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• (1105)
[English]

The Vice-Chair (Mr. Corey Tochor (Saskatoon—University, CPC)): I call this meeting to order.

Welcome to meeting number 36 of the House of Commons Standing Committee on Science and Research.

Today's meeting is taking place in a hybrid format pursuant to the House order of June 23, 2022. Members are attending in person in the room, and remotely, using the Zoom application.

We are continuing our study on the support for the commercialization of intellectual property.

I'd like to make a few comments for the benefit of witnesses and members. Regarding interpretation for Zoom, you have the choice at the bottom of your screen. You can either choose French, English, or the floor. I remind you that all comments should be addressed through the chair. In accordance with our routine motion, I am informing the committee that all witnesses have completed their required connection tests in advance of the meeting.

I'd like to now welcome our two witnesses for the first panel. One will be online, and the other in person. They will have five minute for opening statements. It will be followed by some rounds of questioning.

We're going to start online with Mr. Schwanen. Please do your best to keep within five minutes. I will try to get your attention once we get to the conclusion of your remarks to hopefully speed it up.

The floor is yours, for five minutes.

Mr. Daniel Schwanen (Vice-President, Research, C.D. Howe Institute): Thank you, Chair.

I'm Daniel Schwanen. I'm the vice-president of research at the C.D. Howe Institute. I thank you for the invitation to appear before this committee.

Commercialization can be seen as the point where innovative ideas come to fruition to create or sustain economic activity and jobs. In that sense, commercialization certainly builds on prior research and innovation, but it's the part where research and innovation visibly benefit Canadians more broadly.

Research and innovation are very important foundations to the success of commercialization, but they are not the only ingredient. Successful commercialization requires capital, access to markets, and a strategy to manage and protect intellectual property. As you

have no doubt heard, Canada has made progress on all of these scores.

Successful commercialization also requires management skills, design and marketing skills, branding acumen, a strategic vision for growth and knowledge about opportunities and the competition. It requires that the people who possess these skills and capabilities want to use them from a Canadian base. We also need a system that rewards commercialization.

[Translation]

Canada is in fact a net exporter of ideas. We have a significant surplus in our balance of payments for research and development. Consider the many multinational companies that hire Canadians to do research here in Canada that is then used to create new or improved products for those companies. In other words, these are exports of ideas that create jobs in Canada, most of which are well paid, but which help build intellectual property held elsewhere.

[English]

Canada is, in contrast, well known as a net payer for the services of intellectual property that such research or other creative or innovative activities in Canada or elsewhere help generate: for example, royalties or copyright payments. That is because the IP for what we use in this country and what our trade partners use commercially is, on the net, owned outside of Canada.

This combination of trade surplus in research services—the ideas—but net services in paying for the use of intellectual property that research helps create puts Canada in the same category as Turkey, Argentina and India, but even among these countries we're kind of an outlier—doing big research while being a big importer of the services of the IP. In contrast, the United States or the United Kingdom enjoy trade surpluses in both research services and payments for the use of intellectual property that they own.

Countries like Denmark, Finland or Sweden actually import research services from abroad on the net, but they own the IP and they generate surpluses that way. Countries like Israel—often held as an innovation model—have an off-the-charts surplus on research services but a balance of both receipts and payments for the services of IP.

The story here is a familiar one: Compared to peers, Canada is better at research than at securing the fruits of this research. To quote from a famous movie, “If you build it, he will come.” In the context of this discussion, we may think of this phrase as meaning that more research will generate more innovation, the IP rights for which can then be secured. Then, on that foundation, commercialization will—or should, maybe with a little help—follow. However, I think the dynamic runs mostly in the opposite direction. If we are better at commercializing ideas from this country, the research and innovation and the IP that embodies them will grow and stay, or come into Canada—even regardless of where it originates—because it will be good to grow an IP-based business in this country.

The reason some IP has been flowing out of Canada and into other countries is that it has been easier for others to commercialize our ideas as well as theirs. We should seek to reverse that trend. Of course, we should enhance our ability and sharpen the incentives to commercialize in Canada the products of our own research and innovation. This can be done through the use of patent boxes that incentivize but do not restrict the use that researchers and innovators in hospitals and universities, for example, can make of their IP.

Other ingredients include making it easier for innovators to find markets in Canada, for example, through a more agile and outcomes-oriented public procurement process and by rewarding small firms that grow in preference to those that stay small.

I'm at time. I'd be happy to elaborate on the above, as you see fit.

• (1110)

Thanks for your attention.

The Vice-Chair (Mr. Corey Tochor): Thank you kindly for your presentation.

Now we will go to Mr. Durand for five minutes for his submission, and then we'll start the rounds of questioning.

Mr. Durand, the floor is yours for five minutes.

Mr. David Durand (President, International Intellectual Property Forum - Québec): Thank you.

