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# **Standing Committee on Industry, Science and Technology**

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**EVIDENCE**

**Monday, November 28, 2016**

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**Chair**

**Mr. Dan Ruimy**



## Standing Committee on Industry, Science and Technology

Monday, November 28, 2016

• (1535)

[English]

**The Chair (Mr. Dan Ruimy (Pitt Meadows—Maple Ridge, Lib.)):** Welcome, everybody, to meeting 36 of the Standing Committee on Industry, Science and Technology. Pursuant to Standing Order 81(5), we are dealing with supplementary estimates (B) 2016-17, referred to the committee on Thursday, November 3, 2016.

Appearing before us today is the Honourable Navdeep Bains, Minister of Innovation, Science and Economic Development. With him is Kelly Gillis, the associate deputy minister, and John Knuble, the deputy minister.

Without further ado, Mr. Bains, you have the floor.

**Hon. Navdeep Bains (Minister of Innovation, Science and Economic Development):** Thank you very much, Chair.

I'm delighted to be here again. It's great to see a lot of familiar faces and a few new faces as well. I'm very grateful for the opportunity to address this esteemed committee.

I'd like to welcome ministerial colleague Dr. Kirsty Duncan, who will be joining you in the next hour to update you on her role and her mandate as the Minister of Science.

Not here today but an integral part of our ministerial team is the Honourable Bardish Chagger. In addition to her critical role as government House leader, Minister Chagger is working with us to drive economic growth in the small business and tourism sectors.

I would also like to acknowledge my deputy minister, John Knuble, and Kelly Gillis, our associate deputy minister.

I've been invited, as you mentioned, to update the committee on the content of the latest round of supplementary estimates that we've recently tabled.

Innovation, Science and Economic Development—the ISED portfolio—is presenting an increase of \$409.6 million, resulting mainly from new funding under budget 2016. The highlights are as follows: \$249.3 million to the post-secondary institutions strategic investment fund to enhance and modernize research facilities on Canadian campuses; \$64.8 million to support investigator-led research under the research support fund and the grants and scholarships programs; and \$40.6 million to the Canada first research excellence fund. I suspect that my colleague Minister Duncan will speak to these specific investments.

We've also invested \$20.8 million to support internships under the youth employment strategy; and \$10 million to support cutting-edge research and development through the European Space Agency's advanced research in telecommunications systems programming.

[Translation]

I'd also like to give the committee an idea of what we've been up to since my last appearance here in April.

My main focus has been leading the development of an inclusive innovation agenda.

[English]

The inclusive innovation agenda is our government's plan to drive economic growth by making Canada a global leader in innovation. It will create well-paying jobs for the middle class and for those working hard to join it.

The first and most important phase in developing this plan was to hear from Canadians. As you know, Chair and colleagues, the government does not have a monopoly on good ideas. Over the summer, we held 28 round table discussions. We invited Canadians from coast to coast to visit our website and to comment on social media. In all, we received more than 1,500 ideas on how to make Canada a global leader in innovation.

I want to take this opportunity to quickly highlight three themes that came from those conversations and discussions.

First, we heard about the need for more people with the right skills and experience to drive innovation.

[Translation]

Second, we heard about the need to harness emerging technologies to achieve big things.

[English]

Third and last, Canadians told us it was important to develop the next generation of globally competitive companies.

In the coming months, those ideas will help inform our government's work as we prepare the budget.

It is also worth noting

[Translation]

that Budget 2016 made several important down payments in support of the innovation agenda.

[English]

It allocated \$2 billion to renew university and college campuses across the country. The budget also committed \$800 million over the next four years to strengthen innovation networks and clusters. More than \$1 billion is being invested in the development of clean technologies. These are bold investments designed to drive economic growth through innovation and to create, again, good-quality jobs for the middle class.

The consultation process for the innovation agenda has given me the opportunity to travel to many communities across the country.

[Translation]

I am always impressed during these visits with the work being done by our regional development agencies to support the economic growth of communities across the country.

[English]

Our government has chosen to align all the regional development agencies under one portfolio. The goal, and I've said this on numerous occasions, and I'm glad we're succeeding in doing this, is to elevate their importance and make them part of our government's overall agenda for economic growth. I'm pleased to report that this change has resulted in the alignment of priorities and best practices amongst the agencies.

