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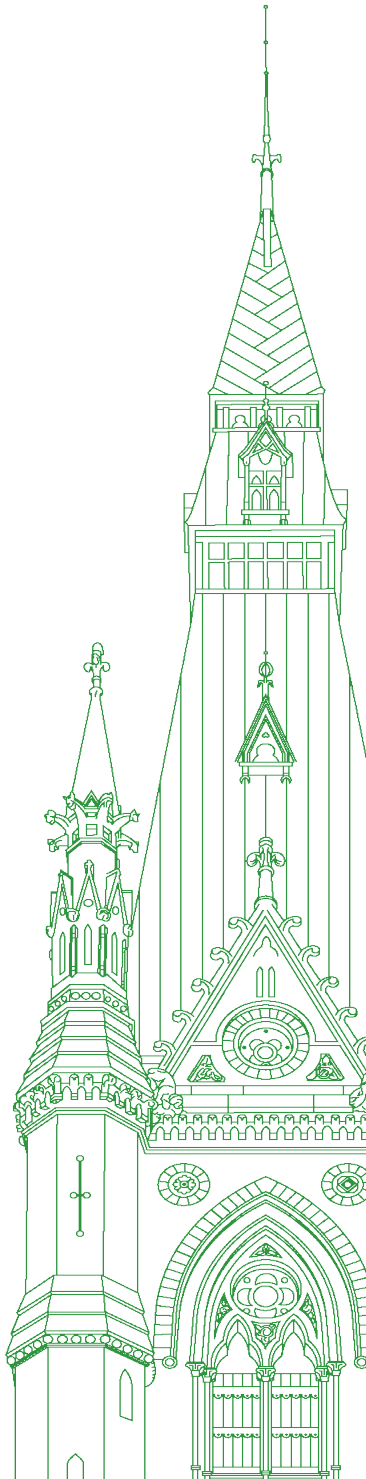

Chair: Salma Zahid

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● (1540)

[*English*]

The Chair (Salma Zahid (Scarborough Centre—Don Valley East, Lib.)): I call this meeting to order.

Welcome to meeting number 35 of the Standing Committee on Science and Research. We are meeting today to start our study on Canada's dual use and defence research needs.

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

Please wait until I recognize you by name before speaking. For those on Zoom, at the bottom of the screen you can select the appropriate channel: floor, English, or French. I will remind you that all comments should be addressed through the chair.

For this panel, I would like to welcome our three witnesses.

We have Karn Manhas, founder, Terramera Inc., in person. We are also joined by Major-General Paul Peyton, military deputy director, defence innovation, for the North Atlantic Treaty Organization, by video conference.

Welcome.

Our third witness today is Mr. Robert Asselin, chief executive officer, representing U15 Canada, who is appearing in person.

All the witnesses will have five minutes for their opening remarks. Then we will go into a round of questioning.

Welcome to the committee.

We will start with Mr. Manhas.

You will have five minutes for your opening remarks.

Please go ahead.

Karn Manhas (Founder, Terramera Inc.): Thank you.

[*Translation*]

Madam Chair, honourable members of the committee, thank you for inviting me to appear before you.

Canada's sovereignty depends on our ability to measure, understand and protect what nature has given us.

[*English*]

My name is Karn Manhas. I'm the founder of Terramera, Miraterra and Catalera. That's three Canadian companies, 16 years and around 350 patents held here in Canada. My background is biology and law.

I want to start with a question: What is defence actually for?

We talk about defence as borders and fighter jets. Those matter, but they are the means, not the purpose. The purpose of defence is to make sure that Canada keeps operating as a nation, even under disruption from a hostile state, a pandemic, a supply chain collapse or a closed border. Defence is not just about being ready to fight back. It's being resilient enough to keep going. Once we accept that, energy, critical minerals and food all show up immediately.

There are three terms this committee should hold together.

Food sovereignty is our ability to produce our own food. Food security is reliable access to it. Food defence is whether our food system can withstand attack or disruption. The first two we talk about; the third we don't talk about enough.

If the U.S. border closed tomorrow, Canada would have roughly three to five days of fresh food. Lettuce, tomatoes and berries would be gone in 72 hours. We are the fifth-largest agricultural exporter in the world, running our own grocery system with a just-in-time model.

When Russia invaded Ukraine, Ukraine was the breadbasket of Europe. One of the first things Russia did was attack Ukrainian farmland. Clearing landmines spread chemicals across the soil. Ukraine went from feeding Europe to dropping exports by 90%. Thirty per cent of its total agricultural potential has been destroyed. That was not collateral damage; that was strategy. Farmland was the target.

Article 3 of the NATO Treaty names food and water systems as a central pillar of allied civilian resilience. We signed that treaty. We just have to build it into our strategy.

In February, Canada launched its first defence industrial strategy. The build-partner-buy framework is right, but it makes no mention of food. At Davos, the Prime Minister himself said, “A country that cannot feed itself...has few options.”

I'm here to help this committee close that gap.

Here is the opportunity. The Netherlands, a country roughly the size of Vancouver Island, is the second-largest agricultural exporter in the world. Canada is fifth. That gap is not geography. It's not weather. It's strategy and it's fixable.

Canada now has the ability to measure its natural world—soil, food, water—down to parts per million and parts per billion, and not weeks later but in and near the field in minutes. Miraterra has built instruments that can scan soil using advanced spectroscopy and AI connected to millions of scientific publications. That technology was built in Canada with Canadian research institutions. We can monitor soil health, carbon and pathogens, and detect chemical contaminations at parts per billion. We can detect nanoplastics field by field. We can monitor the state of Canadian farmland and Canadian lands.

I call this strategic natural intelligence. It's a defence capability. It exists in Canadian companies and research organizations right now. This is where AI changes the equation. The same instruments that advise a Saskatchewan farmer on fertility and production can detect a contamination event or disruption in Quebec. The same soil data that drives $30 billion of GDP for every per cent of agricultural productivity we can improve is the system that can tell our defence systems whether the land that feeds us is under attack. One system with two missions—that is what dual use is supposed to do.

Canada started building a national soil map in the 1980s. Budget cuts stopped it. We could build a living digital version now at a fraction of the original cost. It would tell us in real time if our farmland was under attack. The cost is less than one to three fighter jets, depending on how deep we want to go.

I have a few recommendations.

First, add strategic biology and food systems as critical investment areas within Canada's dual-use defence research framework. Food and soil intelligence belong inside the build-partner-buy and dual-use architecture.

Second, fund a living national digital soil map. The technology is built in Canada and is ready.

Third, create a sovereign IP retention mechanism with retention covenants that keep Canadian-funded science Canadian-owned long enough to matter. We do not have a research problem. We have a commercialization problem, an adoption problem and a retention problem.

Fourth, increase our growth and adoption of innovative Canadian research and science solutions. Not all will work—we need to be okay with placing bold and strategic bets.

Finally, with ITBs, build a clear policy that allows us to invest in and grow innovative Canadian solutions and critical Canadian infrastructure that put resilience first.

At Davos, the Prime Minister was right. A country that can't feed itself has few options. Let's make sure that's not us.

● (1550)

The Chair: We will now proceed to Major-General Peyton, who is joining us virtually.

You will have five minutes for your opening remarks. Please go ahead.

Paul Peyton (Military Deputy Director, Defence Innovation Accelerator for the North Atlantic (DIANA), North Atlantic Treaty Organization): Madam Chair, vice-chairs and honourable members of the committee, good afternoon.

[*Translation*]

Thank you for the opportunity to participate in this committee's work.

[*English*]

It's an honour to speak on behalf of NATO DIANA, the alliance's defence innovation accelerator for the North Atlantic.

For those not familiar with DIANA's program mandate, we exist to close the gap between emerging technology and military capability. Established in 2022, we identify innovators developing breakthrough dual-use solutions and accelerate their adoption, leading to real capability advantage for our soldiers, sailors, aviators, special operators and other security-related entities across the alliance.

NATO DIANA provides a structured alliance-wide pipeline that connects innovators, test environments, trusted capital and end-users, ensuring that promising solutions move from idea to testing, validation and operational use. In collaboration with other NATO entities, we identify priority defence and security needs and communicate those to the industry in the form of problem statements. Solution proposals are rigorously vetted to determine those with the greatest potential. Following national security reviews, those selected receive framework contracts and enter our defence focus accelerator program. This includes curriculum delivery through our network of 16 accelerators—

The Chair: I am sorry for interrupting. I will stop the clock. I think there is some interpretation issue. Let me look into it.

Mr. Deschênes-Thériault, is there—

[*Translation*]

Guillaume Deschênes-Thériault (Madawaska—Restigouche, Lib.): I have no interpretation. I don't know if it's my device. Is it working for the others?

Mr. Blanchette-Joncas, are you getting the interpretation?

Maxime Blanchette-Joncas (Rimouski—La Matapédia, BQ): Yes.

[*English*]

Guillaume Deschênes-Thériault: It's just a disconnection on my side, so it will be okay. We can keep going, and if someone can just look after my device....

The Chair: We will look into it, and then we will start.

● (1550)

_____(Pause)_____

● (1550)

The Chair: I'm sorry for the interruption. We will start the clock.

Major-General Peyton, please go ahead.

MGen Paul Peyton: Yes, ma'am. Thanks.

As I said, following national security reviews, those that are selected receive framework contacts and enter our defence-focused accelerator program. That includes curriculum delivery through a network of 16 accelerator sites; testing, evaluation, verification and validation at a network of over 200 affiliated test centres; and participation in NATO operational experimentation events.

DIANA has two particularly unique instruments in its program.

The first is the NATO DIANA capital network, which connects vetted NATO-aligned investors with our selected companies, ensuring that they receive the capital required to scale.

The second is the rapid adoption service regulation, which allows NATO and the allies to contract with innovators for follow-on development and prototyping contracts without competition. Also, under this regulation, validated prototypes can be procured through NATO's procurement agencies, again without the need for further competition.

We started program operations in June 2023, with our pilot launch of three challenges, or problem statements, issued to innovators across the alliance. In 2024, that grew to five challenges, and in July 2025, we launched 10 challenge statements. We now have 267 companies that are part of our portfolio, all of which are solutions available to the alliance's defence and security entities through the rapid adoption service.

Our organization's main headquarters is in London, U.K. There is a regional hub in Tallinn, Estonia, and the North American regional office opened here in Halifax in late 2024.

Throughout DIANA's brief history, Canada has played a significant role. As you can tell by my uniform, I'm a Canadian Army officer, one of two general officers in the program, and I've been with DIANA since October 2024. I'm grateful to have the support of a small but very mighty team of Canadian Armed Forces members and civilians, including the regional director for North America, Christine Hanson. These Canadians serve as exceptional ambassadors to our multinational team of professionals from six allied nations here at our Halifax office.