[Translation]

Mr. Chair, honourable members of the Standing Committee on Science and Research, analysts, good morning.

The Forum international sur la propriété intellectuelle—Québec, FORPIQ, wishes to thank the committee, including the vice-chair, the Honourable Maxime Blanchette-Joncas, for inviting FORPIQ to present its point of view in the context of your study.

Founded in 2001, FORPIQ is a not-for-profit with two principal aims: First, to raise awareness and educate companies, including startups and SMEs, about intellectual property, so that they have the basic knowledge to succeed and understand how to leverage their

assets—IP, data and confidential information. Secondly, FORPIQ aims to facilitate connections between investors, entrepreneurs, and companies with the right IP and commercialization resources as part of our biannual conferences, the next one taking place on May 10.

In December 2021, FORPIQ became an observer member of the World Intellectual Property Organization, WIPO. I will come back to that at the end of my remarks, at which time I will have a few comments on the subject.

FORPIQ is supported by its members, such as the Canada Development Bank, Axelys, INO/Quantino, law firms, Bold New Edge, Deloitte, Minimum Viable Intellectual Property, and myself, David Durand, President of FORPIQ.

As you already know, the state of Canadian innovation is worrisome. This is confirmed by many sources. On this topic, we echo the comments of the Honourable Senator Colin Deacon, and Jim Hinton in his opinion piece “Why We Must Abandon Canada's Troubling Approaches to Innovation”, which appeared in the Financial Post on March 6, and Aaron Shull of the Centre for International Governance Innovation and myself, who opined, in a recent Globe and Mail article, that Canada's national security policy, which dates back to 2004, must be updated so that it can address the relationship between intellectual property and national security.

There are other troubling statistics. For example, Quebec earned a “C” in innovation and industrial R&D, despite an “A” in public spending on research and development. In Canada, there is a rate of 0.15 to 0.20 in the creation of spin-offs per \$10 million of research, while in Quebec, that rate is only 0.09.

For that matter, the burning question resulting from the 2019 IP Awareness and Use Survey dashboard is: Why do only 18.2% of Canadian businesses hold at least some kind of formal IP in Canada or abroad?

Asking the right questions today is framing our policy for the future.

As such, FORPIQ proposes a number of recommendations.

[English]

As proposed by FORPIQ partners, MVIP and Bold New Edge, we must disrupt the previous ways of thinking about innovation and commercializing IP by being business-focused. We wish to conduct an expanded survey of the 2019 IP awareness and use survey to assess our IP and business culture, as well as to map how dormant assets are found within a company and subsequently commercialized. These are key elements.

We should also create a strategy for entrepreneurs for what they have to spend now versus later, while keeping a laser focus on product market fit and protecting core technology, and being coached or mentored by seasoned operators who have already succeeded in the same space or industry.

We should engage Canada's business community to promote IP uptake as a result of IP security, national security, cybersecurity and other considerations.

We should share the knowledge academies, such as those of the World Intellectual Property Organization, which have done the same for the international community. This will allow for the upskilling of business leaders and decision-makers in the notions of intellectual property.

We should create more IP management education for students earlier on in their educational process.

Our initiatives will require significant support from you, the Government of Canada and ISED, in order to achieve our goals to the benefit of Quebecers and Canadians, as innovation is a nationwide issue that requires collaboration among all stakeholders.

Considering the remaining time, if two sentences were to be retained with respect to the IP or patent box regime in Canada, they should be these. Our partner Deloitte noted that the tax incentive, or rate, must be “significantly lower than the rates applied” to regular “business income.” The preferential tax rates are “meant to provide firms with a stronger incentive to innovate and commercialize the innovations...domestically.”

In conclusion, as an observer member of WIPO and because of our excellent relationship with them, we would like to ensure francophone and anglophone representation throughout North America. We work closely with WIPO's IP and innovation ecosystems sector under the direction of assistant deputy director Marco Aleman and Johanne Bélisle, the former CEO of the Canadian Intellectual Property Office.

• (1115)

This allows us to create particular synergies between Canadian businesses, start-ups, SMEs and established businesses within the provincial—in Quebec—and the Canadian and international innovation ecosystems, where people are encouraged to invent and create.

Also, the relationship with WIPO allows us to promote Canada—which is already seen as a leader through BDC on its contributions to IP—on the international stage with respect to IP-backed financing and funding for women through the Thrive platform. This will be discussed further in an upcoming FORPIQ arti-

cle that will be appearing in WIPO's special edition commemorating World IP Day on April 26 under the theme, “Women and IP: Accelerating Innovation and Creativity”, as we tackle the gender innovation gap. As was reported by WIPO, only one in eight AI inventors in Canada is a woman.

FORPIQ's next event is on May 10, and we look forward to receiving the government's support so that we can fulfill our goals and our mission, which are to the benefit of the Quebec and the Canadian IP, business and innovation ecosystems.