The focus of these agencies now includes developing young companies, so we want to have a strong pipeline of companies, but we want to identify opportunities for these companies to scale up and grow, one of the key themes we heard from Canadians. Diversifying our regional economies still remains a priority because we understand the unique nature of each of the respective regions. Other goals are promoting clean technology and supporting our indigenous communities.

[Translation]

This theme of collaboration informs all our actions as a government.

[English]

In June and earlier this month, I chaired meetings of my provincial and territorial counterparts. These were the first meetings of this kind in 12 years, and they set a new tone for constructive engagement. Again, we recognize that not only do we not have a monopoly on good ideas, but also that it's going to require a collective effort and that it's important that we work with provincial, territorial, and municipal counterparts. That spirit and that partnership also resulted in the Atlantic growth strategy that we launched over the summer. This strategy will target actions to stimulate the economy of all four Atlantic provinces.

Another historic result of our collaboration with the provinces and territories is our work to renew our framework for internal trade. We are on the cusp of concluding negotiations for a new Canada free trade agreement.

[Translation]

This agreement will provide an ambitious and modern framework for the free flow of goods and services within Canada's borders.

[English]

Our work to conclude this agreement is all the more significant at a time when the rest of the world is talking about putting up more barriers to trade. We recognize that rise in protectionism.

•(1540)

[Translation]

Another key value of this government is inclusion.

[English]

That's why we tabled a bill to promote corporate transparency and diversity. Among other things, Bill C-25 aims to increase the number of under-represented groups on corporate boards and senior management teams. Corporations will be required to make public their diversity policies, and those corporations without diversity policies will have to explain why they don't have one.

While we know that security regulators have focused on gender diversity policies, this law goes farther. The goal is to attract the best and the brightest from as wide a talent pool as possible. That's how Canada can make full use of the competitive advantage granted to us by the extraordinary diversity of our population. When we say diversity is our strength, we truly need to take advantage of that.

Also on the idea of inclusion, we've taken steps to bridge the digital divide. In today's modern age, it is critical that all Canadians have access to the Internet.

[Translation]

In particular, Canadians in rural and northern regions need better access to high-speed Internet.

[English]

Improved broadband connectivity can unlock tremendous economic potential, leading to the creation of new jobs, products, and businesses. I know this issue is of interest to committee members, and I've had many of you reach out to me about this. I'm pleased to let you know that very soon we will be launching Connect to Innovate, a \$500-million investment that will extend high-speed Internet service to rural and remote communities.

We know that inclusion and diversity mean casting a broad net in our search for talent. We recently announced Canada's global skills strategy as part of our fall economic update. Again, this is something that we heard consistently when we engaged Canadians on the innovation agenda. The number one issue was talent and people, and this is one recommendation that we heard loud and clear. This strategy is a key part of the innovation agenda. It will make it faster and easier for Canadian firms to attract the best and brightest from around the world.

The global talent can drive innovation and help Canadian firms to grow and prosper, leading to more jobs. That's a key element. This initiative will help create more Canadian jobs.

[Translation]

I am excited to be working with my colleague, the Minister of Immigration, Refugees and Citizenship, on this important initiative.

[English]

Mr. Chair, I'm also aware that the committee has been engaged in a study of Canada's evolving manufacturing sector. I look forward to receiving your report. I know a lot of hard work and effort has been put into that initiative. We really look forward to the recommendations you will be presenting. I note with interest that the Canadian Manufacturers & Exporters have set the ambitious target of doubling Canada's manufacturing output and value-added exports within 15 years.

[Translation]

The government stands ready to be a meaningful partner to strengthen this foundational sector.

[English]

Rest assured that the innovation agenda will address many of the challenges faced by the manufacturing sector in today's global and digital economy. The innovation agenda will make the most of partnerships with universities and colleges to advance research and development. It will enable the commercialization of promising research into new products and services. It will work with industry to make skills and training a priority.

• (1545)

[Translation]

In the year ahead, my officials and I will work with Canadians to finalize and implement the innovation agenda.

[English]

We will also act on our commitment to reinforce the independence of Statistics Canada. We have already reinstated the mandatory long-form census, a decision that was received with great enthusiasm by Canadians. The 2016 census results reflect that enthusiasm, with an unprecedented response rate of 97.8%.

