapais sector, first of all. Naturally, this was made possible thanks to the collaboration of the first nation.

Since geopolitics has changed a great deal since the last election in the United States, the rail project has become essential, in our opinion—so that critical minerals from Quebec and the Ring of Fire in northern Ontario can reach the ocean and eastern Canada.

Outside our region, there is a section of about 160 km that has to be rebuilt from Lebel-sur-Quévillon. The track has been removed,

but the structures are in place. We know that the Cree community in the area, through the Grande Alliance, is very interested in seeing the 160-kilometre section rehabilitated. We met with mayors from northern Ontario and spoke with all the reeves in Abitibi-Témiscamingue, and their enthusiasm for this project is very real.

We believe we have the fastest and most cost-effective solution to achieve our country's ambitions for the transportation and export of critical minerals. The route exists, but it has to be reactivated in certain areas, and improved and secured in other areas.

Our people have always risen to the occasion when it comes to major projects. We are the top aluminum producers in Canada, and even in America. We are currently conducting major, even colossal, renewable energy projects in our territory—wind energy projects. We have the energy, the skills, the will and the people to continue on this path.

We have a year-round deepwater port. We have 1,200 hectares of industrial land nearby that can accommodate any type of industry. One of the members of the Union des préfets du Saguenay—Lac-Saint-Jean, the City of Saguenay, is talking to us about regionalizing the benefits. In addition, we have a military base, the Bagotville military base, which helps secure our infrastructure and supplies for our international partners.

We estimate that \$700 million in investments will be needed in our region for the sections that are on our territory. For the missing 160 km, the Grande Alliance studies are available. The rest of the Ontario route needs to be analyzed.

In short, to help Canada achieve its ambitions, we believe we are the cheapest, fastest and most efficient way to connect much of our country to a year-round deepwater port. In addition, we have the population required for the development of our territory to be done particularly efficiently.

I am now available to answer any questions committee members may have.

• (1710)

[English]

The Chair: Thank you.

Our final witness is Daniel Alessi.

Please proceed. You have five minutes.

Daniel Alessi (Professor, University of Alberta): Thank you, Mr. Chairman.

Good afternoon.

[Translation]

I would like to thank the committee for inviting me to testify today. I am honoured to do so.

[English]

As the world moves towards low-carbon technologies, global demand for critical minerals is projected to grow exponentially. Critical minerals, whose supply may be vulnerable, are chemical elements that are essential in modern technologies and that are necessary for economic or national security purposes. Technologies including lithium-ion batteries, permanent magnets, electric motors, solar panels, wind turbines, semiconductors and other components in advanced manufacturing require these elements.

The good news is that Canada has abundant mineral resources and a skilled workforce, and it stands to benefit by developing its critical minerals potential.

By the government's own account, Canada already produces more than 60 minerals and metals, and produces 22 of the 50 minerals that the United States Geological Survey considers to be critical. Our country benefits from a stable political system and a strong regulatory environment that may need adjustment in some cases, as we heard today, but it also respects indigenous land rights and has a well-developed mining services sector that I believe has the potential to pivot towards further critical minerals development. These aspects, in some ways, give Canada a competitive advantage in providing minerals that are sourced responsibly, which should be incentivized and will matter increasingly to buyers, governments and other partners around the world.

The opportunity also exists for us to build vertical domestic production chains. For example, an area where I have some expertise is the chain that begins with low-grade lithium-bearing sedimentary brines, like those found for example in Saskatchewan, Alberta, Manitoba and British Columbia, in the western Canadian sedimentary basin. We could take those low-grade brines all the way to high-grade lithium salts and, if we let ourselves dream a little, could maybe even manufacture lithium-ion batteries in Canada, producing far more economic value than simply exporting a raw ore.

Having been a co-founder of an Edmonton-based lithium extraction technology company between 2019 and 2023, I would be happy to discuss with the honourable members of this committee some of our successes and the challenges we faced there. Also, as an educator who's turned out people at master's and Ph.D. levels for jobs in Canada that require expertise in critical minerals, I'd be happy to talk about those challenges in training people in the workforce in Canada at the university level.

With increased demand on the horizon, our national development plan at this point is very crucial. Natural Resources Canada noted in their press release in March of this year that the "demand for critical minerals is expected to double by 2040". By some of the accounts that I've read, we may experience even greater demand by then.

If Canada delays further, it risks being left behind or producing and delivering only raw materials with less economic value.