If you have any questions, of course feel free to ask them in the language of your choice.

Thank you very much.

The Vice-Chair (Mr. Corey Tochor): Thank you for that.

Now, with our six-minute round, we will start with MP Williams.

Mr. Williams, you have the floor.

Mr. Ryan Williams (Bay of Quinte, CPC): Thank you, Mr. Chair.

Thank you to our witnesses for attending today.

Mr. Schwanen, you were getting into some really great recommendations, so I want to hear those recommendations again, particularly on patent boxes, faster procurement and rewarding firms that grow. Can you please touch on those in a little more detail?

Mr. Daniel Schwanen: Yes. Here, I would refer to a recent publication of the institute: our shadow budget for 2023.

On the idea of patent boxes, I think Mr. Durand referred to these as well. You essentially would get a tax benefit in using intellectual property to build a Canadian business.

For whatever income you derive based on that, for a while you would get a lower tax rate than the general tax rate. There's a way, as we explain in that document, of maximizing that benefit so that it encourages the use of IP for innovation—for commercialization for an innovative business—while costing the government not an insignificant amount of money, but you don't give a zero rate either. There's a certain balance where you get the benefits and you don't cost in terms of revenue. We estimate that the cost of this measure to the federal treasury would be \$500 million annually.

On encouraging small businesses to grow, it's actually a very difficult proposition, but the idea is that as long as you hire and keep growing, you get to keep, for example, the small business deduction. If you don't, then maybe you can lose it over time. That's a general concept.

Mr. Ryan Williams: You spoke about some of the better practices of the Americans and the Scandinavians. What are they doing differently from what Canada does in order to encourage business growth to protect IP and to build patent boxes?

• (1120)

Mr. Daniel Schwanen: I think the overarching comment I would have regarding all these countries is that they're really into commercializing ideas, and they're not necessarily their own ideas. They're ideas from all over the world. They have research labs elsewhere, including here in Canada, that produce these ideas.

What they do is through tax incentives or, maybe more to the point, incentives to grow or an environment where they can more easily grow a business and export and bring talent from all over the world. It's not that we can't do that here in Canada, but they are incentivizing the presence of businesses in their countries that then gather IPs locally and from all over the world and that can create a business and generate and create products, goods and services that are then sold all over the world. They each have a different recipe, so I don't want to generalize, but the whole idea on commercialization is that they have a greater laser focus on that.

Mr. Ryan Williams: Thank you, sir.

Mr. Durand, one of the ways to build a better innovation environment is through mentorship, and I think you are well versed on mentorship, so I'm going to ask you how we can use mentorship to increase the growth of businesses in Canada. What role does the federal government have when supporting mentorship with businesses?

Mr. David Durand: Thank you very much for the question, Honourable Williams.

Before answering that question, I just want to complement the first response by my colleague Mr. Schwanen.

With respect to the patent box model that you were referring to earlier, our partner Deloitte has already submitted a submission to the finance committee that we would more than gladly share with this committee as a written brief response.

Mr. Ryan Williams: Yes, please supply that.

Mr. David Durand: Thank you very much.

With respect to the other question on the models or other countries we can look to, I think that will intersect with the response I'm going to give you. Before 2021, we were asking ourselves the same questions in terms of international models, and, according to the Global Innovation Index, currently ranked number two is Sweden. Sweden and the Swedish Incubators & Science Parks have already disclosed their secret sauce, as mentioned by Sandra Ruuda and Kristian Wirsén, who explained the eight ingredients to create a strong innovation system.

One of them was Swedish culture, and then knowledge, public-private partnerships, softened hard management, how HR looks up-

on their bankers and how they promote invention innovation within their companies. There's the Swedish model with a high level of digitization, the start-up nation and how they get to that point very quickly as well as open innovation and collaboration, because there is a lot of collaboration amongst many stakeholders within their system.

The emphasis that they have placed is on the practice of giving back, where successful entrepreneurs, operators like Skype, have given back to the community, not in terms of their ability to share their knowledge but in terms of the financial resources that they provide. This formed part of a study that goes back to 2003 on the entrepreneurial effect of giving back. It was also the object of a paper by Stuart and Sorensen in 2003 called "Liquidity Events and the Geographic Distribution of Entrepreneurial Activity". This is something that would inspire us. It was also written about by our colleagues, the editors Martin Bader and Sevim Süzeroğlu-Melchioris, in their recent book called *Intellectual Property Management for Start-Ups*, which responds to a lot of these questions. In their chapters in which they were contributing authors, as well as Lally Rementilla from the BDC, they described how this system could be promoted.

Going back to the question of operators and how the Government of Canada maintains relationships with the businesses that have succeeded in how they have managed to grow, scale their companies and have a laser focused on product market fit, those are the people we should be looking for in order to build those relationships and have them mentor and coach small and medium-sized businesses as well as Canadian start-ups through the ElevateIP fund, of course.

