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Chair: Mr. Lloyd Longfield



Standing Committee on Science and Research

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• (1105)

[*English*]

The Clerk of the Committee (Mr. Keelan Buck): I call the meeting to order.

Honourable members of the committee, good morning. It's nice to see everyone. I see a quorum.

I must inform members that the clerk of the committee can only receive motions for the election of the chair. The clerk cannot receive other types of motions or entertain points of order, nor can they participate in debate.

We can now proceed to the election of the chair. Pursuant to Standing Order 106(2), the chair must be a member of the government party.

I am ready to receive motions.

Go ahead, Mr. Lauzon.

[*Translation*]

Mr. Stéphane Lauzon (Argenteuil—La Petite-Nation, Lib.): Thank you, Mr. Buck.

I would like to introduce our new committee member, Lloyd Longfield. I would also like to nominate him as chair of the committee.

[*English*]

The Clerk: It has been moved by Monsieur Lauzon that Mr. Longfield be elected as chair of the committee.

Are there any further motions?

Go ahead, Mr. Lobb.

Mr. Ben Lobb (Huron—Bruce, CPC): Thank you very much.

This is just as a long-standing principle that I have.

I have the utmost respect for Mr. Longfield. Don't get me wrong. His riding in Guelph is very close to my riding, so there's no issue with Mr. Longfield as a chair. When or if he's elected chair, I'm sure he'll do a fantastic job.

I've always believed that the person should be nominated from the committee that they already sit on, which is this committee. I would just ask if Ms. Diab would like to have her name stand forward as the chair of the committee. I have nothing against Mr. Longfield, but Ms. Diab has been a long-standing member of this committee and has shown herself to be very good and qualified. If

she would let her name stand, then I would move her as our candidate.

[*Translation*]

Ms. Lena Metlege Diab (Halifax West, Lib.): Thank you, Mr. Lobb.

[*English*]

I appreciate very much the confidence you have in me, but perhaps next time. I think, for today, I'm very happy and excited to have MP Longfield as chair of the committee.

The Clerk: The motion has been moved by Monsieur Lauzon that Mr. Longfield be elected chair of the committee.

One more time, are there any further motions?

The question is on the motion. Is it the pleasure of the committee to adopt the motion?

(Motion agreed to)

The Clerk: Mr. Longfield is elected chair.

Some hon. members: Hear, hear!

The Chair (Mr. Lloyd Longfield (Guelph, Lib.)): Thank you to the members for your vote of confidence.

Thanks to Mr. Lobb for testing the waters. It's always good to have a democratic process in these types of things.

I'm looking forward to serving as your chair. Of course, I'm filling some pretty big shoes, with Kirsty Duncan having stepped down for health reasons.

Thank you to Mr. Tochor for all of the good work that you've done in keeping the meetings going on time.

I've been reading the testimonies and the questions. It looks like an excellent committee with great questions going around the table. I look forward to hearing more of those today.

For now, I'm just going to suspend for a couple of seconds. We have a second witness who has just showed up and we'll be doing some sound checks. Give us a second or two.

• (1110)

Now we'll get started with the meeting. Thank you for your patience. We're starting a few minutes late.

I want to welcome you all to meeting number 39 of the House of Commons Standing Committee on Science and Research.

Today we're continuing our study on the support for commercialization of intellectual property.

I'd like to make a few comments for the benefit of the witnesses and for the members here.

Please wait until I recognize you by name before speaking. For those participating by video conference, click on your microphone icon to activate your mike, and please mute yourself when you're not speaking.

There is interpretation for those on Zoom. You do have a choice at the bottom of your screen for either floor, English or French. For those in the room, you can use the earpiece and select the desired channel.

I'll give a reminder that all comments should be addressed through the chair. For members in the room, if you wish to speak, please raise your hand. On Zoom, please use the "raise hand" function. We'll be watching for that.

The clerk and I will manage the speaking order as best we can. We appreciate your patience and understanding in this regard.

In accordance with our routine motion, I'm informing the committee that all witnesses have completed the required connection tests in advance of the meeting.

Now I'd like to welcome our witnesses. We'll be hearing from two witnesses this morning: Alain Francq, who is the director of innovation and technology for the Conference Board of Canada, and Andrew Greer, who is the managing director of Purpl.

We'll start off with Alain Francq for five minutes. Alain, the floor is yours.

Mr. Alain Francq (Director, Innovation and Technology, The Conference Board of Canada): Mr. Chair and honourable members of the committee, thank you for the opportunity to contribute to your study.

I am Alain Francq, director of innovation and technology at the Conference Board of Canada.

Happy World Intellectual Property Day, by the way, which is celebrated around the world tomorrow. It's very serendipitous.

I think we can all now agree that intellectual property is a critical asset and a driver of the innovation economy. It's important at the firm level. IP-backed companies are 1.6 times more likely to experience high growth, three times more likely to expand domestically, and 4.3 times more likely to expand internationally.

Innovation and IP are also important for countries, regions and communities. Those with strong innovation activity and an ability to commercialize their IP see improvements in productivity, economic growth and job creation.

Canada currently ranks 15th in the global innovation index, among 132 countries. We are considered global leaders in innovation on several measures, but we struggle to turn these advantages into commercial success and economic growth. Indeed, Canada faces considerable growth and productivity challenges. As we've heard from the OECD, Canada's real per capita GDP growth be-

tween 2007 and 2020 was less than 1%, and the country stands dead last among OECD countries in per capita growth all the way to 2060.

This week, economic growth will cost Canada more than \$500 billion in lost economic potential, dollars that could be invested in innovation, health care, human capital or even growing the green economy.

To address this challenge, we need real-time measurement and analysis of our shortcomings and evidence-based recommendations to improve our performance.

We at the Conference Board actually capture our performance annually through our "How Canada Performs" series and our national "Innovation Report Card", for which I have the most recent data in front of me here. Unfortunately, I must report that for 2022 Canada scores a "C" overall once again. We continue to score relatively well in public R and D, with a grade of "B", and relatively strongly in entrepreneurial ambition, with a grade of "A". We continue to lag significantly behind other OECD comparator nations, scoring a "D" in business expenditures in R and D, a "D" in labour productivity and a "D" in intellectual property. This confirms the innovation paradox is still alive and well here in Canada.

To get to the root of this problem, we recently partnered with MaRS Discovery District and 12 founding members to launch the Canadian centre for the innovation economy. In the same way that we've heard and seen an asset collective approach for IP education and support, we have built a research collective approach to provide analysis and insight to tackle the problem of our poor innovation performance.

The research agenda of the Conference Board's centre for innovation includes the role and impact of post-secondary research; commercialization and entrepreneurship on regional economies; corporate R and D innovation capability and technology adoption; Talent 4.0, which is developing the future skills workforce; and ultimately government innovation policy and funding program performance.

The first project out of the centre is on intellectual property and where Canada can punch above its weight and win globally through comparative advantage. I do have some preliminary results here, which I can share during the question-and-answer period.

We have five recommendations based on several research and experience papers we've done here. They are the following.

Number one, continue to strengthen investments in existing programs that provide IP education; access to IP intelligence experts; and enable freedom to operate and incentivize patent, trademark and industrial design filings in a very systematic way. This would be through the national IP strategy, ExploreIP, ElevateIP, IP Assist and the Innovation Asset Collective. These are good starts, but we could do more.

Number two, innovation funding programs for business, such as the innovation clusters, SIF, IRAP, the new Canada Innovation Corporation, and SR and ED, should increase the requirements and measurement of IP asset collection as an outcome. Any financial support should trace IP origin, assignment and ownership.

Number three, we should review IP rights ownership policies and technology transfer models for universities, colleges and research labs. The federal coordination and consistent provincial implementation will clarify the best models for researchers and industrial partners.

Number four, we need to prioritize different fields where technology has an absolute comparative advantage.

Number five, we need to collect and share systematic data on whether and how these research projects and business incentives generate IP. Without data or measurement, we won't have the information to make evidence-based policy decisions around IP. In the end, you get what you measure.

• (1115)

I'm excited for Canada, and I think we can win on the global stage by improving our ability to commercialize Canadian-made intellectual property.

Thank you, and I look forward to your questions.

The Chair: Thank you, Mr. Francq. You're right on time.

Now we'll move to our second witness, Andrew Greer, for five minutes, please.

Mr. Andrew Greer (Managing Director, Purppl): Thank you, Mr. Chair and honourable members.

My name is Andrew, and for about 10 years, I've been focusing on supporting social entrepreneurs and impact leaders to address the root causes of systemic inequity. These people and organizations are working on some of the most complex and persistent problems in Canada: climate change, poverty and housing, mental health and addictions, colonization, racism, gender violence, food security and more.

I'm here today in hopes of bringing these organizations and people and their value to Canadian society into your thinking as you consider Canada's approach to focus on commercialization of IP. I think this perspective will be a bit different from what you've heard so far. Thank you for this opportunity to discuss.

I'm joining you from the unceded and unsundered territory of the Okanagan Syilx people in Kelowna, B.C.

I'm the managing director and co-founder at Purppl. It stands for purposeful people. We're a social enterprise. We help social entrepreneurs and impact leaders build sustainable enterprises that ad-

dress these inequities. We do this by coaching the leaders of these organizations. We have about 25 active projects at any given time—50 to date so far this year—and we operate in B.C., Alberta, Ontario and Quebec.

Our clients and alumni are about 70% led by women and 80% incorporated as a non-profit. Their average size is about \$1.7 million in annual revenue. Many of these are led by and serving folks who are Black, indigenous, people of colour and other racialized communities. We're also a co-owner of Thrive Impact Fund. We do direct investment into social enterprise and social purpose organizations on Vancouver Island and in the B.C. interior.

What's a social purpose organization? It's an organization with a mission to advance social and environmental objectives. They are mostly non-profits, of course. There are some private for-profit organizations, as long as they're focused on social environmental causes, and some hybrid community contribution companies like Purppl. They often have grants and donations, but they also have significant customer revenue.