Dartmouth, Nova Scotia, is home to one of DIANA's 16 accelerator sites, the Centre for Ocean Ventures and Entrepreneurship, or COVE, whose team provides outstanding mentorship to assigned DIANA innovators and significant exposure to defence investment opportunities. They work closely with Communitech, from Kitchener-Waterloo, in supporting COVE in program delivery.

Within Canada, 16 test centres located in six provinces provide scientific testing support opportunities to the eligible DIANA program participants. Our expanding program also relies on the generous support of 52 Canadian professionals who loan their expertise and experience to the program, assisting in the down selection of the most promising innovator proposals and providing mentorship during the acceleration phase.

Canadian innovators have been very well represented. In each of the program's iterations, Canada has been overrepresented in applications. In our pilot challenge launched in 2023, 211 of the 1,300 applications came from Canada, the second-highest number across the alliance. There were 44 companies selected to join the program, of which seven were Canadian. In 2024, Canada had the third-highest number of applications, at 339 of 2,600, and six of the 75 companies selected were Canadian. I am very happy to say that in our latest challenge call, we received 3,600 applications, and Canada had the highest number of applications in the alliance, with 574. Of the 150 selected companies that are currently going through the accelerator program, 22 are Canadian.

Canada has also been leading in leveraging the rapid adoption service to enter follow-on development and prototyping contracts. We were the first to exercise this process in 2025. We now have two contracts tendered, three others in which the program arrangements and specifications are being co-developed and an additional three more indications of interest.

It's also worth noting that through an initiative by DRDC called funding for Canadian innovators and accelerators of NATO DIANA, Canadian innovators selected into the program receive grants of up to $200,000 per innovator, which is in addition to the 100,000 euros that selected innovators receive from NATO DIANA. We are the only nation that provides this additional financial support.

DIANA is proving to be a very successful program. Canada is a huge part of that success. The support we receive from the Government of Canada and the level of interest from Canadian companies have been incredible. I think we can be proud of our nation's continued contributions to this important NATO initiative.

I hope that provides some value to your considerations. Thank you again for this opportunity.

● (1555)

The Chair: Thanks a lot.

We will now proceed to Mr. Asselin.

You will have five minutes for your opening remarks. Please go ahead.

[*Translation*]

Robert Asselin (Chief Executive Officer, U15 Canada): Thank you, Madam Chair.

Thank you for the invitation to appear today.

Canada has now reached the North Atlantic Treaty Organization, or NATO, defence spending target of 2% of gross domestic product, or GDP. The question now is what we do with it. The answer must centre on strengthening Canadian industrial capacity and securing the innovation assets and sovereign capabilities on which our future resilience will depend.

Canada's economic challenge is well understood. For decades, we have faced a persistent productivity gap relative to our peers. Sustained growth depends not only on generating new ideas, but on translating them into firms, industries and market power that capture value over time.

[*English*]

Canada produces ideas and talent at an impressive level. Our leading research universities, which I'm proud to represent, are national assets to drive innovation and dual-use technologies, but we have been far less effective at turning those strengths into firms that scale, intellectual property that anchors value and industries that generate sustained economic returns.

The issue is not the quality of our inputs; it is our ability to translate them into outcomes. The new defence industrial strategy creates an opportunity to address this gap. By identifying critical technologies linked to sovereign capabilities, it establishes a clear and sustained demand signal. That signal can anchor our research and talent capacity, built through decades of public investment, with a national effort to develop new technological capabilities, but to do so, we must move beyond episodic collaboration and toward structured, long-term partnerships, particularly with Canada's leading research universities.

When talent, research and industry are aligned and connected to real demand, we can build and sustain technological leadership. That is ultimately what the defence industrial strategy makes possible, and that matters because productivity is not simply about inputs: It is about whether an economy can consistently convert knowledge into value at scale.

Canadian universities perform approximately $19 billion in research annually and account for most of the country's research personnel, yet Canada invests less than 5% of federal research spending on defence, compared with roughly 20% across the OECD and more than 50% in the United States. Of that limited funding, only a very small share flows through higher education. In the United States, 15% of federal university research is defence-funded.

In short, Canada has world-class research capacity, including across the dual-use technologies identified in the defence industrial strategy, but lacks the institutional interfaces required to mobilize it toward sovereign capabilities.

Closing that gap is now essential. Countries that have addressed this challenge have done so by building integrated innovation ecosystems that link industry, academia and government through structured and sustained partnership. In the U.S., for example, MIT's Lincoln Laboratory supports advanced defence systems development for the U.S. Department of Defense, while the JPL at Caltech operates as a university-managed lab delivering complex mission-driven systems for NASA.

These models create continuity from discovery to deployment and embed research capacity directly with national missions. Canada has not built comparable interfaces at scale.

● (1600)

[*Translation*]

If the implementation of the defence industrial strategy treats industry and academia as separate silos, it will miss the opportunity to build pathways that connect talent, research and industry into a true innovation system.

The opportunity before us is not simply to spend more. It is to build a system in which universities, firms and federal government labs, in this case, operate not as disconnected actors, but as an integrated engine of innovation. Creating structured research mechanisms will allow us to meet this moment.

If we get this right, it will not only strengthen our security. It will also help resolve one of Canada's most persistent economic challenges.

Thank you.

[*English*]

The Chair: Thank you.

We will begin our first round of questioning with MP Baldinelli for six minutes.

Please go ahead.

Tony Baldinelli (Niagara Falls—Niagara-on-the-Lake, CPC): Thank you, Madam Chair.

Before I begin, I'd like to ask you and our clerk a question.

As part of the study, we had extended invitations to ministers to appear on this important study, which, may I remind all members, was initiated by a motion by my Liberal friends. We had invited the Minister of Industry, the Minister of National Defence, the Minister of Government Transformation, Public Works and Procurement and the Secretary of State for Defence Procurement to appear.

This is an important study. I guess we will all agree to that. The government has announced $81.1 billion in spending over a five-year period on defence. We've also released the new defence industrial strategy.

I'm just asking you and the clerk about the status of these invitations and the reasons that these individuals can or can't appear.

The Chair: Thank you.

I'm sorry, MP Baldinelli. We have a replacement clerk. He will send a message and try to find out what the response is in regard to the invitations extended.

● (1605)

Tony Baldinelli: Madam Chair, could you please share that information and the reasons with the committee members by email?

The Chair: Yes.

Tony Baldinelli: There are only four meetings. If we could obtain that information as quickly as possible, that would be good.

I'll begin with you, Mr. Asselin.

Thank you for appearing here today. Thank you for your work on behalf of the U15.

It's interesting. Some of the concerns that have been raised at several studies have a certain theme to them. It's not about the quality of the work or the researchers that we have, but about bridging that gap—that notion of the valley of death and taking that quality idea, the IP that's being generated here, and bringing it to fruition in terms of seeing it scaled and becoming a proudly Canadian company.

What would you say is the current state of co-operation between Canadian universities and colleges and the defence industry?

Robert Asselin: This is a muscle that has been atrophying for decades. When you look at the history of Canada, during the Second World War the National Research Council emerged. I think a lot of our leading research universities at that time were involved in the war effort, but given the decades of cuts at the Department of Defence, everything being relative, those links have slowly but surely been atrophying. That's not to say there are not researchers working in research, but I think this is something we have to rejuvenate as a country. This is something we have to stimulate.

We now have the framework, the defence industrial strategy, to do so. The idea is to create these new interfaces and these new pathways that don't exist between universities, the defence department and the Government of Canada in general.

Tony Baldinelli: Thank you.

General Peyton, you explained DIANA beautifully, as you did the remarkable work that I believe is taking place there and the active participation of Canadian companies that are in there. Are there ways to have greater co-operation, for example, to see that colleges and universities are able to participate in that? Mr. Asselin talked about structured systems. Are there ways to do that? You have the incubators. You have the innovation hubs and the notion of taking that great idea and then bridging that gap. Does DIANA play a role in that at all?

MGen Paul Peyton: Thanks for the question, sir. I think it's a really good one.

It's interesting. We do bring together academia into the program. From a Canadian nexus, we actually deal with some of our universities as we're trying to find the right and the best test centre facilities available where we can bring our innovators. There have been recommendations certainly coming out of Ontario with regard to quantum support for some of our innovators who work in that area.

I think there are more opportunities for us to work with academia. When I look at the structure of the DIANA program, we brought academia into the program. In fact, many of our challenge managers come from the academic community. They still have the linkages within those communities.

There are still more opportunities for us to engage from NATO DIANA with academia. Certainly, from previous experience in the Canadian Forces and in my previous job, that was one of the things we identified. There ought to be better opportunities for collaboration.

Tony Baldinelli: Take the facility in Halifax as an example. Does it work closely with the universities in Nova Scotia on the work that's taking place there?

MGen Paul Peyton: We have some relationships with the universities here in Nova Scotia. Are we working as tightly with them right now? Currently, we have a pretty small footprint in the Halifax office. As we build that out, we'll certainly work with the universities. That's one of the expectations we have from the regional office here.

● (1610)

The Chair: You have 40 seconds left.

Tony Baldinelli: Which emerging technologies are the most likely to define Canada's defence capabilities over the next 10 years?

MGen Paul Peyton: That is a fantastic question.

Within NATO, there are nine emerging disruptive technology focus areas. When we look at the ones that seem to be the most compelling on a defence and security side, certainly in the secure information space, I think it's quantum AI and a lot of innovations on the human health and performance side that speak to national resilience. There are different opportunities. Qidni Labs, for example, is a great company out of Ontario that has a portable dialysis unit. There are so many different areas where we could be leaning forward. Part of the DIANA program is to find out where the areas that are the most significant are and how we find those innovators and accelerate their solutions.

Tony Baldinelli: Thank you.

The Chair: Thank you, MP Baldinelli.

We will now proceed to MP McKelvie.

Please go ahead, MP McKelvie. You have six minutes.

Jennifer McKelvie (Ajax, Lib.): Thank you, Madam Chair.

My first question is for Major-General Peyton.

You mentioned a lot of the collaborations that have happened with more business and innovation, and that you're starting to move more into the academic sector. How do you bring in these new groups that haven't worked in this space? What are the security hurdles that they have to go through? How effective have you been at working through that for industry and also for the academic sector, which traditionally hasn't worked in this space?

MGen Paul Peyton: Because we are a dual-use organization, we operate in the unclassified space. It's not actually that difficult for us.