Thank you.

• (1125)

Mr. Ryan Williams: Thank you, sir. I appreciate it.

The Vice-Chair (Mr. Corey Tochor): Thank you so much for that.

Now we'll go on to our next MP. We have MP Sousa for six minutes.

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

Thank you to both witnesses. I appreciate your deliberations, your concern for IP patents and commercialization and the scaling of our domestic businesses so that we have greater success as we go forward.

I also appreciate and understand from you both that part of your recommendations are about ensuring that there are greater synergies and greater co-operation amongst the private sector as well as government to facilitate and inspire some of that engagement. I also appreciate the discussions around the tax incentives to try to inspire greater activity or motivation to do the same.

I'm also sensitive about government acting with greater care and not adjudicating deals. That's not our part, especially as we go forward with the investment of some of these patents and trademarks.

I think you all talked about the Global Innovation Index, where Canada does rank in the top 15, which is not a bad deal. We are, I presume, now engaged quite frequently in new innovative areas of AI, quantum research and so on, and that's all very encouraging.

There's a disconnect. There's a worry that we all share that we ensure the success of those investments. Can you comment on what we are doing as a government? Our concern here in this committee is what government does. What part are we playing that enables the industry to succeed while emulating what happens in Australia, the U.K. or the U.S.? They are broader markets; they're bigger. We lose some of our talent and some of our businesses that way because of financing, monetization and the ability to commercialize. Can you expand a little bit about what Canada is doing well?

I'll go to you both of you with regard to our existing programs, and then please talk about what we—and I have your recommendations—should do.

Go ahead.

Mr. David Durand: Thank you very much for the comment and the question.

Canada, I believe, is doing very well in how it's funding these start-ups. ElevateIP is a fantastic fund that is already in existence. That's one way, once the program gets rolled out by the business accelerators and incubators. That's being done very well. The National Research Council's IRAP fund, IP Assist, is also being done very well.

The question is more the messaging to the business culture, the business community, which needs to understand the value of intellectual property and how it can grow on that IP. My personal belief is you must have a product that fits market needs first, and then the IP gets constructed around that as you go from version one, to version two and to version three. There's always going to be an improvement in the technology as the company grows, but obviously they're going to have to put a focus on how we sell from day one. That's one key of the commercialization process, as well as scaling.

Mr. Charles Sousa: Thank you, David.

Daniel, do you have any comment?

Mr. Daniel Schwanen: Absolutely, yes.

I think we've had an approach that was a little bit more of what I would call “spray and pray” in terms of funding research. That's changing a bit, but it's almost that we fund the activity rather than paying attention to the outcome and how Canadians can benefit from it.

Don't get me wrong: we're already doing a lot of things. This committee has heard about better protection for IP, upscaling business leaders, which are hugely important. It's often not appreciated that successful U.S. business leaders, for example, tend to have a higher degree of education than our Canadian business leaders. All these sorts of soft aspects to commercialization really come into play in entrepreneurship and so on.

But there are some hard factors, as well. Canada is not doing well at all in terms of capital investment. We know that capital investment is almost in symbiosis with commercialization and inno-

vation. The two work together. It's a very bad symptom if we don't have investment in this country. We should look at, of course, tax rates. We should look maybe at depreciation rates for capital. All these things, although they're general policies, will contribute to the use of IP in this country and to its commercialization in this country.

We have a bit of a problem, I think, with some of these soft skills, entrepreneurship, but we're also not really rewarding investment, as well as the commercialization of IP, as much as I think other countries are doing.

• (1130)

Mr. Charles Sousa: Daniel, how do we compare against Australia with our tax benefits or tax incentives?

Mr. Daniel Schwanen: On that, I don't have the numbers here.

Mr. Charles Sousa: How do we compare with the U.K.? Do you know?

Mr. Daniel Schwanen: No, I don't have the numbers handy. We did do a study on what we have to do to get there.

Mr. Charles Sousa: What I'm trying to get at is that there's obviously greater risk-taking in foreign jurisdictions when it comes to these capital investments. We have huge pension companies in Canada that are investing outside Canada, for that matter. Yes, we would like to see more of that happen here internally. We would like to see the monetization of those opportunities stay domestic.

I have a pretty good sense that we have a competitive tax system when it comes to new venture deals and IP, but I'm just wondering if you know, David, how we compare with Australia or the U.K.

Mr. David Durand: Unfortunately, I don't have those statistics, either. I could ask my partners at Deloitte if they have that type of information available.

Mr. Charles Sousa: We're all open to ideas to prevent—

The Vice-Chair (Mr. Corey Tochor): I'm sorry, Mr. Sousa, but we are out of time, over a bit.

Mr. Charles Sousa: Thank you very much, Vice-Chair.

The Vice-Chair (Mr. Corey Tochor): I don't like cutting off witnesses, but I will cut off MPs when they go over their allotted time.