They usually operate in three areas of the economy: community-based non-profits like food banks, non-profit housing providers, and sports and recreation associations. There are also business associations like chambers of commerce and critical government services like hospitals and universities.

The economic contribution of this sector is about 8.3% of Canada's GDP, or about \$192 billion a year in annual economic impact, and it's growing. There are 2.4 million people employed in this sector, which is about one in 10 workers, and about 77% of those people in the sector are women. This is as large as oil and gas, forestry, agriculture and retail. Meanwhile, there's no minister in government.

Our recommendations are the following.

Include social purpose organizations and social enterprise. There's a large economic impact and a priceless social benefit.

Give social purpose organizations—SPOs—and SEs—social enterprises—a home in government so that they can be included in Canadian policy programming, budget frameworks and committees like this.

For IP, focus not just on patents. SPOs need support around contracts, licensing and legal costs, just like SMEs.

Support the leaders. They're underpaid, under-resourced and working on really hard problems. If you're going to support entrepreneurs with things like coaching and mentorship, you also need to support SPOs and social enterprises so they can expand their contribution.

In terms of community benefit, much of the value of Canada's IP accrues to private interests and a small number of shareholders. Let's consider Canada and the Canadian people as shareholders. When the government invests money in private companies and IP is developed, consider a mechanism and conditions by which the government retains royalty, shares or licensing, with the value accruing back to Canadians. If there's a sale, exit or ongoing revenue, this could be used to fund ongoing investment into social innovation and SPOs.

Accelerate impact investing. Developing IP requires significant investment, so when SPOs and SEs become investment-ready, help them. Help investors understand the unique needs of SPOs. Both support commercialization.

Measure social impact. Consider income tax revenue, employment benefit and the value of social services to Canadians for this sector. If we do that well and communicate it well, it will be very clear why SPOs need to be considered in commercialization and IP strategy.

If you want to talk, let's connect. SPOs are uniquely positioned to build a just, regenerative economy that upholds collective well-being, equity and the health of air, land and water. SPOs and social enterprises need to be included in Canadian policy, program and budget frameworks.

This is a really large movement. Let's build social impact together.

• (1120)

The Chair: Thank you, Mr. Greer, for your testimony.

Now we'll move to the first round, with six minutes each, starting with Ryan Williams.

Go ahead, Mr. Williams.

Mr. Ryan Williams (Bay of Quinte, CPC): Thank you, Mr. Chair. Welcome to our witnesses.

I'm going to start with Mr. Greer.

Mr. Greer, we've known each other for a long time. When I was involved with an organization called QuinteVation, you were involved with the group called Accelerate Okanagan and a program called RevUP.

You knew your stuff, especially for rural innovation. You knew your stuff about scaling companies. I think what you're doing is almost IP commercialization 2.0, because social purpose organizations or, as we used to call them, social enterprises, are really focused on great things that are changing the landscape of Canada on housing, inclusivity and all the different things you mentioned. I

think the biggest number that was amazing was the \$192 billion of impact for Canada. That's pretty amazing.

I'm going to start with some questions for you.

Why is scaling IP not just about patents?

Mr. Andrew Greer: IP is not just about patents, because much innovation can't be protected by patents or it's the wrong play or wrong choice to just focus on patents. Patents are registered IP. Contracts and licences are more like protecting unregistered IP.

For a Canadian innovator like a tech company, for example, if you register a patent, it means you have to release what you're patenting. That could be dangerous. It could also be very expensive for a global innovation. It's very, very expensive to register patents globally. It makes it basically a huge barrier for a tech company.

For social innovation companies or social purpose organizations, the innovation isn't necessarily patentable. It's through process innovation, digging into different ways to deepen social impact. These things need to be protected by licensing and contracts rather than patents. Bluntly, they can't be patented. SPOs and business of all types, to be honest, need help around other parts of intellectual property protection, not just patents.

Mr. Ryan Williams: Tell me a little bit about leadership development.

In my region, I have a not-for-profit organization matched with a developer, and they are building homes. They have a five-in-five plan to build 500 homes in 500 years. They need leadership development.

Tell me a little bit about why that's important.

Mr. Andrew Greer: It comes back to the people leading organizations, regardless of whether they are SMEs, tech companies or SPOs. It really comes back to the people leading. The social sector in general doesn't have much leadership development capacity provided by the government and the provinces.

Leaders in these organizations need help building business models. They need help building sustainability. They need help improving their operations. They need help figuring out what strategy looks like, how to measure impact and, most importantly, they need help being good leaders. It really comes back to the leadership development of the people in charge of the organizations. We can't really do innovation without good people in charge.

• (1125)

Mr. Ryan Williams: You have a great model with Accelerate Okanagan, which is entrepreneurs-in-residence. You had mentors matched with businesses. Would you see the same thing here?

I also want to get into community benefit, talking about government retaining shares, royalty or licences with certain companies that they are involved with. How does that work with not-for-profits and social purpose organizations?

Mr. Andrew Greer: There are a couple of questions there.

There are lots of ways to provide mentorship and leadership development in a model like entrepreneurs-in-residence, who are essentially experienced entrepreneurs providing some long-term coaching to leaders of SPOs and tech companies.

That kind of long-term mentorship is critical. You can't really learn IP in a boot camp. You can't learn how to run a company or an organization in a boot camp or a workshop. I really think we need to invest in long-term mentorship and coaching to support these leaders who help to solve really hard, complex problems. Again, this stuff doesn't happen in a workshop or boot camp.

With regard to community benefit, there are a few different ways to think about it. I want to first say that it's not going to make sense that the government or a determining body keeps the licence, royalty or shares for every piece of IP that comes out. I think it's worth exploring some conditions when perhaps the size of investment justifies that the government or some entity keeps some value that would be held by the Canadian government and controlled by the Canadian government, but not to the detriment of the entrepreneur.

Really, if there was an acquisition, an exit or ongoing significant revenue, some of that benefit should come back to fund more intellectual property development, including social purpose organizations and a long-term social innovation strategy.

Mr. Ryan Williams: That's fantastic.

This is the last question, sir. Tell us about impact investing and why that's important.

The Chair: You have about 30 seconds.

Mr. Andrew Greer: Thank you for the time check.

Globally, impact investing is growing tremendously. It's growing tremendously here in Canada. Impact investing is putting direct investment into organizations that are working to solve cultural, social or environmental issues. There are unique needs. Patient capital is needed.

In lots of cases, a lower expectation of financial return on investments is needed. Lots of SPOs are incorporated as non-profits. They just can't take equity investment, and market rate returns aren't a good expectation. We need patient capital. We need values-aligned capital. We really need to educate, to bring SPOs up to investment readiness and educate investors on what they need.

The Chair: That's great. Thank you, Mr. Greer. Thank you, Ryan.

Next up is Chad Collins, for six minutes.

Mr. Chad Collins (Hamilton East—Stoney Creek, Lib.): Thanks, Mr. Chair.

Mr. Francq, I'll start with you.

I was interested in your third recommendation. You talked about the review of IP rights, policies and transfers related to post-secondary institution policies.

Can I ask you what role you believe the government should play in terms of improving that process and what support we can provide as it relates to the third recommendation that you provided to us?

Mr. Alain Francq: Yes. Thank you.

I'd like to say, first of all, that we actually looked at the economic impact of universities on regional economies. That was one of our projects. We started specifically with Ontario—

Mr. Stéphane Lauzon: I have a point of order, Mr. Chair.

The Chair: Thank you.

I think we've lost your microphone, Mr. Francq, which might be the point of order we're hearing. Can we check the microphone?

Mr. Alain Francq: Okay.

The Chair: You're coming out through your device, not your microphone.

Mr. Alain Francq: Really?

The Chair: It sounds like you're back. I have the thumbs-up from the translators.

Thank you.

Mr. Alain Francq: Thank you. Let me just start again.

It specifically was around the role the federal government can play in enabling. Perhaps it was number three, which is the review of the IP ownership.

Maybe I'll respond by saying that we've listened to past witnesses, Dr. Karim from UW and Dr. Jeff Taylor from Colleges and Institutes. They commented on the differences between universities and colleges.

Colleges are closer to industry, since their projects tend to be faster and the IP goes to the company, whereas universities are more curiosity-driven. They tend to focus on groundbreaking deep tech or social innovation, on things that maybe companies won't take. They focus on highly qualified personnel and spinoffs. The problem we have, of course, is that these are competing missions. The discovery of new ideas and the dissemination to students is the mission of a university. One is creation and the other is commercialization. One is invention and one is actual innovation.

On the recommendation, if you look at the wide variety of IP rights or commercialization at the universities, on one side of the country we have, for example, UBC, which is entirely institutionally owned, and on the other side, we have the University of Waterloo, which is entirely creator-owned. Somewhere in the middle we have perhaps Toronto, for example, which is jointly owned.

In the economies that are performing best—and they've been cited here in Fraunhofer or perhaps even in the Israeli discussion—you see a centralization and a common standardization of that IP policy. Recommendation number three is to review those rights ownership policies, the technology transfer models and the ownership of those rights and how they get transferred into the economy. Again, we do really well at that side, but we fail at the firm level to transfer those ideas and the HQP, the highly qualified personnel, into the economy.

Let me just say that certainly it needs strong federal coordination, and I think consistent provincial implementation will clarify the best models for research and industrial partners. Again, I would say that tri-council grants must ensure that IP remains in Canada for the benefit of Canadians.

• (1130)

Mr. Chad Collins: Thanks, Mr. Francq.

I'm going to stick with post-secondary institutions for a minute.

A previous IP study that occurred here in Ottawa and in 2017 highlighted that private firms do not know what research is being performed in post-secondary institutions and that there's a bit of a lack of information about potential partnerships between the private sector and post-secondary institutions.

How can the federal government help in terms of being a matchmaker or providing a road map to funnel those private investments into post-secondary institutions to ensure we're generating as much economic growth as possible?

Mr. Alain Francq: Yes. Thank you very much.