We should also be aware that jurisdictions with less stringent environmental regulations, with lower labour costs or with better-developed critical minerals infrastructure may capture more of the market share in the near term. In this regard, the government's an-

nouncement this year of a second round of investment in a critical minerals infrastructure fund was welcome news.

I also believe that our country should pursue invention, innovation and technology development in this critical minerals space, for example, with research into the downstream extraction and processing technologies. This research and development intrinsically attracts top talent from around the world. It results in well-paid jobs, and it offers the opportunity to develop intellectual property, including patents in Canada, which can then be licensed around the world.

Developing critical mineral resources themselves also offers, of course, significant economic upsides, with mining jobs and other job creation, including in remote, northern or indigenous communities, and with a strengthening of Canada's position in the global supply chains.

Developing critical mineral resources takes time and capital, and it takes careful consideration of social and environmental impacts. As we heard in a previous panel, it can take many years for a mining project to begin operations, with no revenue until that time. With that in mind, KPMG did a survey in March 2024 of Canadian mining leaders. They found that while 91% of them were "optimistic" about the country's position, 98% said that their companies could use "more investment", a stable policy and regulatory environment, and tax incentives.

We heard also that the development of infrastructure in remote regions, the transportation and logistics, the processing and refining capacity itself, the technologies that I mentioned and the indigenous partnerships are also important considerations.

I would add, I think, the point that responsibly sourced and environmentally sound operations are also a must, but they need to be dovetailed into reality. I think that's where, certainly, academic partners can be useful.

The potential benefits to our country are substantial: economic growth, job creation, greater sovereignty and a leading role for Canada in the digital and green economies.

• (1715)

Thank you very much.

The Chair: Thank you, Professor Alessi.

We'll go on to our first round of questions.

We'll start with Monsieur Martel.

[Translation]

Richard Martel (Chicoutimi—Le Fjord, CPC): Thank you, Mr. Chair.

Thank you to the witnesses for being here. Thank you very much to Mr. Girard, who is joining us from France.

Mr. Ouellet, people in my riding want projects and we want them to be successful. I was very disappointed—as were many others—because the GNL Québec project in my riding was terminated. Many people dreamt of seeing this project come to fruition, particularly the equipment manufacturers. I think we had the assets required for this project. We didn't get it, which was unfortunate. However, we must remain optimistic. Now we're hearing about the Canadian northern corridor, which I believe is Mr. Simard's project.

Why do you think this project is realistic and viable?

Louis Ouellet: Mr. Martel, I hope I can convince you that we are the best thing since the invention of sliced bread. In the case of the GNL Québec project, it seems to me that social licence was quite strong in the region. The problem lay with transporting the product. We certainly felt when it came to factors that could lead to further degradation of the planet. Public pressure has increased, which has led us to this situation.

Geopolitics has changed, and visions for economic development have also changed enormously. We must remember that we are in a trade war. When there is a war, you have to respond to it. The project we're proposing is a deepwater port, not a lake area. We need only look at what's happening with the St. Lawrence River these days, where marine transportation costs are increasing because of fairly significant drops in water levels. We are suggesting a deepwater port, and the public supports our project. In addition, there are existing routes and rail lines. Now we have to complete this project, which, in my opinion, is necessary not only for our territory's economy, but also for Canada's.

• (1720)

Richard Martel: Thank you, Mr. Ouellet.

We haven't yet discussed the provenance of the minerals, but we're told they will come from Sudbury or the surrounding area.

Mr. Girard, Mr. Ouellet talked about the social licence of the GNL Québec project. Do you agree with that?

Réjean Girard: I think there was a slight problem in terms of social licence. I don't have inside information, but to my knowledge, this problem did not exist in Saguenay. There was a lot of talk about Tadoussac, where I have a cottage. The project caused an uproar among the population because it would have disturbed the beluga habitat.

Richard Martel: Personally, I want projects, and I'm trying to stay positive. Do you think the Canadian northern corridor project is feasible?

Réjean Girard: Yes, the project is feasible. I don't know the economic details, so you'd need to talk to the CN representatives, who could tell you more about it. The old National Transcontinental Railway, a corridor that ran through Abitibi and has been half dismantled, would easily relieve congestion in the shipment of materials from west to east, via a port such as Saguenay.

Let's return to the Saguenay natural gas project. I don't know the source, but I was told one of the reasons it didn't go forward. A problem with the availability of electricity would have made it impossible to power the plants. When we talk about infrastructure problems, the availability of electricity is often an obstacle to project development. I'm not talking about installing an electrical wire, but rather about having enough electricity.