With regard to our innovators, they all go through an industry security vetting process. Once we receive the applications and we've down-selected the most promising, they're then vetted by their own national industrial security vetting and due diligence process. Some are actually vetted out, either because funds are coming from a location that the alliance does not do business with or some of the ownership of the company may be tied to countries that we're not really interested in dealing with. There is a vetting process there.

When we work with the innovators, the question often comes up about intellectual property. Part of our curriculum delivery is teaching the innovators about their responsibility to protect their IP. When we get questions from the innovators, we compare them, through some of our legal connections, to help them address specific questions. All the evaluators, as an example, who help us down-select these companies have to undergo a non-disclosure agreement. Many of them come from the defence community.

The hurdles we've faced haven't been as significant as one might think they have. It is a question that has come up with regard to university access and test facilities, but practically speaking, it hasn't been a big issue for us, seemingly, just yet.

Jennifer McKelvie: That's great.

My next question is for Mr. Asselin.

How are universities getting prepared for this? We talked about some of the issues with IP and commercialization before. What sorts of standard agreements can be made around IP that Defence can agree with? Are there things you still have to do more work on, or are you pretty much ready to go in terms of striking IP agreements?

Robert Asselin: I would say that on IP, we've done a lot of work already with DRDC in terms of a lot of our institutions in the U15. DRDC is the research arm of the Department of Defence. You can think about it as a Defence federal lab, in a way. We have comprehensive agreements with many of our institutions. There are IP clauses there. We've worked around these issues. Obviously, there are some adjustments going forward, but I don't anticipate that this will be a major obstacle going forward for our institution.

In other words, we understand that on national security and on sovereignty, there are imperatives that the government obviously has on IP. Our institutions are willing to play ball on that.

Jennifer McKelvie: Thank you.

Major-General, do you have any early examples of success in working with universities and the academic sector or examples of some discoveries or some good commercialization to date?

● (1615)

MGen Paul Peyton: It's interesting that a lot of our innovators are actually spinoffs from universities. One is a great company out of the Netherlands that was mapping oyster beds. It had a university solution to do that and it recognized the opportunity for surveillance of critical underwater infrastructure. That company grew under the DIANA program and signed a contract with the Dutch navy. As I said, the innovators are doing very well.

We've had discussions, again, here in Canada about how we leverage the research from the different labs or facilities that exist within the universities here. As I said, a consortium of three universities in Ontario had great quantum test facilities that would support the program. We do an analysis, trying to understand if we have the right test facilities in the right geographical locations across the alliance: Where are our gaps? Where can we fill those gaps? Then we look to fill them.

Something I didn't realize when I came into the job was that the innovation ecosystem within Canada is very vibrant. I just didn't realize the significant amount of talent within Canada.

Here in Halifax, we've had some initial meetings with Dalhousie University and Saint Mary's University. Again, it's a small office, and we're still getting our footprint within the region, but we're making progress there.

Jennifer McKelvie: Thank you.

Through our venture into dual use here in Canada with BOREALIS, do you see significant potential for us to continue the collaborations we have with NATO and our other partners and cause them to flourish? Will we be able to grow them and amplify them?

MGen Paul Peyton: I think so.

I think it was a great initiative to lean forward and establish the defence innovation secure hubs. I know the first pilot is in Dartmouth. I believe it's co-located with COVE. I think it is a great facility.

From the DIANA perspective, as some of our innovators mature their solutions and we see the defence pathways where there are secure requirements, being able to bring them into a facility with end-users, whether it's navy, army, air force—

The Chair: The time is up for MP McKelvie. Thank you.

We will now proceed to MP Blanchette-Joncas for six minutes.

Please go ahead.

[*Translation*]

Maxime Blanchette-Joncas: Thank you, Madam Chair.

I'd like to welcome the witnesses who are with us today for this new study.

My first questions are for MG Peyton.

For its 2026 cohort, the Defence Innovation Accelerator for the North Atlantic, or DIANA, selected 22 Canadian companies out of 150 companies from 24 countries. So the potential is definitely here.

What is the main challenge now? Is it turning this innovation into trials, early customers, contracts and actual adoption?

[*English*]

MGen Paul Peyton: Yes, and I'll go back to a comment that was made by the original witness, Karn.

I don't think there's an innovation or an ideas problem, but there is an adoption problem. Pulling those solutions through to actually get them into the hands of the end-users is where the real challenge exists.

I wouldn't say that Canada is unique in that problem. We see it all across the alliance. What I do see, though, within Canadian defence, is a degree of enthusiasm to try new approaches.

As I say, Canada was the first to leverage the rapid adoption service regulation. We are the most active in that space in terms of how many contracts are tendered, those that are in progress and indications of interest, so I think that on the Canadian side, there is a significant degree of interest.

In the staffing of NATO DIANA writ whole, 21% of international civilians within our NATO DIANA are Canadian, four of the seven—

[*Translation*]

Maxime Blanchette-Joncas: MG Peyton, thank you for your response.

In the most successful allied countries, is military procurement used as a strategic driver to advance domestic technologies?

[*English*]

MGen Paul Peyton: I'm sorry. Can you say that again?

[*Translation*]

Maxime Blanchette-Joncas: In high-performing allied countries, is military procurement used as a strategic lever to drive the development of technologies in particular?

● (1620)

[*English*]

MGen Paul Peyton: I think it differs across each of the nations in the alliance. Some of them are more mature in the innovation ecosystems that they have developed, but some of them are leaning very far forward.

Poland just initiated and affiliated with NATO DIANA the Living Lab, which they've just opened in Gdansk, where they're trying to bring innovators together in a central spot where end-users can access and try the products that are there.

Do they see innovation as part of their direction going forward with the capabilities of their defence forces—and not just defence, but security writ large? Absolutely, they do.

[*Translation*]

Maxime Blanchette-Joncas: Thank you.

When a local company sees that major contracts go directly to foreign companies, does that reduce the incentive to invest in research and development here, locally?

[*English*]

MGen Paul Peyton: I'm sorry. Was that a question for me?

[*Translation*]

Maxime Blanchette-Joncas: Yes.

[*English*]

MGen Paul Peyton: As I speak to some of the innovators, I know there have previously been challenges in accessing the Canadian market. In some cases, it has been easier for those innovators to deal with countries outside of Canada, but I will again say that we are now seeing a greater interest from Canadian defence.

I'm representing NATO DIANA here, but I see Canadian defence entities leaning into the DIANA program to pull some of these innovations into prototyping contracts.

[*Translation*]

Maxime Blanchette-Joncas: I'll give you some concrete examples.

In the case of the $10.4-billion project to replace the CP-140 Aurora aircraft in Canada, the federal government chose to proceed without a call for tenders and award the contract to Boeing for its American P-8s rather than to Bombardier, among others.

We had a solution right here, locally, but the Canadian company wasn't even allowed to bid on the contract.

Can this type of decision by the government weaken a country's industrial base and research and development?

[*English*]

MGen Paul Peyton: Sir, I'm sorry, but I'm probably not the right person to address that. It wasn't part of the program.

I understand the defence requirements process, but I can't speak to that, sir. I'm sorry.

[*Translation*]

Maxime Blanchette-Joncas: All right. Let me give you another concrete example.

In the case of a contract worth approximately $100 million for night-vision goggles, a Quebec-based company, Canex, located in Saint-Jean-sur-Richelieu, had to take its case to the Canadian International Trade Tribunal. The tribunal asked the government to review a call for tenders that was deemed too restrictive.

We want to encourage innovation. We have companies here that want to innovate. However, they have to go to court to challenge the tender criteria the government has set.

Can this type of situation prevent local companies from contributing to this goal of stimulating innovation in the defence sector?

[*English*]

MGen Paul Peyton: I'm sorry, sir. Again, I am not the person to speak to Canadian defence acquisition policies right now. That is not the place where I sit. There are certainly other experts within the Canadian Forces who could better address that question.

[*Translation*]

Maxime Blanchette-Joncas: Let's keep it simple, Major General.

If I have a garden and I don't water it, do you think the vegetables will grow? It's the same thing here. We have businesses, and we're not encouraging them. We're buying solutions from foreign companies, even though we're told that we want to be economically sovereign—and even in terms of defence.

Do you think people will invest here when, at the end of the day, government contracts go to foreign companies?

[*English*]

The Chair: I am sorry for interrupting, but the time is up for you, MP Blanchette-Joncas. Maybe you can come back in the second round.

[*Translation*]

Maxime Blanchette-Joncas: I will ask for a written response, Madam Chair.

[*English*]

The Chair: Major-General Peyton, is it possible to provide a written response to MP Blanchette-Joncas' question?

MGen Paul Peyton: I think that is a question that is better addressed to folks who are serving with the chief of force development, chief of program or some entity within the office of the vice-chief of the defence staff.

I'm sorry. I don't mean to push back on you. It's just that I work for NATO DIANA now. It's just not the space that I'm in.

The Chair: I totally understand. Thank you.

With that, the first round comes to an end.

We will start our second round of five minutes with MP Mahal.

Taleeb Noormohamed (Vancouver Granville, Lib.): On a point of order, Madam Chair, at what time did we start and how much time do we have?

The Chair: I think we will have five minutes with MP Mahal and MP Nathan, and then two and a half minutes. That's where we will stop. Then we will suspend the meeting to go into the second panel.

Taleeb Noormohamed: Thanks.

● (1625)

Vincent Ho (Richmond Hill South, CPC): Do I get on a technical [*Inaudible—Editor*]

The Chair: No.

MP Mahal, please go ahead.

Jagsharan Singh Mahal (Edmonton Southeast, CPC): Thank you, Madam Chair, and thank you to all the witnesses for being here today.

I want to start with Major-General Peyton.

General, Edmonton is home to thousands of active-duty Canadian forces service members. It is a military city and a hub for defence innovation. How accessible is DIANA to small and medium-sized Canadian firms? Are they successfully competing for participation within the program? Can you comment on this?

MGen Paul Peyton: Yes, I can, sir. I am well aware of Edmonton. In fact, I served many years there, and I really enjoy the city.

I can tell you that 18% of the proposals that we received came from companies in Alberta, so I think there is an active involvement of innovators in western Canada, and Alberta in particular, that understand what DIANA is doing. In fact, our regional director is at the defence conference that is occurring in Calgary this week, and we have test centre facilities in Alberta as well. We are active all across Canada.

Jagsharan Singh Mahal: Given the size of Canada's Arctic region, how can Canada effectively leverage modern drone technology to secure and defend the region?

MGen Paul Peyton: That's a great question. In fact, one of the challenges that we initiated last year was operations in extreme environments, which had a very specific focus on the Arctic.

It's not just drones, though. There are so many other capabilities that are available for sense and surveillance, whether they're space platforms, drones or ground-based platforms. Within DIANA, I believe 10 or 15 innovators were selected for that particular challenge. We will leverage the opportunities in the Arctic for testing to connect those innovators with end-users.