I'll cite, of course, ExploreIP, which is quite an interesting and wonderful resource for companies looking for public R and D. I should check the numbers, but I remember something on the order of 4,000 opportunities sitting there. However, only maybe 400 of them, or 10%, were active, and possibly even only 10% of that was being actively pursued in terms of intellectual properties and business.

By the way, what they do wonderfully is map out the 35 areas of technology focus in the country. If you're in materials or agriculture, or if you're in tech or communications, you can see where those are. It is a helpful navigation tool, but as I just suggested, there is not a lot of engagement or pickup.

For example, if you look at what came out of the expert panel on intellectual property, the expert panel that created IPON, the intellectual property office of Ontario, that's where the rubber really hits the road. You have an organization that is looking at the interface between universities and specific regions—in this case, Ontario—and they are putting in place those things from recommendation 1: IP education, IP intelligence and experts, enabling freedom to operate through collectives and incentivizing patent, trademark and industrial design filings in a very systematic way.

That's actually a good example within Ontario, but this is Canada and the Conference Board of Canada, so we have to take a national approach to this as well and not just lead provincially.

Mr. Chad Collins: Thanks for those answers.

I think I have just over a minute left.

You gave a bit of a mixed-bag summary of the report card you provided for us. What's the greatest gap to bridge right now in terms of either investments or policies? Can you give us the top priority for improvement in one or more of the categories you highlighted in your opening remarks?

Mr. Alain Francq: Yes. I have the report card in front of me right now. Across nine indicators.... We're increasing it to 25 indicators, by the way, this year, which is going to give a lot more granularity and maybe, to Mr. Greer's point, go beyond patents, which is just a proxy for innovation. We're going to try to go to incremental innovation, social innovation and, frankly, in the words of the book of Danny Breznitz, we're going to look for where innovation is truly happening in the country, because we actually do have great innovation sources.

To answer your question very pointedly, I'm looking at the report card. The one that receives the most D-minuses is business R and D, and the second one beyond that is patents and intellectual property, so that's where we're going to focus.

• (1135)

The Chair: That's great. Thank you very much.

[*Translation*]

Go ahead, Mr. Blanchette-Joncas.

Mr. Maxime Blanchette-Joncas (Rimouski-Neigette—Témiscouata—Les Basques, BQ): Thank you, Mr. Chair. First, let me say congratulations on your election as chair.

Initially, I was a bit skeptical about your joining the Standing Committee on Science and Research. Science and research is a very important issue in Canada, and you can't just become a science expert. Similarly, you can't suddenly understand the science ecosystem because you join the science and research committee, which has been working diligently for more than a year and a half. Nevertheless, I'm going to give you the benefit of the doubt, in the hope that, through your dedication, you will familiarize yourself with all the work the committee has done so far. You can certainly count on my co-operation and support to advance science and research in Canada.

I'd also like to take a moment to recognize the Honourable Kirsty Duncan, who did the early work to get this committee off the ground more than a year and a half ago. I want to commend her commitment and all of her hard work. I want to say thank you and I hope to see her soon.

Mr. Francq, your opening remarks were quite eloquent. I think the figures speak volumes. You said that Canada ranked last among OECD countries on per-capita long-term growth, and you had the figures to prove it. The fact that Canada's GDP growth was just 1% between 2007 and 2020 certainly isn't trivial. It means billions of dollars in lost economic potential and fewer resources to deal with social priorities and the decline of our overall ability to influence our citizens' quality of life.

This is my question. Do you think there's a link between the indicator you mentioned, long-term growth per capita, and the current level of science research intensity in Canada?

[English]

Mr. Alain Francq: Thank you for the question.

I want to draw attention to the comment about where we can punch above our weight and win globally.

We are an applied research centre, Canada's largest one, when it comes to this issue, so we looked at the problem of patents. We looked at the data and we asked several questions. I'm going to try to give you some insight on where we can punch above our weight.

The first thing we did was look at the technology classes in which Canada has really strong specialization compared to the rest of the world. The policy relevance here is that consistent, strong specialization in this technology means that there's some sort of domestic factor that supports Canadian businesses.

We looked at that, and then we looked at where the technology classes in Canada have comparative advantage. A number of researchers have done this, but we overlapped the two so that we can see where Canada can punch above its weight. We analyzed that, and here are the results from that report.

Our analysis of the latest patent statistics shows an absolute advantage in nine fields, the top five being medical technology, computer technology, measurement, pharmaceuticals and transportation.

It's also important to assess the comparative advantages. Mr. Ballillie mentioned the idea that economy works on the idea of absolute advantage. This is what you get when you get critical mass, but you also have to have strong specializations in emerging areas.

We have three areas where we have the potential to punch above our weight. One of them is microstructural technology and nanotechnology, the basis for semiconductors, quantum and advanced materials like batteries. We are strong in that area, regardless of these low OECD and declining patent numbers. We have strength here.

I'll give you a sense of what strong specialization means: Canada patents three times more frequently in microstructural and nano compared to the world average, and it's almost twice as much in civil and environmental technology.

What's really important to note, as was mentioned by a previous witness, Pina D'Agostino, is that different approaches are required for each—

[Translation]

Mr. Maxime Blanchette-Joncas: Sorry to cut you off, Mr. Francq, but I see you're reading from the report. Thank you for sharing your analysis, but I have another question.

I'm going to list three facts. First, Canada is considered the only G7 country to have seen a decline in the number of researchers per 100,000 inhabitants in recent years. Second, Canada is the only G7 country whose R and D spending as a share of GDP has dropped in the past 20 years. Third, Canada hasn't increased or even indexed federal graduate scholarships for two decades now.

My sense is that there are reasons to explain that position of disadvantage when it comes to long-term growth. Even in the last federal budget, there was nothing set aside for research. It's tough to stand out when we don't invest in R and D, while our neighbour and competitor does. The U.S. actually doubled its investment in its main research funding program.

When you take all of those facts into account, how do rate Canada's prospects?

• (1140)

[English]

Mr. Alain Francq: Let me just qualify. Do you mean that in terms of potential innovation policy compared to, for example, the U.S., China or other leading nations?

[Translation]

Mr. Maxime Blanchette-Joncas: I'm talking about productivity and economic growth. How can we be productive and innovative, when we don't invest and our biggest competitor and neighbour, the U.S., is doubling its spending?

[English]

The Chair: You have 15 seconds.

Mr. Alain Francq: Indeed, that is a problem.

Where we seem to have lost the ability to translate this incredible ability in public R and D, essentially the generation and creation of new ideas—

The Chair: I'm sorry. I'm going to have to move to the next speaker.

[Translation]

Mr. Maxime Blanchette-Joncas: Mr. Chair, I—

[English]

The Chair: If we could have that answer in writing, it would be beneficial to the committee.

[Translation]

Mr. Maxime Blanchette-Joncas: Yes, I wanted to ask for a written response. Thank you.

[English]

The Chair: Thank you.

Mr. Cannings, could you take the floor, please, for six minutes?

Mr. Richard Cannings (South Okanagan—West Kootenay, NDP): Thank you.

Thank you to the witnesses here before us today. It's been very interesting.

I'm going to start with Mr. Greer.

It's always good to talk to a fellow Okanagan resident. I know you have a background in Accelerate Okanagan, and some years ago I had the opportunity to tour the facilities. It was great that you expanded this conversation beyond patents into other more, in many ways, important circles.

Mr. Williams asked most of the questions I had marked down, but I wonder if you could give some concrete examples of where governments have stepped up and helped these social purpose organizations. How can we do more of that, or where do we really need the federal government specifically to step in? What are some concrete examples of how we could help?

Mr. Andrew Greer: Thank you. It's nice to see you, Richard. Welcome to another Okanaganite.

Those are great questions. A couple of examples....

How have governments stepped up to help? The federal government has a social innovation and social finance strategy. There's a \$900-million strategy supporting this. The government recently rolled out a program called the investment readiness program, which has specific support for social purpose organizations to improve and increase their investment readiness.

There are some great examples. We work here with a charitable day care with multiple sites—about seven or eight sites—here in Kelowna. Through some coaching through the first round of the investment readiness program, they slowly got their confidence to take on investment and they purchased the farm where they were operating a day care. Now they've secured their economic future. They took out a big loan, secured a place to operate for as long as they want, and kids are accessing day care on a farm. It's pretty cool. There's a good example of a positive story.

On the other side of the coin, social purpose organizations, most being non-profits, are left out of organizations like BDC. BDC serves businesses, so all the innovation financing that's going into the Canadian economy is basically leaving SPOs out of the equation.

That would be a place or an example, but the examples continue. The SR and ED program is not applicable. The small business financing program is not applicable for SPOs. There are major gaps in policy for supporting social innovation.

Mr. Richard Cannings: In short, you would like to see more federal government support for non-profits, akin to what is given to businesses. Is that, in short, one of your main recommendations?

• (1145)

Mr. Andrew Greer: I think that's the main recommendation. It's to include social purpose organizations. There's tremendous value for Canadians.

Mr. Richard Cannings: Okay, thank you.

How much time do I have, Chair?

The Chair: You have about two and a half minutes.

Mr. Richard Cannings: Okay. I'll turn to Mr. Francq and the Conference Board of Canada.

You obviously do a lot of measuring. You come up with report cards that deal with the performance of Canada and businesses and individuals in a lot of different categories.

We hear a lot about data in this committee. It sounds like you're going to expand your studies and your report cards quite dramatically. I'm just wondering where you're seeing a lack of data. Where is data hard to come by?

In my previous life, I often was trying to get data from different provinces as well as from Canada and the United States. It was difficult to find data sources that were usable, because they measured in different ways.

I'm just wondering if you have any thoughts on where the federal government could step in and perhaps help organizations such as yours to get good data that we can base good decisions on.

Mr. Alain Francq: Thanks you very much.

That is indeed the question, especially for researchers, whether they be at the Conference Board or anywhere.

The short answer is.... For example, on our innovation report card, we do use secondary data. It's all the data that you mentioned. Some is from WIPO, from OECD, from the World Bank and from the IMF. We are collecting this data and we're using essentially proprietary models to cut, slice and dice it to try to get insights specifically for Canada. Then we do mixed methods, of course.