Now, for six minutes, we have MP Blanchette-Joncas.

[Translation]

Mr. Maxime Blanchette-Joncas (Rimouski-Neigette—Témiscouata—Les Basques, BQ): Thank you, Chair. It's a pleasure to see you back as committee chair.

I'd like to welcome my colleagues and the witnesses joining us today for this important study.

My first question is for you, Mr. Durand. Thank you, by the way, for being in the room with us today. We greatly appreciate it.

Your organization's mission is, among other things, to create a forum for exchange between all the players in the Quebec and Canadian innovation and intellectual property ecosystem. This includes entrepreneurs, companies, researchers, investors, incubators and accelerators.

Apart from your forum, are there other places for these players to exchange ideas in Quebec and Canada?

Mr. David Durand: In my opinion, the answer to this question is no. We are trying to increase our funding as a non-profit organization to benefit FORPIQ. To that end, one of our goals is to become an organization that is not only Quebec-based, but pan-Canadian, by offering these kinds of resources to all players in the innovation ecosystem.

That being said, the current FORPIQ model still allows for several players to be in the same room, which creates some very important sparks to stimulate the innovation ecosystem on a daily basis and create things that didn't exist before. Obviously, the support of other partners, such as the Intellectual Property Institute of Canada, or accelerators and incubators across the country who also provide their perspective, is a major catalyst for Canadian innovation.

Mr. Maxime Blanchette-Joncas: You are moving towards my next question: What impact would better coordination between these players have?

Mr. David Durand: In my opinion, that could have a huge impact, and the reason is simple. Just look at the Swedish model of collaboration between the various players. That country has a stock market for intellectual property. These are things we can talk about. We have a relationship with WIPO. So we have access to international resources to disseminate information that is already prepared and endorsed by the international community for the benefit of Canadians and Quebecers.

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

What can we learn from the Quebec model in order to integrate it into the Canadian one, based on the organization you represent today?

Mr. David Durand: I will answer that question in English.

[English]

The concept of breaking silos is something that is very important, because, again, the innovation ecosystem is not a provincial centric issue. It is a national issue. We're confronted with serious issues when we're looking at, for instance, cybersecurity concerns and acquisition of Canadian intellectual property.

Aaron Shull and I raised the issue, because we're looking at front-door and back-door techniques to the acquisition of Canadian intellectual property. Front door is the simple case where foreign players acquire Canadian IP through legal channels by merger and acquisition. They purchase asset agreements and share agreements.

They acquire all of this wonderful IP, and they're able to bring it to their own jurisdictions. That's one way.

Obviously, with back-door techniques, we have more issues with rogue actors who are embedded within companies and are also able to take Canadian intellectual property.

These are concerns and things that have to become front and centre. That's why, when we're looking at all the stakeholders across Canada, obviously the voices of Canadians from coast to coast are extremely important. That's something that we're privileging through FORPIQ.

• (1135)

[Translation]

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

I will follow up with a very important question.

According to the Organization for Economic Co-operation and Development, commonly known as the OECD, the sum of private sector research and development investment in Canada was just 0.81% of our GDP in 2019, compared to an average of 1.76% for other OECD member countries. Canada was number 24 among the 37 OECD member countries, using this indicator.

Ranking number 24 out of 37, in my opinion, is not very good. I would even say it's not good at all. I believe that Canada should look in the mirror and strive to improve.

How do you explain Canada's abysmal position in this regard?

Mr. Daniel Schwanen: May I answer that question, Mr. Durand?

Mr. David Durand: Yes, go ahead.

Mr. Daniel Schwanen: I apologize for interrupting.

First, we have to be careful, because Canada's economic activity is quite diverse. Ontario and Quebec, for example, would rank significantly higher if compared to other OECD countries. That's something I wanted to clarify.

Moreover, if it were feasible to turn research and development into economic activity in Canada, more of it would be happening. We are talking about the Quebec model here. Quebec is currently experimenting with a patent regime that could be applied across Canada, as I have in fact recommended.

I also want to point out that public procurement is a very important component of the innovation incentive. If, for example, a hospital system is not open to acquiring local innovative products, perhaps the companies that manufacture them will go abroad to do research or relocate. Several reports have been published on this topic, including by...

Mr. Maxime Blanchette-Joncas: Your message has been well received, Mr. Schwanen.

I will take the liberty of piggybacking on your response. Thank you for providing that nuance, but I...

[English]

The Vice-Chair (Mr. Corey Tochor): I'm sorry, Mr. Blanchette-Joncas, but that is way over our limit of six minutes.

[Translation]

Mr. Maxime Blanchette-Joncas: Oh, what a shame, Mr. Chair.

[English]

The Vice-Chair (Mr. Corey Tochor): We'll move to our next member, MP Cannings, for six minutes.

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

Thank you to both of the witnesses here before us, today.