Richard Martel: Mr. Girard, I'd like to talk about social licence, which we often hear about. It's a nice expression, but what does it mean? If one in 300,000 people disagree with a project, does that mean there's no social licence?

Réjean Girard: There's what we observe, and there's my opinion. Currently, in certain situations, a single person or a small group of people can block projects. For some individuals, the common good comes after personal gain. Take the example of the Ariane Phosphate project, which you're no doubt familiar with. The Saguenay port ran into problems because a few cottage owners in Anse-à-Benjamin blocked the project.

Richard Martel: If I understand correctly, a few residents can block any project. In that case, it becomes difficult to create wealth.

[English]

The Chair: Thank you both.

We'll move on to Mr. Guay for six minutes.

Claude Guay: Thank you, Mr. Chair.

I want to thank the witnesses for taking the time late in the day to be with us and answer our questions.

The question is for Madam Levis from CN. We heard this idea of a northern rail corridor. I'm an industrial engineer by trade, so I try to optimize everything. I spend my career doing that.

We have new volumes of critical minerals. I have many mining projects...that come and see me in northern Ontario at Abitibi-Témiscamingue and Saguenay. That, to me, speaks of a significant potential increase in volume that needs to be shipped within the next few years.

The ports that you mentioned earlier where CN is able to bring materials currently are not deep-sea facilities...12 months a year. They're more lakers or intermediates, which requires more offloading and unloading.

The *préfets* are talking about this northern corridor that could go from northern Ontario to Saguenay. I'm wondering if CN has actually studied that, and if CN has updated the volume potential forecast requirements into the future to see how much it would cost, if it would be feasible and the kinds of volumes. Is that a better idea than your current network, depending on whether we want to ship to international markets out of Canada?

• (1725)

Kelly Levis: We review any project that increases traffic on our network as a positive opportunity. To date, no study has been conducted on the cost associated with rehabilitating the corridor between Matagami and Chapais, in that northern corridor.

At present, it would be very difficult for us to invest capital in this rehabilitation without guaranteed traffic volumes. Financing would therefore need to come from other sources. It's important to note that from an operational railway standpoint, the shortest distance on a map is not necessarily the most efficient or fastest route between two points.

We do remain open to continued dialogue with stakeholders to identify potential rail solutions that could support regional growth. Some of the options today would be feasible using the existing network we have out there today. As I mentioned earlier, we are looking at many of these different projects based on transloading areas where product could be trucked into a transload...and then converted into rail.

I hope that answers your question.

Claude Guay: Yes, partially.

I would ask the question to Mr. Ouellet. Who do we need to talk to if the Grande Alliance has done some studies? I think this committee would be more than anxious to get the conclusion. I'm assuming you also had commissioned some studies for the portion that is within your jurisdiction. Is that correct, and can the committee get access to those?

[*Translation*]

Louis Ouellet: Absolutely. Our studies and analyses are available. We'll try to obtain those from La Grande Alliance, meaning the ones on the missing section between Lebel-sur-Quévillon and Chapais. We can, of course, provide this information to the committee.

With regard to rail transportation, I understood from Ms. Levis's comments that CN will not invest if the project isn't profitable. I'm well aware of that. That's why we need to set up a project office that will conduct a comprehensive analysis of all potential users of this project.

As Mr. Girard said, companies in the critical minerals sector aren't large corporations. We need to find a way to enable them to extract their product at a reasonable cost.

The optimized rail network includes the Abitibi and Saguenay—Lac-Saint-Jean regions, where there are many projects. They aren't just mining projects, but also forestry projects. We mustn't forget that the forestry sector is also in crisis. It needs to diversify and find new products. In my opinion, two-by-fours, as we see in the United States, aren't the way of the future. We need to find a way to make everything that comes from the forest profitable. New products exist. Rail is essential for transporting all of our natural resources products.

[*English*]

The Chair: There are just 20 seconds remaining. Why don't we move on to Monsieur Simard?

[*Translation*]

Mario Simard: Thank you very much, Mr. Chair.

I'd like to take a few moments to respond to my friend Richard Martel, whom I greatly appreciate and love like a brother.

Richard Martel: Me too.

Mario Simard: This regional project doesn't belong to anyway, but it's supported by all the stakeholders in Saguenay—Lac-Saint-Jean. We mustn't act like a scorned lover who has sadly experienced defeat. The regions mustn't adopt this attitude. It's too bad for the LNG project. Some people were in favour of the project and others weren't, which means that the project won't ultimately proceed.