The reality is that we need co-operation as part of this. For example, the entire expert panel report that created IPON was a survey. It surveyed probably 50 organizations right across the entire innovation spectrum. We need engagement in that area.

Let me say this. Here's the answer. The government has an incredible wealth of data, and it is necessarily very confidential. For example, let's take SR and ED. You have an example of every single R and D project that has been approved in Canada. If you anonymize that completely and disaggregate it, you can provide insights in confidence to researchers to understand aggregately what's happening. That's one good example.

Another one, when we look—

The Chair: I think we only have time for the one, but thank you. That was an excellent example.

We're going to move on to the second round.

I see Mr. Greer's hand up, but if you have any other comments, please submit them in writing. The members will direct the questions as they wish.

Mr. Lobb, you have five minutes, please.

Mr. Ben Lobb: Thanks very much, Mr. Chair.

My first question is to Mr. Francq.

The question is—I think you have this in one of your reports—on the idea that we have a large number of positions that go unfilled in this country. They may not necessarily be the highest of high tech positions, in the sense that you're sitting behind a computer and coding day after day; maybe you're operating a transport truck, or maybe you're operating an excavator or a high hoe or whatever it might be. It requires a degree of technical understanding, but also technology.

In your report that you mentioned, it's really embracing the ability to use software and some sort of artificial intelligence, if you want to use that well-used word these days. It's helping those companies that will fill the jobs that we really need in this economy.

Can you talk about that a bit?

Mr. Alain Francq: I certainly can. Thank you for the opportunity.

I'll start off by saying that the Conference Board is a founder of the Future Skills Centre. That is an over \$200-million centre that's specifically looking at that problem.

Under this centre, we've conducted three research projects. What's nice about it is it's focusing on the clean economy, the blue oceans economy and the digital economy.

Even taking just blue oceans, for example, you're essentially looking at high-risk, low-mobility jobs. We call them HRLM. How do you move them into high-growth and high-demand jobs in, for example, cybersecurity and software?

You can't change a barista into a threat vulnerability assessment analyst, but there are pathways. You can look at the time, the cost and the different programs, including things like microcredentialing or certification in order to look at the skills gaps. When you look at skills gaps, they can be crossed with certain education and certain costs. When you look at where that is across the country, you can definitely see where the opportunities are across the clean and blue economies, and actually, last week, we released the digital economy occupational pathways.

That's one way to go about it.

• (1150)

Mr. Ben Lobb: The other question I wanted to ask you is... We've had a few guests....

Are you done with your thought?

Mr. Alain Francq: No, I couldn't hear you. Go ahead.

Mr. Ben Lobb: Okay.

You've finished your thought, though, for what you were talking about before.

Mr. Alain Francq: Thank you.

Mr. Ben Lobb: The next question I wanted to ask you was... We've had a few guests who have appeared and talked about not just the amount of investment in universities, which is important, but also on the return on that investment. It is a tremendous amount of money, and we're not always seeing the full return on that investment. What are your thoughts on that?

Mr. Alain Francq: Thank you.

As I mentioned, we did a research study for the Council of Ontario Universities, just in Ontario. It's actually quite substantial. We looked at the economic impact of universities on the regional economies. We looked at the activities and the human capital. In fact, we did direct, indirect and induced impacts.

I have a stat here from that report. The combined impact of university spending in Ontario is \$96.2 billion, which is about 11.7% of the provincial GDP. That was in 2018 to 2019.

I have a comment on human capital—

Mr. Ben Lobb: I'm sorry. I'm going to interrupt you for a second.

I'm talking about the return on the investment of the research, not the spinoffs of all the other jobs. I'm talking about the actual return on investment for the technology.

Mr. Alain Francq: I see what you're saying.

Certainly, we still have the innovation paradox in play here. It is a problem when we have great ideas and great output, but it is not translated into the economy. That translation, or return on investment, is low. It is an Achilles heel right now.

The Chair: Thank you.

It's over to Mr. Sousa for five minutes.

Mr. Charles Sousa (Mississauga—Lakeshore, Lib.): Thank you very much.

To both of you gentlemen, I've appreciated your presentations and your deliberations. As you can appreciate, this committee was formed precisely because of the gap we saw in support of the commercialization of IP.

You've both done a good job of recognizing some of the strengths in the system and some of the shortcomings and what's required. Both of you have reiterated that what gets measured gets done and reiterated the importance of ensuring that we have the proper data to formulate resolutions to some of those shortcomings.

Mr. Francq, I want to go to you first. The Conference Board of Canada has a lot of accomplished individuals and business leaders who are looking at some of these situations in terms of strengthening Canada's economic well-being. You've posed challenges by way of your five recommendations—providing greater incentives, supports for innovation by way of funding some of those issues, prioritizing some of our IP rights and of course sharing data and then measuring what we do.

My question is this. I think all of us agree that more needs to be done in terms of protecting our sovereignty as a nation with regard to our innovation and then the commercialization of this innovation. What is the private sector doing to facilitate it? I mean, from what you've highlighted, many of your recommendations we are already doing to an extent, but what more can we do to ensure that the private sector takes some of the risk or is prepared to assume more risk?

Mr. Alain Francq: That is an intractable problem. A report by the Centre for Productivity and Prosperity concluded that the problem is actually a lack of internal competition in the country. That is part of it. I don't want to be glib and say that part of it could be that we're a bit complacent and lack the ambition. The Rideau Hall culture of innovation index, which is really more on the soft side of it, used a mixed methods approach to ask Canadians to rank who's responsible for fostering innovation. You could rank your top three or so. Half the people said it's the federal government, 45% said the universities, 36% said individuals and then start-ups, and 27% said business, so there is a culture here. I'm not so sure if... It's a change management issue beyond a straight policy issue.

In summary, again, we have a lack of competition that is regulatory, and we do have a culture of innovation issue here as well.

• (1155)

Mr. Charles Sousa: Can you expand on that regulatory piece? What's the challenge?

Mr. Alain Francq: The short answer is that in examining why businesses are reluctant, they can't punch above their weight. They look at the space and perhaps even the freedom to operate. We recently did a study on independent towers for telecom, for example, choosing one area—to try to answer your question—and we found it was very difficult to compete on infrastructure-based competition. For example, when you go to Europe and other places where it's service-based, you can get much lower rates for service and of course 5G, which is the basis of the innovation economy. We can see regulatory barriers to innovation in the country.

Mr. Charles Sousa: Thank you.

Mr. Greer, in terms of the social impact, are social entrepreneurs facing the same kind of burden?

Mr. Andrew Greer: Yes. To your previous question, ISED did a study a few years ago and really pointed out the data that we all feel, that Canada is good at start-ups and bad at scale-ups. If we're going to expect businesses and SPOs to invest in intellectual property and commercialization, we need to get them past the start-up stage. We need to get them into profitability and focus on profitability, and not necessarily focus on intellectual property or investment. Get them to profitability.

Mr. Charles Sousa: If I may, whose responsibility is it for the profitability? I mean, you don't want government adjudicating on deals. You want to make certain there is a collaboration between all the sectors. How do we facilitate or encourage some of those incentives for those private investors to take it on? That's why we see so much of other jurisdictions around the world buying up our IP.

Mr. Andrew Greer: I have a couple of things on that. We've said several times in this conversation that we measure what matters. Are we measuring profitability? Generally speaking, I am seeing the government measure jobs, revenue and investment, but not profitability. That seems to be where the effort is placed. I think there's a bit of an oversight there.

The Chair: Thank you.

[*Translation*]

Mr. Blanchette-Joncas, you may go ahead for two and a half minutes.

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

Mr. Francq, a May 2022 Conference Board of Canada report showed that recent international trade agreements emphasize protecting trade secrets. Do current Canadian laws and regulations adequately protect trade secrets? If not, what improvements could be made?

[*English*]

Mr. Alain Francq: Again, I think we need structure. That is the recommendation you have heard all the way back to when Mr. Bailsillie and Mr. McLean were talking about being able to build the awareness and thus the protection, in answer to your question.

Programs that provide education right from the post-secondary level as they move into the economy through to IP intelligence and knowing where that IP is and where it can hit the marketplace and all the experts that we currently don't have access to—but we do—and enabling freedom of operation are things that the Innovation Asset Collective looks at. We need more of that in order to compete.

[*Translation*]

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

How do you think international trade agreements affect the commercialization of intellectual property in Canada?

[English]

Mr. Alain Francq: We do have international joint S and T—scientific and technical—co-operation agreements that are leveraged quite a bit. Those, by the way, are both academic and business agreements, usually, when you look at Global Affairs and how that's done. I think that is beyond Canada. I think we have the recommendations here for commercialization within Canada, but we need to leverage those joint S and T partnerships, because most of them are with innovative nations.

Essentially, the 2% or 3% of our highly qualified property is our ticket to the other 98%.

• (1200)

[Translation]

Mr. Maxime Blanchette-Joncas: Thank you.

What does the government need to prioritize to ensure more IP development, protect market share and support Canadian businesses?

[English]

Mr. Alain Francq: Nothing happens in a vacuum. We need to be able to have the development of an idea at one end of the innovation spectrum, move it through to the company level and then move it through, as Andrew just mentioned, measurement of the prosperity impact on the country. That is the continuum. We need systems across that entire continuum.

The Chair: Thank you for the concise answer.

Mr. Cannings, if you could bring us home, you have two and a half minutes, please.

Mr. Richard Cannings: Thank you.

I'll turn to Mr. Greer

I'll ask you to expand on the point you made that not all IP is patentable, that you have to protect some with contracts and licences. Could you give some specific examples of IP that would be best protected or only protected in this way? How would we do it now? How can we support businesses and organizations that want to do this?

Mr. Andrew Greer: Thank you for your question, Mr. Cannings.

In the case of business process innovation, there's a lot of it that doesn't deserve to be patentable. It's best protected through a contract or a licence. You can license the process to other organizations. This can happen from a non-profit or a for-profit.