Operation Nanook, as an example, is one of the operational experiments and exercises that NATO DIANA will leverage for our innovators to have the opportunity to test their solutions and showcase them in the real operational environments where they'll be required.

Jagsharan Singh Mahal: I would now like to go to Mr. Asselin.

Canada produces world-class research. You and Mr. Manhas mentioned in your opening statements that.... This is not just you; we have heard from different witness testimonies that when it comes to research and excellence at the university and college level, Canada is at par with the world, but when it comes to commercialization, we lag behind, whether it's in AI, R and D, or innovation and technology.

In your opinion, what are the main barriers preventing the research from Canadian firms from becoming Canadian jobs and Canadian capabilities?

Robert Asselin: That's a good question.

In a nutshell, if I want to be very frank, it's a lack of absorptive capacity on the private sector side. Business R and D in this country is really low. The size of our firms compared to those in the U.S. is tilted on the small side. We don't have enough large firms that do R and D at scale.

Just to give you a stat, Madam Chair, 17% of Canadian manufacturing exports are considered high tech. That's compared to about 30% in the U.S. In other words, we can produce the best inventions and innovations, but if that's not captured on the private sector side, we're not going to get the benefits on the innovation and productivity side.

This is why I speak about interfaces and pathways. Unless we connect all these things together, we're not going to get the results that we need for this country.

Jagsharan Singh Mahal: During your testimony, you also mentioned that we are not in parallel when it comes to federal funding. You gave the example of the U.S, where they spend about 15% of their federal budget on university research. Where do we stand in comparison to countries like the U.S.?

Robert Asselin: Ours would be only 5%, but in that 5%, most of the R and D would go to federal labs, such as the National Research Council and DRDC, which is the federal lab inside the Department of National Defence. Less than 1% would go to universities. As a country, we're not going to be able to do what we need to do on innovation if we don't change that fundamentally.

I want to be clear. It's not just a question of funding—

● (1630)

The Chair: I'm sorry for interrupting. The time is up for MP Mahal.

We will now proceed to MP Nathan for five minutes.

Juanita Nathan (Pickering—Brooklin, Lib.): I'm going to give my time to Taleeb.

The Chair: Okay.

Go ahead, MP Noormohamed.

Taleeb Noormohamed: Thank you, Madam Chair, and thank you to my colleague.

Thank you to the witnesses for being here.

Karn, it's good to see you here. It's good to see a homegrown Vancouver Granville company here doing amazing work in the space that you're in. I want to thank you for all the work that you're doing, the jobs you're creating and the innovative research and the innovative businesses that you are now leading.

One thing I wanted to touch on has to do with how, in your case, Terramera's soil health and carbon sequestration technology could contribute to northern and Arctic food sovereignty as a defence-relevant objective. Obviously, one of the things that we've been talking a lot about is how we can enhance co-operation with indigenous and northern communities, as well as the private sector, to address evolving threats to the north to build climate-resilient, dual-use or multi-purpose infrastructure, particularly around this area. Anything you could share with us in that regard would be great.

Karn Manhas: Thank you. That's a great question.

One of the greatest capacities that Canada has as the second-largest country in the world is the ability for our lands to hold and sequester carbon in soil. Fifty-nine per cent all of life on the planet is actually in soil. It is the largest carbon sink that we have.

The difficulty is that we have a poor ability to understand what's actually happening in our soil. As we can start measuring soil health, and organic matter in particular, we have an opportunity all across Canada and in the north to look at the capacity of those lands to provide food—or not—as well as to provide resilience against major climate changes.

One concrete example is that for every 1% increase in the health of the soil, as measured by organic matter, every hectare of land will hold 200,000 litres more water. If we can measure the baseline of soil health and increase it by, say, 10%, that's two million hectares with 20 swimming pools' worth of water. If you think about that in terms of fires or droughts, it has a huge capacity there, as well as for productivity.

Taleeb Noormohamed: Some are going to say that this is really about improving food productivity and not necessarily about defence and dual use. How do you bridge that gap for folks who will say that this should be bucketed over here, rather than part of a dual-use opportunity for Canada?

Karn Manhas: A key thing is that being able to actually measure what's happening in our soils.... Biological systems are all connected. If there's an attack on soils, or a disruption to them, it affects the entire country and the ability for those lands to produce.

It's critically a defence capability. For one thing, it's food defence, but it's also resilience against disruptions. If we can monitor that in real time, it contributes to our ability. In the same way that measuring what's happening in our air is critical, so is measuring what's happening in our soil.

Taleeb Noormohamed: This takes me to the whole question of agritech risk.

Obviously, your platform involves manipulating biological active ingredients at scale. Biotechnology as military applications sometimes complicates the dual-use dilemma, because the same infrastructure, the same tools and the same knowledge used to develop beneficial products can be used for harmful purposes.

What governance frameworks do you use? How does Canada's current dual-use oversight regime adequately address risks in the space of agritech?

Karn Manhas: It's a good question.

Regarding your last question and this one, a capability we have is to have, on one side, physical AI. We can actually measure what's happening in the soil and ask it questions. As we use these sensors and measure the soil, we can take the flip side of it and start asking, “What's going on here? Is there a contaminant present? Is there something else?” We can ask it the key questions.

The critical thing is who has access to that. That's an extremely powerful capability. It's extremely powerful for research at universities and for defence. If it gets into the wrong hands, you can start asking the flip question, which is, “Here's the quality of what's going on in the soil. How do I disrupt it?”

● (1635)

The Chair: I'm sorry for interrupting. The time is up. Thank you.

We will end this panel with MP Blanchette-Joncas for two and a half minutes.

[*Translation*]

Maxime Blanchette-Joncas: Thank you.

Mr. Manhas, you said that food security is not part of the current defence strategy.

Given the fragile supply chain and dependence on foreign inputs, our understanding is that this is a weakness.

Is that not so?

[*English*]

Karn Manhas: Absolutely. That's why one of the key recommendations is to look at defence more broadly and with resilience first, just like in the U.K. With some of our European partners, it's specifically enumerated.

The Prime Minister called it out in the sovereign wealth fund. We also need to call this out specifically in the defence industrial strategy. As we think about dual use in terms of research, we need to call this out specifically because it's not just food. Like you said, it's resilience of the supply chain, it's energy systems and it's other systems that ensure we can actually function as a society in times of disruption.

[*Translation*]

Maxime Blanchette-Joncas: That is well understood.

I therefore take it that agricultural and food technologies should be considered strategic dual-use technologies, as you just mentioned.

Let's talk concrete facts. Last January, the Liberal government announced the closure of Agriculture and Agri-Food Canada's research centre in Quebec City. That represents about 60 years of expertise.

In the context we just discussed, does it make sense to weaken our public capacity for agricultural research?

[*English*]

Karn Manhas: The critical piece is that we need to connect our research to our systems as well. We have a lot of research that is going on across the country. We also have a lot of users, farmers who are actually on the land every day.

We need to look at that as a strategic opportunity for ourselves and connect that data in a way that holds that data secure for the farmers and holds that data secure in Canada, but also benefits the country. It's not just that the research is held in one place, but that it's actually connected across, so researchers, farmers and the Department of Defence can all access that to be able to determine how to move forward in each of these areas.

The Chair: Thank you.

With that, this panel comes to an end. On behalf of all the members, I would like to thank all the witnesses for coming and providing important testimony as we start this new study today.

We will suspend the meeting for a few minutes so the witnesses for the next panel can join us.

The meeting is suspended.

● (1635)

_____(Pause)_____

● (1640)

The Chair: I call this meeting to order.

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

Please wait until I recognize you by name before speaking. For those participating by video conference, click on the microphone icon to activate your mic, and please mute yourself when you are not speaking. For those on Zoom, at the bottom of your screen, you can select the appropriate channel: floor, English or French.

This is a reminder that all comments should be addressed through the chair.

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

We are joined by Mr. Richard Shimooka, senior fellow, Macdonald-Laurier Institute.

We are also joined by Dr. Paul Brett, deputy provost and executive director of professional and continuing education, from the Fisheries and Marine Institute of Memorial University of Newfoundland.

Our third witness for this panel is Edoardo De Martin, chief executive officer, representing Industrio AI Inc.

Welcome to all the witnesses.

All three are joining by video conference. Each witness will have have five minutes for their opening remarks, and then we will go to the rounds of questioning.

We will begin with Mr. Shimooka.

You will have five minutes for your opening remarks. Please, go ahead.

● (1645)

Richard Shimooka (Senior Fellow, Macdonald-Laurier Institute, As an Individual): Madam Chair, thank you for the invitation to speak to the committee.

Science and innovation are essential elements of the nature of war today. As it was made clear on the battlefields in Ukraine, the Middle East as well as potential ones in the Asia-Pacific region, the ability for a modern military to exploit technological advantages and to bring them into service rapidly can have a dramatic impact on operational outcomes.

Canada has had a strong legacy of scientific endeavours. This was particularly apparent after the Second World War, but its ability to effectively harness that capacity for the benefit of the Canadian Armed Forces has been much more limited.

Omond Solandt, the first chair of the defence research board, the predecessor to DRDC, made an observation after his time in office: Canada has never had an overall policy for the evolution of science and technology. From time to time, we have identified problems in this field and have tried to fix them, usually unsuccessfully because it was generally not understood that there were no quick fixes. A science and technology capability has to be grown and built over time, and shaped to a set of national goals.

Solandt's observation is just as apt today, especially in light of the current government's recent reforms and initiatives in this area. These include increased funding and new organizations, such as BOREALIS, which are to herald a new working relationship between the Department of National Defence and scientific centres around this country. However, to Solandt's point, most of these policies will not effectively address some of the underlying systemic problems. Much of the current effort simply relies on existing scientific capacities, which generally have a poor compatibility with the overall military innovations and procurement system.

While I think renewed focus is certainly welcome, there are real challenges that will limit the effectiveness. These challenges are not unique to Canada, either. Many of our allies struggle with them on a day-to-day basis. The challenges cover a wide range of topics. There are far too many to address in these opening remarks.

I'd like to cede the rest of my time to the members so that they may ask specific questions on avenues they may have interests in.

Thank you very much.

The Chair: Thank you for your brief remarks.

We will now proceed to Dr. Brett for five minutes.

Dr. Brett, the floor is yours.

Paul Brett (Deputy Provost and Executive Director of Professional and Continuing Education, Fisheries and Marine Institute of Memorial University of Newfoundland): Thank you, Madam Chair and committee members, for the opportunity to contribute to your study on science and dual-use technology. My remarks will focus on how colleges and universities contribute to Canada's dual-use technology systems, and I'll use Memorial University's Marine Institute as a practical example of how federal science, innovation and security objectives are delivered on the ground.