I'm going to use a sports metaphor now that Mr. Martel will understand immediately. Even though the Nordiques aren't back, he still watches hockey. Even though the LNG project didn't proceed, we can still think about his region's economic development.

What we want to do, what the people in the region want to do, and what Mr. Ouellet came to present to committee, is an infrastructure project linked to a deep-water port that would enable various critical minerals to be transported to Europe. The witnesses on the previous panel talked about setting a floor price for critical minerals. We're currently considering these issues. However, we still need to develop the necessary infrastructure.

Mr. Ouellet, the costs associated with this type of infrastructure would be lower than those of other types of projects that have appeared in the public sphere. However, another factor seems central to me if we want to carry out the primary processing of critical minerals: access to labour. In Saguenay—Lac-Saint-Jean, access to labour isn't as problematic as it is in the north, where commuters fly in. I'd like you to tell me about access to labour in Saguenay—Lac-Saint-Jean for the development of the critical minerals sector.

• (1730)

Louis Ouellet: I mentioned this briefly earlier. Saguenay—Lac-Saint-Jean has a population of 258,000. We could therefore support an initiative to develop or process critical minerals across the entire region.

In my opinion, a railway line, a section of railway, or any kind of road is an incredible opportunity for a community that wants to grow. The Saguenay—Lac-Saint-Jean region has always been involved and particularly inventive when it comes to carrying out huge projects. In fact, this has been the case since World War I, when the decision was made to settle in our region to develop the aluminum industry. But it's not just aluminum. I could also tell you about the wind power projects currently under way in our region. In terms of energy production, these are huge projects.

We're talking about the region's energy capacity. There's a real focus on developing critical and strategic minerals, so that our NATO partners can have access to these minerals. I believe that the Saguenay port, our population, our knowledge, and our equipment manufacturers are there to support the entire industry.

Mario Simard: Thank you very much, Mr. Ouellet.

I'd now like to turn to our friends from CN.

In your presentation, you say that you're working in collaboration with indigenous nations. We know that La Grande Alliance, a memorandum of understanding signed by the Cree, includes a project to complete that section of railway that would serve Lebel-sur-Quévillon.

Are you in talks with La Grande Alliance partners, or have you already had talks?

Kelly Levis: To date, I personally haven't had any talks with them, but I could get back to you with more information, since we have a whole indigenous group working with the various communities.

Mario Simard: If I understood your earlier comments correctly, you currently have no data on the costs associated with this. I must admit that I only recently started working on this type of issue, but I know there are several types of infrastructure in northern Quebec operating on a user-pay basis. In other words, it's not just one large developer developing and deploying this infrastructure; rather, it's a series of projects coordinated by a project office in partnership with indigenous communities and people like you, CN representatives, who make it possible to put together the financing needed to develop this type of infrastructure.

Is this something that CN has already done?

[English]

Kelly Levis: I want to make sure I answer this correctly. I'm not 100% sure. I do know we look at working with different groups. We have worked in the past with indigenous groups and other partners in different areas to be able to put together projects, but I can't say specifically what has been done with those alliances. Generally, that goes through a different group.

We are working directly with the communities. We're working directly with the mining groups that are looking to develop, and we are working with the customers, who will be looking to purchase the products, to understand volumes and whatnot. We will move through those areas to understand what investment would be required.

• (1735)

The Chair: That's all the time we have.

Mr. Simard, please go ahead.

[Translation]

Mario Simard: I'd like to very quickly ask the witnesses to provide the committee with an outline that would help us understand how their assessment process works for this type of infrastructure. It could be very useful to us.

[English]

The Chair: We're happy to receive a written brief on that, Ms. Levis.

Colleagues, we're going to go to our second and last round. We only have time for three speakers. We are a little bit behind because of the vote.

We will have Mr. Martel for five minutes, followed by Mr. Danko. Mr. Simard, it will be back to you for 2.5 minutes. We have a travel budget to consider, which will be the in camera portion of our meeting.

With that, Mr. Martel, the floor is yours.

[Translation]

Richard Martel: Thank you very much, Mr. Chair.