If we speak specifically about the tech sector, where I have years of experience as well, for much of the code that goes into games, technologies and that sort of thing, if you release a patent, you have to release the code, and then it's significantly difficult to litigate to protect that and prove that someone is actually copying your code. It's a huge process.

A better strategy for many tech companies is to just protect it through trade secrets, which means licensing, contracts and that kind of thing. Putting it into a patent is a actually highly risky. I think there's a lot of discussion around the IP sphere to get more

patents, but there are a lot of companies that don't want to do that. We need to be focused on making sure that the rest of the protection is included in this strategy.

Mr. Richard Cannings: Thank you.

The Chair: Thank you. That was tremendous input.

Thank you to both witnesses. We had a great discussion this morning. I wish we could continue, but we are at time.

We'll suspend just for a minute while we get our next panel up.

• (1200)

(Pause)

• (1205)

The Chair: Welcome back to those who have been here for the first part, and welcome to our new witnesses.

I'd like to make a few comments for their benefit as we get started.

Wait until I recognize your name before speaking. For those participating by video conference, click on the microphone icon to activate your mike, and please mute yourself when you are not speaking.

For interpretation for those on Zoom, you have the choice at the bottom of the screen of floor, English or French. Those in the room can use the earpiece and select your desired channel.

All comments should be addressed through the chair.

Now I'd like to welcome our witnesses. To continue this discussion, we have Jarret Leaman, the chief strategy officer of the Centre for Indigenous Innovation and Technology, and Krista Jones, who is the chief delivery officer of the ventures and ecosystems group for MaRS Discovery District.

We'll be opening up with Mr. Leaman for five minutes, please.

Mr. Jarret Leaman (Founder and Chief Strategy Officer, Centre for Indigenous Innovation and Technology): [Witness spoke in Ojibwa and provided the following text:]

Boozhoo aanii, Jarret Leaman ndishnikaaz Magnetawan First Nation nidoonjibaa (Niizh manidoowag).

[English]

Hello, everyone. My name is Jarret Leaman, and I am a member of Magnetawan First Nation, located in southern Ontario, out in the Muskoka region.

I am a co-founder and volunteer for the Centre for Indigenous Innovation and Technology, or CIIT. We have been operating for about five years. Our goal is to increase indigenous representation in the technology and innovation spaces. We achieve that by undertaking programming such as on-the-job training, work placements and research.

Canada's major cities are often seen as major hubs of innovation, and indigenous people play a huge part in that in Canada in health, technology and many other spaces.

Historically, indigenous people have had little control over initiatives that are initiated by non-indigenous institutions to collect their data for research or for private businesses. Indigenous data sovereignty expresses the inherent right and jurisdiction of an indigenous nation to control the collection, ownership and application of their data.

The Government of Canada's dual commitment to reconciliation and open government presents an opportunity to support indigenous data sovereignty as a key foundation for developing local and regional data capacities, self-government and partnerships in the technology and innovation sectors, spurring valuable intellectual property and other assets.

Through CIIT, we have explored multiple visions held by indigenous people about the future and what it means for younger generations and nation building. Technology reconciliation and the opportunity for indigenous peoples to participate equally in the digital economy and its impact sectors are common priorities shared both by the urban and rural communities.

There have been lots of great examples of indigenous innovation over the last couple of years.

An example may be the Missanabie Cree First Nation emergency preparedness application that's being used to help evacuate indigenous communities in times of flood or emergencies.

Trent University, for example, offers a learning experience with a unique mix of indigenous knowledge and western teachings, learning from indigenous and non-indigenous faculty, elders, guest speakers and scholars from across all of North America to receive a Bachelor of Science in indigenous environmental studies and sciences.

We've also partnered and had an opportunity to work with CILAR, the Coalition of Innovation Leaders Against Racism, which provides new pathways and transformational opportunities for Canada's Black and indigenous peoples and people of colour. CILAR has helped us work with TD Bank on a research project.

One of the things we heard from indigenous communities in our engagement across the year was the idea or the understanding of self-determination and co-creation. We understand that the Constitution provides existing rights under section 35 of the Constitution Act of 1982. We also recognize that it's inherent that it may find expression in treaties and land claims agreements and in the context of the Crown's relationship with first nations, Métis and Inuit peoples.

The United Nations has recognized the need for alternative metrics and post-sustainable development goals, with some form of indigenous development factor. There is also recognition of the need for a much greater level of community involvement and partnership in the gathering of culturally relevant information and data.

Some broad areas of discussion included understanding the intricacies between collective and individual rights and their link to

wealth generation as well as a deeper understanding of indigenous self-determination and a co-creation process.

Neither governance arrangements nor social collectivities are static; they are dynamic entities that may be modified and reconfigured according to changing conditions and needs. Other areas of law that consider collective interest, such as labour relations, continue to understand the dynamic, changing conditions and needs of the social collective.

An example of co-creation took place in 2017, when the Ontario government developed the Indigenous Institutes Act. It was a great project and created a framework for ongoing collaboration between Ontario and indigenous institutes to support a strong and independent indigenous institutes sector, overseen by an indigenous-controlled and indigenous-governed council.

• (1210)

The City of Toronto also has done some innovative work in its approach with the development of the indigenous data governance, Métis and Inuit data research circle and the development of the city's indigenous data governance strategic framework.

The Chair: Thank you very much for all that.

Unfortunately, we're out of time. If you have more, you can work it into answers to questions.

Now I will ask Krista Jones to take the floor for five minutes, please.

Ms. Krista Jones (Chief Delivery Officer, Ventures and Ecosystems Group, MaRS Discovery District): Good afternoon. Thank you for having me today.

My name is Krista Jones, and I'm the chief delivery officer for MaRS Discovery District. MaRS is a large-scale commercialization engine that has supported 4,000 Canadian entrepreneurs and their deep IP-based SMEs over the last 20 years in key growth sectors.

We are focused on the critical underserved middle stage of the economic growth cycle, where the commercialization of IP and translational research grows into category-leading companies that increase productivity and boost GDP. I want to say a big thank you to all of you for supporting this work through the scale-up platform that's partially funded by FedDev Ontario.

A recent independent study of the economic impact from MaRS-supported SMEs showed that over the past 12 years, they contributed \$29.6 billion to GDP, with an annualized growth rate of 20.7%. This group is growing at more than 10 times the rate of Ontario's compound annual GDP growth. This growth rate is what will fuel Canada's future prosperity and our productivity and anchor Canadian leadership in critical advanced industries. It's what will enable Canada to build major knowledge-based economies around our existing strength in creating global-leading IP.

Nearly half of the world's largest corporations today are in the technology and health care sectors, and they are collectively worth over \$9.5 trillion. This is more than double that of their peers in the energy, materials and financial services sectors combined.

Many other speakers have highlighted that the business enterprise R and D expenditure is one of the leading indicators for economic growth and that Canada has lagged its international peers and the OECD average for the last 20 years, by 37.5% in 2021 alone. In Canada, our top R and D spenders represent 61% of total Canadian spend and are focused in the technology, health care and industrial advanced industries, but they are only 21% of our 100 largest companies, and none are in the top 250 global patent holders.

The pullback of the industrial sector's R and D in Canada has left only one Canadian company, BlackBerry, on the list of the top 250 patent holders globally, in the 117th position. To truly compete at the global level, we need more Canadian firms that are category leaders and can compete internationally, such as Shopify, Magna, Constellation Software and OpenText. We need to protect and nurture our intellectual property and talent in the same way we protect our lumber, precious minerals and oil and gas resources.

In April of 2021, MaRS wrote a white paper we called "Good, Better, Best", outlining the pathways to drive long-term economic sustainability for Canada. Unfortunately, Canada's choices have largely been in the "good" category. This is where we license our IP directly or where larger foreign-owned entities establish a Canadian-based R and D centre as a result of acquisition or via government stimulus. This is not in our "better" and "best" categories. The recent deal with Volkswagen to invest \$13 billion to be matched with a largely in-kind contribution of \$7 billion into a Canadian-based EV gigafactory is a case-in-point example of good outcomes.

Current market conditions are threatening to erase hard-won gains for this stage of growth in the last five to seven years, putting urgent pressure on Canada's ability to build our own knowledge-based economies that allow us to build and to add persistent value in the global value chain to create new industries.

Domestic SMEs have to compete with foreign multinationals with much deeper pools of capital for talent and market share. The sheer volume of Canadian R and D talent working for multinationals, both in and out of the country, plays a role in driving economic performance outside of Canada, allowing other major economies to outperform on the global stage.

The World Intellectual Property Organization's global innovation index ranking shows Canada progressing slowly year over year based on the strength of our innovation inputs, but our lack of

mestic commercial outputs in key advanced industries is keeping us from regaining top-10 global status and increasing our productivity and GDP numbers.

It's for all of these reasons that MaRS remains laser-focused on the critical underserved middle stage of the economic growth cycle. This is the key to convert IP and translational research into high-growth, category-leading companies that are domestically headquartered global firms. As the global value chain increasingly shifts from the tangible to intangible-based economies, the long-term risks to Canada of not fostering and growing category-leading, Canadian-headquartered advanced industry firms are severe.

• (1215)

We need a critical mass of start-ups in our ecosystem that are able to scale into companies that anchor intellectual property-focused industries in Canada and solve for major impacts on the world.

This is why we need at least—

The Chair: Thank you very much.

We're very tight on time, so I will keep things rolling. We'll go over to Mr. Tochor, please.

Mr. Corey Tochor (Saskatoon—University, CPC): Thank you very much for that.

Krista, you talked about foreign internationals. Would Volkswagen be a foreign national company?

Ms. Krista Jones: Is it a foreign multinational? Yes.

Mr. Corey Tochor: On the announcement of \$13 billion-plus that is going to be shovelled out to them, how much IP that's created and how much research and development would stay with a Canadian company? Would that be all shipped back to Germany?