Dual-use technologies, those with both civilian and defence applications, are now central to our research and innovation landscape. Technologies such as autonomous systems, subsea sensing, artificial intelligence, cybersecurity and advanced marine engineering underpin commercial sectors, such as the offshore energy and transportation sectors, while also supporting defence readiness, Arctic sovereignty and protection of critical infrastructure. As a result, the line between science policy and national security capability has largely disappeared. In this context, the Marine Institute represents a distinct category of post-secondary institutions, one that complements traditional research universities by translating science into operational capability.

First of all, our institution contributes through mission-ready workforce development and workforce resiliency. MI delivers industry-driven programs ranging from technical certifications to graduate degrees with a focus on accelerated, competency-based training. This model is particularly relevant to dual-use sectors, where government and industry require graduates who can operate safely and effectively in high-risk environments upon entering the workforce. Here is a great example: MI trains mariners, marine engineers and technologists who routinely work and move between civilian shipping, offshore energy and public sector fleets, including the Coast Guard and our navy. From a public policy standpoint, this converts federal education and research investment directly into deployable national capacity.

Second, we play a critical role in applied research and technology readiness. Many dual-use technologies originate in fundamental research, but their value to the public depends on whether they can be tested, validated and hardened for real operating conditions. Our research model focuses on moving technology across the technology readiness levels through prototyping, simulation and harsh environment testing. Facilities such as ours, The Launch in Holyrood, Newfoundland, now part of NATO's DIANA, defence innovation accelerator for the North Atlantic, program, enable autonomous and subsea systems to be tested in near-Arctic conditions. It cannot be replicated through modelling alone. This de-risks adoption for federal departments and aligns directly with the federal objective of accelerating commercialization under the defence industrial strategy.

Third, the institute functions as a true ecosystem collaborator. Dual-use innovators require collaboration between government, industry, indigenous partners and international allies. We provide a neutral platform where these sectors can work together using appropriate governance, security and ethical frameworks. Its partnerships with global firms, small companies, indigenous organizations and federal departments illustrate how post-secondary institutions can anchor regional innovation while delivering national outcomes.

Fourth, we contribute to responsible and trusted innovation. Dual-use technology raises legitimate questions about safety, ethics, environmental impact and public confidence. By embedding regulatory literacy, cybersecurity awareness and indigenous partnership in both training and research, we ensure that technology developed with public support is socially legitimate and operationally credible.

A final consideration is geography and sovereignty. Canada's marine and Arctic realities require innovation to occur in real environments, not only in laboratories. As a near-Arctic institution with long-standing co-leadership relations with indigenous partners, my institution provides capabilities that are unavailable elsewhere in our national system.

In conclusion, the Marine Institute demonstrates how colleges and universities can function as the delivery infrastructure for dual-use technology and dual-use science. When institutions with applied mandates are fully integrated into federal policy frameworks, public investments are translated into trained personnel, validated technologies and measurable national capability.

Thank you.

● (1650)

The Chair: Thank you, Dr. Brett.

We will now proceed to Mr. De Martin.

You have five minutes. Please go ahead.

Edoardo De Martin (Chief Executive Officer, Industrio AI Inc.): Thank you, Madam Chair, vice-chairs and members of the committee, for the invitation to appear today. It is an honour to be in front of this committee at a moment when Canada is making generational decisions about the future of its defence industrial base and the role that Canadian technology companies will play in it.

I want to take a few minutes to share who we are, what we've built, why we've built it in Canada and what I believe this committee can do to ensure companies like ours scale here at home rather than someplace else.

Before founding Industrio, I spent more than two decades in enterprise technology. Before that, I worked in video games building start-ups and also worked for multinationals. Part of that journey was as general manager for Microsoft Dynamics, and I headed up the Microsoft Global Development Centre in Vancouver. I've had a front-row seat for the digital transformation cloud era and the rise of natural language processing in AI that is now driving much of the innovation we see today. I saw how critical knowledge had been fragmented across old systems, creating an intelligence gap in operations, and how we can take the latest advancements in AI to bridge this gap.

This is why my founders and I created Industrio. We are 100% Canadian-owned, headquartered in Vancouver, profitable and bootstrapped. Our IP is Canadian. Our team is Canadian. The choices we make every day are Canadian choices.

As to why data sovereignty matters, in a world where AI systems learn from the data, where the data resides, who controls it and which jurisdiction governs it, they are no longer technical questions. They are questions of national security, economic competitiveness and democratic accountability. When Canadian data and operational, defence, health care or critical infrastructure flows through foreign-owned platforms, Canada loses control of our sovereignty, and especially when our friends become unpredictable.

What we have done at Industrio is build a platform called Signal, a Canadian-built and –hosted platform that gives operations teams the intelligence they need to make faster decisions, run better processes and act before problems become crises, built specifically for how their organizations work on the infrastructure they already have.

Using our technology, we worked with the City of Vancouver to build them a common operating platform to support operations for the 2026 FIFA World Cup, one of the largest, most logistically complex multi-agency events ever hosted in our country: real-time coordination across venues, infrastructure, logistics, personnel and security, federal, provincial and municipal partners, and zero margin for failure.

This is why we are in the process of standing up Signal for defence. This is a great dual-use case. Our architecture, hardened for defence environments, is configured around two modules. One delivers real-time supply chain visibility across DND and CAF networks, identifying bottlenecks, integrity risks and sustainment gaps before they become operational failures. The other delivers a unified picture of personnel readiness, supporting force generation, deployment planning and base-level reporting. Together, the modules produce a base readiness intelligence layer aligned with the priorities of “Our North, Strong and Free”.

Industrio strongly supports the defence industrial strategy and the build-partner-buy framework. It signals to Canadian companies like ours that Canada will, where it can, build sovereign capability at home, partner where partnerships accelerate outcomes and buy where buying is the responsible choice. That sequencing matters. In particular, the designation of digital systems, including artificial intelligence and integrated command, control and communications as a sovereign capability area is a clear and welcome signal. It tells Canadian technology companies like mine that the front door is open and that Canadian IP, Canadian data residency and Canadian ownership are competitive advantages.

On scaling Canadian companies at home, I want to close on a question that I believe this committee is uniquely positioned to influence: How do we ensure that Canada scales its technology companies at home and keeps them here to build a strong and sovereign economy?

We lose our best companies because we cannot find their first serious Canadian customer fast enough, whether that's public or private. They get acquired. They move south. They scale someplace else. The defence industry strategy is an opportunity to break that pattern, but only if procurement moves at the speed of technology and only if the buy side rewards Canadian companies that have proven themselves. Three things would help.

First, accelerate the procurement pathways that already exist, including IDEaS, the regional defence investment initiative and other key procurement initiatives so that Canadian SMEs can move from proof to pilot to program faster.

Second, treat Canadian commercial deployments as legitimate proof points for defence and public safety procurement.

● (1655)

Third, anchor early defence demand in Canadian SMEs the way our allies anchor theirs so that Canadian capability has the runway to mature into Canadian sovereignty across all key areas of our economy.

We have the talent. We have the policy direction—

The Chair: I apologize for interrupting. The time is up, so if you could, please wind it up in the next five or six seconds.

Edoardo De Martin: Thank you for the invitation, Madam Chair, and for the work this committee is doing.

[*Translation*]

I look forward to questions.

[*English*]

Thank you.

The Chair: With that, we will start with our first round of questioning.

We will begin with MP Baldinelli for six minutes.

Tony Baldinelli: Before I begin, Madam Chair, it's my understanding that the clerk has provided you with an update on the status of our request to have the Minister of Industry, the Minister of National Defence, the Minister of Government Transformation, Public Works and Procurement and the Secretary of State for Defence Procurement appear. This is a very important study. The government has committed $81.1 billion over the next five years in its budget. It has also introduced a Canada defence strategy.

We're hopeful on this side that we can get some ministers and departments to appear.

The Chair: The clerk has sent me the status of all of the witness requests we have submitted. I have to review that email. After that, all of the information will be sent to the members.

Tony Baldinelli: Can you provide that to us?

The Chair: I have to review it. It's a long email.

Tony Baldinelli: No. Tell us verbally.

The Chair: We have witnesses.

Tony Baldinelli: Okay. Do it at the end.

The Chair: I will get you the information on that by tomorrow.

Tony Baldinelli: Okay.

The Chair: It will be emailed.

We have witnesses and we should complete that first round of questioning. Please go ahead.

Tony Baldinelli: Thank you.

I'm going to start with Mr. Shimooka.

The government's new defence strategy touches on improving our operational capabilities. I want to get your thoughts on this.

In the departmental results in 2024-25, Canada's maritime fleet serviceability was at 59.6%. Our land fleet was at 51%. Our aerospace fleet was at 42.4%. In relation to our other NATO allies, how does this stack up?

Richard Shimooka: It would depend on which fleet you're talking about. I think there's an overall challenge. I'll take aerospace as an example.

You are seeing the divestment of fleets of aircraft that were procured in the late Cold War in the United States, which would be considered the Carter-Reagan buildup aircraft, such as the F-16, the F-15 and whatnot into newer platforms like the F-22, the F-35 and the next generation. When you have older platforms, essentially, they're going to be a lot less serviceable and their availability is going to decline.

In Canada's case, with our CF-18s being procured around 1984, their serviceability is quite low. Because we are looking to transition towards the next-generation fleet, the F-35, the drawdown of that capability is predicated on having the capability to meet our NORAD commitments. Overall, our serviceability is generally low, just because we have had delayed modernization, and that goes towards—

● (1700)

Tony Baldinelli: To your point on NORAD capabilities, you mentioned in The Hub in March 2025, “At present, the RCAF has withdrawn from providing rotations for NATO air policing missions and keeps less than eight aircraft on NORAD alert—the bare minimum of availability required.”

Does that concern you?

Richard Shimooka: Absolutely, and I think it should concern all Canadians. That's been a significant pain point for many decades. If you think about our bilateral relations with the United States, even before the Trump administration, you had American officials identifying this as a major challenge.

Tony Baldinelli: That brings me to the F-35. I'll get your thoughts on that.

As a country, we currently benefit from the Canada-U.S. defence production sharing agreement. Essentially, defence companies here are treated like domestic American companies. We have been part of the partnership for the F-35 since 2002. Currently, there are over 110 Canadian companies that have contributed to the F-35 supply chain. Right now, that's over $3 million in over 1,200 aircraft that have been produced so far.

I want to get your thoughts on the F-35. My personal opinion is we need to provide the best aircraft to our service personnel. I want to get your thoughts on that.

