



HOUSE OF COMMONS  
CHAMBRE DES COMMUNES  
CANADA

## **Standing Committee on Finance**

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FINA • NUMBER 173 • 1st SESSION • 42nd PARLIAMENT

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**EVIDENCE**

**Thursday, October 4, 2018**

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**Chair**

**The Honourable Wayne Easter**



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● (1005)

[English]

**The Chair (Hon. Wayne Easter (Malpeque, Lib.)):** I wonder if we could get people to come to order. I know we're early for the witnesses. That'll start at 10:15. For the witnesses who are here for the formal presentations this is just to let you know what will happen over the next 10 minutes.

Before the formal presentations we have what we call open-mike sessions, which allows individuals and organizations to come to a floor mike and make a one-minute statement on issues they see of concern. That information goes into the evidence and is considered as part of the pre-budget hearings. For the one-minute sessions, there are no questions from members.

To start, then, we'll go with Duncan Kirby. The floor is yours, Duncan. Make yourself at home. I believe it's Engineers without Borders. You are persistent.

**Mr. Duncan Kirby (Engineers Without Borders Canada):** Good morning. My name is Duncan Kirby and I am a member of Engineers without Borders Canada.

In budget 2019, I'm asking that Canada commit to a 10-year timetable of predictable, annual increases of 15% to the international assistance envelope. This is in keeping with recommendations that the committee made last year in its report on the pre-budget consultation and an OECD report on Canada released in mid-September.

I was very encouraged to see the Government of Canada commit to increasing ODA in budget 2018, but despite this increase, Canada's ODA spending is still near a historical low and well below many of our global peers. Increases will simply keep the aid budget on track with inflation.

ODA is fundamental to our shared global prosperity. These investments support vital services such as health care and education in some of the least developed countries. Increasing ODA through a predictable timetable in budget 2019 would show that Canada is a committed global leader that is helping to create a better world for everyone.

Thank you so much for your time.

**The Chair:** Thank you very much, Mr. Kirby, and I think we've seen Engineers without Borders at pretty near every stop. That's to your organization's credit.

Now we have Kristy Taylor.

**Ms. Kristy Taylor (Show Kids You Care):** Good morning, Honourable Wayne Easter and committee members.

I am Kristy Taylor. I'm here on behalf of Show Kids You Care. We're a national non-profit organization that provides meals for kids living in difficult situations in Canada. We are one of more than 40 members of the Coalition for Healthy School Food, which is coordinated by Food Secure Canada.

Approximately 20% of students in Canada receive a meal or a snack at school. There's a patchwork of organizations that help fund and run these community-based programs, but there is so much more that needs to be done. Evidence shows that school food programs would increase children's consumption of healthy foods, reduce the risk of chronic disease, improve their mental health, improve educational outcomes and graduation rates, create jobs and grow local economies.

A national school food program has been recommended by the Senate Social Affairs committee, a former House Finance committee, the Ontario Healthy Kids panel, the former chief public health officer, and in Senator Art Eggleton's June Senate Motion No. 358.

Today we are asking your government to invest \$360 million in your next budget to partner with key stakeholders in funding a cost-shared program estimated at \$1.8 billion. Your support will make an immediate and long-lasting impact on children.

Thank you.

**The Chair:** Thank you very much, Kristy.

We have Vidhya Magendran.

**Ms. Vidhya Magendran (ONE Campaign):** Hello, everybody. Thank you for giving me this opportunity to speak today.

My name is Vidhya Magendran. I'm a member of the ONE campaign in Canada.

I'm here today on behalf of over two-thirds of Canadians who believe that it is our responsibility to help others around the world. Sadly, Canada's contributions to international assistance have been in steep decline. Canada currently invests 0.26% of its gross national income to official development assistance. At this rate, Canada is lagging far behind our closest friends and allies in the G7 and the OECD, all this despite Canada's support for the Global Fund, additional investment to girls' education, and the increases in budget 2018. These were important first steps, but we are still not doing our fair share.

I'm here today to ask that in budget 2019, the Government of Canada commit to increasing Canada's spending on global development over 10 years through predictable 15% annual increases to the international assistance envelope, starting in fiscal 2019.

Thank you for your time.

• (1010)

**The Chair:** Thank you very much.

Moon Yong Zong, go ahead. The floor is yours. Welcome.

**Mr. Moon Yung Zong (As an Individual):** Hello. My name is Moon Yong Zong. I am a youth advocate from World Vision.

At a young age I was fortunate enough to move to Canada, a country with access to health care, quality education and safe communities for children to grow up in. However, we all know this is not the reality for millions of girls and boys around the world, who lack these basic human rights and services. Having grown up in the suburbs of China, bordering the impoverished North Korea, I have personally seen and experienced such children, whose families struggle to get through each day.

Thanks to remarkable progress and development made by the global community, far fewer people are dying around the world and communities are thriving more than they ever have before. But there are still needs, and I believe that Canada has a role to play and that Canada can make a difference. International assistance has the reputation of being about charity, but it's more than that. It's about strengthening the global community and creating sustainable opportunities for everyone.

As a university student with extensive international experience, I can see the importance of Canada playing a bigger role, a more decisive role, in global development. Doing so will not only advance Canada's national interests, but it will further elevate Canada's reputation as a leader in promoting human rights and development.

Therefore, I urge you, honourable members, to recommend annual long-term increases to international assistance in your report to Parliament on budget 2019.

Thank you for your time.

**The Chair:** Thank you very much, and thank you for relating that personal experience.

With that, then, we will start the official witnesses.

Before we do, just for the record, as everyone already knows, these are pre-budget consultations in advance of the 2019 budget. We have received submissions from everyone who put one in prior to August 15. We have received them and they are on people's iPads or units that they have, so people will be referring to those from time to time to ask questions.

Before we start, I would like to go around the room to give you, as witnesses, a view of where members come from and what parties and what regions they represent.

I'm Wayne Easter. I'm the chair of the committee, and I'm a government member from Prince Edward Island, the riding of Malpeque.

**Mr. Peter Julian (New Westminster—Burnaby, NDP):** I'm Peter Julian, I'm the NDP vice-chair of the committee, and I hail from New Westminster—Burnaby, on the other side of the country. I'm pleased to be here in Oshawa.

**Ms. Leona Alleslev (Aurora—Oak Ridges—Richmond Hill, CPC):** I'm Leona Alleslev, the member of Parliament for Aurora—Oak Ridges—Richmond Hill, which is just north of Toronto.

**Mr. Pat Kelly (Calgary Rocky Ridge, CPC):** I'm Pat Kelly, member of Parliament for Calgary Rocky Ridge and a member of the opposition, Conservative caucus.

**Mr. Peter Fragiskatos (London North Centre, Lib.):** Good morning. I'm Peter Fragiskatos, a member of Parliament from London, Ontario. Although I don't think there's anybody from London in the room today, many of the organizations at the table share much in common with organizations advocating in my city, so I very much look forward to your presentations this morning.

Thank you.

**Mr. Francesco Sorbara (Vaughan—Woodbridge, Lib.):** Thank you, Chair.

Good morning, everyone, and welcome. It's great to be here in Oshawa. My riding is Vaughan—Woodbridge, which is about 80 kilometres away. I thank the 407 for getting me here in 45 minutes. It was good.

Welcome. I look forward to hearing your presentations.

**Mrs. Celina Caesar-Chavannes (Whitby, Lib.):** I'm Celina Caesar-Chavannes, the member of Parliament for Whitby, just next door, so I had a nice seven-minute commute here today. As the former parliamentary secretary to the Minister of International Development, I appreciate some of the comments we received earlier this morning.

**The Chair:** Thank you, members.

Just to inform you, Francesco, a 12-car lineup in P.E.I. is a traffic jam.

We will start with the Canadian Association for Community Living, Krista Carr.

Welcome.

**Ms. Krista Carr (Executive Vice-President, Canadian Association for Community Living):** Good morning.

Persons with an intellectual disability or autism are two of the most disadvantaged and marginalized populations in Canada, with an employment rate of only about 20%. We have an opportunity to change that.

Our budget request is for a three-year, \$30-million initiative called Ready, Willing and Able, or RWA.

Ready, Willing and Able is a partnership of the Canadian Association for Community Living, the Canadian Autism Spectrum Disorders Alliance, and our member organizations across the country. This national project engages employers and reinforces the business case of inclusive hiring, generating increased employer demand to hire job seekers with an intellectual disability or autism. Because it focuses on employer demand, it works in partnership and not in competition with provinces' and territories' employment programs and agencies. We say it's a bit like riding sidecar.

Our request is for a phase two RWA initiative. The initial pilot of RWA that commenced in 2014 has been extremely successful. To date, we have reached out to 8,700 employers, actively worked with 3,200 employers, and achieved the generation of 2,153 jobs.

We are grateful for the support received from the federal government to allow us to demonstrate that job seekers with an intellectual disability or autism can obtain and retain employment within the competitive labour market. We know we have an approach that works and that can begin to shift the dismal employment rate of 20%.

A phase two project will conduct outreach to 10,000 employers, actively engage with 4,000 employers, achieve over 2,000 new employment outcomes, and create a minimum of 10 new national employer partnerships. More importantly, RWA will be delivered in 30 primary communities in each province and territory, with secondary outreach to 300 communities. It will reflect urban, rural, francophone and anglophone communities. It will engage provincial and territorial officials in employment policy discussions. It will focus on identifying issues and barriers articulated by Canada's indigenous peoples. It will also cement discussions with provincial and territorial officials and the private sector related to the long-term sustainability of the RWA model.

•(1015)

**Ms. Cynthia Carroll (Chair, Canadian Autism Spectrum Disorders Alliance):** RWA is helping design Canada's competitive edge. We know that if we give persons living with a disability the opportunity to work at an equal rate within the workforce in Canada, we can grow our economy by up to \$38.5 billion.

RWA helps boost national productivity, addresses current and anticipated labour shortages and ultimately increases Canada's competitiveness. It enhances the financial viability, productivity and competitiveness of businesses by providing coordinated, effective, and responsive access to an untapped labour pool.

In phase one, RWA employees demonstrated a 93% retention rate. All positions were real work for real pay. There was not one wage subsidy.

RWA represents a modest investment by the Government of Canada in an innovative and highly successful initiative. It is important to note that during the pilot phase, RWA participants earned \$9.6 million in wages, and there was approximately \$4.7 million in saved social assistance payments. Only 19% of participants reported any employment experience or earnings prior to phase one of RWA.

The initial investment of this program was nearly recovered in wages earned and social assistance savings, and we would expect

that trend to continue in a phase two. The return on investment of this program, including the quality of life outcomes and transformations, are worth the modest investment we are asking for. It just makes sense.

A senior vice-president of Costco Canada stated:

Our partnership with Ready, Willing and Able has brought us some of our most committed employees....

I thought for sure we'd have a good result, but I never imagined it would be this good.... It's a labour pool that is available, and I don't know that everyone knows how strong it is or how to get it started. That needs to change.

Why invest in phase two of RWA? The magnitude of change needed cannot be achieved within a single four-year window. The need for a phase two of RWA will build on lessons learned, cement the long-term viability of this model over the next three years, and change that 20% statistic.

Creating an accessible Canada means creating inclusive workplaces that capitalize on the incredible diversity of our country. RWA is positioned to support the Government of Canada's accessibility agenda by moving this momentum to transformation and practice—transformation that ultimately sees individuals with an intellectual disability or autism apply their untapped potential to create a more competitive and productive Canadian workforce.

It's time for the government to find ways to expand workplace participation for persons with disabilities and to broaden the scope of investment beyond the opportunities fund. We are asking for a phase two RWA so that persons with an intellectual disability or autism can reclaim their right to equal and full citizenship.

Not only do they deserve it. They are ready, willing and able.

Thank you.

•(1020)

**The Chair:** Thank you both.

Cynthia Carroll, with the Canadian Autism Spectrum Disorders Alliance, was the second speaker. I failed to introduce you in the beginning. I didn't know it was a joint presentation.

From the Eastern Ontario Wardens' Caucus, Robin Jones, chair, and Jim Pine, chief administrative officer.

Welcome.

**Ms. Robin Jones (Chair, Eastern Ontario Wardens' Caucus):** Thank you very much. Good morning.

My name is Robin Jones, I am the mayor of the village of Westport. I'm the warden of the United Counties of Leeds and Grenville, and I am the chair of the Eastern Ontario Wardens' Caucus. I'm here with my colleague, Jim Pine, who is the CAO of Hastings County.

When we talk about wardens, we're not talking about the correctional system. In the province of Ontario we have many two-tier municipalities. The upper tier consists of the counties in our part of the world, and the warden is elected from the mayors of that county. The Eastern Ontario Wardens' Caucus is all the upper tier and two large municipalities in eastern Ontario. We represent 103 municipalities across eastern Ontario. There are only 444 in Ontario, so we represent a large number of constituents.

I'm here today to talk about a project that we are hoping for some support on. Over the past 18 years, the wardens' caucus has pursued policies and projects that improve the economic health of its member communities. In 2010, we formed a not-for-profit organization called the Eastern Ontario Regional Network, which we will likely refer to with the acronym EORN. The purpose of EORN was to support the region's quality of life and economic development through improved connectivity for rural eastern Ontario. From 2010 to 2014, EORN built a \$175-million network that improved broadband access to about 90% of the people in eastern Ontario. This was an innovative public-private partnership, which included the federal government, provincial and municipal governments, and private service providers.

In 2018, we are now moving to the next milestone, which is to improve access to cellular and mobile broadband services in eastern Ontario. Should you think it's not that bad, my municipality is about 45 minutes north of Kingston, and I have probably five to 10 minutes in that route when I will have dependable cellular service. This isn't just north of Highway 7. This is throughout eastern Ontario. We know we hit a wall when we come out of Toronto when we lose the cellular mobile opportunities. This is the number one issue for the politicians in eastern Ontario. It is the number one linchpin in our economic stability.

To let you know that we don't come with complaints without solutions, Mr. Pine will give the solutions.

**Mr. Jim Pine (Chief Administrative Officer, Eastern Ontario Wardens' Caucus):** Thank you very much, Madam Chair.

We've made a proposal to both Canada and Ontario to do a project to close the cellular gaps in coverage and improve capacity. It has a value of \$213 million. We've asked the federal government to join with the Province of Ontario and commit in budget 2019 to a contribution of \$71 million over four years—\$17.75 million a year for four years—as its share of the eastern Ontario regional mobile broadband project.

The Province of Ontario has committed \$71 million to date. The Eastern Ontario Wardens' Caucus and the cities in eastern Ontario have committed \$10 million as well. We'll raise another \$61 million from the private sector, but we really need the federal government to join us in this key project.

It's about jobs and public safety. Our independent analysis has shown that if we do this project across eastern Ontario, we can create up to 3,000 jobs over the next number of years. Business revenues will be developed that will interest industry and telecommunications businesses to participate, and it's going to improve public safety as well. In many places, as the chair said, you can't get a cell connection at all. There are areas where you can go 100 kilometres and never be

able to make contact with a cellphone. If you have an accident in that area, good luck. You'd better try to find a landline somewhere.

This project will set us up for the future too. We know that 5G is coming. Eastern Ontario needs to be ready to participate in that part of the economy. We can't do it without this key infrastructure in place. We need the support of Canada. We have Ontario's support. We'll raise a bunch of money from the private sector. This could be a really successful public-private partnership, as we had in the last project.

It has the support, I think it's fair to say, of all eastern Ontario MPs in the House of Commons. They have all written us support letters, urging the federal government to participate.

We're ready to get going. We just need the federal government to be onside with its contribution.

• (1025)

**The Chair:** Thank you both.

From the Juvenile Diabetes Research Foundation of Canada, Mr. Prowten and Mr. Tohill.

**Mr. Dave Prowten (President and Chief Executive Officer, Juvenile Diabetes Research Foundation Canada):** Thank you, Mr. Chair.

As mentioned, my name's Dave Prowten, and I'm the president and CEO of JDRF Canada. I'm joined by Patrick Tohill, who is our director of government relations.

JDRF is the world's leading charity focused on research to cure, prevent and treat type 1 diabetes. This is a chronic, potentially fatal, autoimmune disease in which a person's pancreas stops producing insulin, making them dependent on daily injections or infusions of insulin for the rest of their life.

I'd like to begin by thanking this committee for the attention you gave last year to the process changes by the Canada Revenue Agency, which saw nearly all adults with type 1 diabetes being denied the disability tax credit. The good news is that 1,326 Canadians with diabetes have had the disability tax credit restored. However, there remain 941 whose DTC claims remain disallowed. When we met recently with the CRA, they informed us that these applicants will not be notified of this outcome. We are concerned that those applicants may not be aware of the CRA's process and that it's concluded, and we believe these 941 individuals should be notified so they might avail themselves of the appeals process normally available to them. Frankly, we think that not doing so is really poor customer service by the CRA at this point.

With respect to the DTC, there remain some significant issues around eligibility that we would like to see addressed.

The first recommendation in our pre-budget submission calls on the government to amend the Income Tax Act to reduce the number of hours required to qualify for the DTC from 14 to 10, and to recognize carbohydrate calculation is integral to a proper dosage of insulin, and therefore should be an eligible activity. The CRA currently considers carbohydrate calculation as a dietary restriction, which is an ineligible activity, when it really is part and parcel of calculating the appropriate insulin dosage and should be an eligible activity. It creates confusion for doctors and inequity for patients. Those who report on their T2201 claim form the time spent calculating carbohydrates will often be denied, while those who report time spent calculating their insulin dosage will see that time included.

Our second recommendation is to amend the Canada disability savings regulation around RDSPs by removing the requirement that government contributions be repaid when their DTC eligibility is lost—except, of course, in cases of fraudulent activity. One of the most disturbing aspects of the CRA's recent denials was that some Canadians stood to lose tens of thousands of dollars in government contributions to their RDSPs. With eligibility for RDSPs entirely dependent on eligibility for the DTC, some may lose their eligibility within the 10-year investment period, forcing them to close their account and repay all government contributions. As this change in status may happen without a change in actual circumstances, these Canadians stand to lose their RDSP investments while continuing to face the same financial challenges and need for long-term financial security.

Families are of particular concern to us. Parents of children with type 1 diabetes may claim the hours they and their child spend managing insulin therapy towards the eligible hours for the DTC. After having invested in an RDSP in good faith, with the expectation that those funds will be there to assist their child in a time of need, is it right that families should face the prospect of a clawback simply because their child turns 18 years of age? We recognize it's a bit confusing, but it's an important issue that we would like to table.