Ms. Krista Jones: I want to be clear: This is a good outcome for Canada. The Volkswagen investment is a good outcome. It will produce economic return for the country.

Mr. Corey Tochor: We agree that economic activity is good in Canada, but just on the IP, please, under the agreements that you know, is the IP going to stay in Canada or get shipped back to Germany?

Ms. Krista Jones: I'm not aware of the details of the deal, so I'm not sure what the IP provisions are.

Mr. Corey Tochor: If you were advising the Government of Canada, would you require in the agreement that some of that IP stay in a subsidiary or a branch of Volkswagen? How would you structure the deal better? Your words were "good, better, best". If this is the lowest of the three, how do we get it better?

Ms. Krista Jones: Getting it better would be to create it such that you do keep the IP in Canada, but more importantly, that you keep the commercial activity here. If you look at the economic outputs, it's not just about where the IP is owned; it's about where you drive the sales from, where the taxes go and how many jobs you create around it.

That's why, when we look at the good outcomes, we want to see that commercialization piece of it, so that we're getting the benefit of the full value of the IP and not just the ownership of it.

• (1220)

Mr. Corey Tochor: In that example, we're paying seemingly every salary in that plant for the next 10 years. In 10 years' time, if the technology is still valid or the plant's still valid, there might be a net benefit afterwards.

Is that your understanding of how the agreement breaks down, if it's a 10-year deal?

Ms. Krista Jones: As I said, I have not actually seen the agreement, other than just to look at the coverage that's occurred. That's my understanding as to how it is, which is that we will generate good-paying jobs as a result of that deal. If we could put similar investments into companies such that they put the sales divisions into Canada and Canada gets the taxes from the revenues, that would be the better and the best type of outcomes that we're looking for.

Mr. Corey Tochor: In an alternate universe, if the government decided to give your organization the \$13 billion, what kinds of things would you have potentially done with that large amount of money?

Ms. Krista Jones: It's a great question. That's a lot of money, to be clear.

We would spend a large portion of that investing directly in the companies that we are supporting. A big portion of that would go into trying to generate procurement, both domestically and internationally, for the companies we support, because what we really need to see happen is more procurement and more revenue.

Earlier, somebody was talking about profitability. We need to make sure that we're able to scale our companies. Scaling the companies is not about developing more patents; it's about generating commercial agreements and sales capability in the organizations.

That's how we would start to split up that money.

Mr. Corey Tochor: Do you have any examples of companies that you worked for or worked with that ultimately ended up getting foreign government funding in the way that Canadian Volkswagen went to Germany to get billions of dollars from their government?

Ms. Krista Jones: I'm sorry. I didn't understand the first part.

Mr. Corey Tochor: Of the clients that you have worked with, how many have potentially opened up operations in R and D or other production in other countries? I guess that would be my question.

Ms. Krista Jones: I don't have a percentage at the tip of my fingers, but I would say a significant portion of them have. These companies are independent businesses that are making the best decision with all of the options in front of them today.

In my experience in working with the entrepreneurs in Canada over the last 15 years, people have every intention of remaining headquartered in Canada, and they want to do business from here. What happens is that the reality of financing, funding and business opportunities forces them to make decisions that sometimes end up out of Canadian control.

Mr. Corey Tochor: Krista, I have one last question before I move over to our other witness. Could you provide in writing the top five paid positions in your organizations? I understand it's a non-profit, so I'm assuming that this information needs to be able to be disclosed.

Now I'll move over to Mr. Leaman.

Thank you for your testimony today.

You mentioned open government. What is open government, in your eyes? How would you describe it?

The Chair: You have 30 seconds.

Mr. Jarret Leaman: Thank you for the question.

Open government, in this context, is looking at having transparency available to work with first nation governments, for example, and being transparent and open around what the goals are. For example, there were open data initiatives that the government had put out that sometimes conflicted with indigenous sovereignty. Overall, that was my understanding.

Mr. Corey Tochor: Thank you so much to both witnesses today.

The Chair: Thank you.

[*Translation*]

Go ahead, Mr. Lauzon. You have six minutes.

Mr. Stéphane Lauzon: Thank you, Mr. Chair.

First and foremost, I'd like to thank the witnesses for their opening remarks.

Mr. Leaman, you really piqued my curiosity when you suggested the possible use of technological reconciliation as a way to achieve progress. I'd like to hear more about your ecosystem and the next generation when it comes to creating intellectual property, before it's commercialized.

What tangible actions can the federal government take to help you? Can you tell us more about the ways in which we could support what you're doing?

• (1225)

[English]

Mr. Jarret Leaman: Thank you for that question.

I think more investment is needed in the indigenous innovation space. A lot of this work that we've been undertaking at the Centre for Indigenous Innovation and Technology has been undertaken with the private sector. A lot of the work has been done through volunteers like myself.

We could look at models like Ontario, for example, and invest in indigenous learning institutions to help with research. It would help grow our staffing and our people and it would contribute to the digital economy and to the creation of valuable IP. It could not only help our communities but also help others around the world.

[Translation]

Mr. Stéphane Lauzon: Thank you.

You said that your centre was young, barely five years old. You talked about the main challenges you face as a young organization. It's always toughest in the early years to find your footing. Talk about IP commercialization, if you wouldn't mind. How can the government help a young organization like yours get over the hurdles?

[English]

Mr. Jarret Leaman: We were able to do a panel with youth and young professionals. One of the things we talked about and focused on was gaming and entertainment in digital media and how an indigenous community would be represented in those media. That's an example that was brought up in the discussion. We could further those conversations and listen to the young innovators.

There was a panel of four or five, and we had representation from all regions of Canada. One of the things brought up that was important was supporting ethical and moral perspectives, such as the Exchange for Local Observation and Knowledge in the Arctic.

We could also ensure that there is a collective approach to the wealth model of the generation of IP. The Heiltsuk nation, for example, talked for years about being there during the Ice Age. They just found evidence recently about how that was true. How is that date acknowledged? It is through art.

Another thing that we heard, particularly from the youth, was around art and culture in IP. It was about the future of collaborative research and related or impacted sectors and about plans to support the exploration of the creative possibilities of art, science, and local and indigenous knowledge for understanding, interpreting and presenting interdependencies and interrelations within social, ecological and technological systems.

[Translation]

Mr. Stéphane Lauzon: Thank you.

You also piqued my curiosity when you talked about traditions. How can traditional indigenous knowledge and nature-based approaches be leveraged to develop and commercialize sustainable technological innovations in Canada?

[English]

Mr. Jarret Leaman: Thank you.

To answer that question, I think we need to look at a process around co-creation and collective ownership in IP.

For example, if an indigenous person's company is creating a product that has an indigenous knowledge base in it, who owns that portion of knowledge and how is the commercialization of that knowledge giving back to the indigenous community that has the collective ownership?

[Translation]

Mr. Stéphane Lauzon: Thank you, Mr. Leaman.

Ms. Jones, thank you for your opening statement. I'd like to circle back to Volkswagen.

I think the investment Ontario made in IP is a good investment for all of Canada. For everyone's benefit, I would just point out that the plant is being built and run entirely by Volkswagen. The federal government isn't investing a single cent; all it's providing are production subsidies. Do you think that's a good model for other investments in Canada?

• (1230)

[English]

The Chair: You have 30 seconds.

Ms. Krista Jones: As I said—

[Translation]

Mr. Stéphane Lauzon: I would add that Quebec's government and premier support the investment in Ontario.

[English]

The Chair: Go ahead, Ms. Jones.

Ms. Krista Jones: As I said at the beginning, I believe that the investment by Volkswagen and in Volkswagen is a good investment for Canada to make.

That was not the point of my example. The point of my example was to point out that while we make investments like that—and you could look at other ones recently—we need to make equal investment in the part of the ecosystem that is growing or scaling companies to get better and best outcomes. That is where you have the full Canadian-headquartered, Canadian-owned environment in place. It is not an either-or.

[Translation]

Mr. Stéphane Lauzon: Thank you very much.

The Chair: Over to you, Mr. Blanchette-Joncas.

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

I'm going to take some of my precious time to propose a motion, which I would like to preface with some remarks.

A few months ago, I put forward a motion to have the committee study research and scientific publication in French. The committee did some work on the study, and I put forward a new motion to invite the Minister of Innovation, Science and Industry to appear.

When he was here on February 2, I submitted an explicit request in writing to obtain information from the industry department. Specifically, I was looking for detailed data on the funding given to universities by the granting councils.

We gave the department time to gather the information. We waited, and the committee received the initial reply on March 21. It was clear that, after a month-and-a-half-long wait, the information provided in response to my question was incomplete. The committee, acting in good faith—myself included—reached out to the department again to request the missing information.

Again we waited—this time until March 30. Then the committee made a decision, based on a strong consensus, to once again invite the minister to talk about the funding and the underinvestment in research, and to ask him to provide the committee with all the information I had originally requested on February 2.

As a fair-minded person, I wrote to the minister, myself, on April 17 to tell him that the information we had requested on February 2 was important and that the committee needed the information to draft its report on research and scientific publication in French. I made it clear that the committee needed all the information it had asked for in order to gain a full understanding of the situation.

Yesterday, April 24, the committee received more information, but unfortunately, it was only a partial response, yet again.

This is how fair-minded I am. When I personally handed the letter to the minister, I also sent it to him by email, and I even reached out to the heads of the three granting councils. That means everyone was aware of the request, even the minister's chief of staff. I identified the three main categories where the information was missing, so I think the request was pretty clear.

I am forced to repeat myself again, today. We have waited, not one, not two, but three months for answers. Still, here I am, having to follow up on my initial request for the third time. I'm having to use my allotted committee time, which—I repeat—is precious given that I have less of it because of my party's status.

I am nevertheless happy to read your my motion. I think that's what you'd like me to do, Mr. Chair.

• (1235)

[English]

The Chair: Actually, I think we can get to the motion, but I know that the minister is working on this. It's 20 years of information. He has some partial reports and he's trying to get more information to us.