Richard Shimooka: I've written significantly about this, so I don't want to go too far.

The capability is clear. Every single major examination the Canadian government has done since 2010 has returned the same answer: The F-35 should be chosen.

If we can bring it back more broadly to the science and technology aspect of it, one of the aspects of that program was the multinational consortium that Canadian firms are quite interested in joining. From the start, the Canadian government was really positive about joining in order to give Canadian companies the ability to access a high-technology environment to work on these capabilities. That has been seen as a major windfall since 2001.

Tony Baldinelli: Quickly, I want to get your thoughts on this. In April 2025, the Prime Minister identified China as Canada's biggest security threat. In January this year, he travelled to China to forge a new strategic partnership with the People's Republic of China that's focused on energy, agri-food and trade. Just recently—I believe it was Thursday last week—The Globe and Mail ran a story entitled “Chinese envoy warns Canada against sending MPs to Taiwan or warships through Taiwan Strait”.

Is it a good thing for Canada to be forming a strategic partnership with the Chinese Communist government?

Richard Shimooka: I think there are serious concerns. If you think about some of these....

I just returned from Japan. If you look at their security situation, this is a major challenge that affects all of the entire region. Our partnership has the potential for serious issues. It has to be carefully defined. In the areas where there are technological linkages and all of that, we have to be on guard, so to speak, for the potential for infiltration in other activities.

Tony Baldinelli: This committee recently heard compelling testimony from security experts Michael Kovrig and Charles Burton and human rights activist Margaret McCuaig-Johnston about the pursuit of an agreement to allow 49,000 Chinese EVs into this country. Would you consider the EVs to be a national security risk?

Richard Shimooka: It depends on what that agreement looks like, but it certainly can be the case. I've seen espionage activities in other sectors that follow the same pattern that this can be used for. If you think about the level of data that can be harvested from these systems using modern AI or machine-learning techniques, it can be. There is a potential for that.

Tony Baldinelli: Thank you.

The Chair: Thank you.

We will now proceed to MP Noormohamed for six minutes.

● (1705)

Taleeb Noormohamed: Thank you, Madam Chair.

Thank you to the witnesses. It's great to see all of you here.

In particular, it's good to see Industrio, another Vancouver Granville company here. It's great to see you virtually. I might start with you, because you are at the nexus of a lot of things that are going on in our world right now and, in particular, some of the challenges and opportunities the space you're in is dealing with.

I might start by asking you to talk a bit about your competition and what it's like in your current space. The military landscape right now is increasingly dominated by a lot of the neoprimes, like Palantir and others, that are investing in their own R and D and their own market-finished projects. They work with military customers.

What does a company like Industrio need from the government to be competitive in that market without being absorbed or displaced by better capitalized American players at a time when sovereignty is super important?

Edoardo De Martin: What's important for a company like ours is customers. That's number one.

The second thing is, in a country of our size, where we do not have that robust of a corporate environment that invests in R and D, it's very challenging for my organization to grow, build and innovate quickly, because innovation needs continuous movement, building, creating and customers. The public sector plays into that and it's very important, because to make it in Canada, you have to work with the corporates and you have to work with the public sector.

When this dual-use strategy was revealed, I looked at it as a massive opportunity for us to leap-frog some of the technologies that are in place now. There's no reason why we have to buy Palantir when we have the technology here to do it in Canada.

Taleeb Noormohamed: You pointed out the DIS. The strategy's explicit about how AI, secure cloud, integrated command and control and high assurance communications are sovereign capabilities that Canada has to own and control. You spent three years building Signal for exactly these environments.

In your view, what does it mean practically for Canada to own and control an AI platform? How does the current procurement framework reward sovereign-by-design builders like you? Where do you see the opportunity for you and for companies like yours in that strategy?

Edoardo De Martin: For sovereignty, we have to think about what areas of the stack we have to give up, what areas are safe to give up and if there is a good reason to give them up—and there are. The most important thing, hands-down is the storage and releasing of our data outside of our borders or our jurisdiction. There are multinationals and organizations that we can trust to be part of that stack and arrangement, but we have to legally bind them to it. What I've seen recently is that we've been unable to do that, apart from one.

In terms of the opportunity for our organization, when we're looking at sovereignty and what we need to be competitive, it's creating policy together, with Canada and SMEs like mine working together with the idea of growing that technology and that sovereignty. That's where we have to start, at the very beginning. If you look at the beginnings of Palantir, it started with the U.S. government—together. Tesla started with the U.S. government—together. That is the type of momentum we need at this time to capitalize.

Taleeb Noormohamed: Let's dig into that in the time we have left.

Any analysis right now of Canada's defence industrial strategy would say digital sovereignty is no longer a policy debate, but a readiness imperative. If that's the case, the choices we're making today in procurement and likely architecture as well are going to have an impact. They're going to shape Canada's operational resilience for a very long time.

When you deploy Signal in a government environment, one of the questions that I think it is important for everyone to hear is, what concrete guarantees of data residency and model control can a Canadian SME like yours provide, which a hyperscaler that's perhaps U.S.-based could not?

Edoardo De Martin: We can provide everything apart from the model, everything we can guarantee in Canadian sovereignty. The model is the challenge all over the world. There are only four companies in the world that build these kinds of models, and one of them is in Canada. Working together with that company, we can pretty much guarantee data sovereignty.

On the procurement side of things, the challenge is that most procurement processes are not set up in a way to get to the best product or a Canadian company. They're usually centred around reducing risk and favouring multinationals. This is where we need to shift and break that procurement so that we are favouring Canadian companies and sovereignty in Canada.

● (1710)

The Chair: You have 17 seconds.

Taleeb Noormohamed: What you're saying is we should be taking intelligent, managed risk and betting on Canadian companies.

Edoardo De Martin: Yes.

Taleeb Noormohamed: Thank you, Madam Chair.

The Chair: Thank you, MP Noormohamed.

With that, we will go to MP Blanchette-Joncas for six minutes.

[*Translation*]

Maxime Blanchette-Joncas: Thank you, Madam Chair.

I'd like to welcome the witnesses who are with us today.

My first set of questions will be for Mr. Shimooka.

A paper published by the Macdonald-Laurier Institute says that Canada's defence industrial strategy is backward. Instead of starting with the actual needs of the Canadian Armed Forces, it seems to start with industrial and economic objectives.

Do you agree with this assessment?

[*English*]

Richard Shimooka: Essentially, yes. I think the fact that we don't have a current national security strategy—one may be promulgated later this year—creates an issue in identifying the real areas of Canadian Armed Forces' needs capabilities. If we're looking forward to some of these defence risks, whether they be in the Asia-Pacific or elsewhere, it's an essential element.

I would make a comparison with, let's say, the United States or the United Kingdom, where you have a really effective ecosystem to identify the threat and the responses to it, and then outline the capabilities. If you look at their defence industrial strategies, like the 2024 one that the Biden administration put out or the one the United Kingdom did last year, they make the linkage right from that top document all the way down, whereas in Canada, we promulgated a DIS that identified some areas, but really isn't linked to the real capabilities that are required.

[*Translation*]

Maxime Blanchette-Joncas: Thank you, Mr. Shimooka.

Is the government confusing a defence industrial strategy with an economic benefits strategy?

[*English*]

Richard Shimooka: I would argue yes. If you look at the current, ongoing procurement of a new submarine to replace the Victoria class, as an example, a large portion of the focus of that program has been on the industrial technical benefits that Canada can accrue from that program. In contrast, if you look at an ally, let's say Australia, for example, which has many submarine programs like the AUKUS program or the one before it, the attack class, they were very much focused on not having a 100% ITB return. They were actually looking at what the developmental areas were that they could bring into the country from this procurement and leverage their future defence capabilities from that. That's part and parcel of a lot of the better-run countries internationally in this area.

[*Translation*]

Maxime Blanchette-Joncas: Thank you.

If we don't start with the basic needs or the necessary military capabilities, do we risk announcing benefits without providing the capabilities that the Canadian Armed Forces actually need?

[*English*]

Richard Shimooka: In terms of the way the procurement system works, where it's really an amalgam of these different interests, you will generally get a system that the Canadian Armed Forces can utilize, but it's often...I wouldn't call it suboptimal, but it's certainly not maybe the most ideal capability in that sense. I would point to the fixed-wing search and rescue program, where we have an aircraft that may be just entering service now or is about to enter service. This is seven years over the time when we actually got our first delivery in, because it wasn't the ideal aircraft. A big portion of why it was selected was that the industrial offsets were seen to be better from the competitor who won.

[*Translation*]

Maxime Blanchette-Joncas: In your opinion, is a 10% target for defence procurement from Canadian companies credible if we haven't first defined what capabilities Canada absolutely must develop on its own?

[*English*]

Richard Shimooka: I think we have to be careful as well. I believe in the last panel you asked a question about Bombardier aircraft and about the potential to procure a maritime patrol aircraft.

Just to develop the P-8 in the United States it would basically cost just as much as it did for Canada to actually procure the aircraft. There are certainly areas where a manufacturer like Bombardier has an advantage, and we should look to those. However, that really requires a careful understanding of, what the requirements are, how much it costs, and then making judgment on it as to whether it is an area we should put our money in, what the benefit of it would be, and what potential there is to market it in Canada or elsewhere.

I think because of the lack of capacity within the department and a lot of other factors, it's not an area where we do really well but where we really should do well, given the objectives of the government to increase domestic defence production.

● (1715)

[*Translation*]

Maxime Blanchette-Joncas: Mr. Shimooka, thank you for allowing me to follow up on the Bombardier issue.

An investment of $10.4 billion is no small matter. We didn't even issue a call for tenders to allow a Canadian company to submit a proposal. We immediately chose the American company.

What are your thoughts on that?

Doesn't this case illustrate the tension between buying quickly abroad and developing a domestic industrial capacity that we're unable to define?

[*English*]

Richard Shimooka: If you think about the cost to develop it, there are many other capabilities that Bombardier could provide that I think would be more cost-effective. There are certain areas where, if you look at the opportunity to get onto the P-8 program, that made sense in that iteration. If you think about something like airborne early warning, which is a program that is upcoming for the Royal Canadian Air Force and will likely incur a significant development cost on the government's expenditure, I think those are the areas you want to focus on. I would call those areas quick wins, areas where we can just get the capability quickly from a foreign producer.

If you think about a country like France, they really focus on domestic development of their capabilities. They bought aircraft from Boeing or others for stuff like airborne early warning or tankers and whatnot. Even they will look to foreign suppliers to meet some demands. Then they focus on other areas that they identify as being the actual capabilities that the domestic industrial base can best develop and produce.