I would like to follow up on that conversation with Mr. Schwanen and talk about Canada's record in IP development, why countries like the United States are far ahead of us, and whether it has something to do with the culture of the private sector.

In our last meeting, we had, before us, Robert Asselin from the Business Council of Canada—I think that's what his name was. He put forward the idea of Canada investigating DARPA-like models, DARPA being the Defense Advanced Research Projects Agency in the United States. This involves government and private sector getting together and focusing on certain areas. In Canada, we have areas in which we are leaders: AI, quantum and biotech.

Is this a model the C.D. Howe Institute thinks might be a good one in Canada?

• (1140)

Mr. Daniel Schwanen: In principle, certainly, yes.

I published research with my colleague Rosalie Wyonch a few years back that made the case that one of the things holding Canada back, relative to a number of our competitors—apart from some of the tools and instruments I mentioned—is that we're not very goal-oriented, when the public sector enunciates some important goals vis-à-vis security, health or the environment that's changing. Where we bring together governments, our researchers and private firms to find solutions....

We mentioned Sweden and the United States. There are such things as innovation marketplaces, where you basically go online and say.... A government, public agency or the equivalent of Hydro-Québec in Sweden can say, "I'm looking for solutions to this; this is my problem." How about calling all entrepreneurs or people with ideas to come and give us their ideas, and we will make them come to fruition? It's that kind of goal-oriented collaboration that, I agree, could be very helpful.

You know, in Canada, we're behind in a number of things: green technologies and supply chains. Talk about Australia or Europe. We need to come around on these goals, then the innovation will come. The businesses that can grow from this innovation will come, as well.

Mr. Richard Cannings: Mr. Durand, do you want to comment on that as well?

Mr. David Durand: Sure, Honourable Cannings.

The idea presented by C.D. Howe in terms of the IP exchange is a very good one, I believe. I know that the World Intellectual Property Organization has made the WIPO GREEN as well. I would just be mindful that the quality of intellectual property that finds itself on the exchanges obviously has to be verified by those who want to use those types of services.

Mr. Richard Cannings: How much time do I have, Chair?

The Vice-Chair (Mr. Corey Tochor): You have two minutes and 20 seconds.

Mr. Richard Cannings: Okay. I have lots of time.

Mr. Durand, you mentioned in passing "dormant" IP. Could you expand on that? How does that fit into this question, and where might Canada benefit by waking that up?

Mr. David Durand: Thank you for the question.

Bold New Edge, MVIP and FORPIQ are in communication with ISED as well as with IP, business and the ecosystem. It's good practice for companies to do verifications from time to time to see if they're missing something that might be of value or that might be commercialized. That is why, with our partners, we've started circulating a new type of survey to be able to identify and detect records of inventions that are able to be commercialized—again, if there is the market product fit that we were alluding to earlier.

Mr. Richard Cannings: Right.

I have one last thing. You mentioned women and IP and about how women are lagging. What is being done to turn that around?

Mr. David Durand: A lot of STEM activities are being promoted, and a lot more funds are being directed toward women, including through the Thrive platform by the BDC. I believe that's an approximately \$500-million fund for women trailblazers.

In an upcoming article that's being published in the World Intellectual Property Office magazine, we're also storytelling in the sense that we're putting a spotlight on two researchers, from the University of McGill and the Université de Montréal, who are supported by Axelys as well. It's putting their technology at the forefront so that it can inspire more women in the field—any field, not only AI or through information technology.

It's important to have good role models, and that's something that FORPIQ is promoting. For instance, HISTurn was by Professor Sarah Kimmins, and Professor Mayo designed another walking aid.

• (1145)

Mr. Richard Cannings: Thank you.

The Vice-Chair (Mr. Corey Tochor): Thank you so much.

We will now move on to our five-minute round.

From the Conservatives, we have MP Lobb for five minutes.

The floors is yours.

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

Thank you for the witnesses who are here today.

One question I want to ask is not a Canadian question, although you can draw parallels to it. It's about what's currently happening in the tech sector in the United States. What has traditionally been in, say, New York and the Silicon Valley is now moving to Austin, Texas, and to Miami. The reason isn't the climate. It's because of regulation and taxation at both the corporate level and the personal.

If we draw the same context to Canada, are we competitive? It just seems to me that there are more taxes and more regulations. I'm not trying to be political here; that's just the way it seems. I'm wondering if either of you can provide any context to that. Is that an impediment to innovation or to the commercialization of innovation?

Mr. Daniel Schwanen: Yes. To give you a very short-form answer, the answer is yes.

Now, we also have to realize that here in Canada we're not a very large market. We don't have a history. We're still building our venture capital market. As I said, we have trouble attracting investment in general, even by Canadian firms. With all these things combined, and sometimes even fragmenting our market even more, here we are, not really....