Recommendation three calls for the government to implement a national diabetes strategy, more specifically the Diabetes 360° strategy recommended by our colleagues at Diabetes Canada. This strategy should include specific outcomes for type 1 diabetes and new funding for research aimed at curing, preventing and treating this disease. We're at a pivotal time for research, and each new discovery adds to our understanding of what's necessary to stop the immune attack that causes this disease and restore the capability to produce insulin, improve lives, and change the outcome and costs to the health care system.

Our fourth recommendation is to create a national diabetes registry for patients with type 1 diabetes along the lines of those developed by Australia, England and Wales, Scotland, Sweden and the United States. These registries have significant impacts on accelerating clinical trial recruitment, and they offer valuable understanding of the effectiveness of patient interventions in improving health outcomes and reducing health care system costs.

Our final recommendation is that the government ensure that all types of insulin are included under any national pharmacare program. Sir Frederick Banting and Charles Best discovered insulin nearly 100 years ago, in 1921, just down the street in Toronto. This

was a remarkable achievement and a real source of pride for Canada. Today the cost of insulin remains high and newer, faster-acting insulins and glucose-responsive insulins are out of reach for some patients. It's a very expensive disease to manage on a day-to-day basis.

● (1030)

JDRF thinks it would be a fitting celebration, on the eve of the 100th anniversary of this remarkable discovery, for Canada to cover the cost of this life-sustaining medicine for all Canadians.

Thank you very much.

**The Chair:** Thank you.

Turning to Land Over Landings Inc., we have Susan Reesor, Vice-Chair; and Jim Miller, Head of Research. Welcome.

**Ms. Susan Reesor (Vice-Chair, Land Over Landings Inc.):** Good morning.

My name is Susan Reesor. I was born and raised on a farm in Markham, not far from the Pickering Lands. The extended Reesor family has been growing food on this land since 1804.

My colleague, Jim Miller, is co-owner of Thistle Ha' Farm, adjacent to the Pickering Lands. His great-grandfather settled the farm in 1839.

Jim and I are executive members of Land Over Landings, a citizens' organization whose mission is to convince the federal government that a large tract of Crown land in Pickering, almost all of it prime farmland, should no longer be held for a potential airport, but instead, be developed as a food source for the greater Toronto area and beyond.

The land, which is very near to us here, was expropriated in 1972, and 46 years later, half of it has been turned into a national park. The remaining 9,600 acres still sit in limbo. As far back as 1985, the Auditor General was calling the land-banked site a non-productive asset. The part left in limbo is still a non-productive asset.

Land Over Landings recently commissioned a first-ever agricultural economic study of these lands to ascertain the site's current economic output and to determine its potential if dedicated to food production and agricultural research. The study, which we have provided to the clerk, found that economic output had dropped by half under Transport Canada's ownership, while job numbers had plummeted by two-thirds.

On the other hand, the report described a possible future for the lands that shows a viable path to new prosperity. If the government agreed to put the lands back into diversified farming, if it made them a training ground for the next generation of farmers, if it provided affordable farmland to new farmers who could capitalize on its proximity to Canada's largest food market and take advantage of the tourism spillover from the new Rouge National Urban Park, if it opened the door to the establishment of research facilities on the lands for agricultural innovation and climate change adaptation, these combined farming and agri-tourism activities could create more than 2,100 new jobs and revitalize an area that has become an economic wasteland, dragging down surrounding communities with it.

The study's consultants calculated that these 9,600 acres, on their own, could generate \$238 million in overall economic activity annually. From another perspective, the status quo constitutes a lost opportunity to our economy of \$4.4 million per week.

Today, the 11 airports of the southern Ontario airport network are collaborating to meet the region's projected aviation needs for the next 30 years. Many of these airports, including Pearson, can expand should the need arise. In fact, Pearson's latest master plan for 2017 through 2037 makes clear that Pearson has a number of options for expanding its operations, meaning that the Pickering site will remain land-banked for another three decades at least, maybe forever, given that we need to drastically cut, or even eliminate, our carbon emissions in the course of this century.

The Pickering site is at risk of becoming a stranded asset, a fate that could be averted if the farmland were permanently committed to helping meet the future's biggest challenges: feeding the world's growing population and mitigating climate change.

These lands are capable of reliably producing safe, fresh food for Canadians and the world for generations to come. It's hard to imagine anything more crucial to our future well-being than protecting our most valuable food sources while we still can.

We can provide you with details during the question-and-answer part of this hearing. Today, we ask the committee to allocate funding to help transition this Crown land from languishing site to a prosperous farming and research community whose output could start paying dividends quickly under the overall management of a public custodian.

• (1035)

The essential elements are already in place to turn these lands into one of the new food hubs serving Canada and the world, as was recommended in the 2017 Barton report on agriculture.

Thank you for your consideration of this request.

**The Chair:** Thank you very much.

From the MDA space missions group, we have the President, Mr. Greenley, and Ms. Holly Johnson, Business Manager. Welcome.

**Mr. Mike Greenley (President, MDA Space Missions Group):** Thank you.

As mentioned, I'm Mike Greenley. I'm group president of MDA. MDA is Canada's space company. We have about 2,000 employees

across the country in five sites. I'm also representing several hundred other Canadian companies today that are engaged in Canada's space industry.

I'd just like to speak for a few minutes about our role in space, involving projects around space robotics. We have an updated submission, from what we had done before. We'll hand that out quickly, so you have a copy of it.

As I talk about this, my colleagues and I across the country would like the committee to consider a time in space 12 years from now. There will be a new space station operating in orbit around the moon. On that space station will be the third generation of Canadarm.

That's the project that we're talking about today.

If we imagine the next generation of Canadarm space robotics on this new space station, there would be two components—a large robotic arm that would be used to assemble the space station over the next seven years, and then the small dextrous arm that would support robotic operations helping astronauts. This small arm would also be able to crawl inside the space station and maintain and operate it during times when there are no astronauts on the space station.

Today, as you know, Canada has robotics on the current International Space Station that is in orbit around the earth, about 400 kilometres away. This next generation space station that'll be operating a decade from now will be 400,000 kilometres away in orbit around the moon. This next generation of robotics, as a result, will be absolutely the most advanced robotics in the world with an extensive amount of artificial intelligence-based control systems and operating algorithms in it, leveraging the AI community from Waterloo through to Montreal and across the country.

Canada is expected to, and has been asked to, contribute the robotics to this next generation space station. If we imagine this world 12 years from now, when this is all operational, it will have been operating for five years. The international community wants to launch the next space station in 2024 and have it operational in 2025.

During this period of time over the next few years, this project will have generated a little over 45,000 jobs, will have engaged about 500 companies across the country and will have caused about \$3 billion of economic activity here in Canada as a result of the project. Based on comparisons to past space projects in Canada, it will have most likely generated about \$2 billion dollars over the next decade in additional spinoff exports on terrestrial applications of robotics here on earth, in addition to commercial robotics that will be used in low-earth orbit around the earth, doing in-orbit servicing, space mining, space manufacturing, in addition to—with the privatization of the operation of the current International Space Station—putting robotics on that. We have about \$3 billion of economic activity from this project and about \$2 billion of additional follow-on exports.

To make all of this happen, budget 2019—this budget that we're discussing—and decisions by government in 2018 have to be made. The Government of Canada needs to recognize space as a national strategic asset, based on the 50 years of experience we've had. It needs to polish a long-term space plan for Canada, and this next budget must make a commitment for Canada to contribute the AI-based robotics to the next space station, the lunar gateway. That is a \$1 billion to \$2 billion commitment. NASA and the international community need to see that Canada has made that commitment so that Canada can continue its leading role in the provision of space robotics to the international community.

It must be in this budget. If it's not in this budget, then it will fade away as an opportunity. Other countries have published their space ambitions. The United Kingdom wants to be in the top 10% of the global space market by the year 2030, during this same period of time. Countries as small as Luxembourg have committed hundreds of millions of dollars to invest in space exploration and expansion in their sectors. The United States, Germany and Japan all want to put robotics on the next space station, but that space is reserved for Canada, based on our 30 years of experience providing space robotics, thus far.

Ipsos conducted polling this spring to ask Canadians what they think about this topic, and 80% of Canadians are supportive of developing the country's space sector and think it's a good decision to increase the amount of investment in space for this next generation of activity. Some 90% of Canadians agree that maintaining leadership in space robotics—especially the Canadarm—is good for our country, and important. As well, 85% of Canadians would like to see Canada maintain this role in a new lunar mission.

We have significant voting power and interest from Canadians, indicated by Ipsos, in this topic. Conversely, 85% of Canadians expressed concern that Canada might lose its position that it has established in the space sector over the last 50 years by not committing. There are a lot of votes to be lost at the same time.

Our community is asking us to make this commitment to provide AI-based space robotics to the next generation space station called the lunar gateway, and to not let go of our position. If we let go, other countries will take it. We will lose the position that we have established over 60 years. We will lose our position in AI-based robotics where we can be the world leaders moving forward, and we will lose the opportunity to continue our leadership role in the international space community, which gets us all of our astronaut missions as well.

Thank you. That's our submission.

• (1040)

**The Chair:** Thank you very much, Mr. Greenley.

Next up is Queen's University, Mr. Fraser, vice-principal, university relations.

**Mr. Michael Fraser (Vice-Principal, University Relations, Queen's University):** Thank you.

Good morning, Mr. Chair, and members of the committee.

I want to start off by thanking you for the opportunity to present as part of the 2019 budget consultations.

The post-secondary sector has appreciated the support of successive governments. We hope our recommendations will make the case for continuing this legacy in research and innovation and in talent.

I also want to express Queen's appreciation for the government's investment of \$31 million to the post-secondary institutions strategic investment fund. This investment supported the construction of the Queen's innovation and wellness centre and the revitalization of our research facilities.

Universities support economic growth in many ways: through research, by supporting regional economic innovation and entrepreneurship, and by preparing students for success. Our recommendations for budget 2019 support these aims. With an undergraduate entrance average of 89%, Queen's attracts high-quality students from across Canada and around the world. Each of your ridings likely has a tie to Queen's, be it through current students, faculty or alumni.

From their first day on campus our students find themselves in a learning environment that challenges and supports them in equal measure. It's because of this approach that the Queen's undergraduate graduation rate of 86%, and graduate completion rates of over 90% in master's and Ph.D. programs exceed national averages. Queen's also has strong post-graduate employment figures with 90% of our graduates employed within six months, and an average income five years after graduation of \$79,000, \$8,000 higher than the national average.

This committee has already heard from other associations and institutions in this sector such as the U15 and Universities Canada, with whom we share some recommendations. Queen's echoes the U15's call to expand undergraduate research awards programs across the tri-council agencies, creating thousands of research opportunities for undergraduate students. We also support their proposal to invest \$140 million annually by 2022 to increase the number of graduate and post-doctoral scholarships. Canada currently ranks 26th in the OECD in the proportion of population with a graduate education. To remain globally competitive, addressing the highly qualified personnel deficit must be a priority.

As well, expanding these programs will help more students, particularly indigenous students, women and students from equity-seeking groups, to access research and skills development opportunities. To maximize Canada's potential, we must ensure that the future economic growth is inclusive of all Canadians. These proposed investments will help achieve that aim.

For an example of the positive impact of undergraduate and graduate research experience, one need only to look at the words of Queen's professor emeritus in 2015, Nobel laureate Dr. Art McDonald. In lectures around the world, Dr. McDonald has proudly spoken of the hundreds of students and post-doctoral researchers who worked on the SNOLAB experiment in Sudbury, many of whom are employed in fields outside academia in finance and in industrial research across the country and around the world. However, their experiences in research provided an opportunity to hone both the technical and critical thinking skills that have allowed them success in those chosen fields.

Research that takes place on university campuses helps reshape our understanding of the world we live in, while advancing new technology and medical treatments that will improve countless lives. Two of Queen's research partnerships I would like to highlight are the Canadian Cancer Trials Group, or CCTG; and the Canadian Institute for Military and Veteran Health Research, or CIMVHR. I understand you'll hear from CIMVHR later today, and I encourage the government to support their important work. CCTG, a national research co-operative that runs clinical trials to test anti-cancer and supportive therapies, headquartered at Queen's, has supported over 500 trials in over 40 countries aimed at improving survival rates and quality of life. CCTG is also leading the development of the Canadian personalized health care innovation network, which will connect researchers nationwide to clinical data that guides the development of new cancer therapies.

Queen's has long been a leader among Canadian universities in commercializing technologies and IP emerging from research. At Queen's, our research discoveries have led to more than 500 patents and over 50 spinoff companies, attracting outside investments in excess of \$1.4 billion. Queen's is at the centre of an emerging eastern Ontario innovation ecosystem that is breathing new life into a region that has too often been challenged to foster economic growth in the past. Queen's and its partners, supported by the former Canada accelerator and incubator program, or CAIP, have provided more than 14,500 hours of mentoring and services to over 500 entrepreneurs and start-ups in eastern Ontario.

•(1045)

These companies have attracted more than \$200 million in investments and created hundreds of jobs in the region. With the conclusion of CAIP, this momentum is at risk. We would encourage the government to make a clear commitment to innovation and regional economic development so that partnerships such as ours can continue to support entrepreneurs who bring new jobs and opportunities to our community.

Finally, Queen's strongly supports the Business/Higher Education Roundtable proposal for a national work-integrated learning strategy. Nearly half of Queen's undergraduate students participate in some form of work-integrated learning, such as internships, co-op or clinical placement. A national strategy would strengthen existing institutional and industry efforts, while extending experimental learning opportunities for all Canadian students.

Thank you.

I look forward to any questions you may have.

**The Chair:** Thank you very much, Mr. Fraser.

With the Women's Brain Health Initiative, we have Ms. Posluns, Founder and President, and Mr. Picov. I'm not sure if I have that right or not.

Go ahead.

•(1050)

**Mr. Barry Picov (Funder, Women's Brain Health Initiative):** Thank you.

I'm Barry Picov. I'm here today representing my family's personal and financial interest in effectively combatting brain aging diseases. As a businessman from a five-generation business family right here in the region of Durham, I believe that the cost to Canadians will be far greater if we remain reactionary than if we are proactive and prepared.

I wanted to give you an analogy that I've thought about for many years in regard to brain aging diseases and dementia, and that is the tsunami warning. That's truly what I believe is happening here. The bells go off, the earthquake happens, the warning signs happen, things are moving, the wave is coming and we're still sitting on the beach. If there's anything you can take from me, that's something I want you all to remember. Dementia and brain aging diseases are critical to look after.

I would like to introduce to you the founder and president of the Women's Brain Health Initiative, my good friend, Lynn Posluns. My family and I strongly believe that she, the board of directors and this charitable organization can really improve the lives of Canadians, so much so that we gave \$500,000 of our hard-earned money to the Women's Brain Health Initiative to do just that.

Thank you.

Lynn.

**Ms. Lynn Posluns (Founder and President, Women's Brain Health Initiative):** Thank you, Barry.

Good morning.

Brain disorders like Alzheimer's are highly disabling and chronic, placing an enormous burden on those affected, their caregivers, their social environment, health care systems and society in general. Brain ill health leads to enormous human suffering and restricts the independence of those living with a brain aging disorder, not least as a result of disability and the need for special care. Without significant decisions and investments, the burden of brain aging diseases will become unbearable. It is likely to lead to a further increase in suffering of those affected as well as threatening the sustainability of our health and social care systems.

No long-term effective solutions exist today. As our population is aging and mortality rates from Alzheimer's keep increasing, it's no wonder Alzheimer's has now moved ahead of cancer as the most feared disease. Yet annual research funding of Alzheimer's and related dementias continues to significantly lag behind other disease states.

Canada currently spends close to \$50 million per year on dementia research. Although Canadian researchers are doing great work both nationally and on the international front, dementia research in Canada is severely underfunded.

The 2016 Senate report, “Dementia in Canada: A National Strategy for Dementia-Friendly Communities”, recommends investment in dementia research equal to 1% of annual care by the Alzheimer Society of Canada. This would translate to approximately \$100 million per year in investment in dementia research.

More recently, Alzheimer's Disease International released its “World Alzheimer Report 2018”, and once again it proclaims that 1% of the societal cost of dementia should be devoted to funding research. Ideally, this additional funding should go to our partner, the Canadian Institutes of Health Research, to be targeted for the Canadian Consortium on Neurodegeneration in Aging, focused around the topics of quality of life, secondary prevention and primary prevention.

That research must take sex and gender—that is, biological and social influences—into account. Why? Because dementia discriminates. In Canada, almost 70% of Alzheimer's sufferers are women. Women succumb faster and women also end up worse off than men. If that weren't bad enough, women are two and a half times more likely to be providing care for somebody else with a brain-aging disorder. But historically, research has focused on men. That's why organizations like Women's Brain Health Initiative matter. We not only actively advocate for scientists to take sex and gender into account. We help fund that research, such as creating and supporting the world's first-ever research chair in women's brain health in aging, awarded to Dr. Gillian Einstein at the University of Toronto, and funding the sex and gender cross-cutting team at the Canadian Consortium on Neurodegeneration in Aging.

While more funding into research is vital to finding answers for our daughters and granddaughters, Women's Brain Health Initiative also educates the public, especially young women, on what they can do to avoid or delay the progression of mind-robbing diseases like Alzheimer's. Why? Because we now know that by the time symptoms of Alzheimer's occur, it is likely that the damage to the brain has happened 20 to 25 years prior.

In a recent report from the esteemed Lancet Commission out of the U.K., along with other corroborating studies, one-third of all cases of dementia can be avoided by modifying your lifestyle choices, choices that include social, mental and physical activity; adequate sleep; stress reduction; and healthy eating. The earlier you engage in healthy lifestyle choices that you can control, the stronger the protective effect will be.

Women's Brain Health Initiative has created an effective vehicle for disseminating these evidence-based findings through our “Mind over Matter” publications, the last five editions co-funded by Brain Canada. With additional support we can reach more and teach more. Why? Because Women's Brain Health Initiative is the only organization that is proactive to brain-aging diseases. It is determined to get in front of the financial tsunami facing Canadians, if left unchecked, by providing the public with the information they need to stave off life-changing, debilitating diseases that rob people of their memories, personalities and ultimately their loved ones.