Mr. Girard, we want projects. If we didn't want them, we wouldn't be asking questions. However, this time, we need to tackle the real issues. We talk about roads and railways, but if we don't talk about regulations, bureaucracy, delays and costs, it will be difficult to implement these projects. Everyone tells us that the permitting process is endless. In fact, it takes between 15 and 20 years. You said that the last project dates back 40 years. We need to seize each development project at the right time. If investors are never able to seize these opportunities because the process is too long, they'll get discouraged and we'll get nowhere.

I'd like to hear your comments on this.

Réjean Girard: To be blunt, it's catastrophic. Delays cause companies to miss out on opportunities to develop projects. As you say, we need to seize the right moment. If someone else does it before us, we lose the market. There's no point in having infrastructure if we can't develop projects. Unfortunately, one of the major problems with granting permits lies in the provincial project approval process. I don't know what the federal government can do, but in Quebec, this process is a nightmare.

Richard Martel: Mr. Girard, there must be harmonization between the federal and provincial governments. If they don't seek to achieve a common goal, success is almost impossible, isn't it?

Réjean Girard: I completely agree with you. Provincial governments should get guidelines from the federal government defining the process.

One of the phenomena we have observed at the provincial level is that it's impossible to obtain a building permit until everything's done. As part of the process, studies are conducted, and if changes are required, the permit won't be issued until more studies have been done to resolve the situation. This cycle derails the funding.

From what I've been told, in other countries, such as Australia, studies are conducted, submitted, and then a permit is issued on the condition that the required changes are made. From the outset, the permit is issued and construction can begin. Their process takes between five and 10 years less. In Canada, it doesn't work that way. Until every loose thread is perfectly tied up, construction cannot begin.

Richard Martel: When it comes to mining projects, without processing plants, can we hope that resource extraction will be profitable?

Réjean Girard: I'll give you a cruel example.

Richard Martel: Yes.

Réjean Girard: I have a cell phone here. The materials used to make it cost about \$10, but the phone sells for \$1,000 on the market. Could we pay \$20 for the materials and save \$1,000 on manufacturing?

Richard Martel: I see then that—

Réjean Girard: Market price is an essential concept. Let's set a decent price for goods, and projects will fund themselves.

Richard Martel: What would encourage mining projects to set up in a particular location? Is it access to natural gas, or is it the existence of railways, for example?

Réjean Girard: No, it's the difference between the value of what we produce and production costs. Natural gas and railways, among other things, are included under production costs. The other aspect we can work on is the value of what is produced. If the value of the goods goes up, many funding problems related to production costs are eliminated. Incidentally, we may think that working in Canada costs more than it does elsewhere, but that's a myth: It costs just as much to work in Africa as it does here.

• (1740)

Richard Martel: Yes.

Réjean Girard: Currently, price controls are shocking.

[English]

The Chair: You have 30 seconds.

[Translation]

Richard Martel: There are so many questions I'd like to ask you, Mr. Girard.

Ms. Levis, what would encourage you to invest in the construction of a new railway in the context of a mining project?

Kelly Levis: We're studying the trade volumes that will be transported. We are wondering whether they will be sufficient to justify our investment in the development of the railroad.

Richard Martel: The project needs to be quantifiable for you.

Kelly Levis: Absolutely.

Richard Martel: The project needs, then, to be measurable and quantifiable.

[English]

The Chair: Thanks to both of you.

[Translation]

Richard Martel: Thank you.

[English]

The Chair: Mr. Danko, you have the floor for five minutes, please.

John-Paul Danko (Hamilton-Ouest—Ancaster—Dundas, Lib.): I have a series of questions for Mr. Alessi.

The first one is leaning on your experience in post-secondary education and the kind of environment where top talent is avoiding the U.S., for obvious reasons.

Where do you see the federal role in developing research funding or pilot funding to help recruit and retain that top talent from across Canada and also globally?

Daniel Alessi: There are good programs at the federal level with tri-council funding through NSERC, for example. I think the NSERC alliance advantage program is an example of a world-class program that many countries don't have, where academics inclined to work with industry can leverage a bit of industry money and get quite a bit from the federal government to support development. This is something, for example, that does not exist in the U.S. funding environment, so it's quite advantageous.

What I would say is that the commitment there is pretty small. Some of my colleagues might argue with me, as I'm more on the applied geosciences and engineering side of things.

There's a major advantage for companies working with academics on technically difficult problems. We were talking about start-up or mid-sized mining companies, where they do not have a research and development team in-house. They have a sticky problem, so then it's time to get some post-docs on a project to solve this problem. They're highly trained and less expensive, quite frankly. It's also a great advantage to then have these doctoral students and these post-docs here in Canada, being trained and using federal money, so they can go back into the ecosystem.