We will also continue to work with our regional development agencies to make strategic investments that diversify and strengthen the economies of each part of this great country. As well, we will continue to support key sectors that drive economic growth and innovation.

[Translation]

Mr. Chair, colleagues, I am proud to serve a government that listens to Canadians and responds to their needs.

[English]

As a government we embrace a partnership-driven approach to innovation. I think the results we have achieved during our first year point to the effectiveness of this approach.

*Merci beaucoup.*

**The Chair:** Thank you very much, Minister Bains, for your opening comments.

We're going to move right into questions from Mr. Sheehan.

You have seven minutes.

**Mr. Terry Sheehan (Sault Ste. Marie, Lib.):** Thank you very much, Minister Bains, for that presentation. I appreciate it.

My first question is going to be around the post-secondary institutions strategic investment fund. Recently you visited the riding of Sault Ste. Marie and announced \$5 million for Sault College, almost \$3 million for Algoma University, and \$5 million for the Shingwauk Education Trust for the aboriginal discovery centre. I thank you for that.

I have a great interest in this particular program. The report talks about \$249.3 million extra to that particular fund. Can you talk about the short-, medium-, and long-term gains that this amount of money could achieve?

**Hon. Navdeep Bains:** As per our last budget, one of the key investments we made as part of our overall innovation agenda, as part of our overall demonstration that we want to step up our game when it comes to building the partnership model that I talked about in my concluding remarks, was to create a better collaborative environment with our universities, and colleges, and academic institutions from coast to coast. We introduced a \$2-billion strategic investment fund that you alluded to and that I was fortunate to make some local announcements on in the Sault. It was really well received by the college and university, and by the aboriginal community.

The objective of that fund is not only to make these investments, but also to leverage the provinces and territories, and the institutions. The hope is that \$2 billion actually turns into \$4 billion when it's properly leveraged from across different levels of government across the country.

The objective of that, again, is to help create world-class facilities to really help focus on areas where we can innovate and to create an environment where Canadian students have some of the best opportunities to learn in a state-of-the-art facility where they do research. This will allow us the ability to attract some top talent from around the globe as well. That's what I was talking about in terms of the global skills strategy.

Also, the benefit with that is the short-term jobs created with infrastructure, so as you put a shovel in the ground and you make these investments, that will create short-term jobs as well. It also creates an environment to focus on areas around STEM, science, technology, engineering, and mathematics, where we can create long-term jobs as well. The objective of this initiative was to make sure that not only do we make these investments, but they will be complete by 2018.

The original allocation of the funding of this \$2 billion was \$494 million in the first year, \$1.25 billion in the second year, and \$245 million in the third year. Because we work very closely, and we have a really good working relationship with our provinces and territories, we had to adjust the program funding profile to \$744 million in the first year. That includes the supplementary estimate numbers that you see here, plus what was in supplementary estimates (A). When you combine the two, that's roughly \$744 million in the first year, and \$995 million in the second year, and we're still maintaining our target for the third year at \$245 million.

This again speaks to the fact that we have a program that's really well received by the academic institutions. We have a really good working relationship with the provinces and territories. We're getting the money out in a timely manner to create jobs. We're also strengthening our academic institutions to help Canadians who are studying domestically, and to allow us to attract some of the best and brightest, which is so critical in terms of the talent piece of our innovation agenda.

**Mr. Terry Sheehan:** Thank you very much.

This year we'll be celebrating Dr. Roberta Bondar's 25th anniversary as Canada's first woman in space. I noted in your report the \$10 million to support the cutting-edge research and development through the European Space Agency's advanced research in telecommunications systems program. Can you explain exactly what kind of benefit there would be from that particular program?

• (1550)

**Hon. Navdeep Bains:** As you know, the Canadian Space Agency received an investment of \$379 million in our 2016 budget. This was a significant investment in space, and we connected it with our commitment to aerospace as well. There's a lot of innovation taking place in this sector, and that commitment was really a reflection of our long-term plan on the International Space Station, and looking forward to how we can continue to work with NASA and other partners and allies to make sure that we have a presence when it comes to space.

We take a lot of pride in the Canadarm and how that has direct applications now in industry. For example, a lot of that technology, a lot of those robotics, are being used at the surgery tables in our hospitals. We're seeing not only these applications in space, but a direct correlation in some of the key sectors like the health care sector in Canada.