Getting people to change behaviour is not an easy task—just look at the number of people who still smoke—but knowledge is a great enabler and people have more control than they realize. Increasing funding for Canadian research that must be sex- and gender-sensitive is necessary to find effective solutions for everyone. Until we get the answers we desperately seek, getting the evidence-based ways of safeguarding our own cognitive health into the hands of the public in ways that encourage positive behaviour modification is critical to preventing and delaying brain-aging diseases. If we don't, Alzheimer's will become the emotional, social and financial sinkhole of the 21st century.

We have a collective responsibility towards future generations for our ability to face and reverse the challenges posed by brain-aging disorders and to improve the lives of all Canadians: those at risk, those affected by or living with these diseases, and the youth it behooves us to protect. Women are half of our workforce and are our primary caregivers. Our good health drives our families, our community and our economy. We can help, and hope that you'll join us.

Thank you.

• (1055)

**The Chair:** Thank you, both, very much.

We'll start with the first three MPs for seven-minute rounds.

Mr. Fragiskatos.

**Mr. Peter Fragiskatos:** Thank you, Mr. Chair.

Thank you to all the witnesses for the presentations. As you just heard, I have seven minutes. I can't ask every organization questions that I would want to put forward, but I will begin with the Eastern Ontario Wardens' Caucus.

I'm highly interested in this issue of rural broadband and connectivity. I'm an urban member of Parliament, so you might ask why, exactly, someone from London is so interested. Quite frankly, it's an economic issue. It really speaks to the economic vitality of our country, or lack of vitality if we don't get it done.

In London, we have a number of small communities that lack that type of connectivity. We have started, though, as you might know, through the Western Ontario Wardens' Caucus, the SWIFT network, which is in process. It's a very exciting initiative that our government was proud to contribute funding towards. You mentioned EORN. As well, there are a number of other municipalities that have, on their own, really spearheaded efforts.

I put this question to you because municipalities have a really unique role in all of this and an important role to play. The big Internet service providers really lack incentives, because obviously it's very costly to build networks in rural communities. Yours is an example. SWIFT is now an example in the southwestern region.

I mentioned other municipalities. To be specific, Stratford in 1990 started its own Internet service, and that continues. For \$20 a month in Coquitlam, you can have high-speed Internet through a network that was started and is now run by the city, called the Coquitlam Optical Network Corporation.

I'll give you a third example. You're probably aware of these examples, but it's important to put them on the record.

Olds, Alberta, a small town of 8,500 people, had a problem. That problem was all too common. They couldn't find an Internet service provider to serve their people. Now, because they invested as a municipality, they have every home and business connected to a fibre optic network that is community-owned. Those are really impressive results with all sorts of potential.

We have heard testimony throughout the week from organizations pointing to the role that municipalities have to play in spearheading broadband connectivity. I wonder if you can speak to that based on your experience with the Eastern Ontario Regional Network.

• (1100)

**Ms. Robin Jones:** We're very familiar with some of the organizations, in particular with SWIFT. EORN was supporting their development. Of course, some of the examples you've given are in more of an urban setting. This is across eastern Ontario.

I'd like Mr. Pine to draw on our experience of how we built the first project, so that we can connect the dots here.

**Mr. Jim Pine:** Thanks very much. It's a great question.

I really appreciate your sensitivity to the needs we face and the role that municipalities play. In fact, we built EORN's \$175-million first project because, when we started, of the 750,000 rural residents in eastern Ontario, 300,000 were on dial-up, so they couldn't get any type of connectivity. In the absence of provincial or federal strategies to deal with this, it fell to the counties across eastern Ontario to try to find a way to connect our citizens and our businesses. That's how that first project got its genesis.

We see it every day. We get businesses that call us every day, saying they need better connectivity in order to operate their business. We have residents who call us and say they need to be able to connect so that their kids can do some online studying.

It's a real problem in eastern Ontario, and it's a problem across the country. There needs to be a national strategy, for sure, and a lot more investment. We've taken an area that's the same size as the province of Nova Scotia—that's eastern Ontario—and are trying to do our best to fix the connectivity issues.

Our next project is around mobile broadband and cellular, so it has driven it.

Telecom companies won't go where there's market failure. That's why governments have to be involved. That's the only time we're involved as local governments, when there isn't a business case for the private sector to do it on their own.

We've worked with them over the last 10 years, and that is still true. There are areas where they just will not go because they can't get a return for their shareholders. That's why government needs to be involved.

We liken it to the situation where people needed electricity or telephone service. Government got involved because every Canadian should have that same ability to connect or to turn the lights on. It's the same thing with connectivity.

**Mr. Peter Fragiskatos:** It's about critical infrastructure. If we talk about the economic prosperity of the country, we can't help but talk about broadband connectivity for everyone. We can't have haves and have-nots on this critical issue, quite frankly.

Ms. Jones, for the examples I cited, I suppose Stratford could be considered urban, but Olds, Alberta, has 8,500 people. The region of Waterloo, just down the road from me in London, is now investing in the SWIFT network as a way of connecting very small towns and villages. I used the example of SWIFT before. I think certainly when it comes to.... The federal government contributed money. The then provincial government contributed significant funds. Between the two governments it was about \$180 million. I'm going on memory here.

Municipalities have a critical role to play as well. I think the point needs to be made that the federal government certainly has to be at the table with these things, and is, but we need continuing municipal support. The Eastern Ontario Wardens' Caucus, your initiative, is a great example of what is possible as we continue to grapple with this challenge in the country.

I think, Mr. Chair, I've exhausted my seven minutes.

**The Chair:** I think you have.

Mr. Kelly.

**Mr. Pat Kelly:** Thank you.

I'd like to thank all of you for your presentations. I'm going to ask Juvenile Diabetes to comment on a few things.

First of all, thank you for raising the issue of those who had their disability tax credit revoked or denied in 2017 as a result of the letter that was sent in May of 2017. We heard quite a bit of testimony at this committee. I know that you followed the proceedings when both the minister and department officials told the committee that nothing had changed and there was no change to the eligibility requirement, yet we know what happened.

You characterized the 941 cases where no answer has been given by the agency as to the status of their DTC application. You called it poor customer service. Maybe more to the point, it's a broken promise because later at committee and on the floor of the House of Commons, we were told that in each case an answer would be given.

Could you give us a little more on the importance of that credit? It's not just the tax credit itself. The tax credit is the gateway to a number of other supports, including the RDSP, and other income supports for disabled Canadians. This is not just a matter of getting a small refund based on that credit. There are enormous consequences for a disabled family with a type 1 diabetic or any disabled Canadian, whether it's autism or any of a number of disorders. Can you talk about the credit and its importance as a gateway?

● (1105)

**Mr. Dave Prowten:** Type 1 diabetes and other chronic conditions are very difficult to deal with and this whole program was set up to support people. As a gateway, we're trying to recommend clearing the hurdles, making it as easy as possible for people to apply and be accepted, on the assumption that everything is legitimate; we understand that.

The risk of having something taken away like the RDSP, we find astonishing. When you turn 18, your family's condition doesn't change, so we would like some of them to be permanently fixed and acknowledged. I think one of the great challenges is that people have to apply over and over again. They have to go to their doctor. The doctors don't get reimbursed, so getting these credits for the first time is a hurdle and then having to go through it over and over again is difficult.

To your point about a gateway, if you can't get through the door, you're stuck. Diabetes can cost up to \$15,000 a year to manage. The \$1,500 for the DTC is important but it bothers people when their chronic disease is not acknowledged.

**Mr. Pat Kelly:** There is a private member's bill that has been tabled and matches part of your first recommendation. I think that having the government adopt your first recommendation would be great, but there will be another crack at this if that bill gets to the floor.

Part of that also addresses your issue of not having to reapply. If you have a chronic life condition, you ought not to have to burden your own physician on an annual basis to reconfirm that you still suffer from a permanent condition. Would you agree and add this to your recommendation?

**Mr. Patrick Tohill (Director, Government Relations, Juvenile Diabetes Research Foundation Canada):** We're very aware of and grateful to Mr. Kmiec for putting forward his bill. It attempts to take on a couple of the recommendations that we have been making and that we're continuing to make, specifically around CARP calculation and not losing that status. I think it's interesting that, as one of our colleagues from Diabetes Canada mentioned in a previous hearing, this is the only area in the tax code where people can't self-report. You've set up this arcane process that requires a medical practitioner to report, and they find the forms confusing.

I was just reading a redacted letter the other day, and it was about a mental health issue. The doctor was trying to explain to the CRA that his patient is basically restricted in the activities of daily living about four or five days a week, but it's variable because how her disease affects her from week to week changes. He finds a simple yes or no answer in a check box on the form difficult to tick off, so he wrote a letter to provide some extra clarity.

It's really confusing for doctors dealing with type 1 diabetes to assess a person's daily regimen when they don't actually have full sight of what that person is doing throughout the day or throughout the week. They see them every couple of months. If it's an endocrinologist, they might see them every six months. We should be moving to a better system, perhaps where there is self-reporting, or where we're at least going to take the medical practitioner's word on whether a person qualifies.

● (1110)

**Mr. Pat Kelly:** I'll take it as quickly as I can.

I'd like to ask Ms. Carroll a question.

I thank you for giving us some of these statistics and information on labour force participation. We know that being able to participate in the workforce is an incredibly fulfilling activity, and for those who are not able, there are consequences for society, which you've mentioned.

One of the barriers to employment participation for a variety of disabled Canadians is the prospect of losing existing supports, in the sense that once someone has employment income, they may lose medical or prescription benefits. Thus, even though they are able to take a job, and even though a job is available, they cannot take a job because it would cost them more to take a job than to remain outside of the workforce. The opportunity act was another private member's bill that tried to address this.

Can you comment on some of these barriers to employment that exist for disabled Canadians?

**Ms. Cynthia Carroll:** That is definitely a real barrier for many autistic job seekers, as well as job seekers with intellectual disabilities. There is a risk there. As you're moving into the workforce, you want to ensure that you don't lose some of the very valuable resources you've achieved.

We talk a lot about transformation and transition as you move towards the labour market, to ensure that it's a win-win for everyone, specifically for the person who may have been disengaged from the labour market for a long time and has been either underemployed or unemployed. We always talk about looking at it from a wrap-around perspective, to make sure that as we're moving people to be productive and live full lives, they're not being penalized for that.

Those are all components we look at with RWA as well, as people are moving towards the workplace. Because this project was initially in every province and territory, we've been able to map out all the policy gaps, challenges and barriers that adults with autism and intellectual disabilities face as they move towards the workforce. That has actually started very rich conversations at both the provincial and federal levels, which is another reason we're really encouraging the federal government to support a phase two. Those conversations can't be lost.

We just started breaking down these silos and looking at some pretty significant policy shifts in the provinces and territories around this issue. We're really hoping we'll have an opportunity to continue those conversations.

**The Chair:** Thank you all.

Mr. Julian, you have seven minutes.

**Mr. Peter Julian:** Thank you very much, Mr. Chair. Thank you to our witnesses. Those were uniformly terrific presentations.

I'll start with Ms. Carr and Ms. Carroll.

Thank you for your terrific work on behalf of all Canadians. Prior to being elected to Parliament, I ran the Western Institute for the Deaf and Hard of Hearing. We put in place, in British Columbia, a B. C. disability employment network, which included a spectrum of folks with physical disabilities through to intellectual disabilities.

What we found most remarkable—and you touched on it in your presentation—was the fact that once hired, those new employees stayed with businesses forever. Part of the advantage to the business sector was the fact that those employees were long-term employees. Particularly for a lot of businesses that had high turnover rates, it made a fundamental difference.

If you could, I'd like you to comment on that advantage. We're talking about competitiveness in the Canadian economy, and having high retention rates is actually a fundamental element of competitiveness for Canadian businesses. Could you comment on the importance of that? This is a modest investment you're asking for, but one that has huge ramifications, not only for the new employees but also for the businesses.

• (1115)

**Ms. Krista Carr:** Thank you very much for the question.

You're absolutely right. There's no question. Retention rates of 93% are pretty high, and it's non-wage-subsidized real work, real-pay jobs. What we've been able to demonstrate through this project is that the individuals who are trying to get into the labour market make excellent employees. In the information packages we've passed out, we've shown a number of businesses that have hired over and over again through RWA, not just one time. They've hired more and more employees through Ready, Willing and Able because those employees have proven to be excellent employees, and also to increase the employer's competitive advantage because of the fact that turnover and retraining costs a lot of money. These things cost money to the system.

The other thing about this is the 20% employment rate. You're not going to change it in three years. It's going to take investment over a sustained period of time to be able to really change the game on that. We've just really begun and had excellent, excellent success.

Going back to your retention rate, the external evaluation we had for this program stated that, by far and away, this was the most successful one they had ever evaluated, and the evaluators had evaluated a number of federal employment initiatives over the years

**Ms. Cynthia Carroll:** I just want to add to that as well.

I am the chair of the Canadian Autism Spectrum Disorders Alliance, which is CASDA, but I always say my day job is as the executive director of Autism Nova Scotia. I've actually had the pleasure of talking and working with a lot of these employers. They actually have told me that, on average, it costs them between \$7,500 and \$10,000 to retrain one new employee. One of the benefits that

they really valued about RWA is that it was coordinated across the country, so if they did business in more than one province, it really created this accessible and equitable opportunity for employers. But it also cut down on that turnover cost.

You're right. Employers are looking for what they call the days of the baby boomers, where you go in and you stay with a job for 30 years. We're not seeing that trend for lots of reasons now, but they are seeing that with employees through inclusive hiring. It really, truly is an innovation that is making Canada competitive again.

**Mr. Peter Julian:** Thank you very much.

I'm going to move on to Mr. Prowten and Mr. Tohill.

I am shocked, as I think all the committee members are, to find that we're still talking about a thousand people who are having RDSPs ripped away from them. I don't think it will end there. I think when we get back to Ottawa, we will want to convene Canada Revenue Agency back to the committee so that they can defend this decision.

The biggest impact, of course, is for folks who have scrimped and saved to get the matching federal grants. By the RDSP being clawed back or taken away from them, all of the sacrifices that they've made for their child with a disability are eliminated. This has long-term repercussions.

I would like to speak in support, of course, of the changes you're proposing. It's really cruel, isn't it, that Canada Revenue Agency is clawing back monies that people have scrimped and saved to try to get matched through the RDSP.

**Mr. Dave Prowten:** Pat was in a meeting with the CRA very recently where we encouraged them to communicate with the 941 people, just as a customer service element. We sent them a letter to that effect, because at the end of the day, we're trying to navigate the system because those 941 people can't get through the gateway. They're at risk of losing the RDSP, etc.

We would agree with you that there are some simple solutions here that could be handled, and that's part of our challenge and frustration, to be perfectly honest. It's a big system and we're a relatively small organization, and we're just trying to make some simple changes here.

• (1120)

**Mr. Peter Julian:** Thank you very much.

**The Chair:** I don't want to take time away from you, Peter. You still have a minute left.

On this point, what's their reason for not responding to 941 people? All they have to do is put together a damn form letter and send it out.

**Mr. Patrick Tohill:** Yes, it was a bit strange to us. They say that it could cause.... In their experience when they've had similar problems in the past—because I don't think they've ever had this problem with adults with type 1 diabetes before—and they try to send out a second letter, it just causes extra confusion for people.

I'm not really sure what they mean by that, unless it means that their 90-day period to object or avail themselves of an appeal process would then shift to when they got the second letter, which is actually what we think should happen.

**The Chair:** When is the deadline to appeal? Is it 90 days?

**Mr. Patrick Tohill:** You can have just over a year to ask for a review if you have new, chiefly medical, evidence to offer. Your medical practitioner can submit that within a one-year period of your decision, but you have only 90 days to file an objection. Some of the people who were denied back in May, June or July are already well outside that window. You can cite special circumstances and ask for an extension of that 90-day period, but it's not clear how many of those are going—

**The Chair:** Okay, we'll leave it there and come back to Peter.

I think we would feel that an individual has the right to know if he or she has been denied.

Mr. Julian, go ahead.

**Mr. Peter Julian:** Thanks, Mr. Chair.

As I said, I think we'll follow up when we go back to Ottawa. I find it pretty outrageous, and I think all members of the committee do.

Ms. Posluns, I listened very carefully to your presentation, but I didn't hear a specific ask. You made a very compelling case. What specifically are you asking for in budget 2019 that would help to address the extraordinarily high rate of degenerative brain diseases among women? I was unaware of just how highly it impacts women.

**Ms. Lynn Posluns:** Through our partners, we want to increase the funding for research on brain-aging diseases through a sex and gender lens. This has started to happen. The ask is not for us but for the CIHR and the CCNA specifically, to up the number of dollars for the research they are doing and to make sure that it is sex- and gender-sensitive. For women's brain health initiatives, specifically, it is to take those research findings and get them into the hands of the public.

**Mr. Peter Julian:** Did you have a specific figure that...?

**Ms. Lynn Posluns:** Yes, it's \$10 million over three years.

**The Chair:** Thank you, all.

Mrs. Caesar-Chavannes, go ahead.

**Mrs. Celina Caesar-Chavannes:** Thank you very much.

I have a few questions. I'll try to keep my comments quite brief.

Mr. Picov, first of all, thank you for your investment, taking your family's investment and putting it into brain health and research. Ms. Posluns, my background is in neurological research, so my first set of questions will be for you.

The Alzheimer Society of Canada had a report called "Rising Tide", which spoke of the tsunami in 2008. We are now in 2018. Our government has made significant investments into research over the last three years. Why do you think we have not seen increased investment in this particular type of research on neurodegenerative diseases?

**Ms. Lynn Posluns:** That's an excellent question, and one that bothers us as well. The amount of funding into research in this space is a fraction of what's necessary. As the population ages and mortality rates for cancer, heart disease and stroke come down, more people are dying from Alzheimer's. Today, AIDS research continues to get more funding than Alzheimer's or other dementias.

The proportion isn't in the right place. We wouldn't want to take money away from cancer, heart disease or stroke, but I think more funding needs to go into this particular area. Again, it needs to be sex- and gender-sensitive.

Equally important is getting that information into the hands of the public, because lots of things are coming out now in Canada and around the world that say lifestyle is significantly important. There's no advantage for organizations like the pharma companies to put their energy toward these lifestyle things, but people have more control over their cognitive destiny than they realize. This is important information to get into the hands of the public.

It's both the research and the education.

• (1125)

**Mrs. Celina Caesar-Chavannes:** Absolutely. I appreciate your mentioning the Canadian Consortium on Neurodegeneration in Aging and CIHR. Currently, the structure of CIHR is that they have an Institute of Neurosciences, Mental Health and Addiction, and they have an Institute of Gender and Health.