By the way, at the same time, they're presenting to the companies, so they have a link to the company, which then says, "We really like Marcel" or "We really like Mary; let's hire her."

These links are not terribly expensive, from my perspective, on the funding side of things. I've sent many students off into companies in Vancouver and Burnaby. Unfortunately, some have left the country because there is a business salary disparity in some cases. Some have left for Europe and the United States. I would start there.

I'll stop, but I just want to say one other thing. I'm not sure how to solve this.

There is still a perception.... I'll let my colleagues correct me if they think I'm wrong. Earth sciences enrolments, for example, have collapsed and they're just starting to come back a little bit. I mean, they've gone to a third of what they used to be when I started at the University of Alberta. A lot of that is around the idea that oil and gas are bad and mining for metals is bad. We need to think about changing that perception if we're going to have home-grown talent working in Canadian companies.

John-Paul Danko: Thank you.

I have a follow-up question on technically difficult problems.

You had mentioned in your opening statement about the need for downstream processing development. I believe you have a specialty in the extraction of lithium from oil field brines and non-standard recovery methods for critical minerals.

In your experience or opinion, where would you see this as a growth sector for Canada in extraction with non-traditional methods versus more investment in mining and so on?

Daniel Alessi: Let me be very frank.

The lithium-in-brine resources in Canada, while vast, are definitely not the best ones in the world. If you look in Alberta, you have brines that maybe have—I'll speak in concentration numbers—75 parts per million or 100 parts per million. You can double or maybe triple that in Saskatchewan, which is quite good. There are fluids in the United States, in other basins and in South America that are much richer. I think there is a game to be played there in developing technologies to extract lithium, for example, and other critical minerals from brines.

I've been a huge advocate in Alberta for thinking of this not just as a mining project. Why not have a company somewhere in Canada—it could be placed anywhere—that's developing patentable technologies? You would then have a group of highly educated engineers, scientists and people running the business who can then license that technology not only to other Canadian companies, but also outside the country.

We lack a technology-oriented industry in that regard, certainly in the oil and gas sector historically, but now in critical minerals. I would be reticent to see us go down the road where we get an ore out, process it to some sort of rough grade and then ship that—in this case it would be a concentrated fluid that contains lithium—overseas where they have electrolysis plants that can produce the battery salts and make all the money-making lithium-ion batteries or other products. I think that's a risk for sure.

● (1745)

The Chair: Thank you, both.

[*Translation*]

Mr. Simard for two and a half minutes.

Mario Simard: Thank you very much, Mr. Chair.

Mr. Ouellet, we spoke earlier about social licence, and I believe there's currently a certain amount of enthusiasm in Saguenay—Lac-Saint-Jean for the idea of a corridor project that would turn the

Saguenay port into a critical minerals storage facility. At the very least, it would be a place where transshipment and even processing could take place. I think there's a fairly strong consensus on this.

Witnesses told us that, when it comes to developing mining projects in the north, infrastructure is the biggest challenge. You've come a long way and presented the findings of a study you conducted with all your fellow prefects.

When it comes to infrastructure, what could the federal government do to make your lives easier?

Louis Ouellet: It could do a lot of things to make my life easier. If our idea is promising and seems important for our country, we'll need to go further to verify its feasibility. We'll need a project office so that potential clients can come and support our initiative, which will reassure Ms. Levis.

I know the Canadian government has invested significant amounts of money in a potential route that would go as far as Baie-Comeau. There's no railway line to get there. According to our project, there would be one in certain places. We have plans to rebuild what already exists. We're saying that we obviously need support to see the project through to completion. The five prefects from Saguenay—Lac-Saint-Jean can't do the work. We have to ensure there will be users and that the project is feasible. Furthermore, the communities have to agree on the project. Then we'll be able to present the government with a turnkey project and tell them that this is the best project they could have. It won't happen overnight, but we need to have a vision of what we want for our country. If, for our country, we need to diversify our markets and get our resources out of our region without going through the south, then I think our project is very attractive. However, we need support.

Mario Simard: Thank you.

[*English*]

The Chair: That's a good place to end, Mr. Ouellet. Thank you so much.

I'd like to thank all our witnesses for their very thoughtful and lively testimony. We also had good questions from colleagues around the table.

Colleagues, we'll now suspend while we move in camera to discuss the travel budget for the upcoming trip.

[*Proceedings continue in camera*]

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