Let me put it this way: We're not really rolling out the red carpet for people who might come here and create IP-related jobs. Absolutely, incentives matter, but of course so does a quality labour force, which we have. The idea is to turn this high-quality labour force into investment opportunities that investors will want to capture.

But yes, the whole.... It's a whole; I can't point to a single part of it.

Mr. Ben Lobb: Okay, good.

I want to touch on another topic just because you mentioned financing. I know Mr. Sousa mentioned that as well. He was finance minister in the province at one time, so he would be well versed in this.

Recently when Silicon Valley Bank ran into their trouble, I was amazed to find out that there was about \$400 million or \$600 million in Canadian loans. I guess when innovators find out they can get loans from San Francisco and it's easier to do that, or maybe they have cross-border interests—and I'm sure the banks are going to scoop up the Canadian part of those loans with Silicon Valley Bank—why are Canadian banks or pension funds allowing competition to beat them to the tune of \$600 million in such an important sector?

Do you have any ideas on that, any thoughts on that?

Mr. Daniel Schwanen: It's partly the risk-averse culture, I would say. I would say that clearly in Silicon Valley the financing aspect, the firm-growth aspect and the technology aspect blended together. If we don't have one, we won't have expertise in the other.

I think we're still building in Canada, I think it's fair to say, our expertise in financing companies, loans, etc. based on intangibles

and not on tangible properties. I just think, as with many things that I could mention, the U.S. has been a first mover, and Canada is getting to be a good imitator. That's what's going to happen, exactly as you mentioned. We are behind the curve.

• (1150)

Mr. Ben Lobb: I do think that could be an issue with bankability and lending. We know Canadian banks are secure. If you're comparing them to a regional bank in the States right now, the Canadian banks look pretty good, but maybe if Canadian banks are out there listening to this committee, they can be part of the solution.

There's one last thing I want to ask about as well. It's to do with the Kitchener-Waterloo story and Magnet Forensics. This was a high-tech business not started by a high-tech person. It was not started out of a university, as far as I know. It was started by a police officer. The company recently sold at market cap of almost \$2 billion, but it was sold to an American private equity firm headquartered in Chicago. In a way, with my Canadian flag wrapped around my shoulders right now, I think that's a shame.

When we look at net benefit to Canada and the Investment Canada Act and all these things, is this something that the governments need to look at going forward? When we have these crown jewels that can sell around the world and add to our GDP, should we just let them be sold willy-nilly to an American private equity firm?

Thank you.

The Vice-Chair (Mr. Corey Tochor): I'm going to ask the witnesses to provide a written response if they agree to. We are at 41 seconds over already, Mr. Lobb. I'm doing my best to keep things on track.

We now go to our next MP, Madam Diab, for five minutes.

[Translation]

Ms. Lena Metlege Diab (Halifax West, Lib.): Thank you very much, Mr. Chair.

I would like to thank the witnesses for being here today.

[English]

I'm going to start with you, Mr. Durand.

I'm quite interested in the following, and noticed that my colleague Mr. Cannings sort of asked you this question. I wouldn't mind hearing a little bit more about your May 10 event, in particular with respect to, perhaps, women and IP and the gender innovation gap that you sort of alluded to in your presentation. We know there's a gender gap with respect to women in every profession. Obviously from what we have heard you say this morning, it's a pretty large gap when it comes to innovation and what we're talking about here.

Can you tell us a little bit more, in terms of your studies in Quebec, in Canada and anywhere else in the world, about how we compare?

Mr. David Durand: In response to your question, in terms of the gender gap, Canada is lagging in that respect. Statistics from the Canadian Intellectual Property Office talk about one in five. That means of every five inventors, one is female. In comparison, in Europe it's one in three, which is almost half. We have to do whatever we can to promote women in STEM and support their inventions and how they interact as well with universities. They are a very captive audience, especially in universities, for doing declarations of invention and to be able to support their community, which is something that's very important.

In addition, there is obviously BDC's funding through the Thrive platform, which is also something that needs to be commended in the work that they are doing as well.

I think the more we're able to put a spotlight on women-led innovation, the more that will encourage youth. That is one of the strategic axes of the World Intellectual Property Organization, and the reason this year's theme is Women and IP: Accelerating innovation and creativity. I believe that is a good platform to work from.

Ms. Lena Metlege Diab: I totally agree with you. Thank you for putting a light on that. We need to do a lot more of that.

It takes a lot....You're right. People of all genders need to see women in leadership roles, in businesses, and that. Thank you for flagging that and doing that.

I'm proud to be part of this government, which has introduced, quite frankly, child care, because I have girls who are now mothers. One of them is about to get her Ph.D. in chemical engineering. She just gave birth last week, and so I know the toll it takes on females in all occupations, but particularly in engineering and innovation, and all of that.

Would you agree with that? I'm sensing you want to comment.