You stated very eloquently the gender bias of the disease, which disproportionately negatively impacts women. In your opinion, how do we change the structures that currently exist or how do we get a more gendered perspective on the research that we're currently doing? Do we put that in the funding application as well as the dissemination component? How do you think we should do that?

**Ms. Lynn Posluns:** That has started with the CIHR because of the work we've been doing over the past five years. For a neuroscientist to get funding through the CIHR, they must defend why they're not considering sex and gender. We've definitely moved the needle for research for women in this area. We've also done some direct funding ourselves, such as funding Dr. Einstein at the University of Toronto. If you get somebody up there on the world stage advocating for more research for women, I think that's where you're going to start to see changes.

It is a combination of efforts through the government and efforts through organizations like ours. It has started.

**Mrs. Celina Caesar-Chavannes:** I'll move, then, to Ms. Carr, from Community Living, and Ms. Carroll.

I've held many town halls in Whitby related to persons with disabilities, and we know that there is that 93% retention rate. They're committed. We know the return on investment.

My question is specifically around the RWA. You said that the program goes to individuals with intellectual disability and autism. Is it expanded to others with other neurodegenerative conditions and diseases, or is the program only for intellectual disabilities and autism?

**Ms. Krista Carr:** It focuses primarily on people with an intellectual disability or an autism spectrum disorder, or both. That's essentially the focus. First, that's because it's a partnership between our two organizations and those are our populations, but they're also the populations with pretty much the worst employment rates. Employment is a huge issue for people with disabilities across the board, but definitely for our populations.

Cynthia, I don't know if you have anything you want to say.

**Mrs. Celina Caesar-Chavannes:** Additionally, we just tabled Bill C-81, the Canadian disabilities act. Do you see workplace participation as a gap in the current legislation? Have you had a chance to look at it?

**Ms. Krista Carr:** I have looked at it extensively. I could probably recite sections of it. It deals with eliminating barriers to employment, mostly in the federally regulated market, that type of thing. It certainly addresses those pieces. It does not address active measures to secure employment for people with disabilities. It's a bit of a different focus, an important one, of course, but not quite getting at what we're after.

**Mrs. Celina Caesar-Chavannes:** I hope you will attend the committee when that report goes to it.

**Ms. Krista Carr:** Yes.

**Mrs. Celina Caesar-Chavannes:** Ms. Reesor and Mr. Miller, we've heard about the economic impact in this region, in particular around an airport. It's clearly identified. You've clearly identified the economic impact of an agricultural hub in this region. Can you reiterate the importance of the agricultural sector, especially when we think about the growing need for food and agriculture, both domestically and globally?

**Mr. Jim Miller (Head of Research, Land Over Landings Inc.):** The report we got from our consultants last spring stands on its own. We're talking about an additional 2,100 jobs in our area, and well over \$200 million in economic impact. Most of this is from re-pioneering the farmland as a diversified agricultural area, but the most important economic impact is from agri-tourism, which is a huge multiplier in our area. With our proximity to the urban regions, the greater Toronto area, we see a huge impact there.

**Mrs. Celina Caesar-Chavannes:** Thank you.

Mr. Chair, do I have one more minute?

**The Chair:** Keep it very short.

**Mrs. Celina Caesar-Chavannes:** Mr. Prowten, I have a gentleman in my riding who is 81 years old. He has juvenile diabetes. It obviously does not end at the age of 18. Can you expand on the impact of the clawback on families?

• (1130)

**Mr. Dave Prowten:** Yes. Thanks for clarifying. The Juvenile Diabetes Research Foundation is almost misnamed, because it's a 40-year-old organization and it's a disease that affects people of all ages.

The clawback is incredibly detrimental to people. It would be like taking your RSP. That's the best analogy I could give. It's sort of taking back money that you had put in to save for your future, but in this case you've put money away to save for your extraordinary health care costs. A clawback is going to basically rip out savings

that you've had in place, in many cases just to survive. These are expensive diseases.

**The Chair:** Thank you, all.

Just to follow up with Mr. Miller, is the agricultural land that Transport Canada has now sitting idle? Is it growing weeds, or is it leased out to farmers?

**Mr. Jim Miller:** Once Ontario decided not to support the project, in September 1975, Transport Canada started leasing the properties, residential and farmlands, on annual one-year leases. Basically, with that short of a planning horizon, the lands went into cash crop.

**The Chair:** I'm a farmer myself. You certainly couldn't plan in one-year cycles.

Okay. That's good information.

Ms. Alleslev, you have five minutes.

**Ms. Leona Alleslev:** Thank you very much.

Thank you very much for your presentations.

Mr. Greenley, there are those who would argue against a space strategy because they say it's a luxury for rich countries that we don't necessarily have. Yet we need it for our competitiveness. It's a national strategic asset that was identified as a key industrial capability generating \$5.5 billion in revenue, 10,000 direct jobs, 22,000 indirect jobs and \$2.3 billion in contribution to GDP.

While the exploration of outer space with AI and the next generation of Canadarm is a very romantic notion, could you give us an idea of the other elements of the space strategy that are maybe a little more down-to-earth, such as mid-earth orbit, low-earth orbit, RADARSAT, both military and civilian, so we can fully appreciate that this is not an outer space notion? It's actual command and control communications. Canada has been a world leader and is now at risk of not being a world leader.

**Mr. Mike Greenley:** The first thing to talk about is space exploration and the number of jobs and stuff that come from that, which is all factually correct. Those jobs are very high-quality positions in the country in terms of the economic base. The expansion of artificial intelligence and robotics in space generates, in the companies that are involved in it, approximately 70%, in our examples, of STEM jobs: science, technology, engineering and math-based jobs. It's a very high-quality sector in terms of participation in the economy, even though the application is in space. The spinoffs of that work have affected medicine and advanced manufacturing, so far in our 30 years of experience.

When Canada chose to be the third country in space, it established this sector and has benefited greatly, both in the jobs that participated in space and the spinoff benefits, even from things like AI and robotics.

Beyond AI and robotics, the sector that we call space exploration includes rovers—advanced vehicle design and manufacturing for rovers on the moon and Mars. Canada has been on Mars for 14 years now. In addition, there is medicine. We're now getting into remote monitoring of astronauts on the moon and Mars. Telemedicine means being able to put sensors on astronauts to monitor and diagnose their health, and have new forms of medical treatment and coaching from 400,000 kilometres away. Obviously, the spinoffs in telemedicine for rural communities on earth will be extraordinary as a result.

• (1135)

**Ms. Leona Alleslev:** What about satellite communication?

**Mr. Mike Greenley:** The next two areas will be satellite communications and earth observation.

Canada established itself as a leader in satellite communications in the 1960s. It was the first country to have a domestic communications satellite, the first country to have direct-to-home TV broadband from space, and the first country to have two-way Internet access across the country, in 2004. Canada was also one of the first countries to have earth observation, where we use radar-based satellites to monitor the climate, ice, agriculture, natural disasters, transportation, maritime traffic and the like.

We have studied all these benefits, and we have calculated that each individual Canadian interacts with space-based data or space-based benefits about 20 to 30 times a day.

**Ms. Leona Alleslev:** What happens without a space strategy? We had one 25 years ago and now we're at the end of that ramp. If we don't have one now, are we at the leading edge or are we at risk of losing it?

**Mr. Mike Greenley:** Yes. Your own consultant said that Canada is currently bleeding off the edge of a strategy that is over 20 years old. There is no doubt now.... When we started this in Canada, we were the third country in space and one of the six countries in the current space station, having our space agency a few decades ago. Now, we have 50 countries with domestic satellite programs, and 72 countries with space agencies. They all want in. The countries with ambition and budget are going to get the industrial base and the jobs that go with that, in addition to the economic benefits of space. Canada's industrial base, which has been established for over 50 years as world-leading, would have to find its way to countries that do have space programs and budgets if we don't continue our leadership position.

**Ms. Leona Alleslev:** Right now, there's a chance that other countries would buy from us. If we miss the window, they will develop their own capability.

**Mr. Mike Greenley:** That's already occurring. As a representative of Canada's largest space company, in terms of the corporation that I run, I'm already seeing us set up in other countries where there are greater space ambitions and budgets. We're very committed in Canada. We want to see it hold its leading position. But it needs to do so, and the next 12 months are a critical time. This next budget is critical.

**Ms. Leona Alleslev:** To ensure that the Canadian—

**The Chair:** Sorry, that's your time.

Mr. Sorbara, go ahead.

**Mr. Francesco Sorbara:** Thank you, Mr. Chair.

Thanks, everyone, for your presentations.

I'll start with the Eastern Ontario Wardens' Caucus. I'd like you to bring me up to speed on something. Our government put in place what was called the connect to innovate program. Has the EOWC participated in that program and made applications?

**Mr. Jim Pine:** We did not. It was directed more at the telecom companies, generally speaking.

We had one announcement in our region. Xplornet partnered with the federal government under CTI to extend a portion of the fibre in their networks, which was very positive for us. We weren't part of it.

We supported every company that made an application to the CTI project in eastern Ontario, but EORN itself did not make an application. We're very supportive of the companies that did.

We had one announcement in our region recently, by MP Bossio. It was not too long ago.

**Mr. Francesco Sorbara:** I can fully understand on two levels how, when you're in an urban or semi-urban setting and you drive 15 minutes, the change in coverage is drastic. The riding I represent, in Vaughan, has great coverage, but if you go up to East Gwillimbury and up near Lake Simcoe—which is still considered York region—the coverage and Internet speed change. To add to that, I grew up in northern British Columbia, in Prince Rupert, and up until now it did not have the fastest Internet speed. I can support that.

Has there been a joint request made to both the provincial and federal governments for funding?

**Mr. Jim Pine:** Yes. A year ago in May, we submitted our business case to both levels of government, both Canada and Ontario. I'm pleased to say that the Province of Ontario is supporting us with a \$71-million commitment.

Like our last project, this is a perfect opportunity for all three levels of government and the private sector to get together and do something very special in terms of mobile broadband connectivity.

I should say that under the CTI program, EORN itself wasn't eligible to apply. We supported other companies that were.

**Mr. Francesco Sorbara:** Did you say the application to the federal government was made last year?

**Mr. Jim Pine:** Yes. A year ago in May, we made it to the Minister of Infrastructure federally and to the Minister of Infrastructure in Ontario.

**Mr. Francesco Sorbara:** Thank you very much.

In today's world, anywhere in the world, having access to the Internet is crucial for anyone's business success, and even just for information. It's like what the telephone became.

Moving on to MDA, I have a quick question. I don't think most Canadians think of space every day in their common language. They probably think of their house, their job, getting their kids to school and so forth.

MDA is a leader in Canada. You have operations in Richmond, Brampton—next to my riding—and obviously Montreal. What would be the biggest bang for our dollar—and when I say that, I mean the tax dollar—that we could put in place to help MDA and the related companies?

We have a great education system, and we're doing a lot of good things for fundamental research and the funding of our universities. This is obviously leading research, and we want to be involved. Could you list one or two things we could do that could produce long-term results, but also results in the near term?

• (1140)

**Mr. Mike Greenley:** The way we're working at the moment, Canada's contribution of artificial intelligence-based robotics on lunar gateway is the biggest bang for the buck. This is because of the positions it creates and the number of companies that are engaged. The last project, Canadarm, was around 500, and we would expect the same again. The jobs are expansive across the country.

In terms of the advancement of both artificial intelligence and robotics, on which a current study is being done by ISED, these are certainly areas that Canada wants to focus its expansion on. This is the leading edge of that stuff. It certainly drives that aspect of the economy.

In addition, this type of program and Canada's contribution are what gets Canada's astronaut missions in trades. Our previous investments have earned us 18 astronaut missions, the latest of which will go up this year. Our current astronauts, the latest two, don't have missions. Without these commitments, they won't get missions.

Those missions, and the programs around them, also massively engage our youth in their ambitions to enter into STEM education and the like. That's the “bang for the buck” side of it.

**Mr. Francesco Sorbara:** I'm going to stop you, because I just want to follow up with one more question. I apologize for not getting to everyone this morning.

Regarding autism, as we were discussing earlier, in my city we have Shining Through, which has done amazing work for many years. Recently, Waves for Change raised about \$300,000 for families that are impacted, and our government funded the Pacific Autism Family Network.

I read the brief on RWA and the connection to autism. It really behooves us to get a clear understanding of how things changed from funding to not funding because of a model change. Could you elaborate on that?

**Mrs. Cynthia Carroll:** Phase 1 of RWA was actually funded in a previous budget ask, in 2014. We were encouraged to apply through the opportunities fund, and I think you're talking about the shift in the funding formula. There's been no shift in the model of Ready Willing and Able. It was a shift in the financial support moving toward phase 2.

The opportunities fund is an amazing project-based funding initiative, but it's also the only one right now that the federal government has available to support projects related to persons with disabilities in our country. Like most federal granting opportunities, it's often oversubscribed. Because it operates in every province and territory, and its accomplishments have been significant, we were well aware there was always the risk that the project wasn't the best fit for the opportunities fund. That became a reality.

What that means right now, as we move to the budget and request a phase 2 support for the long-term sustainability of this fund, is that it's not operating in five provinces in the country, and it has been significantly reduced in the remaining provinces. The work of RWA is continuing, but we're now at significant risk of silos that we broke down, and the accomplishments we made around accessible and inclusive labour markets are at risk right now. That's a concern to us as a project.

**The Chair:** Thank you.

We have time for three quick questions. We'll start with Leona and Peter, and then have somebody on this side. Queen's hasn't been asked any questions, just for your information.

Leona, go ahead.

**Ms. Leona Alleslev:** Thank you very much.

My question is for Land Over Landings. Pearson is the second-busiest airport for international traffic in North America. It's the fastest-growing airport in North America, and it has almost 50 million passengers a year, twice as many as the next-largest airport, which is Vancouver. It's not only an airport for Toronto; it's for Ontario and for Canada. Airports contribute to Ontario's and to Canada's competitiveness, and we're looking at a loss of \$17 billion in Ontario's GDP if we don't get new infrastructure for airport systems. We're short on business cargo, and aerospace organizations and manufacturing don't have access to flight line.

We're looking at Pickering, being almost at the corner of the 404 and the 407. Pickering lands are two and a half times the size of Pearson, while the other airports in southern Ontario don't have that capacity. Also, the Pickering chair, the Durham chair, the mayor of Pickering and the electorate they represent have all said that Pickering airport is critical to the infrastructure and the economic growth and development of this region.

Could you comment on that, and make a case for why keeping it as farmland would generate the same impact and power economically that Pickering airport would for that critical piece of land?

• (1145)

**Mr. Jim Miller:** I'll take the last comment first. There's no way a major international airport and agricultural future are on the same economic impact stage. A major international airport would generate far more jobs and economic impact.

The question is, would a Pickering project be successful? Pearson's latest master plan, released to the transport minister on December 1, 2017, says no. They are planning on accommodating all the aviation needs at Pearson before they have to add the sixth runway in the next 20 years. They say they have plenty of capacity, and they're working in the southern Ontario airports network of 10 other small airports, including Oshawa, to accommodate the aviation growth they forecast in the foreseeable future. That network right now is planning to handle Ontario's aviation capacity for the next 30 years.

**The Chair:** Thank you.

Mr. Julian, go ahead.

**Mr. Peter Julian:** Thanks, Mr. Chair.

I'm going to go to Mr. Miller and Ms. Reesor.

We should have learned a lesson from the Mirabel debacle. The idea of taking farmland and just keeping it in reserve does a profound disservice to the goals of food sovereignty. Increasingly, people are concerned about shipping food produce around the world with that huge carbon footprint and the climate change that it entails, rather than actually producing local food for the local economy. In my neck of the woods, in British Columbia, we talk about the 50-mile diet. We try to consume food from within 50 miles of our location in the Lower Mainland because that's what's healthy for the environment and also healthy for our future as a country, to have food sovereignty.

Can you comment on the environmental impact of putting all that land aside, rather than having it engaged with a clear mandate for farmers to actually produce the food that we need in southern Ontario? In British Columbia, we have the agricultural land reserve. We've made a conscious attempt to preserve the agricultural land, not only to have long-term agricultural land, but to protect it for future generations as well.

**Mr. Jim Miller:** The local food supply into the greater Toronto area is vital. We see a tremendous opportunity for young farmers to lease land, get started in their careers and produce food for the greater Toronto area. That's important. Alongside the agricultural reserves, it's part of the Rouge National Urban Park, so it's very important for the growing population of the greater Toronto area.

**The Chair:** Thank you.

Go ahead, Mr. Fragiskatos.

**Mr. Peter Fragiskatos:** Thank you very much.

I was, and am, so interested in rural connectivity that I didn't get to you, Mr. Fraser. I promise you're my second choice. I'm a Queen's alumnus, so I'm coming your way for sure.

We hear so often that, when governments invest in basic research, the investment is important, but ultimately one has to be careful because it might not yield an economic impact, so the economic footprint might not be realized. Therefore, focusing on applied research and supporting colleges is the way to go if you're trying to generate economic growth. As you know, this government has made historic investments in science and supporting scientific research.

I think it's important to continue to make it clear that there is great economic utility in investing in basic or fundamental research. You can call it what you will. I know that Western and Queen's are big rivals, but you'll forgive me for saying that I've seen this happen at Western. Governments have invested in basic research that the university has taken on, which yields economic results and certainly helps to generate jobs at the university and beyond.

In the end, you end up with an idea that then turns into a business, big or small. Where would we be without the funding of basic research when it comes to companies like Apple or Microsoft? All of those tech companies that are thriving now come from that support of basic research.

I wonder if you can speak to this. I think it continues to be an important issue to make clear, not just for our committee, but for the government as a whole.

• (1150)

**Mr. Michael Fraser:** Yes, I completely agree. It is important to understand that applied research is important. Universities across the country, including Queen's University and Western University, are partnering more and more with our community college partners for applied research. That's a fairly downstream activity, but the reality is that to move upstream, as you said, you never know where the next eureka moment will come from. There are the SNOLAB experiments, Queen's University's work with its partners in Ontario and federal government funding, with Dr. Art McDonald and the discovery of what a neutrino is, and what that's leading to in terms of exciting new discoveries and the Nobel Prize for Dr. McDonald.

With regard to the neutrino, hold your thumb up and billions come from the sun and flow through it every second. It's the smallest known piece of matter you can measure. While scientists theorized for decades about this, it was Dr. Arthur McDonald who, seven floors below the ground in the mine in Sudbury—the reason this is in Sudbury is that it's the deepest mine in the world—built a neutrino catcher, a giant basin the size of this room, filled with heavy water that slowed down the neutrinos. He could then measure and prove them.