The Chair: Thank you. Time is up for MP Blanchette-Joncas.

We will start our second round with MP Mahal for five minutes.

Jagsharan Singh Mahal: Madam Chair, just for clarification, will we have a round three as well?

The Chair: Yes.

Jagsharan Singh Mahal: Thank you.

Thank you to all the witnesses who are present for this testimony.

I would like to start with Mr. Shimooka.

In May 2019 the Macdonald-Laurier Institute published a report you authored entitled “The Catastrophe: Assessing the Damage from Canada’s Fighter Replacement Fiasco”. In it you note that the “current Liberal government’s partisan handling of the fighter replacement file brings new levels of unethical incompetence to this dismal history”.

Seven years have passed. What would you say now? Has it gotten worse? Has it been better? What is it now?

Richard Shimooka: At the time I wrote that came after the aborted Super Hornet purchase and other mishandling of the file.

The fact that we selected this capability in 2022 or 2023 and have started to procure the systems is certainly a positive step. If you interview individuals from the air force, they are undertaking this transition currently. Somewhat understandably, the comments of the Trump administration about Canadian sovereignty and other aspects have caused significant dislocation in our bilateral relationship, but not a pause. It has brought this program under some level of increased review. As I watch how it is progressing currently, the air force is still acquiring aircraft. They've continued the purchases because of the way the U.S. system is required to procure them, but I don't know how well this uncertainty helps or how much longer it can go on.

It's certainly better than it was in 2019 when I wrote that article, but at this time, there are still serious questions. This is affecting, to some degree, the ability to get these aircraft.

Jagsharan Singh Mahal: I think I got my answer. Thank you.

You have also warned that a mixed fighter fleet would have dangerous consequences for Canada's defence and physical condition.

Can you explain why maintaining multiple fighter platforms creates those risks in terms of cost, training and operational effectiveness?

● (1720)

Richard Shimooka: Essentially, we know how many pilots or sustainment individuals operate the fighter fleet at one time. It's quite limited because of 30 years of neglect of the Canadian Armed Forces. As a result, the ability for them to scale up the purchase of two fleets is just not possible. We were already seeing in many other areas, as with the MQ-9 UAV program and the P-8 program, real challenges for the air force's transition to the next generation, because they just don't have the crews. It is really difficult to imagine, even on the personnel side, how we could transition to a second fleet.

I will also say that, for the second option, Gripen and others.... Think about the integration challenges in a NORAD environment, the secure systems, the cryptological aspects of it, etc. This makes it really challenging. The cost of integrating that specific fighter, or even many other NATO aircraft, would make this prohibitively expensive and not add any positive capability development whatsoever.

Jagsharan Singh Mahal: I see.

Madam Chair, I will cede my remaining time to MP Ho.

The Chair: You have one minute and five seconds.

Vincent Ho: My question is for Mr. Shimooka.

Over the past year, the Liberal government has announced multiple new defence bureaucracies, each with its own mandate to hire new, overpaid, Liberal-tied bureaucrats. For example, the Defence Investment Agency CEO stands to make up to $900,000 per year.

Based on your research, does creating more bureaucracies actually improve Canada's ability to deliver military capability, or does it risk further fragmentation?

Richard Shimooka: I think fragmentation is a real danger.

Going back to the previous point about personnel capacity, that capacity of key subject matter experts who understand these defence capabilities, and who have security clearances and technical knowledge, is quite limited because we haven't invested in this area. If you are further bifurcating those individuals into smaller groups like BOREALIS and all that, it has the challenge to diminuate the ability to get many of these systems into service. That is a real challenge because it's difficult to generate them quickly.

It will take many decades to get back to where we were.

The Chair: Thank you.

We will proceed to MP Eyolfson for five minutes.

Doug Eyolfson (Winnipeg West, Lib.): I'd like to thank all the witnesses for coming. This has been fascinating testimony. I'm reasonably new to this committee, and I'm already learning a lot of new information.

My first question is for Mr. De Martin.

You're probably aware that, in our defence industrial strategy, we want to support Canadian companies and scale dual-use technologies. How would you describe how current federal investments are helping companies like yours scale operational intelligence platforms using AI that would work for both defence and civilian applications in Canada?

Edoardo De Martin: There is no help at the current moment. The help is to actually work for defence and have a contract. The industry strategy is relatively new, so I suspect that's coming through procurement.

How it would help me is that I have clients in the private sector who are benefiting from our technology. That technology creates a platform that I can use in defence. What I create in defence is slightly nuanced, but the technology is all the same. We're creating better technology by having more customers and building to different use cases. That allows my company to say, “We're going to sell this outside Canada now.” I can sell that technology in the private sector. I can sell it maybe to our friends through NATO on the defence side of things. It really helps a company like ours to stand up and have the use cases.

The first thing people ask when you try to export is, who is using this in Canada? Normally, in my business, the response is, “A few people are, but most of my clients are in the U.S.” What I'd like to say is, “Everyone in B.C., a bunch of people across Canada and the public sector are.” The people go, “Wow. Okay. Now you have a proven technology and a platform that I'm interested in buying because you have all the use cases there.” That's how I start to leapfrog other people.

It's competition. We need to compete in the world and we have to compete on our own turf first.

● (1725)

Doug Eyolfson: Would you say that you are now in a better competitive position?

Edoardo De Martin: If we can procure quickly, as I said in my remarks, we will be, yes, 100%.

Doug Eyolfson: I'm in Winnipeg where it's currently snowing, so I listened to your initial remarks with great envy. In Winnipeg, we have quite an extensive defence infrastructure. We have a major air base and also quite a large aerospace industry.

How could a region like ours, that has all this infrastructure already, better connect with a company like yours to create local jobs?

Edoardo De Martin: That would be amazing. We can exchange our numbers after.

Honestly, what I've been doing as of late is... I'll be at CADSI in a month. My organization was at CAF Outlooks earlier gathering information and trying to make connections. These kinds of conferences are where we start to knock boots as an organization. I never knew about these conferences until this year. With this policy in place, with this push to buy Canadian, the connections are now happening. That would certainly be the right place for us to connect with folks in Manitoba.

Doug Eyolfson: Given what you're saying, would you agree that the current push to rely less on foreign partners and to encourage the development of businesses in Canada is going to help with that?

Edoardo De Martin: Yes. We're starting. Absolutely, there's no doubt.

Doug Eyolfson: Thank you very much.

Dr. Brett, you're working with—

The Chair: I'm sorry for interrupting, but your time is up.

Doug Eyolfson: Thank you very much.

The Chair: Thank you.

We will now proceed to MP Blanchette-Joncas for two and a half minutes.

[*Translation*]

Maxime Blanchette-Joncas: Thank you, Madam Chair.

Mr. Shimooka, I would like to come back to the issue of planning.

Quebec accounts for more than 60% of aerospace manufacturing in Canada. Greater Montreal is recognized as one of the few hubs in the world—along with Seattle in the United States and Toulouse in France—where a complete value chain exists, capable of designing and producing an aircraft from start to finish.

Do you believe that a credible defence industrial strategy should also include an aerospace strategy, with measurable objectives, contracts and economic benefits?

[*English*]

Richard Shimooka: I think there are two components to that. There is the base funding. The science and research development hub that Montreal consists of.... Frankly, it's highly integrated, not only in the province, but also in the United States. Winnipeg was just mentioned. That portion of it, funding the baseline, the people who can undertake that kind of research and support those industries, is critical. If you look at some of the great hubs like Seattle in the U.S., or Tokyo and Nagoya in Japan, you see that level there.

On the overall level, Canada has to be careful with the capabilities we pick. We were talking about airborne early warning, which is an area where they have done significant work with Saab. They have several programs with the United States Army on intelligence, surveillance and reconnaissance systems, or ISR. In having or supporting these kinds of contracts, Canada makes it an actual objective to identify these.

I think that is a credible area, but it really requires a careful understanding of the military requirements and whether this is going to be operationally relevant. In the past, we have funded some capabilities, and they didn't turn out nearly as well. The Canadian Armed Forces were the ones who essentially bore the brunt of operating a system that was not effective.

In a lot of these cases, it's not going to be a purely Canadian solution. In Bombardier's case, they are going to provide the aircraft, but the systems integration, the mission system specifically, and some of those capabilities are probably going to be provided by an American company or a foreign company. We don't have the technical knowledge or the IP to do so.

● (1730)

The Chair: Thank you.

We will now proceed to MP Ho for five minutes, and then we will end the panel with MP Deschênes-Thériault for five minutes.

MP Ho, please go ahead.

Vincent Ho: Thank you, Madam Chair.

Mr. Shimooka, the Liberal government has poured billions into so-called defence innovation with an “Ottawa knows best” approach. It has picked winners and losers under the guise of buy Canadian. It has been reported that, under the Liberal government's definition, it can use the buy Canadian label even if it buys from a company that's foreign owned. However, the Canadian Armed Forces continue to face capability gaps and delayed procurement, despite all the Liberal bureaucracy and all the Liberal insiders hired to staff these brand-new bureaucracies.

In your assessment, is Canada seeing this increased spending without tracking corresponding outcomes? What does that say about the effectiveness of these Liberal policies?

Richard Shimooka: Certainly, there are areas where in Canada we could do better to support industry. Space is an area where we have a natural development. The nuclear industry is another area. I could go on and on.

However, since we have been buying only foreign systems and don't have an ecosystem in Canada—and I would make the point to the other panellists to tag along with that—the reality for a lot of major defence capabilities is that many Canadian firms have looked at the United States as a better partner. The United States government is a better area to sell their equipment because it has a large scale. It has a greater ability to identify and talk to people in government to get the requirements. It's a much better relationship.

The reality is that we haven't invested in these areas, so we're not going to get military systems any time in the next five to 10 years in a lot of key cases without significant sustained investment.

In my personal view, I would argue that we probably need a two-stage system. If we are identifying certain capabilities we want to develop and acquire, we should be taking a long-term view while immediately dealing with a lot of critical security challenges we face and addressing them quickly, not only by buying off the shelf from other countries but also by having investment behind them. Maybe we could do co-production with other countries.

If we immediately jump—and there has been talk about this—to try to find an immature Canadian solution, it's not going to end well. We're going to get the Ross rifle of today or other capabilities that are not mature enough and not capable. Again, the Canadian Armed Forces will suffer as a result.

Vincent Ho: Madam Chair, I would like to use the rest of the time we have to resume debate on the motion that was moved on April 27. It is the motion that was put on notice on April 24.

We saw the Liberal members of this committee vote down our ability to have cameras on and move to other business on April 27—to shut off the cameras and not have the Canadian public able to see—

Taleeb Noormohamed: I have a point of order, Madam Chair.