• (1155)

Mr. David Durand: I do, because I would also like to add the point that....For instance, Professor Mayo started her entrepreneurial road at the age of 65, and her product is currently getting a lot of market traction. That is one of the reasons we referred to Dr. Mark Weber of McGill. I had asked him to put a spotlight on some trail-blazing women, and he offered a few names, including Dr. Mayo and Dr. Kimmins.

This is why there has to be a spotlight on women-led initiatives in Canada.

Ms. Lena Metlege Diab: Thank you for sharing that. There's hope for women of all ages, which is wonderful, but we need to start at all levels. You're right.

You talked about national security being transferred to foreign countries. Under the Investment Canada Act, investments by foreign investors are subject to the ICA review, including sensitive sectors, which receive scrutiny. Bill C-34, which was introduced, updates the national security review process of the ICA, including a new requirement for pre-implementation filing.

The requirement is to prevent a company from closing its transaction before the review is completed. I want to seek your input and comments on the importance of this kind of review, and any other suggestions you may have.

If I have time, I'll ask that of the second witness.

The Vice-Chair (Mr. Corey Tochor): Unfortunately, you're going to have to request them to provide a written response. We're 11 seconds overtime. I'm sure they'll endeavour to give you a written response.

We'll now move on to the last two and a half minute round.

MP Blanchette-Joncas, the floor is yours.

[*Translation*]

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

I'm very sensitive to the issue of gender discrimination, but I'm even more sensitive to the current scientific ecosystem in Canada.

Personally, I am not proud of this government. Canada is the only G7 country to have reduced its investment in research and development over the last 20 years. I am not proud of this government for failing to increase scholarships for young scientists and students for the past 20 years. I am not proud that we are the only G7 country to have lost researchers in the last six years. It's really nothing to be proud of.

While we're on the subject of pride, I'm going to try to restore a bit of it, in the hopes of convincing some of my colleagues of the value of scientific research in Canada. We have to walk the talk. Our neighbours to the south have taken some significant steps. Here are some of them.

Over the next five years, as part of the CHIPS and Science Act passed in the U.S., the base budget of the National Science Foundation, which is the country's largest research investment program, will double.

Mr. Durand, what will happen to Canada's competitiveness if the federal government does not significantly increase its investment in research and development?

Mr. David Durand: That's a great question, and unfortunately I don't have an answer. The only thing I can add is that you don't necessarily have to take the U.S. market as a benchmark.

Let's look instead at Quebec, which has already taken some excellent steps through the Quebec Research and Innovation Investment Strategy, SQRI2, as well as with the Quebec Innovation Council, headed by Luc Sirois. Quebec is therefore positioning itself as a leader in the innovation space, and the entire Canadian ecosystem can learn from it.

Mr. Maxime Blanchette-Joncas: Mr. Durand, thank you for bringing Quebec's initiatives to the forefront. Having said that, I try to take a broader perspective. I'm looking at the federal level, and as far as I know, there is no Chief Innovator in Canada. I think it would be a good idea to create such a position, along the same lines as Canada's Chief Science Advisor or the equivalent position in Quebec.

Thank you for your answer, all the same.

That's all the time I had today.

• (1200)

[*English*]

The Vice-Chair (Mr. Corey Tochor): Thank you.

Now we'll go to the last member of Parliament.

MP Cannings, the floor is yours for two and a half minutes.

Mr. Richard Cannings: Thank you.

I'd like to ask Mr. Durand a question.

One of the recommendations that you put forward here is to create more IP management education for students earlier in their education process, and I assume you're talking about university education here. You're talking about the business community, so these are business students.

What we've been hearing is that a lot of the IP developed by university students, obviously, happens more in the sciences and technology parts of university faculties. Do you propose that IP education be provided to those students? They are the ones who are going on to do the research and create the IP in large part. They're the ones who need to know that. Where do we provide that education? Where are we doing it now? How can we do it better?

Mr. David Durand: The response to that question is, yes, these types of courses should be geared to the universities, both in the sciences faculties and in the arts faculties. This is one of the reasons we talk about IP and business together. Of course, it takes the scientists to come up with some innovative ideas, but it's never done in silo. It needs to have a team around it. It needs to have a proper management team and also seasoned operators to be able to promote the technology and to be able to go on a track of being able to sell it and commercialize it across Canada.

However, in terms of the education, yes, this is something that... For instance, I teach at the University of Ottawa in the faculty of law, but the captive audience has to also be in business schools so that they get to understand the intricacies of intellectual property and how it's manipulated in the sense of how it's being able to be used and leveraged. This is an important part of our mandate to educate, as well.

Mr. Richard Cannings: Okay, thank you.

Mr. David Durand: Thank you.

The Vice-Chair (Mr. Corey Tochor): Thank you so much to our witnesses today.

We will now briefly suspend before resuming our meeting in camera.

I would ask that all witnesses please leave the meeting, and I wish them a pleasant rest of their day.

The meeting is now suspended.

[*Proceedings continue in camera*]

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