The spinoffs and the excitement that come from that are tremendous, and it gave training to young people working on it. It's now having effects in industry and finance, so applied work comes from that. It took Art McDonald proving something that no one could see 30 years ago, and it took funding—in this case from INCO at that time, and from the Ontario and federal governments working together—to basically fund someone like Dr. McDonald as the expert. They let him go and do what he knows how to do best.

It's investment in people, experts and Ph.D.s in that field, but you don't know what you don't know, so it's extremely important to give them the room to do their work and to back them through that.

**The Chair:** I just have one last question, for Mr. Greenley. I met with some people from NASA a while ago in the U.S., in Los Angeles. It's not well known, but the U.S. is going to start sending men and women into space from U.S. territory again, and I gather they're looking at putting a community on the moon sometime in 2020 or 2021, basically as a training ground for later going to Mars.

This is one of the difficulties. You're saying that for our space strategy we need to be providing \$1 billion to \$2 billion over the next 20 years. I don't know whether you'd call it crisis management or what, but one of the problems with budgets is that you have the immediate issues of the day—infrastructure, Internet, health care, etc.—and some of the bigger, very important pictures aren't seen in the immediate term.

Could you lay out how you would see that expenditure of money over time to get to where you want to go? There doesn't have to be \$1 billion spent next year, but I think you are saying there needs to be a sincere commitment so your community can see that the federal government is there and is going to be there with money and put the meat on the bones over time.

Can you respond to that? We need to hear, “All right, here's what we need for our participation in space,” which gives your companies opportunities A, B, C and D, if you follow what I mean.

• (1155)

**Mr. Mike Greenley:** Yes, I do.

The first thing is that the international community will need to see Canada make a full commitment to something like lunar gateway. I'm talking about the AI-based robotics on the new space station lunar gateway. That is one element of what you were talking about—the return to the moon. That space station will be orbiting the moon while the astronauts are living on the surface, and it will provide support to them. They want to see that full commitment for Canada to stay in the club, and then, as you said, for the industrial base to be able to continue to do the work it's been doing for 30 years.

If you take that \$1-billion program over 20 years, the profile of that spending can be looked at in a couple of different ways. One would be the development money to build the technology that would go up to lunar gateway, which would fluctuate between \$100 million and \$125 million a year, probably for the first five or six years. Then it would go down to \$50 million to \$70 million a year for operations and maintenance support for the 15 years that follow. It's not like it's one big cheque on one day. It's activity happening every year during that 15- to 20-year period.

In addition, there is an opportunity for Canada to own and operate the robotics on the space station. That opens up a different financial management conversation, such as when we own and operate a ship or a tank or an aircraft in our government, which is a large capital asset that is treated differently financially in terms of how you capitalize it. Owning and operating robotics on lunar gateway could also be treated in that way, which dramatically changes how it would be accounted for in terms of its spending profile.

**The Chair:** Okay. Thank you for that.

Thank you, all, for your presentations and your time, and for answering questions.

With that, committee members, we'll suspend until 12:45. Lunch will be in the room here.

Again, thank you very much.

- \_\_\_\_\_ (Pause) \_\_\_\_\_
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- (1245)

**The Chair:** We'll call the meeting back to order. As everyone knows, we're doing pre-budget consultations in advance of budget 2019.

Welcome to all the witnesses, and thank you for taking the time to come and give us your views. Before we start, I'll go around the room and members can introduce themselves so you folks know the kind of cross-section we represent.

I'm Wayne Easter, a member of Parliament from Prince Edward Island.

Peter, go ahead.

**Mr. Peter Fragiskatos:** Good afternoon, everyone. I'm Peter Fragiskatos, a member of Parliament from London, Ontario. It's great to be in Oshawa today. Thank you very much for participating and putting together presentations. I'm very much looking forward to them.

**The Chair:** Francesco, go ahead.

**Mr. Francesco Sorbara:** Good afternoon, everyone, and welcome. Thank you for being here today. I'm very much looking forward to your presentations. My name is Francesco Sorbara. I'm the member of Parliament for Vaughan—Woodbridge, about an hour away from here by car. It's great to be in the GTA and not in the Ottawa area today.

**The Chair:** Thank you.

Celina, go ahead.

**Mrs. Celina Caesar-Chavannes:** Good afternoon. I'm Celina Caesar-Chavannes. I'm the member of Parliament for Whitby, and I'm happy to be subbing in today for Greg Fergus, who couldn't make it to today's meeting.

**The Chair:** Thank you.

Pat, go ahead.

**Mr. Pat Kelly:** I'm Pat Kelly. I'm the member of Parliament for Calgary Rocky Ridge, and I'm happy to be here.

**The Chair:** We're hearing it's the snow belt out there.

**Mr. Pat Kelly:** Yes, that's what I've heard too.

**The Chair:** Leona, go ahead.

**Ms. Leona Alleslev:** I'm Leona Alleslev. I'm the member of Parliament for Aurora—Oak Ridges—Richmond Hill, which is just north of Toronto, right beside Francesco's riding.

• (1250)

**Mr. Peter Julian:** I'm Peter Julian, the NDP vice-chair and the member of Parliament for New Westminster—Burnaby, on the other side of the country. So I'm not an hour from here by car; I'm about a week from here by car.

**The Chair:** So we cover from coast to coast. We just don't make the third coast yet.

All right, thank you, all.

We'll start with the Banff World Media Festival and Jenn Kuzmyk.

Go ahead, Jenn.

**Ms. Jenn Kuzmyk (Executive Director, Banff World Media Festival):** Good afternoon, Mr. Chair. I am pleased to be here on behalf of the Banff World Media Festival. We are enthusiastic about the government's creative and export-focused goals, and we appreciate the opportunity to take part in these consultations for the 2019 federal budget.

Today, I'm going to share the broad strokes of our recommendations. The specifics are contained in our pre-budget submission, which has been provided to committee members.

The conclusion this week of the United States-Mexico-Canada agreement has placed the importance of trade and export at the centre of our national conversations. Secure, predictable access to international markets is vital to Canadian prosperity. Canada needs modern, secure trade frameworks such as the USMCA to ensure that exporters from all sectors can bring their products to global markets.

Canada needs to be sure that, as a nation, we are marshalling all of our strengths in smart ways to maximize the chances for Canadian success in the world. Put simply, the business opportunities are expanding everywhere. Canadian content producers and screen media businesses need to be able to do business anywhere, both at home and abroad.

That is what Banff is about. Canada's broadcasting media and cultural industries contribute \$48 billion annually to the economy. They are a high-energy pipeline for innovation, middle-class jobs, exports and economic stimulus. The government has recognized this importance with the commitment to overhaul Canada's digital content regime. Moreover, it has rolled out a bold, innovative creative export strategy to give Canadian artists and creators support that is commensurate with the acknowledged high quality of their output, as well as rapidly expanding global opportunities to do business.

Banff is in a unique position to assist the federal government in the pursuit of these economic goals. Over 39 years, Banff, a not-for-profit entity, has grown into Canada's largest media B2B marketplace, connecting our domestic industry to global partners.

In addition to our annual flagship festival each June, Banff has become a year-round endeavour, with three additional events in Toronto, Los Angeles and the United Kingdom, with an online global networking platform called BanffXchange, and with an international program competition, in which more than 40 countries participate every year.

Banff has a proven record of success at bringing far-flung production partners together and getting new projects greenlighted, both at home and abroad. As we like to say, Banff brings the world to Canada. To expand on the government's recent creative export strategy announcement, it's not only abroad "where the business

relationships are being built, the deals are being made, and the jobs are being created" for the creative sector.

Export success is also being generated at scale right here in Canada, through Banff. Banff delegates annually advance or sell \$1.7 billion worth of deals in an environment of business-to-business interactions in Canadian culture, which results in Canadian culture being exported. This is the modern export model, and it's about doing business everywhere.

Through our diversity of voices initiative, we're providing indigenous, francophone and women professionals with the opportunity to gain essential industry access and training. In our first year, 88 emerging and established creators and producers took part in the wider program, and a select 25 took part in an intensified pitch program, where they also received individual mentorship from media leaders and private pitch and facilitated meetings with international buyers at the festival.

The benefits of this initiative are threefold: It provides essential training and access for under-represented groups; it supports the creation of new cultural media projects that represent diverse viewpoints; it has a meaningful economic impact as the impetus for new projects to be financed, produced and exported internationally.

To launch the program in 2018, we received valuable support from the Canada Media Fund, the Indigenous Screen Office, the Société de développement des entreprises culturelles, and Netflix. We believe the diversity of voices initiative has successfully proven that we can provide strong, immediate impact that gives practical, hands-on experience and business opportunities of unmatched value to participants.

●(1255)

It amplifies the federal government's aims to support artistic and cultural activity by francophone, indigenous, and women creators and producers. It also gives them important support in acquiring the connections they need to break into the export market, a goal that meshes with federal policies.

Banff is about redefining the concept of export competitiveness to include not only outreach abroad, but also the power to convene the global B2B marketplace right here in Canada. We are committed to working with the federal government to move Canada's creative output to a new, higher level.

However, predictability is vital to growth. Stable and adequate funding is needed to achieve these important objectives. To that end, Banff would like to make the following recommendations:

Recommendation one is to provide stable and adequate funding to support Canada's export-focused creators and cultural entrepreneurs.

Recommendation two is to ensure that the creative export strategy captures the powerful synergies of the B2B marketplace, both at home and abroad.

Recommendation three is to expand the government's partnership with Banff, with an investment of \$1 million per year for three years for our diversity of voices initiative.

Thank you for the opportunity to take part in this pre-budget consultation. I now invite questions from the committee.

**The Chair:** Thank you very much, Jenn.

Turning to Blue Green Canada, we have Mr. Kirkpatrick and Mr. Rowlinson.

**Mr. Mark Rowlinson (President, Blue Green Canada):** Good afternoon. My name is Mark Rowlinson. I'm the president of the board of Blue Green Canada.

Thank you for having this consultation. I apologize that we don't have any written materials for the committee, but we will try to get you some in short order.

Blue Green Canada unites Canada's largest private sector labour unions and its most influential environmental and civil society organizations to identify ways in which today's environmental challenges can create and maintain quality jobs to build a stronger, fairer economy. Our guiding principle is that Canadians should not have to choose between addressing climate change and a strong economy. Unfortunately, an increasing part of our national conversation.... We see that this issue has become increasingly divisive at many levels of government and in parts of Canada.

The focus of my short remarks today will be on two areas where I think the federal government should look seriously at addressing this issue through the budget: first, the need for Canada to commit to and ensure a just transition for workers and communities impacted by climate action, beginning with those impacted by the phase-out of coal-fired power generation; and second, the Government of Canada should commit to considering the environment when making purchasing and infrastructure funding decisions and choose to buy clean and buy Canadian.

On the issue of just transition, in our view, the Government of Canada cannot afford to ignore the wide-ranging impacts of its action on climate change on the economy and the working people. For the economy and the environment to truly go hand in hand, government must acknowledge workers' concerns and anxieties that reducing GHG emissions will negatively affect the livelihoods of some Canadians and hurt some economies.

We cannot replace stable, good-paying jobs with precarious, low-wage work and leave workers and communities behind if we are to successfully transition to a low-carbon economy. For those most affected, taking action on climate change is simply not worth it if it means risking the well-being of their families and communities. Therefore, it is of the utmost importance that the Government of Canada, working closely with the provinces, communities, employers, unions and workers, put in place measures that would help workers and communities successfully navigate through the transition to a low-carbon economy. The government must provide supports—a bridge—to what is next as we transition in this economy.

Budget 2018 provided \$35 million over five years in funding to support skills development and economic diversification activities to help workers in the west and Atlantic Canada transition to a low-carbon economy, but we're here to say that much more is going to be needed over the coming years. We're going to need to build capacities in communities for economic development. We're going to

need to fund community-led projects and transition plans. We're going to need to establish a package of supports for workers, as well as local transition centres. Before we even do any of those things, we need to establish an inventory of all the workers who are going to be affected by the transition to a low-carbon economy.

What is done in Canada to support a just transition to a low-carbon economy will have far-reaching consequences beyond the workers, families and communities directly affected. Other countries are going to be looking at Canada as an example of how to put people at the centre of progressive climate policy. Frankly, if we don't start to address the issues that are of concern to the tens of thousands of workers in this country whose lives are directly connected to fossil fuels and high-carbon industries, this issue is simply going to become more and more divisive in our national conversation.

The second area that I want to highlight quickly for the committee is the need to consider the environment when making purchases on infrastructure spending. Through procurement and infrastructure spending, Canada has an opportunity to leverage its strength in clean technology, particularly in the transportation sector. The government can meet its goals of reducing emissions while maintaining and strengthening Canada's economic competitiveness.

To ensure that the government receives true value for money over the long term, including avoiding the burgeoning costs of climate change on infrastructure, Canada should incorporate life-cycle assessment into procurement policies and infrastructure spending programs. This would enable a full cost-benefit analysis across the life of a product or an asset, and provide a measure of the impacts directly attributable to the functioning of the product, asset or system throughout its life.

Those are just the two highlight points that we wanted to emphasize in our brief remarks to the committee. We look forward to any questions or discussions you may have.

● (1300)

As I said, we'll be following up with a further written submission as part of this consultation process.

Thank you very much for your time.

**The Chair:** Thank you very much, Mark.

Turning to the Canadian Institute for Military and Veteran Health Research, we have Mr. Pedlar, Scientific Director; and Ms. Bélanger, Associate Scientific Director.

**Dr. David Pedlar (Scientific Director, Canadian Institute for Military and Veteran Health Research):** Thank you very much, Mr. Chair and members of the committee, for the opportunity to talk to you today about the extraordinary work of the Canadian Institute for Military and Veteran Health Research.

Prior to joining CIMVHR, I worked as a clinician, and then served as the national director of research at Veterans Affairs Canada. I've been a two-time Fulbright scholar, and I have proudly dedicated my entire career to advancing the well-being of Canada's veterans.

Since 2012, the Canadian Institute for Military and Veteran Health Research, also known as CIMVHR, has filled the void in Canada's military, veteran, and family health research by creating an innovative, independent, arm's-length academic research institute. We've built a thriving national academic research capacity that bridges across the academy, government, industry and philanthropy. Furthermore, CIMVHR has a long list of accomplishments and impacts.

A key to our success is a close and collaborative relationship with the Department of National Defence, the Canadian Armed Forces, and Veterans Affairs Canada. Since 2014, we have received core funding from Health Canada to develop new knowledge translation strategies and products. However, this non-renewable Health Canada contribution is set to end in one year.

Since its inception at Queen's University and the Royal Military College, our organization has grown in leaps and bounds. Our network now includes 43 universities across Canada, up to 1,700 researchers, seven fellows, 10 global affiliates, six government advisers, three philanthropic supporters and four industry partners.

We exist because we serve a population with its own particular health risks, experience and needs. Research has demonstrated that Canadian Armed Forces veterans experience two to five times the prevalence of chronic mental and physical health conditions, including PTSD and chronic pain. Furthermore, suicide among veterans is higher when compared to the general population. Keep in mind that veterans are also changing. Today's veterans can be young, in their twenties. Younger male veterans are much more likely to report a difficult transition to civilian life, and they are at almost 2.5 times greater risk of suicide.

Moving forward, we also see increased numbers in equity-seeking groups, both in the military personnel and in veterans, particularly women and indigenous peoples.

There were 43,000 military personnel who served in a decade-long operation in Afghanistan. One in five of those who served in Afghanistan and other missions will suffer from mental health issues. CIMVHR's aim is to improve these statistics. We will work collaboratively to create the best evidence-based practices.

Thanks to the work of CIMVHR researchers, we know that the care of military personnel will require a commitment across the entire life course. In fact, veterans come forward 50 years or more after military service to seek care for health conditions attributable to military service.

We also know that transition from military service to civilian life is a challenge for most, but it is a high risk for others. Military and veterans' families are also an integral component to their overall well-being. This highly skilled and resilient population has its own unique challenges, including lack of access to critical services and chronic spousal underemployment. CIMVHR must continue to advance work to support this unique population.

Our military personnel make a unique commitment to Canada. They agree to what we refer to as "an unlimited liability". That means they're ready to sacrifice their lives for Canada. As a country, we must stand beside them. We must deliver programs and policies based on the best evidence possible, and that means bringing the best and brightest researchers to the table to help address these challenges. Our military members and their families have earned this.

Through Canada's defence policy, the government has committed to a total health and wellness strategy, which takes a people-centred approach. CIMVHR will ensure that Canada's best researchers will support this transformative defence policy.

We are also in partnership with industry as a leader in identifying the ITB, the industrial and technological benefits program, as a promising opportunity to advance military and veteran health research. We are doing work in that area, on projects using that program.

However, we recommend that the government consider strengthening the alignment between the new defence policy, which is people-centred, and the industrial credits program, which tends to be more hardware-centred in terms of the programs that it operates. We're seeking a stronger alignment across the new defence policy and the industrial and technological benefits program.

In closing, military personnel face a full spectrum of military operations, from humanitarian assistance and disaster relief to peacekeeping and combat. It is imperative that Canada maintain a permanent arm's-length research capacity to safeguard the well-being of this unique population.

● (1305)

With the government's support, CIMVHR researchers will continue to have an impact on Canada's socio-economic landscape while improving the health and well-being of Canadian military members.

Thank you very much for this opportunity to be here today. I look forward to answering questions.

There were two asks here: to replace the Health Canada contribution arrangement, which is non-renewable, with a \$25-million contribution over 10 years, and to focus on a realignment of the industrial and technological benefits program with the new defence policy.

Thank you.

**The Chair:** Thank you, David.

We'll now hear from the Canadian Life and Health Insurance Association.

Mr. Mizzen, go ahead.

**Mr. Brent Mizzen (Assistant Vice-President, Underwriting and Policy, Canadian Life and Health Insurance Association):** Thank you, Mr. Chair and members of the committee. I'm Brent Mizzen, assistant vice-president of underwriting and policy at the Canadian Life and Health Insurance Association, or CLHIA. Thank you for the opportunity to come here today and speak with you as you work toward concluding your work on the upcoming federal budget.

CLHIA is a voluntary association with members accounting for 99% of the life and health insurance business in Canada. The life and health insurance industry is a significant player in terms of its economic and social contribution in Canada. It protects almost 29 million Canadians and makes more \$92 billion a year in benefit payments to residents in Canada. Of that, 90% goes to living policyholders in the form of annuity, disability, supplementary health or other benefits. The remaining 10% goes to beneficiaries as death claims. In addition, the industry has \$860 billion invested in Canada's economy. In total, 101 life and health insurance providers are licensed to operate in Canada.