Later on in the meeting, I was going to suggest that we have a subcommittee meeting during the first hour on Tuesday so that we can look at the studies coming forward, including this study, and get that scheduled into our meeting so that we know that we'll have the answers you're looking for.

At this point, we know that your request is active and we're trying to get responses. That's from what I understand. I am new in this chair, but I have been reading all of your requests from previous meetings and I know that it's an active request.

[Translation]

Mr. Maxime Blanchette-Joncas: Thank you, Mr. Chair. Obviously, I don't doubt your good faith, but I'm having to follow up on this again.

I listed all the dates and the whole sequence of events, and I have to tell you, I don't think the government is taking this seriously. It should be transparent and provide the response to a legitimate request, which—I repeat—had the support of the committee members. The fact that the department, meaning the government, isn't providing a response is perplexing. Why is the government doing this? Does it respect the committee or see it as important?

Last week, the committee even had to delay giving the analysts drafting instructions for the report because it was missing information. Therein lies the rub. This is a very serious matter, and I feel it is my duty to bring it up again today. I'm going to read my motion, and I hope it will be adopted unanimously, so we can once again ask the department to send us all the information we asked for.

My motion reads as follows:

That the committee ask the Department of Industry to provide the missing information relative to the question asked by Maxime Blanchette-Joncas to the Minister of Innovation, Science and Industry during the meeting of February 2, 2023, that it do so before Thursday, May 4, 2023, at 11:00 a.m., and that the missing information provided be as follows: i) the number of scholarships granted in English...

[English]

The Chair: If I can just interrupt—

[Translation]

Mr. Maxime Blanchette-Joncas: I'm in the middle of reading my motion, Mr. Chair.

[English]

The Chair: We're not in committee business. My suggestion is that we move this to the subcommittee discussion on Tuesday so that we can get it scheduled in.

We are over time for your intervention this morning. I'd like to get to the schedule. It is a serious request and we know it's serious, but I think we need to have that discussion with more time than we have right now.

I'll move on to Mr. Cannings for six minutes.

[Translation]

Mr. Maxime Blanchette-Joncas: I was very clear in my request, Mr. Chair. I said that I was going to seek unanimous support for the motion.

[English]

The Chair: I was looking around the room and I could see that there wasn't unanimous consent.

We'll go to Mr. Cannings for six minutes, please.

[*Translation*]

Mr. Maxime Blanchette-Joncas: I have a question, Mr. Chair.

[*English*]

The Chair: Okay, go ahead.

[*Translation*]

Mr. Maxime Blanchette-Joncas: May I request a vote to seek unanimous consent?

[*English*]

The Chair: No. You can if you're going to challenge the chair, but I've said this isn't committee business. This doesn't relate to the report that we're doing right now, so we would need to have notice on it.

Mr. Cannings, go ahead—

Mr. Blanchette-Joncas.

[*Translation*]

Mr. Maxime Blanchette-Joncas: Mr. Chair, I take it that you disagree with holding a vote.

[*English*]

Mr. Stéphane Lauzon: I have a point of order.

The Chair: Go ahead, Mr. Lauzon.

[*Translation*]

Mr. Stéphane Lauzon: I'd like to check something. For a motion that's already been adopted, is it possible to vote on it again if it hasn't been amended?

[*English*]

The Chair: Thank you, Mr. Lauzon.

Go ahead, Mr. Lobb.

Mr. Ben Lobb: Thank you.

As the chair would well know, and Mr. Blanchette-Joncas would know as well, you're welcome to read your motion at any time you want, but it's out of order.

To be honest, it's out of order for this meeting, so let's just discuss it on Tuesday, if that's what we're going to do and if that's okay, with no disrespect.

• (1240)

The Chair: Thank you.

We have some good witnesses here and we're having a good discussion. We will have that discussion on Tuesday when we get into subcommittee. Thank you for bringing it forward, and thank you, Mr. Lobb and Mr. Lauzon.

We go over to you, Mr. Cannings, please.

Mr. Richard Cannings: Thank you.

I'd like to direct my first questions to Mr. Leaman.

You mentioned the issue of indigenous knowledge and western teachings. It's an issue that I've dealt with in my previous life as a biologist in large-scale ecosystem planning and national efforts.

One thing that I took from those experiences was the proprietary nature of indigenous knowledge. In many cases, it's proprietary not just to a nation but to a family within that nation.

I'm just wondering if you could expand on it, as I'm very interested to hear your thoughts on this issue. You've mentioned this, but it's a big subject. You talked about data frameworks and open data. Perhaps you could spend some time telling us how this fits in with our normal view on IP and innovation.

Mr. Jarret Leaman: Thank you for that question.

We are looking at IP, and I was talking about the Indigenous Institutes sector. We heard earlier in the meeting about universities and colleges, and those would be an indigenous representation of that, which we currently have. We have nine of them in Ontario. How do we encourage research to happen at those indigenous institutions that are based on reserve or within a community?

We understand from the government reports that there's no universally accepted definition of "indigenous knowledge and cultural expression", which presents both an opportunity and a challenge, but generally we know that the terms refer to traditional knowledge and ways of being.

From the youth we engaged with and from the young professionals we talked to, we heard a strong desire to further understand the intersectionalities between the knowledge and the indigenous data sovereignty principles and data management and classification, particularly in the video and digital media. What that means is this: How are the frameworks that we currently have set up going to support, for example, the collective interests of an IP of a sovereign nation that operates within the jurisdiction of Canada? How does that go out to the world while respecting the UN's position and our commitment on indigenous data sovereignty? I think there's a lot more study needed.

It's complex and it's not going to be the same everywhere, because different nations have different approaches, but what we do know is that collection of data and turning it into IP, or using it, is a very sensitive subject and topic for our community.

As somebody who has a grandparent who went to residential schools, I know that is why we're so careful about our data and about how our knowledge is being used. I think we have to think of a process or a co-creation process through the community in order to understand the value of this topic and how it can really help the indigenous community prosper economically.

We have lots of great indigenous innovators, and they're contributing a lot today. Let's bring them forward.

Mr. Richard Cannings: Again, my questions are usually around this, just so I can understand better.

Do you have any specific examples of indigenous innovators who've gone down that path, specifically dealing with indigenous knowledge, and who've come to a conclusion or come to a place where everyone is comfortable? What lessons might that have for us?

Mr. Jarret Leaman: I can think of an example from the technology perspective in regard to representation of indigenous culture and expressions in video games. How is the money from that game made off that cultural expression, and where does the wealth model go from that knowledge that's used? That may be an example of an indigenous game designer who's going forward to include those aspects of knowledge in their game that they then share with the world. I don't know if the frameworks are set up in the country in order to really look at a collective interest and knowledge of ownership of TK or TCEs—traditional knowledge and traditional cultural expressions.

• (1245)

Mr. Richard Cannings: Okay. Thanks.

How much time do I have, Mr. Chair?

The Chair: You have about a minute and 10 seconds.

Mr. Richard Cannings: Okay.

I will turn to Ms. Jones.

You mentioned procurement as an important component of government support. I'm just wondering, again, if you have examples there. It seems that procurement is so important, not just to provide funding during that difficult period for innovative companies but also for them to show to other clients that “At least my own government believes in us” and that kind of thing. If you have any further examples of that, they could be instructive to us.

Ms. Krista Jones: Thank you.

When we look at procurement, we see it's deep and specific and that there are different procurement needs, depending on the different sectors of the advanced industry you're looking at.

We can look at some of the examples. I'm going to talk a little bit about some of the work we're doing on clean tech. We're trying to create procurement marketplaces for large governments like the federal government, as well as for small municipalities. This enables us to help those companies help the government agencies figure out how to qualify and protect their RFP process to enable them to procure properly and give the start-up companies a chance in that environment. Those are some of the examples when we look at government procurement.

The Chair: Thank you very much.

Now we have Mr. Soroka for five minutes, please.

Mr. Gerald Soroka (Yellowhead, CPC): Thank you, Mr. Chair.

Thank you to the witnesses for coming today.

I'll start off with you, Ms. Jones.

There have been several articles written lately about how this Liberal government's approach to innovation or IT has been mediocre at best. In what ways do you think we can improve upon that from a government perspective?

Ms. Krista Jones: I think improving the overall policy is a big question. What I'd rather do is comment on a couple of really specific suggestions that we think could help add to what is already under way.

One of them is that right now we really need to look at the risk capital that's available in the ecosystem to grow deep IP-based companies. It's that lack of availability of risk capital that sometimes causes the IP to end up in foreign hands. That's one of the areas.

Another area is looking at the commercialization talent that is required. This is beyond the engineers and the developers that we're looking at. One thing about our ecosystem that I think holds back the growth of these sectors is the lack of executives who live in Canada who actually have experience in some of these advanced industries and in growing companies to \$100 million, \$500 million or \$1 billion in revenue. Some work and some focus are needed on the executive level and on the mid-management level and above, the commercialization talent. I think there is a big gap in the innovation spectrum in how we are actually able to provide that support.

One of the last ones is on some of the regulatory processes and environments that exist to help our companies and some of the rules that help our companies to be able to compete globally. Even at the health side, it's about being able to have a regulatory environment that is sought after globally, like the FDA is, such that when companies are approved here, they can be viewed as approved globally.

Mr. Gerald Soroka: When it comes to these companies such as Volkswagen investing billions of dollars, do you think that besides jobs, we should be looking at some kind of an agreement, whether it's licensing contracts or even being a partner in the patents, so that we get a percentage of this back to sort of reclaim the money that's been invested? Is that appropriate or not?

Ms. Krista Jones: Is it appropriate? That's a tough question for somebody with my vantage point to answer.

What is appropriate, I think, is that we incentivize. There are various means of providing that incentive so that for people who invest in Canada, ourselves as well as foreign companies, there is an incentive to actually buy Canadian and help these companies that are growing.

For me, if what you're talking about with regard to types of work is about some way to ensure that the investments come in and enable the incentive for Canadian-owned IT to remain here, then I would say, yes, it's appropriate.