If we're going to have this conversation, it's important that we state what the facts are. Mr. Ho is misrepresenting what actually occurred. I wasn't at the meeting, but from what I watched, this is a misrepresentation.

The Chair: That is not a point of order. This is getting into debate.

MP Ho.

Vincent Ho: The effect of this was that we couldn't continue the debate, so I would like to resume debate using the time we have in this meeting.

I would like to speak in support of my motion. It was put on notice on April 24. That's a fact. It was moved on April 27. I want to speak a bit about my support for this motion.

It's about the study of the $200-million space port, which, as we've seen, turned out to be a big gravel pit, with Liberal insiders connected. It's just another procurement disaster. There has been one after the other. It's a pattern. They call it a new Liberal government, but it's not really new at all. It follows the same playbook of the last Liberal government under the former Liberal prime minister of overpaying, using taxpayer dollars and getting a lot less.

This is the Standing Committee on Science and Research. We're supposed to examine things like public policy and how to strengthen science. By shutting down a study like this, members who voted against it are anti-science by connection. We want to study science. We want to support science and research. We want to support Canadian innovation and Canadian technological capacity.

The Liberals use a lot of rhetoric. They're laughing, but they use a lot of rhetoric and spend a lot of taxpayer money with very little outcome. On paper this government is spending $200 million for an agreement concerning this space port in Nova Scotia. Again, when you look at the pictures, it's just a gravel pit that should cost a fraction of the money. On paper they say that it's about space exploration, something that we should endeavour to do. It's about launch capacity. Again, it sounds good on paper. We are having trouble getting the national defence minister. It is about national defence too, and Canada's future in the space economy, which is so very important. It's a matter we're discussing in this committee. These are serious subjects, and they deserve the scrutiny of committee members.

As committee members, we're not here to defend and excuse failure. If there is something that has gone wrong, it is our job, as committee members, regardless of party, to get to the bottom of the issue. That's the difference between the legislative branch and the executive branch. The Liberal MPs think they're part of the executive branch and can do whatever they want. They seem to blur the lines. We live in a country that has three branches of government. There is a separation of powers. That's one of the fundamental cornerstones of our democracy.

Getting back on the topic, of course we support that. Space matters. It matters for defence. It matters for things like Arctic sovereignty, which the Liberals talk about a lot. It matters for communications and things like weather forecasting, disaster response. We know there have been a lot of disasters under this Liberal government. It matters in agriculture, navigation, telecoms, national security. National security is something the Liberals don't take very seriously. Space is something that is the next frontier for economic competition. It's not going to stop at our borders, and it certainly will not stop because the Liberals want it to stop. Canada should have ambitions about space. This is something worth pursuing.

This project seems great on paper, but we want to dig into the weeds and look at the paperwork, the agreements that were signed, and find out which Liberal insiders are getting rich.

The Liberals are rolling their eyes. Are they the ones getting rich? Who knows? We want to get to the bottom of this.

Canada has a proud history in space. The Canadarm is not just another piece of technology. It was a symbol of Canadian ingenuity when we had a country that could still build things. We're now a country that is building at unimaginable speeds—building unimaginably slowly in things like housing, infrastructure and energy projects. Canadian astronauts have inspired generations of Canadians, students and young people. This Liberal government has continuously let down young people over and over again. Space has inspired Canadian engineers, researchers, machinists, technicians and scientists.

● (1735)

Canada has always punched above its weight, so again, before the Liberals accuse Conservatives of talking down on Canada, we're not talking down on Canada. We're not talking down on Canadians—

Taleeb Noormohamed: The Harper government cut the space program every year—

The Chair: One person at a time—

Vincent Ho: We're just talking about how the government is letting down Canadians. That's what we're really talking about.

This is a motion that is pro space. It's pro science. You can vote against it if you're anti space, you're anti science and you're anti taxpayer. We just want to get some accountability and some results out of this motion. That's why we're talking about this today.

We can't have this space ambition—and this launch pad is a symbol of Canadian ambition—without the accountability of the vision that it's trying to carry out. Without accountability, this is just another vanity project. We've seen the Liberals pursue ideological vanity projects over and over again. They have not stopped short of doing that. Since this new Liberal Prime Minister has taken office, a lot of their bills have been ideological projects. He has proven that he's not just a new prime minister; he's just another Liberal.

Parliament has a duty to ask questions, and Parliament asks questions through the committee, through the subject matter of the committee. This is the science and research committee. Of course, when we're talking about space and there's a gravel pit that the Liberals are calling a space port, this committee is where we would study it.

I just don't see which other committee would be studying something of this nature. These Liberals want Canadians to believe that this is some bold national investment, and of course they're going to wrap it in their slogans. We know how much Liberals love slogans like “build Canada strong” and all that. Then they say they want to launch rockets at home, which is an endeavour that is worth pursuing in its vision, but again—

● (1740)

Taleeb Noormohamed: Why did the Harper government cut space funding every opportunity they got?

Vincent Ho: We just want to ask very simple questions about things like timelines. We know that this project has failed to meet timelines over and over again. I'll get into the details later of how we got there and how it has failed. When is the first successful launch going to be? Again, this project has missed—

Taleeb Noormohamed: Why is he filibustering? It's on a motion—

The Chair: I'm sorry for interrupting, but it's one person at a time.

MP Ho, the clerk has brought to my attention some rules in regard to moving a motion on the motion for which the debate was adjourned previously.

I will ask the clerk to please clarify.

The Clerk of the Committee (Marc-Olivier Girard): Thank you, Madam Chair.

I was informing the chair that to resume debate on a motion on which debate has already been adjourned previously, the chair can use their prerogative to put the matter on the notice of meeting of any future meeting, or a member of this committee can move that the debate on the motion be resumed, meaning that it's the decision of the committee to resume that debate.

Otherwise, a member by himself or herself cannot go ahead and resume the debate on his or her motion. It's a committee decision, basically.

Thank you.

An hon. member: For clarification—

The Chair: I'm sorry for interrupting. One person, please....

If I can clarify, as per that rule, we will have to vote to see if the debate can be resumed on MP Ho's motion, because the debate on this motion was adjourned in the previous meeting.

I will ask the clerk to please take the vote.

Vincent Ho: What are the consequences of adjourning?

The Chair: In order to resume debate, you have to move a motion that the debate be resumed. Then it will be up to the members to decide whether the debate can be resumed or not.

Would you like to move the motion to resume debate on your motion?

Vincent Ho: I move that we resume debate on the motion.

The Chair: We have a motion by MP Ho to resume debate on the motion for which the debate was adjourned in the previous meeting.

I will ask the clerk to please take the vote.

(Motion negatived: nays 6; yeas 5)

The Chair: The time is up for MP Ho.

We will go to MP Deschênes-Thériault for five minutes.

Please go ahead before this panel comes to an end.

I'm sorry, witnesses.

● (1745)

[*Translation*]

Guillaume Deschênes-Thériault: First, I'd like to thank the witnesses for staying with us for this important study on defence research needs and dual-use resources. I thank them for the time they are devoting to informing our work.

Mr. De Martin, you already mentioned a few points during your testimony about the role of private companies in the research ecosystem.

What are the key conditions needed to ensure that we can truly collaborate with the academic community—including research centres, colleges and universities—as well as with private companies?

The goal is to achieve concrete, applicable results that can be used to advance not only civilian innovation, but also defence capabilities.

[*English*]

Edoardo De Martin: The conditions that would be appropriate would be a clear understanding of what the problem we want to solve is, a clear role for research in that use case, a clear role for business and the environment in that use case to work together to advance both those initiatives and, at the end, validation from the end-user. Those are the standard conditions to move any type of collaboration between private companies and research together.

[*Translation*]

Guillaume Deschênes-Thériault: Thank you.

Mr. Brett, the investments we're going to make in research are an important part of our defence strategy and investments. At your university, your lab serves as a testing centre for the Defence Innovation Accelerator for the North Atlantic.

How important is it for your institution to have a testing centre and to be able to count on investments in defence research?

What are the benefits of the research ecosystem within your university?

[*English*]

Paul Brett: We've operated in a space where we've partnered with small and medium-sized businesses as they try to harden their technology and span that valley of death from discovery to commercialization. Having access to systems like DIANA to attract new innovation into a testing lab, a validation lab, like the one we use at our institution is pretty important to our fiscal health, to being able to support ourselves as an organization. The defence space is an area in the Canadian landscape that we need to be able to tap into. Our ecosystem is just that; it's a place for SMEs to come to validate their technologies.

[*Translation*]

Guillaume Deschênes-Thériault: You said that you work with small and medium-sized enterprises.

Can you tell us more about the conditions necessary to ensure a successful partnership between a university, or a research centre like yours, and small- or medium-sized enterprises?

[*English*]

Paul Brett: One of the conditions for success is clear policy around IP. Universities are infamous for stranding IP. How do we work with small and medium-sized enterprises to ensure that their IP is protected so that they can move forward? Understanding the bureaucracy of federal and provincial ecosystems from a funding perspective is also pretty important to our survival.

[*Translation*]

Guillaume Deschênes-Thériault: Thank you.

I have one last question for you, Mr. Brett.

As we know, universities and colleges fall primarily under provincial jurisdiction.

What are the opportunities to further engage the provinces and territories in the implementation of research, within the context of Canada's defence industrial strategy?

[*English*]

Paul Brett: A lot of the traditional vehicles to move research investment dollars are in place in the Canadian context through tri-council agencies. DRDC has been talked about several times throughout this committee meeting. Understanding how DRDC mobilizes funding in the defence space is also an area that needs some clarity and demystifying, if I'm to be honest, from an institutional perspective. It is important that we demystify and reduce the bureaucracy in those spaces.

● (1750)

[*Translation*]

Guillaume Deschênes-Thériault: Thank you very much.

Thank you to all the witnesses.

[*English*]

The Chair: Thank you, MP Deschênes-Thériault.

With that, the round of questioning comes to an end.

I have one committee business item requiring approval. It's in regard to the budget for the study on Canada's dual-use and defence research needs. The budget was circulated to all members.

Is it the will of the committee to adopt the budget?

Some hon. members: Agreed.

The Chair: It's adopted.

I have one quick announcement. We have a Made-in-Canada Solutions for Global Health Security: A Parliamentary Science Fair on May 6 from 6 p.m. to 8 p.m., in room 228 of the Valour Building. If you are free, please drop by.

With that, I want to thank all the witnesses for appearing before the committee. On behalf of all the members, I would really like to thank you for providing your important testimony.

With that, the meeting comes to an end.

Is it the will of the committee to adjourn the meeting?

Some hon. members: Agreed.

The Chair: The meeting is adjourned.