In our submission, which committee members will have, we touch on a number of issues. Today in my remarks, I will stick to two of those issues in particular. The first one is pharmacare and supporting a healthy workforce. The second one is enhancing retirement income security.

Let me begin with pharmacare. Canada's life and health insurers believe that all Canadians should be able to access affordable prescription drugs. Today, life and health insurers provide 25 million Canadians with access to a wide variety of prescription drugs and other health supports—vision care, dental, and mental health support among others. That's done through extended health care plans. These benefits are highly valued by Canadians and by employers, and the market is working well.

We are supportive of the work being done through the federal government's advisory council on the implementation of pharmacare. The work of the advisory council is important to improve the current system so that it works better for all Canadians. As a key player in the system, the industry also recognizes that there are real problems and that the time has come to take meaningful steps to make improvements for the benefit of Canadians. We had the opportunity to meet with the advisory council last week. Our views were submitted to the advisory council on how reform can be undertaken to improve access to and affordability of prescription drugs in Canada. I would also note that our submission is publicly available on our website, should you wish to view it in greater detail.

I'll highlight the key elements of our submission to the advisory council. The industry believes there must be three key elements that any reform of the prescription drug system must embody.

First, protecting health and enhancing existing benefit plans to provide more coverage and choice for Canadians, compared with public coverage, is important. We know that over 90% of Canadians support helping those who need it but don't want their private plans negatively impacted.

The second is providing drug coverage for everyone so that all Canadians can access and afford the prescriptions they need. To

achieve this, we believe government should establish a list of the medicines that everyone will be covered for. Whether they have a workplace plan or are covered by a government program, the list of drugs would be based on scientific evidence and include expensive drugs and drugs for rare disorders.

Third, ensuring affordability for consumers and taxpayers is critical. Any reform should spend scarce government resources carefully and avoid creating any large tax impacts for Canadians. This is all the more important given the challenging tax competitiveness environment faced in Canada today. Building off the current mix, a private-public pharmacare model would minimize the overall fiscal impact to government and address the issues, which is what I believe we are all trying to achieve. Regardless of the approach, it is important that governments work collaboratively with private insurers to meet the objectives of ensuring that everyone has access to needed medications and to address the relatively high costs faced by Canadians.

With respect to drug prices, I'd like to make two key points. First, we are fully supportive of the changes the federal government has proposed to the Patented Medicine Prices Review Board, or PMPRB. Canada clearly has amongst the highest prices for medicines in the developed world. We believe there is room to bring these down.

• (1310)

The reforms to the PMPRB would reduce list prices in Canada, which would result in immediate savings to the vast majority of employers across Canada.

We also want to work with governments to leverage the full buying power of the Canadian market to negotiate lower drug prices. To do this, we recommend that private insurers be included in the pan-Canadian pharmaceutical alliance, otherwise known as the pCPA, so that we can negotiate even better prices for Canadians, and, importantly, so that all Canadians pay the same price for the new medications.

I now turn to the second issue, enhancing retirement income security. Secure, adequate income for life is becoming less common for Canadian retirees. Old age security and the expanding Canada and Quebec pension plans provide some income security, but there has been a shift from defined benefit plans to defined contribution plans—RRSPs, RRIFs, PRPPs, TFSA—of which place greater onus on individuals to make sure they have sustainable retirement income. This is particularly in the context of uncertainty about how long each individual should expect to live.

As a society, Canadians are getting older. In 2016, seniors aged 85 and older made up 2.2% of the population. By 2031, this is expected to reach 4%. Further, by 2051, this will increase to 5.7%. This rapid increase in the number of seniors aged 85 and older and the uncertainty of life expectancy put Canadians at risk of outliving their savings. Seniors' frequent response to this has been to reduce expenditures, which impacts quality of life. New measures are needed, in our view, to help Canadians attain guaranteed retirement income security and preserve their quality of life throughout retirement.

By pooling the risks associated with uncertain life expectancy, longevity insurance can play a valuable role in ensuring that Canadians have long-term retirement income security. More needs to be done to ensure a robust market for these solutions in the Canadian market. For example, we'd highlight a few things, in particular allocating a portion of private savings within registered plans to provide life annuities starting at advanced ages, 85 and over. This would allow Canadians to better manage their assets and provide a guaranteed income for life.

As well, with the recognition that many Canadians intend to use TFSA's to supplement retirement income, the liquidity requirement that prevents the holding of life annuities within TFSA's should be waived, at least for Canadians aged 60 and over. Finally, allowing the periodic purchase of life annuities by registered plans in the years before retirement, and allowing the income from those annuities to be deferred until after retirement, would allow individuals to mitigate investment risk.

At the individual level, longevity insurance removes the worry about outliving one's retirement savings. At the macroeconomic level, it ensures that the growing number of Canadian seniors can continue to support economic growth, stimulating efficient investment and employment.

In closing, I want to thank the committee members for their time today and for the opportunity to be here to share our views. I'd be pleased to answer any questions you may have.

• (1315)

**The Chair:** Thank you, Brent.

We now turn to Environmental Defence Canada, with Mr. DeRochie.

**Mr. Patrick DeRochie (Climate and Energy Program Manager, Environmental Defence Canada):** Thank you, Mr. Chair and MPs on this committee, for the opportunity to provide some ideas and recommendations for budget 2019.

My name is Patrick DeRochie. I am climate and energy program manager for Environmental Defence Canada. We work to defend clean water, a safe climate and healthy communities. My comments today will focus on recommendations from our plastics, toxics, and climate and energy program areas.

Regarding climate change, energy and clean growth, my recommendations will focus on how to best position Canada to capitalize on the massive economic opportunity arising from the global shift to a low-carbon economy.

Last month's report from the Global Commission on the Economy and Climate found that global efforts to accelerate climate action represent a \$26-trillion opportunity. Canada can't afford to fall behind in this clean-growth opportunity.

Environmental Defence's recommendations include fulfilling the government's long-standing commitments to stop subsidizing fossil fuels in Canada, starting with the disclosure of all federal direct spending and the value of all annual tax deductions claimed for the exploration and production of oil and gas, and legislating a timeline for the phase-out of these fiscal supports.

In particular, the federal government can save upwards of \$9 billion by ending its push to build the Trans Mountain expansion pipeline. The Prime Minister himself acknowledged that the project would be dead without public dollars to prop it up. The government should not be in the business of buying and building a fatally flawed oil sands export pipeline that nobody in the private sector wanted, and that cannot be reconciled with indigenous rights and Canada's international and domestic climate commitments.

The federal government must also play a role in supporting climate action in provinces that are not in compliance with the pan-Canadian framework. We would urge the government to link some of the revenues collected by the federal government pricing backstop to programs that reduce greenhouse gas emissions. Here in Ontario, we will see that revenue amounts to \$2 billion next year, in 2019, rising to \$5 billion in 2022.

There are a couple of things in particular that we would like to see that money spent on. One is the renewal of a residential home energy rebate program, through NRCan, that issues rebate cheques for home energy efficiency retrofits, including solar panels, home batteries, high-efficiency furnaces, heat pumps, insulation and other measures to reduce energy use.

Second is partnering directly with municipalities that are taking action on climate change, including support for cycling infrastructure, mass public transit, microtransit projects, electrifying municipal bus and truck fleets, district energy systems, and energy retrofits from municipal buildings, schools and social housing.

The federal government must also enhance regulatory certainty and attract investment in large energy and industrial projects by fine-tuning and passing Bill C-69. The legislation has had notable improvements over the 2012 omnibus bill that gutted Canada's environmental laws. Bill C-69 strikes a balance between economic developments and environmental protection that helps restore public trust in the project review process.

Some of the \$1 billion announced in last year's budget should begin implementing this legislation, increasing scientific capacity across federal departments and enabling greater indigenous and public participation.

In the area of reducing plastic pollution and developing a circular economy, although Canada has made international investments and commitments to reduce microplastics and marine debris in the Great Lakes and our oceans, it has not matched the efforts of the European Union or other jurisdictions through investment in infrastructure, research, extended producer responsibility programs, or modernized waste management programs and policies that support a movement towards a circular economy. Now is the time for a national waste reduction strategy that harmonizes performance standards, measurement protocols and definitions from coast to coast to coast.

To accelerate the efforts to create a national plastics and waste strategy, Environmental Defence recommends that the government provide new five-year funding of \$86 million per year to Environment and Climate Change Canada in collaboration with other federal agencies and levels of government. That includes \$1 million per year for policy development, including on extended producer responsibility; \$50 million per year in research that supports innovative product design and increases knowledge and understanding of the impacts that plastics have on the environment and human health; and \$35 million per year in modernized waste diversion infrastructure to support the developments of a circular economy.

In the area of toxic pollution, Environmental Defence recommends that budget 2019 tackles exposure of Canadians to toxic chemicals and harmful pesticides and the presence of these toxics in the environment. Providing sufficient resources to regulatory departments to meet the current legislative requirements under the Canadian Environmental Protection Act and the Pest Control Products Act for managing toxic chemicals and addressing the risks of pesticides is necessary to ensuring the protection of Canadians' health, our communities and the environment.

• (1320)

We recommend that the upcoming budget renew funding for Canada's chemical management plan to ensure ongoing chemical assessments, research, monitoring and actions to protect people from toxics, and to provide funding to Environment and Climate Change Canada and Health Canada to implement needed legislative changes to modernize the Canadian Environmental Protection Act, the country's two-decades old toxics law. Specifically nearly half of the regulations under the law have received little to no enforcement activity, underscoring the need to increase the resources of relevant departments to better enforce pollution prevention regulation. Finally, we recommend providing funding for Health Canada to fulfill its obligations under the country's pesticide law to assess risks and enhance compliance enforcement. Funding is also needed to upgrade monitoring by reviving and expanding a national pesticide monitoring framework.

Finally, as Canada's leading environmental action organization, Environmental Defence Canada recommends changes in budget 2019 to free charities to fully participate in an equal playing field in public policy development in Canada. Specifically, that means

amending the Income Tax Act, as promised, to remove prohibitions on public policy involvement by charities, clarifying and renewing CRA direction on partisan political activity to ensure that clear definitions of direct and indirect partisan activity are developed and applied, and undertaking consultations with the charitable sector to address overall sector modernization and development of a modern, enabling and encouraging legal framework for the charities sector.

I'd be happy to take your questions. I really appreciate your having me before you to speak today. I would note that I am a subject matter expert on our climate, energy and clean growth priorities, but less so on our plastics and toxics priorities. I'll do my best to answer those questions, but I'll pass them along to my colleagues in Toronto if I'm unable to myself.

Thank you.

**The Chair:** Thank you, Patrick.

We turn now to Goldcorp Inc., and John Mullally, Vice-President of Corporate Affairs and Energy.

Welcome, John.

**Mr. John Mullally (Vice-President, Corporate Affairs and Energy, Goldcorp Inc.):** Thanks very much, Mr. Chair. Thank you to the committee for a chance to share a few words about Goldcorp's perspective, specifically on Canadian competitiveness.

For those of you who don't know, Goldcorp is headquartered in Vancouver. We employ close to 15,000 people globally, including 4,000 in Canada. We have a total of eight mines and operations in Ontario, Quebec and the Yukon, as well as operating in Argentina and Mexico.

In Canada, over the next four years we plan to invest over \$2 billion in projects in the Yukon, Ontario and Quebec. We believe our business creates social and economic benefits for stakeholders at every phase of the life cycle of mining. Our domestic and international operations have been recognized for sustainable mining practices, a collaborative approach with indigenous communities and a commitment to strong corporate citizenship in the small, usually remote communities in which we are located.

In Canada, we have collaboration agreements with 26 first nations. We're very proud of that fact. We're also committed to playing a leading role in the deployment of low-carbon, clean technologies, both in mining and more generally. We recently launched our third #DisruptMining competition, designed to accelerate the pace of innovation and bring disruptive technologies to the mining industry. Entrepreneurs win a grand prize of a \$1-million investment from Goldcorp.

As an example of our leadership, Goldcorp's Borden Gold project will be the first all-electric underground mine in the world. We'll replace all of our diesel mobile equipment with battery electric vehicles. This ambitious project will significantly improve the health and safety performance of the mine, reducing the environmental footprint through dramatic GHG reductions. The benefits of the all-electric site will be an example of leadership and innovation, clean technologies and health and safety in mining, for Ontario and for Canada in general.

We see three key areas to the future of mining in Canada.

The first is the need for regulatory certainty. In order to facilitate this we would propose the creation of a centre of excellence for regulatory success, which would have a mandate to oversee an agile, outcomes-driven and stringent regulatory system that aims to reduce project approval timelines, reduce duplication and improve overall efficiency.

We would also suggest that the system recognize individual situations and adapt the regulations accordingly. For example, developments with existing agreements with first nations in places where there might be disturbed lands already would be treated differently from a greenfield development.

As one of the largest employers of indigenous people, ensuring that communities are set up for success is critical to the potential of mining in Canada. The scale-up of indigenous businesses should be facilitated through increased federal indigenous business procurement, with incentives and programs to support integration into mainstream supply chains. The best practice of resource sector relationships with indigenous business could be further leveraged.

Increased support should also be available through direct contracts with third parties certified with indigenous firms. The fiscal tools available to support equity partnerships with indigenous businesses could also be leveraged. The indigenous talent pool must also be supported to participate in natural resource development.

Effective and responsive skills and training should be supported that meet the needs of both indigenous workers and those looking to hire. We believe that federal support needs to be applied to K-to-12 education in indigenous communities, and that this should be at par with the standards across all schools in Canada.

Universal broadband access across Canada is important to facilitating remote learning and upskilling opportunities in indigenous communities. Robust skills and training programs that promote apprenticeships and on-the-job learning will improve policy outcomes and create sustainable jobs.

A focus on clean technology and innovation will ensure a sustainable mining future in Canada, but industry has sometimes

been unsuccessful in generating momentum on its own. Goldcorp supports the concept of a government-backed, single-point-of-contact, well-funded organization to ensure collaboration and to advance innovation and clean technology. Such a centre would allow industry to partner with innovators, universities and polytechnics to enable adoption of advanced technologies into the mainstream supply chain.

The key is that innovations to reduce water consumption, GHG emissions and waste be deployed broadly across industry so that we maintain the social licence to operate, continue to invest in Canada and create value for all Canadians.

• (1325)

The federal government should also ensure major financial incentives to facilitate accelerated scales and adoption of innovative technologies, such as 100% first-year capital cost allowance for new investments in innovation; tax incentives for first adoptions and companies investing in innovative start-ups; matching government grants to innovation that could have secured support for resource companies; and modernized SR and ED to enable scale-up and deployment with a focus on results.

Those are generally my recommendations. I appreciate the opportunity to share my thoughts today. Thank you.

**The Chair:** Thank you very much, John.

We go, then, to the Stem Cell Network and Cate Murray, Executive Director.

Go ahead, Cate.

**Ms. Cate Murray (Executive Director and Chief Operating Officer, Stem Cell Network):** Good afternoon. Thank you for inviting me to speak today. I'm Cate Murray. I'm the executive director and COO for the Stem Cell Network. The Stem Cell Network, or SCN, is the national research network of regenerative medicine researchers, and the primary funder of stem cell research in Canada. As you may know, regenerative medicine uses stem cell-based therapies and technologies to regrow, repair or replace damaged or diseased cells, organs or tissues. It holds significant potential for treating chronic disease and illness. I'd like to begin by sharing with you two stories.

A 21-year-old aspiring police officer, Jennifer Molson, was identified and diagnosed with aggressive multiple sclerosis about 15 years ago. Within five years she was unable to manage simple tasks, including cutting food and showering. The prognosis was progressive decline and early death. Her neurologist enrolled Jennifer in a clinical trial that took stem cells from her. They were purified and fortified. After extreme chemotherapy to knock out her immune system, the stem cells were returned to rebuild a new, disease-free immune system. Today, with all traces of the disease eradicated, she works, enjoys her family, downhill skis, and is a full and productive member of our society.

More recently, Tyler Rabey, a young man from Montreal, was close to death with aggressive blood cancer. All conventional chemotherapy treatments had failed for him, but Tyler had a young doctor who was fighting for him, a real champion, and this led to Tyler's being enrolled in an SCN-funded clinical trial. The trial provided him with a transplant, using stem cells that had been expanded from cord blood by using a novel technology developed by Canadian researchers. Tyler's now back at home. He's pursuing his master's degree and contemplating writing a book about his experience. For the Stem Cell Network, research is about changing lives. It's about saving lives.

Stem cell research was pioneered by two Canadians in the early 1960s. It truly is a Canadian science, and today the estimated global market value for regenerative medicine stands at \$66 billion. It is a market that is continuing to expand and is fuelled by high-quality research, but the burden of treating chronic disease in this country is also growing, and it stands at \$190 billion per year, not to mention income and productivity losses. This situation is simply not sustainable. We need innovative therapies and technologies that can address the health imperatives and the economic potential.

Regenerative medicine is an emerging Canadian industry, and with strategic investment we are well positioned to compete globally. Countries around the world are making targeted investments in this field because they understand that real benefits will result, and I hope this committee will also see its significant value.

SCN has developed a national network that has transformed stem cell research and pushed the boundaries of what was a basic research area towards translational outcomes for the clinic and marketplace. We've supported 170 world-class research groups across Canada—that's 5,000 FTEs who've engaged in SCN-funded research. We've provided 2,500 young investigators with specialized training, and I know that Stem Cell Technologies, Canada's largest biotech company, is looking to us to provide the commercialization and technical support needed for their company's competitive global advantage.

As of 2018, SCN had provided \$100 million in innovative research, resulting in partner contributions of \$116 million. I'm thrilled to share that our partners have committed an additional \$60 million for research to be conducted over the next five years. However, this investment will be realized only if SCN is able to keep its doors open after March 31, 2019, with an investment of \$70 million over the next five years.

● (1330)

Without stable and predictable federal support, the network will come to an end. Silos will emerge and scientific progress will be set back. As a national network, we bring researchers out of their labs and institutions to work together to push forward discoveries that will make a difference in the lives of Canadians. We follow the research and we're nimble, so we're able to support new areas of activity that catalyze important advances.