• (1250)

Mr. Gerald Soroka: That's exactly what I was getting at. When you're investing up to potentially \$14 billion in one company, it's one thing to talk about creating jobs, but you also want that sustainability. If all you're going to get out of it is jobs, well, you almost could pay the money for each individual for the rest of their life and save money in the end. It shouldn't just be about job creation. I think there has to be that retention of knowledge as well as the financial gain from this, through either licensing contracts or patents, and being a partner in that as well.

Ms. Krista Jones: I think multiple complex environments end up in the value chain around this entity. I think it is about making sure that we understand the full ecosystem of the innovations that are occurring.

Yes, I think there is the need for us to look after the homegrown IP that surrounds an entity like an EV plant that Volkswagen is putting in Canada.

Mr. Gerald Soroka: Thank you for that.

Mr. Leaman, you talked about how we're trying to make sure that we do reconciliation through IP. I think you gave a few examples. Do you think the government is giving you enough funding, or is there more that they could be doing? What various efforts would make it better for your organization?

The Chair: Please give a very short answer.

Mr. Jarret Leaman: Additional funding would be welcome. We have, as an organization, received funding to help us support youth summer learners, and that is it from the federal government. The rest has been done through the private sector and volunteers. Additional work is needed. Coordination around the topic of commercializing and making money off traditional knowledge is something that I think needs to be supported, and I believe that it is under way.

The Chair: Thank you.

Mr. Gerald Soroka: If there's any more information you'd like to supply, please write in.

The Chair: Yes, please write in if you have more information or details.

We will now move to Valerie Bradford. You have five minutes, please.

Ms. Valerie Bradford (Kitchener South—Hespeler, Lib.): Thank you so much, Mr. Chair.

Welcome to our committee and to our chair, and welcome to our witnesses. It's so nice to have you with us today.

Ms. Jones, in my previous role as an economic development officer for the City of Kitchener, I had the opportunity to visit the MaRS District many years ago now, and I was very impressed by all the work that was going on there. I'm sure it's even more impressive today.

I was interested in your opening remarks. There are a lot of incubators that focus on start-ups, so I was interested to know that you're focusing a lot on scale-ups, which of course we refer to as the valley of death. We're really good at start-ups, as previous witnesses have said, but it kind of all falls apart during the scale-up phase, which produces its own unique challenges.

I was wondering if you could speak to the new ElevateIP program that the federal government has announced. How will that will help in this space, and what is your experience with that so far?

Ms. Krista Jones: Regarding the experience to date with the ElevateIP, since it hasn't been rolled out, we can't comment as to how it's going to work in practice. We're working closely with the recipients of the grant to make sure that we have the pathways to get their great work, as well as the work of the other IP-based organizations

that have been funded, into the hands of the entrepreneurs who need them.

There's a great incentive for our companies to continue to fund the development of their IP as they grow. In the work that MaRS does, the work we're doing now, we do support companies from zero. They have to be in market, but we support them from pre-revenue all the way up to the \$100-million mark. The reason we've chosen to work on that pipeline of activity is that this is where we think we get the broadest chance of success of their remaining headquartered in Canada and growing.

What we hope to be able to achieve with programs like ElevateIP is that the companies that are scaling and growing will be able to continue to develop the IP inside. In the programs that we provide, we focus heavily on what we call commercialization, which is when we help them with sales and with pricing. We have a very extensive program of M and A on the reverse side—mergers and acquisitions—teaching our companies how to become acquirers of IP as opposed to selling their IP. We do that type of work, which kind of we call the “dirty scaling”. It's the commercialization activity that is needed in our companies.

• (1255)

Ms. Valerie Bradford: Thank you for that.

What is the role of venture capital in this? Does MaRS play a role in helping to access that? I know that Communitech in our area of Waterloo does play a role in that. I wondered what your feeling is on this and what MaRS' role in that is as well.

Ms. Krista Jones: Venture capital is an essential part of this ecosystem. I heard comments earlier about private industry and what role private players have. We don't exist without venture capital, and we know that in our high-growth industries, close to 70% of the capital that gets invested in our companies comes from foreign sources.

Our companies need capital to grow, and if you look at what's happening right now, you see that we tend to invest in more capital-efficient areas. We do well in SAS—statistical analysis software—and in software-type companies. Our deep IP—industrial IP, medical devices and drug development—is the area where we don't have access to as much venture capital as we need.

The role that MaRS plays is we're the convener. We run syndicates, we try to bring them in and we try to do the introductions. We also have a capital arm that is third party from the charity in terms of the work that we try to do. We try to provide that convening capability to match people up with the funding that they need so that they can compete on the global scale, because the market for our customers, the start-ups and scale-ups that we support, is global. They need to have equal footing in the global market in how they're funded and how they have the risk capital to grow.

Ms. Valerie Bradford: It would seem to me that if we want to keep these companies in Canada—which we clearly do, because we spend a lot of money growing and nurturing them—the role of Canadian venture capital would be pivotal. It stands to reason that if they get U.S. capital, they might, and they do, flee down to the U.S.

What are your thoughts on how we can encourage more Canadian venture capital to take the risk—they're generally risk-averse—and take a bet on scaling up these companies?

The Chair: Give a very short answer, please.

Ms. Krista Jones: The key to all of this is people. You need people who have done it before in the industries that we're looking to support.

Ms. Valerie Bradford: Okay. Well, that was short.

Thank you.

The Chair: Thank you.

[*Translation*]

Go ahead, Mr. Blanchette-Joncas. You have two minutes.

Mr. Maxime Blanchette-Joncas: Thank you, Mr. Chair. I'll make it quick, since I don't get a lot of time.

Ms. Jones, you have an impressive track record and a lot of experience. At the committee's last meeting, Mr. Hinton told us something quite telling: only 7% of IP generated under the Pan-Canadian Artificial Intelligence Strategy is actually owned by Canadians. That's hardly anything. I'd like to hear your thoughts on how we can better protect and grow our IP.

[*English*]

Ms. Krista Jones: Thank you very much for that question.

The majority of global patents are held in the large global multinationals or in the advanced industries. What we don't have in Canada is global foreign multinationals in advanced industries that are headquartered here. For us to actually increase our percentage ownership in global IP, we need to grow big companies. We need to grow big domestic companies and turn them into acquirers of IP and the destination for where they need to go.

That goes to the whole thesis and premise of why MaRS exists: It's to be able to help our companies get to that scale and to that capability in terms of what we're looking at.

[*Translation*]

Mr. Maxime Blanchette-Joncas: That's great, Ms. Jones. Thank you very much.

You mentioned the importance of companies being headquartered here, in Canada, when it comes to acquiring and keeping IP. Are there other things we should do? How do our policies compare with those of other countries? Do other jurisdictions have policies, programs or initiatives that help to secure business IP?

• (1300)

[*English*]

Ms. Krista Jones: I think we actually have a lot of proposals on the table around what to do to protect our IP. I don't think I have

anything new to add to a lot of the testimony that has already occurred in this committee.

The Chair: Great. Thank you.

Mr. Cannings, can you bring us home, please? You have two and a half minutes.

Mr. Richard Cannings: Thank you.

I'll give Mr. Leaman another opportunity to expand on this issue of indigenous knowledge.

I know that you said it was a difficult and complex issue, but you implied that work was being done on some of these questions. You were rushed at the end of your last answer. What are the important questions that still need to be answered? What progress is being made?

Mr. Jarret Leaman: Thank you for the question.

I think some of the progress that's being made and that we've seen is particularly in regard to using data and turning it into IP for tech, for example. Local indigenous governments and regional institutions like the Assembly of First Nations, Chiefs of Ontario and the First Nations Information Governance Centre have really come together and put forward a lot of policies, principles and practices around indigenous data and how that is collected and used. The next piece is on how it's sold.

I think working with those and understanding the integration of UNDRIP and its principles will also help indigenous people share their traditional knowledge and work, with patents potentially, with other parts of indigenous communities around the world. For example, I was able to participate in a trade mission with New Zealand and Australia with the Government of Canada. We were able to do a lot of work on data sovereignty and IP with our indigenous partners and colleagues through that mission.

Encouraging more participation in those international conversations is important, because indigenous people do make up a large portion of the land base in the world. We do have a lot of commonwealth partners that are working on this as well.

Mr. Richard Cannings: Quickly, then, are there any stories from New Zealand, Australia and other parts of the world that bear on this and that we could learn from?

Mr. Jarret Leaman: Yes. I think what they've done is just like our first nation governance information centre that we have. It created an outline and a framework around how the ownership, possession and control of indigenous knowledge and indigenous data are used.

There are different approaches in different parts of the world. For example, in Australia, they just passed, I believe it was called... They did an indigenous IP initiative. I'm sorry that I don't have it right now, but I will submit it in a brief.

There are examples of international work that's being done. I also have been able to participate in working with an organization largely in copyright and in publishing, and there is work being done from a Canadian company that's leading indigenous innovation in regard to publishing on the world stage as well.

The Chair: Thank you very much. That was a great use of time, everybody.

These were tremendous conversations that we've had this morning. It was hard for me not to jump in as a co-founder of Innovation Guelph. I spent 28 years in the machine automation space, where we did a lot of work on IP, but you guys were fantastic in your questions and your answers.

Thank you to the witnesses for the preparation and for the submissions that you'll give us in writing for anything that we didn't quite have enough time to cover.

Our next meeting is scheduled for Thursday, April 27. There will be a notice of motion coming out. I understand the clerk has a full list of witnesses for us for that meeting already.

As I mentioned, next Tuesday I'd like to have a subcommittee meeting for the first hour so that I can get up to speed with the vice-chairs and see where we're heading as a committee and get some consensus around that. We've had some discussion today. We don't want to take committee time on that, so Mr. Blanchette-Joncas, thank you for taking just some committee time, but that's not fair to you.

In the second hour, we'll look at the draft report for the international moon launch that has been discussed.

Now I'm looking for agreement to adjourn our meeting.

• (1305)

[*Translation*]

Some hon. members: Agreed.

The Chair: Thank you.

The meeting is adjourned.

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