It is with our leadership that Canada's investigators are continuing to punch above their weight. A clear example of this is exemplified by an investment made by Verizon Ventures and Bayer, who together contributed \$225 million U.S. to establish BlueRock Therapeutics, a global biotech company that's founded on the science of two outstanding Canadian stem cell researchers. At the time of the announcement, it was called a monster deal. With continued support and leadership by SCN, we are positioned to attract greater investment into this high potential sector.

Dr. Michael Rudnicki, our scientific director, has said that Canada is at a tipping point. Now is the time to double down and invest in regenerative medicine.

I would be pleased to take your questions.

Thank you.

● (1335)

**The Chair:** Thank you very much, Cate.

Last, but not least, we have our eighth panellists. We usually try to stick to six, but there was a lot of pressure to have eight today.

Welcome. From the University of Ontario Institute of Technology, we have Steven Murphy, President and Vice-Chancellor; and Susan McGovern, Vice-President.

**Dr. Steven Murphy (President and Vice-Chancellor, University of Ontario Institute of Technology):** Thank you, Mr. Chair.

Good afternoon, Chair, honourable members and legislative staff. I'm Steven Murphy, President of the University of Ontario Institute of Technology. I'm joined here today by Susan McGovern, our Vice-President of External Relations and Advancement. I'd like to thank you for the invitation and for including our proudly Oshawa-based university in these important consultations in advance of the next budget.

I'd like to start by recognizing some of the significant support we've received from the Government of Canada in recent years. First, through the post-secondary institutions strategic investment fund, we were able to complete our software informatics research centre, which is having a profound impact on our students, researchers and the private sector.

I'd also like to recognize the recent support we've received from the Federal Economic Development Agency for Southern Ontario in our ACE enhancement project. This support is allowing us to move and to integrate our moving ground plane into our ACE facility—already one of the largest and most sophisticated climatic wind tunnels on the planet—and to turn it into a facility that is truly unique worldwide. Working with our partners from industry, including Magna and Multimatic, as well as the Province of Ontario and Government of Canada, this project is a true example of academic institutions, government and industry working together to change the face of the sector.

Canadian automotive companies can now do advanced R and D here in Canada, decreasing both their time to market and their costs. This is an exciting story of repatriating Canadian automotive R and D. The fact that it's happening here in Oshawa, where manufacturing is such a core part of the history of this community, makes it even more profound. I believe this is one example of the kinds of investments that governments, along with industry, can make to ensure Canada's economic competitiveness.

I'll turn now to experiential learning. When deliberating on where you invest in the upcoming budget to ensure Canada's economic success, I urge you to prioritize investments and support in experiential learning for students and work-integrated learning. In their pre-budget submission, Universities Canada made several recommendations relating to supporting hands-on learning, which I'm happy to echo here: specifically, expanding federal work-integrated learning programs across sectors and disciplines, with particular attention to under-represented groups; increasing work-integrated learning to support employers offering meaningful work-integrated learning placements, with a focus on small and medium-sized enterprises and companies new to work-integrated learning, including the not-for-profit sector, which will need funding; leveraging existing federal programs and initiatives to reward companies participating in work-integrated learning; and renewing and enhancing the Canadian incubator and accelerator program to support applied student learning and entrepreneurship, which would include subsidies to start-ups for taking co-ops and internships.

Experiential learning and innovation are two of our major focuses at our university. I can tell you that investing in students getting hands-on experience with employers pays off dividends and directly supports our economic competitiveness as a nation.

International mobility of students is another critical area where investment can support Canada's economic competitiveness. We need to ensure that our students have the skills that employers are looking for in an increasingly global marketplace. As outlined in the report *Global Education for Canadians*, "If Canada is to compete in an increasingly interconnected and fast-changing world, our next generation of leaders will need the experience and connections to operate internationally."

Currently, only 11% of Canadian students have an international learning experience during their undergraduate degree. That is much lower than our counterparts in France, Germany, Australia and even the U.S. Investing in an international mobility strategy would be one strategy to consider. Universities Canada is proposing a "go global Canada" initiative, which I recommend you look at.

It's beneficial to have Canadian students study abroad, and it's also beneficial to have international students come to study here in Canada. The recent situation with the recall of students by the Kingdom of Saudi Arabia has highlighted an area of sectoral risk that we should all be concerned about mitigating. We recommend the development of a diversification strategy to promote Canada as a destination of choice for education, which could go hand in hand with the trade diversification strategy.

● (1340)

While institutions will recover in the future through recruitment efforts, there are immediate budgetary impacts this year with the sudden departure of Saudi scholarship students. For example, the direct financial impact on our university is in the order of \$3 million, or approximately 2% of our tuition budget. This is a significant impact to a smaller institution such as ourselves, especially as we're looking to increase our international enrolment and to reach sector average in enhanced learning for our students.

The situation in Saudi Arabia has highlighted the challenge that's been the top of mind for Canadian institutions for many years, and that is the need for federal support to promote Canada as a destination of choice to a more diverse set of countries. For smaller institutions like ourselves, the start-up costs for reaching out into new markets for recruitment are significant. As the Government of Canada seeks to increase and diversify trade in the Asia Pacific and elsewhere, strengthening people-to-people ties through educational exchanges, study abroad, will help to build and maintain strong foundations for diplomatic and trade relationships.

With regard to research, we support the recommendation by Universities Canada that it is important to support state-of-the-art research and training by providing significant multi-year increases to the research support fund, building on the fundamental science review recommendations.

We also recommend providing additional funding for equipment and infrastructure. Technology, as we know better than most, is moving rapidly, and funding needs to respond quickly. There are still limited programs to support large equipment costs. Access to small universities is further reduced based on the current program format, guidelines and approach.

As well, we support continued investment in application-driven research through the fundamental research, along with continued investment in Canada's digital research infrastructure. Additional support for innovators, entrepreneurs, and intrapreneurs to help business start up and stay in Canada would also support Canada's economic competitiveness.

I would also like to applaud all efforts in equity, diversity and inclusion to make our professors and Canada research chairs more representative. I would urge the government to remember that gender is one very important piece in a much larger diversity conversation.

In closing, continued investments in all universities, small, medium and large, will create strong local and national economies, as universities produce rich talent and generate relevant research and innovation that leads to enhanced innovative capacity that enables economic growth and societal benefit.

In addition, investment in universities will enhance Canada's global reputation as an attractive place to invest and grow businesses.

Thank you again for the opportunity to present here today. We look forward to responding to any questions you may have.

**The Chair:** Thank you all very much.

We've certainly covered a lot of bases, and if we said yes to all the money requested here, we would really be spending.

We'll go to the first three questioners for seven minutes. We'll probably end up going until 2:30 rather than 2:15, if that's okay.

Mr. Sorbara, you have seven minutes.

**Mr. Francesco Sorbara:** Thank you, Mr. Chair.

Welcome everyone. Those were great, quality presentations.

I will start with CLHIA.

I used this analogy the other day with regard to covering the gap on pharmacare. It's like baseball: We need to cover the gap if you're an outfielder. We have about 75% coverage in Canada or thereabouts, in terms of people having access to a program to pay for their prescription drugs.

What would be the first two steps that you would encourage the federal government to look at to cover the remaining gap?

• (1345)

**Mr. Brent Mizzen:** I spoke to the issue of high prices in Canada for prescription drugs.

The first issue to address, which would help with all payers and therefore with access, is first, implementation of the PMPRB reforms. Those are on their way and we are fully supportive of them.

The second one that I spoke of—

**Mr. Francesco Sorbara:** Sorry, is that the patented medicines review?

**Mr. Brent Mizzen:** It's the Patented Medicines Prices Review Board, yes.

The second element is having the private insurers join the pCPA, the pharmaceutical alliance that currently is with governments. The reason for doing so is that it would allow all buyers to pool their full market power to negotiate lower prices, to bring prices down even further.

That was sort of one bucket.

**Mr. Francesco Sorbara:** Go ahead quickly on your second.

**Mr. Brent Mizzen:** Second, the key issue with coverage for those who don't have it is to have a minimum formulary of medicines that can be covered either through a government plan or a private plan.

**Mr. Francesco Sorbara:** My understanding, having read about it, is that that is the situation now in Quebec. They have a mandatory formulary.

**Mr. Brent Mizzen:** That's correct. It requires that a certain level of coverage be provided to everyone, either through a government plan or through a workplace plan.

**Mr. Francesco Sorbara:** Thank you very much. I would like to move on to Mr. Mullally from Goldcorp.

It's nice to see you, John.

I have a quick question. The U.S. put into place a number of fiscal measures at the beginning of the year. You mentioned the capital cost allowance, which is something I've spent a lot of time talking about in the committee deliberations so far. I think—if I can use a hunting approach—a rifle approach is needed, and capital cost allowance would be beneficial to a lot of businesses in Canada.

Could you comment on that, please?

**Mr. John Mullally:** Yes. One thing I've remarked about is that in the mining industry, we need to really focus on later-stage technologies that are beyond technology readiness levels like six, seven, eight, and nine. There are things there, opportunities, many of which would be supplied by Canadian suppliers, things like the battery-electric vehicles and many of the water-reduction technologies we're currently investing in. There is risk aversion. If you invest, for example, a billion dollars in a capital project, then you're often prone to using these proven technologies and things that date back sometimes. These are the things that handcuff large resource companies at times so that those types of incentives, when it comes to capital, and other means, I think kind of tip the scale on those investments.

**Mr. Francesco Sorbara:** I'm going to ask a question on behalf of a member who's not here, Mr. McLeod, who represents the Northwest Territories. I know a lot of the diamond mines up north are utilizing skilled folks from the indigenous community. Can you comment on how important it is that we use this resource that we're blessed with and on what companies like Goldcorp and other producers in that sector are doing to encourage them to enter the labour force?

**Mr. John Mullally:** First of all, the mining sector is the largest private sector employer of indigenous people. Second, we operate in remote and northern communities, alongside many communities, so we offer, in fact, very good opportunities for people to work in proximity to their homes in some cases, instead of their going to other urban centres. I think the biggest thing we've noticed is that programs need to be designed to bridge, in some cases, the cultural understanding and, if you're working in a remote destination like our Coffee project in Yukon, to bring people in very early on to understand the dynamics of working at a remote site for a week and then going home for a week and then coming back. These are things around pre-employment-type programs that have been really effective. Not everyone is necessarily going to work at a mine site, but you're better able to ascertain that fit early on and develop a better understanding.

• (1350)

**Mr. Francesco Sorbara:** Thank you. I'll stop you there.

I'd like to go to the University of Ontario Institute of Technology. One thing I've spoken to—and I learned this when I first had the privilege of serving as a member of parliament—is this notion called parity of esteem, which I heard about from the Germans. If someone goes to an institute or a tech or a polytechnic for training, versus going and becoming a lawyer or going into sociology or history, these are all great pursuits in their own right, but it's about encouraging young people to become an auto technician for Mercedes or for some company, which is very high tech, versus maybe going and getting a liberal arts degree, and to have parity of esteem. It is so important that we encourage equality in terms of how we view these things. I think, sometimes, it is a little bit off-kilter these days.

Can you talk about that? Our government has made a large commitment to universities, both on the operating or capital side and for fundamental research, as I call it. Can you comment on that as well, please?

**Dr. Steven Murphy:** In our sector, colleges and universities are working more hand in glove. What you'll find is that our university students will graduate and move on to a college system. We share a campus with Durham College, so the mobility is high, and you will see Durham College students graduate and become our students.

The challenge for us is always at all levels. It's about making parents more aware and making kids, as they're moving through school, more aware of where sector skill shortages exist, and how we can work collectively with our partners at the K to grade 12 level to think about how we prepare the workforce of the future.

As you rightly point out, we need people with varied skills, and we need them in varied areas. Reducing the stigma of what it means to go to college has come a long way, but certainly around the trades, there's room to improve. The fact that we see more and more universities and colleges working hand in glove is a good indicator, and we're certainly committed to doing even more of that work.

**The Chair:** Ms. Alleslev.

**Ms. Leona Alleslev:** The downside to having many more witnesses is that we don't get additional time to ask questions, so I apologize in advance and thank everyone for great presentations.

I'd like to focus the bulk of my questions toward you, Mr. Pedlar, because it is incredibly important work, but also very complex work that not everyone understands.

Could you give us an idea of what your scope is and what, perhaps, you would like it to be in terms of the populations that you include? Certainly, you'd include veterans, but where are you with military personnel, so that we can track it right from before people serve to while they are serving? Are there things we can do to be proactively preventive? Could you also include first responders and the RCMP? And where does Health Canada fit into this?

**Dr. David Pedlar:** Let me go back to the beginning, briefly. Why would we start something like this in the first place? We know that military personnel and veterans do have unique issues. I clearly made that point. When the institute started in 2010, the Canadian Institutes of Health Research did not have an institute for military and veteran health, nor were veterans a special population, nor are they a special population now.

It meant that, although the problems were increasing among military and veteran populations through the 1990s, and through Afghanistan, Canada didn't have its best talent at the table to address these problems. That's at the heart of the void that I mentioned at the beginning, and then we covered—

**Ms. Leona Alleslev:** We made them a special group.

• (1355)

**Dr. David Pedlar:** We covered the entire waterfront at CIMVHR, which means that we covered military personnel, veterans, the RCMP, and increasingly we've been working with a sister organization called CIPSRT, which operates out of Regina, so that we can have knowledge exchanges in a complementary fashion between first responders and veterans.

**Ms. Leona Alleslev:** Are you getting the data from DND? Are you getting the data and support from the RCMP?

**Dr. David Pedlar:** Absolutely. CIMVHR was born in a very close relationship with our government partners. The reason for that is that most of the investment in Canada in military and veteran policy is developed and delivered by government. For example, we have a public service contract by which we're able to help support the science and technology needs of the Canadian Armed Forces, and we're pushing up to about 50 contracts that we've worked on with Veterans Affairs and the Department of National Defence.

**Ms. Leona Alleslev:** Could you talk about the funding model? Right now you say you're getting money from Health Canada, but are you getting consistent funding, and where is that funding coming from?

**Dr. David Pedlar:** The Health Canada money, \$1 million-a-year, came in 2015, and that was through the health care policy contribution program. That has played a very important role in our development as an organization. It has helped us build a broader network across the country as well as helping us focus more on the implementation of knowledge and findings with both our partners and the broader military and veteran community.

That includes a forum that we run every year that had 700 participants last year. We'll have about 550 next week in Regina. However, the contribution was a non-renewable contribution. In other words, it was a project-based funding model. Our objective is to be sustainable, first of all, and to do everything we do now, except to do it better. That would mean that we would be able to build research nodes across the country, and play a stronger role in developing the capacity of our network.

**Ms. Leona Alleslev:** Do you get funding from DND? Is the one-time funding just from Health Canada?

**Dr. David Pedlar:** We got the one-time money from Health Canada. It's about \$1 million a year over five years, so \$5 million. Our other sources of funding come from work we're doing with industry. Right now we have a contract with—

**Ms. Leona Alleslev:** Is it from the private sector as well?

**Dr. David Pedlar:** Yes, that money comes through Babcock in a partnership with IBM, where we're working on big data solutions to veteran health.

**Ms. Leona Alleslev:** Obviously, when we put a budget together and we make recommendations to the government, we have to also be able to demonstrate that it's not only for this one group, but that it benefits society as a greater whole.

Could you give us some idea of how this focused research on a very homogenous population informs us in terms of broader Canadian society, and how you then transfer that research and understanding to the broader population? How does it enable us to have a conversation around mental health and PTSD and all those other things that we're finding significantly and dramatically increased in our first responders and our military population?

**Dr. David Pedlar:** First of all, there's a long history of research in the military and veterans sector being transferred to the general population. That actually goes way back through the history of the Department of Veterans Affairs when it ran hospitals across the country.

That stopped through the 1980s and the 1990s, but CIMVHR is the seed for it to regrow again, so that veterans are again part of the —

**Ms. Leona Alleslev:** That's what I'm asking you. Please explain to everyone why that's so important, not only to that population group but also to the broader society, because we had it, we lost it, and now we need to get it back.

**Dr. David Pedlar:** The innovations we developed in the areas of mental health, like PTSD treatment for example, and suicide

prevention—an area we're very active in right now—can and will transfer to other populations. The ones we've been working with most closely have been other uniformed, trauma-exposed populations, but those innovations can transfer to other Canadians.

We have engagement with other populations through Health Canada and through the Public Health Agency. Our annual forum, which brings everyone together, does not just include the military and veterans sector. It also includes other sectors, and we're actively involved in impact and knowledge translation.

• (1400)

**The Chair:** Thank you both.

Mr. Julian.

**Mr. Peter Julian:** Thanks to all witnesses. Wow, there has been a lot of very good testimony to us today.

I'm going to try to get through as many questions as I can, so I'll ask you to keep your answers relatively short. I'll start with Mr. Rowlinson and Mr. DeRochie.

Mr. Rowlinson, you spoke very eloquently about the issue of the just transition and the possibility of developing our economy. We know, because the building trades have told us, that the renewable energy market in North America, particularly in the United States, is going to quadruple over the next decade or more. The federal government investing in a very marked and substantial way in that just transition creates jobs for those tradespeople, as other countries have seen, and provides us with the means to avoid the increasing catastrophes we're seeing under climate change.

The examples from this summer, as we've heard from other witnesses, include dozens of deaths in Quebec, the heat waves and wildfires in British Columbia and Ontario, and record flooding in southern Ontario. You have tremendous economic costs of climate change—\$3 to \$4 billion dollars and climbing—yet the federal government is providing \$7 million a year, which is basically just tiny crumbs compared to the costs of climate change and the subsidies going to the petroleum industry.

What is the best way to make the investments in just transition, and is the federal government doing anything adequately at all to actually speed that just transition and the jobs that will be created from it?

I'll start with Mr. Rowlinson and then ask Mr. DeRochie to answer the same question.

**Mr. Mark Rowlinson:** That's a big question that's hard to answer in short order. Let me give you some quick thoughts.

The government needs to invest in a massive way in renewable energy, but it needs to do so with a lens of creating jobs here in Canada. I'll give you an example. There are no wind turbines being installed in Canada right now that are built using Canadian steel—none. There have been attempts in Sault Ste. Marie and in Trenton, Nova Scotia, but at the moment Canada has singularly failed to connect investments in renewable energy with the need to invest and create those jobs here in Canada.

I'll give you another statistic. A tonne of steel that is imported from China has five times the carbon footprint as a tonne of steel manufactured here in Hamilton, Sault Ste. Marie or Contrecoeur, Quebec.

I agree with your premise 100%, but if we're really going to build a renewable energy economy that would actually create jobs for Canadians, we need to do in a way that would ensure that the benefits at all levels of that economy are going to Canadians and that Canadians who are currently employed in high energy sectors, like steel, can see themselves and their communities in that green energy future.

**Mr. Peter Julian:** Thank you.

Mr. DeRochie.

**Mr. Patrick DeRochie:** I would second the thoughts of my colleague from Blue Green Canada. One thing I would say is that the government deserves credit for the work it's done on the just transition for coal, including with communities, with former coal workers, with governments, and with the industry to make sure there is a plan going forward for those workers who will be affected by the phase-out.

Where I think there's an oversight is that we're focusing on one fossil fuel that we've acknowledged will be phased out, while ignoring that other fossil fuels, such as natural gas and oil, will also need to be phased out in the medium term to meet our Paris commitments and our domestic climate targets.

The government needs to start doing some thinking about how to manage that transition for oil and gas workers, in addition to coal workers, when we see global oil demands peaking and then decreasing within the next five to 10 years.

As we saw with the just transition panel that was struck for coal workers, we need to start thinking about oil and gas workers. We can start doing that by repurposing some of the subsidies that we're giving to oil and gas companies and using them for clean energy, for retraining programs, for just transition for the most affected workers in communities.

**Mr. Peter Julian:** Thank you very much.

The Canadian Association of Petroleum Producers came before this committee and said that they're not being subsidized, which I thought was a fascinating comment.

I'd like to go to Ms. Murray. Those are very compelling cases that you brought forward, particularly Jennifer's, who at 21 years of age was diagnosed with MS. My cousin Julie Serle suffered from MS at about the same age, in her early twenties, and died a horrible death about 15 years later. As a teacher she lost her job. At no point did she get any sort of recovery. So the work the Stem Cell Network is doing

is fundamentally important. I'm surprised to learn that you're fighting to keep the doors open to get that funding to sustain you.

How important is it that the federal government shift from what we currently see, which is year-to-year funding or small numbers of years where funding is provided, to a multi-year funding commitment? It may not be good politics. You can't make the announcement, but you can sustain that research that's so vitally important for Canadians who suffer from those kinds of degenerative diseases.

● (1405)

**Ms. Cate Murray:** First, let me say I'm sorry to hear that story; that's very sad. Unfortunately, there are many similar stories across the country.

With respect to your question, sustainable, predictable funding for translational research is absolutely essential. You can't do clinical trials on a short shoestring from one year to the next. You can't build durable partnerships with industry or research institutions or charities on a short time frame. Nor can we do big international collaborations without that time frame that allows for the research to be done and seen.

When we're in the health research business, we're looking 15 and 20 years down the road. It's not like we're a young Ph.D. graduate out of Waterloo who's able to do something with his or her roommates in their dorm and then spin it out and commercialize it. We're talking about therapies that are meant to go into humans and so we need clinical trials, and clinical trials take time. Therefore we need the funding to help support those early stage clinical trials.

In the case of stem cell research, many of the trials that we want to invest in and need to invest in won't be picked up by the pharma industry because they're not necessarily about drugs.

**The Chair:** Thank you all.

We'll go to Ms. Caesar-Chavannes for six minutes.

**Mrs. Celina Caesar-Chavannes:** Thank you. I'd like to start with Ms. Kuzmyk.

We know that our government has increased funding for the Canada Council for the Arts, from \$300 million to over \$600 million. The Canada arts presentation fund, established in 2001, has not received any additional funding since its inception. The Canada arts training fund, once there has been creation, helps the presenters go on the road, and clean up what they need to do domestically before that export.

How does not investing in a domestic fund—and I'm speaking to you ask for stable funding and increased partnerships—hinder your ability to export?

**Ms. Jenn Kuzmyk:** In terms of the Canada Council for the Arts in particular, which is demonstrative of a lot of the funding that seems to be available for the arts and for media in general, with regard to the festival, actually, it's a question of not fitting into the required parameters for the funding. The Canada Council for the Arts in particular is for artists; that's not for the festivals that support the artists necessarily. We don't get tourism dollars because it's not a consumer event. With regard to Global Affairs, we don't fit into that box, because we're kind of reverse exports. We're not bringing people from Canada overseas; we're bringing people from overseas to Canada. So it's kind of a problem with definition.

To answer your question about what we can do with more funds—is that what you're looking for? We have a program, and we've actually applied to Creative Export Canada as well, to create the Banff global financing forum. One thing that I think is really important to know is that only a minute portion of Canadian programs, Canadian content, and Canadian stories is financed by Canadians. When you look at global success stories, like *Anne with an E*, for instance, the new *Anne of Green Gables* series, which is, I think, the fourth-most binge-watched series in the world on Netflix, a really Canadian story, only a small portion of that was financed by Canadians. Any content that's made, anything that supports the Canadian media industry requires international financing, and that's where we meet, in bringing that international financing to Canadian parties.

• (1410)

**Mrs. Celina Caesar-Chavannes:** Thank you.

My second question is for Mr. DeRochie.

I appreciate your recommendations to invest any money from the price on carbon back into communities in various ways. How do you reconcile your recommendations with the current actions, for example, by the provincial government here in Ontario, which clearly does not take climate change seriously, as most of these investments that you're talking about will fall under provincial jurisdiction? Are you saying you go directly to the municipalities or invest those directly in Canadians?

**Mr. Patrick DeRochie:** You might have noticed that some of the ideas I was recommending for using those carbon pricing funds were exactly what was cut in the Ontario climate change action plan. I think that really highlights that if you have a government that doesn't want to put a price on pollution and doesn't want to invest in all of the measures and programs that also reduce pollution, I'm not sure what is left other than command-and-control regulation. I think it's a good solution to go directly to those municipalities, directly to school boards, and to use the infrastructure we already have, for example at NRCan with the home energy retrofits, to do it right from the federal government.

I know the government's also considering direct dividends to taxpayers, carbon dividends. We've seen that model work in Alberta, and we're okay with that, but we'd like to see at least some of the money also apportioned to those programs and policies that reduce carbon emissions further.

**Mrs. Celina Caesar-Chavannes:** Thank you.

Lastly, I would like to direct my comments to Mr. Murphy.

As you and Mr. Sorbara mentioned, our government has made significant investments in post-secondary education. The Prime Minister was at UOIT not too long ago to make an investment in ACE. Some may say that we should divert our attention away from making further investments. We have seniors, for example, for whom we could make further investments. What do you say to that statement? Why is your ask for investment in experiential learning so critical at this particular time?

**Dr. Steven Murphy:** Obviously, we recognize that governments are under pressure from all stakeholders. What I would say is that if we aren't investing in our future, our economy and our social fabric all break down.

Work-integrated learning is so essential because it allows our students to get the first-hand experience in the workforce that supplements their learning on our campuses.

I will use the opportunity to enlighten the committee somewhat. Sometimes the old, dated notions of what a university is need to be challenged. A lot of the work-integrated learning actually happens on our campus. If you are learning about aerodynamics and engineering and you have a wind tunnel, you can imagine that you don't need to go to an employer. Those investments are used by our students. If you want to be a forensics scientist and you are learning about a crime-scene house, and you have one on campus, that's where you do it.

The notion that you're always going out to an employer isn't so much as real as sometimes our employers are on campus. The answer to your question is that work-integrated learning, whether on our campus or within the purview of the employer's residence, allows our students come out more ready to push the labour force and our economy. That's exactly what we need.

I hear from CEOs every day that the biggest thing they want is to make their cultures more innovative. Young minds thinking about old problems in fresh ways will help our economy to thrive. That's what's going to allow the tax base to pay for the other essential elements.

I appreciate the question.

**The Chair:** Thank you, all.

Mr. Kelly, you have six minutes.

**Mr. Pat Kelly:** Thank you.

I'll maybe begin with Mr. Mizzen.

You spoke of the PMPRB. I'm not fluent with all of these acronyms that we use. I'm learning about the issues behind this. We heard testimony from Merck—I believe, yesterday—in Quebec City. They warned of catastrophic consequences for investment in pharmaceutical research as a potential consequence of these proposals, if I understood them correctly.

Can you comment on that? You're supporting this. Do you disagree, perhaps, with other critics, or are these different problems that are perhaps not your problems? Tell me what the arguments are for and against these changes.

•(1415)

**Mr. Brent Mizzen:** Sure.

I've heard the arguments and concerns of pharmaceutical about lower prices. My understanding of those arguments is that, to the extent that prices are lower in Canada than they are today, maybe that wouldn't attract the same level of investment from abroad, or the establishment or maintenance of head offices here in Canada. That's my understanding of their concern.

From the perspective I was speaking to, we have amongst the highest prices in the world for pharmaceuticals. We have scarce resources. We have concerns about Canadians and other payers being able to afford the medicines they need. I think it's critical that we have lower-priced medicines, which the changes to the PMPRB would achieve. Even to have them at the median price levels amongst the G7, for example, would bring them down dramatically and the reduce the effects on Canadians.

I haven't seen what evidence might exist of the impact of that on investment or the pharmaceutical offices maintaining headquarters here. I can't speak to that. I haven't seen.

Those are sort of the two sides of the perspective. I hope that addresses your question.

**Mr. Pat Kelly:** Your testimony is that the PMPRB is necessary to reduce costs for the betterment both of your industry and for all Canadian consumers of pharmaceuticals?

**Mr. Brent Mizzen:** Yes. I would clarify is that it's not for our industry; it's for Canadians and for payers of medicines. You have public payers and you have private payers. The way it would work in the private industry is that you have employers ultimately paying, and Canadians paying for their drugs. It may be facilitated through an insurance company, but really, lower prices would be to the benefit of both employers and Canadians, as well as the public payers—governments.

**Mr. Pat Kelly:** You didn't mention the tax on capital in your presentation, but I saw it in your submission. We are here to talk about the competitiveness of the Canadian economy. I'd give you a minute to address that if you want to.

**Mr. Brent Mizzen:** Sure. I'll just give you a very quick background. Our request or ask is the elimination of the capital tax on financial institutions. The reason for this is that the capital tax adds a cost of doing business to the industry and other financial institutions. I guess the added effect is that there's a new capital requirement or regime in Canada that's come into effect this year. The short form for that is LICAT. I apologize for the acronym for that as well.

We are unique amongst the G20 in that respect, in that there's a capital tax on top of this LICAT regime. We think that it's punitive and has a significant negative impact on the industry in terms of cost, and that it is not necessary from the capital regime. Life and health insurers already maintain a robust capital buffer.

**Mr. Pat Kelly:** Regulation is imposed on you to compel a behaviour that then turns into a tax that you have to pay?

**Mr. Brent Mizzen:** Correct, and it influences behaviour.

**The Chair:** Mr. Fragiskatos.

**Mr. Peter Fragiskatos:** Thank you, Mr. Chair.

Thank you to the presenters.

Mr. DeRochie, what I will say is more of a comment on my part. I like to think that I'm a positive person, so we'll agree on some things and disagree on others. When it comes to Trans Mountain, I strongly disagree with you. I think that Trans Mountain is certainly in our economic interest, in our national economic interest in particular, so I can't take what you said there.

With respect to carbon pricing, I'm glad you've put forward some imaginative ideas and answers to my colleague's question in particular. I think there's an emerged consensus—I was going to say “emerging”, but I would say it's an emerged consensus—on this issue. Even Preston Manning is behind the idea of putting in place a price on pollution and carbon pricing mechanisms, which I think is tremendously important. There are still some holdouts, unfortunately, but hopefully we'll get there.

Ms. Murray, I sympathize very much with what you said about multi-year funding. We have some outstanding researchers where I'm from in London, Ontario, working in our hospitals, researching stem cells in particular, so I support what you've brought to the table. It's a really important issue, to get that multi-year funding for organizations. Unfortunately, it can't happen every time because there are limited resources, but the examples you've brought with you that you stated at the outset were deeply moving, so thank you very much.

My question is for Mr. Mizzen.

In your comments, sir, you talked about pharmacare. You spoke about rare diseases. In London, Ontario, we have an outstanding organization, the Bethanys Hope Foundation, which has done incredible work in advancing the research around metachromatic leukodystrophy or MLD, an extremely rare disease. I wonder if you could just restate what you said about rare diseases. I just want to make sure that it's on the record.

•(1420)

**Mr. Brent Mizzen:** Do you want me to state it specifically?

**Mr. Peter Fragiskatos:** Well, I mean.... What is your view on how pharmacare policy can address concerns that have been raised in the community among those who are dealing with rare diseases?

**Mr. Brent Mizzen:** I guess the bottom line, and the reason we mention rare diseases specifically, is that we want to make sure they are included or captured within the program. They are unique in a number of respects. First, you can have a number of rare diseases that affect smaller portions of the community, and as a result of that —

**Mr. Peter Fragiskatos:** It's true; they're much more expensive, obviously.

**Mr. Brent Mizzen:** —the drug therapies are very costly.

**Mr. Peter Fragiskatos:** Yes.

I don't mean to cut you off, but I have limited time—

**Mr. Brent Mizzen:** No, I understand.

**Mr. Peter Fragiskatos:** —in these sessions. We all do.

Do you have a suggestion specifically on the best way to approach rare diseases as part of a pharmacare initiative?

**Mr. Brent Mizzen:** Just that rare diseases are captured.

**Mr. Peter Fragiskatos:** Okay.

And the private insurers?

**Mr. Brent Mizzen:** It could possibly be that.

Our suggestion is that we would be wanting to work with government as they develop solutions for the rare disease community.

**Mr. Peter Fragiskatos:** I know some private insurers do help with the costs of rare disease prescriptions. Are you saying that should continue?

**Mr. Brent Mizzen:** That would be one option that we would support, and we do have a pooling mechanism within our industry. It's not specific to rare diseases, but pooling is another option to address high-cost drugs.

**Mr. Peter Fragiskatos:** Thank you very much.

Mr. Rowlinson, I'm interested in what you're saying when it comes to transitioning workers who are moving away from GHG-intensive industries such as coal, but I'm also anxious not to reinvent the wheel.

Are there other countries that have done this well that Canada can really learn from? Something tells me that you're going to talk about the Scandinavian examples. Maybe you will. I'm quite interested if you could mention a country or two or three, some examples that we could learn from.

**Mr. Mark Rowlinson:** You took the words right out of my mouth. I think the way to think about this is that any time society goes through a profound economic transition, workers need to know that government is behind them in that transition. Workers need to know that there are government programs, whether employment insurance, income support programs, or community development, training and retraining programs. Those are the kinds of skills and levers that government needs to be able to exercise to support workers in that transition.

It's no accident, in our view, that social democratic countries like the Nordic countries have in fact done this the best. In Denmark, for example, employment insurance benefits last for two years when a worker loses their job. It's easier in those circumstances when workers know they have substantial economic supports for them to transition away from a high-paying job in the coal sector into a new, hopefully high-paying job in renewable energy. So, yes, I would suggest to you that it's the Nordic countries that are the ones best to look at.

**Mr. Peter Fragiskatos:** Lastly, is Denmark the best example?

**Mr. Mark Rowlinson:** Yes, it would be one very good example to look at. Correct.

• (1425)

**Mr. Peter Fragiskatos:** Thank you.

**The Chair:** I have just a couple of questions.

My question for everyone is this. Part of the committee's work is to look at competitiveness, and we've heard a lot of ways in which to spend money today. Are there any things we could be doing that would enhance our economy and our competitive position without spending money?

I'm going to you, Mr. Mullally, first. You had basically called for something like a regulatory council. We already do have a regulatory advisory committee and a red tape reduction action plan. Are you talking about more than that or is that group not doing its work?

**Mr. John Mullally:** I think a low-investment solution, certainly for resource development, would be to have some more excellence around regulatory policy, looking at agility and streamlining it. Probably one thing that is a critical part of business and resource development in Canada is working with first nation communities throughout project development. Government provides no framework structure around that. That area is dominated by the Constitution and Supreme Court decisions and things that don't provide any certainty, so I think those kinds of things inside a centre of excellence and best practices when it comes to resource development would provide industry with more certainty and stimulate investment.

**The Chair:** Does anybody have any thoughts on how we could really make things roll without spending any more money, on a \$340-billion budget?

**Mr. Mark Rowlinson:** If I could suggest one thing, the government should seriously look at pricing carbon at the border. Look at border carbon adjustments.

If you did that, you would be promoting and protecting the Canadian economy. For example, it is a tragedy, in our view, that we currently have huge infrastructure projects, bridge-building in Montreal and Victoria, where those bridges are being built using offshore steel and there's no accounting for the cost of that steel and its carbon footprint.

If we priced carbon at the border, then its price would be built into the procurement of that product, and it wouldn't cost the government a cent. In fact, it would bring money to the government.

**The Chair:** That's an interesting point.

Are there any other quick thoughts, anyone, or did any of the witnesses want to make one point?

Go ahead, Mr. Julian.

**Mr. Peter Julian:** Thank you, Mr. Chair.

I have a quick question for Mr. Mizzen.

We have heard that the property insurers track the increasing costs of climate change shown in insurance payouts, which were over \$1 billion last year. It will be higher this year, of course.

For the life and health insurers, are you starting now to track the cost of climate change for your business?

**Mr. Brent Mizzen:** We certainly recognize the impact on our business. I'm not aware that we're tracking the impact of it on the business. In part, the reason may be that its cost for our business is a little more indirect than for the P&C insurers. When you have a natural disaster, the impact is quite evident for them, whereas in our business, the impact is more secondary. In the aftermath of a climate change event, you may have changes to disability claims, for example, and you would need to be able to track that.

What I'm saying is that I'm not aware that we do that at this stage, and it might be because of the more indirect effects than the direct effects in the P&C sector.

**The Chair:** Thank you.

The last question goes to Celina.

**Mrs. Celina Caesar-Chavannes:** Quickly, again to Mr. Mizzen, and I just need some clarification on your topic.

You talked about longevity insurance. That is good for people who can afford it, but what about those who are at or below the

poverty line? What adjustments do you make for them? What's that particular instrument?

**Mr. Brent Mizzen:** Those who have lower incomes generally would be covered through public programs, and these would provide certainty over time.

It's more that longevity risk would help with other individuals.

• (1430)

**The Chair:** Okay.

Thank you all for your presentations and for taking our questions. As I said, we also have the submissions that were sent in earlier, which have a lot of documentation in them. We thank you for them, as well.

I don't think there's anyone here for an open mike.

Okay. Thank you all. If somebody wants to have some side conversations, now is your chance.

With that, the meeting is adjourned.

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