The \$10-million commitment with respect to the advanced research in telecommunications systems is really with respect to what we're doing with our European allies. The idea, again, is how can we collaborate on research and development? We want to provide an opportunity for industry in particular, and SMEs, to have access to the R and D so they can be on the cutting edge of new solutions, and they would be able to compete with some of those new technologies. A major benefit of this initiative is to create that R and D partnership so it benefits industry as well.

One of the challenges we have, and we see this across different sectors—mind you, space and aerospace are the exceptions—is there's a decline by Canadian companies in research and development, so we feel now is an opportunity for the government to show leadership in this area. This \$10-million investment with Europe

really helps us to build that partnership with industry so they have access to research and development.

**Mr. Terry Sheehan:** That's good.

I have just a minute left, so this will have to be very quick.

You also met with a number of companies around the clean tech industry in Sault Ste. Marie while you were there. In the time remaining, do you wish to expand a little bit on the support that's available for all companies in Canada?

**Hon. Navdeep Bains:** As you know, our government has been very clear that we want to reach our ambitious targets and achieve our climate change goals from COP21 in Paris, but we recognize that now more than ever we have a responsibility to explain that the environment and the economy go hand in hand. When we're trying to achieve these targets, we can create an economy that actually creates jobs. It's not simply about the environment but about the environment connected to the economy in a meaningful way.

We talk about blue-collar jobs or white-collar jobs, but we also have a responsibility to promote green-collar jobs. These jobs prevail in every single sector.

When we were in the Soo, we saw how this prevailed in so many different sectors, not only in renewables but also in how companies were more efficient in terms of their use of energy and how they were being more efficient in terms of the outcomes they were getting.

Keep in mind that we made an investment of \$1 billion—

**Mr. Alexander Nuttall (Barrie—Springwater—Oro-Medonte, CPC):** On a point of order, Mr. Chair, I believe we're about 20 odd seconds over. Unfortunately, that will end up hurting the New Democrat's opportunity to ask some questions to the minister.

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

Mr. Bains, we're going to move on—

**Hon. Navdeep Bains:** The billion dollars we allocated in the budget for clean technology speaks to the fact that we want to build partnerships. The government already, for example, ranks ninth amongst the OECD countries when it comes to government-led R and D with industry. We want to continue to send a clear signal to the market that a low-carbon economy is a priority for this government. It's not only good for the environment and good for our health, but also good for creating jobs.

Just to put things in perspective, I had the opportunity to travel to India, to take a mission there and to really take our information and communications—

**The Chair:** Sorry, Mr. Bains. I'm going to have to cut you off there.

**Hon. Navdeep Bains:** Yes.

To make a long story short—

**Mr. Brian Masse (Windsor West, NDP):** Mr. Chair, I have a point of order. I want a clarification. The minister was late to the meeting here, and we've gone over time for the government's time. I want to be assured that I will get my full allocation of minutes at this committee hearing today.

Are you going to guarantee that I will get that? It's not my fault. I was here, and the time allocation is there. I want to make sure I have my time.

Can you clarify at this point in time to ensure that's going to be the case?

**The Chair:** That will depend on how the rest of the meeting goes, I guess.

**Mr. Brian Masse:** So it will just depend upon whether or not you extend time for—

• (1555)

**The Chair:** The more time we take for this conversation—

**Mr. Brian Masse:** Don't blame me now.

**The Chair:** I'm not blaming you for anything.

**Mr. Brian Masse:** It's out the door, because we didn't start on time, and then at the same time you extended the time we're allowing the minister.

It's hard to blame me now for intervening because I'm losing time.

**The Chair:** We're going to move to Mr. Nuttall.

Go ahead, please.

**Mr. Alexander Nuttall:** Thank you.

Mr. Minister, you will be happy to know I don't have any motions to table today. I also want to say thank you for taking the time to join us and for the work and service you provide for our country.

I hope you will realize it's not me being rude if I do interrupt you. I have only seven minutes, and I want to ensure I'm respectful to the people I represent in those seven minutes.

In 2016, it was said that the innovation agenda would be released within one year. That was obviously in March of this year. We are 400 days plus since the election.

Can you give us an exact date for this to be released?

**Hon. Navdeep Bains:** As you know, the innovation agenda is a core part of my mandate, and it really speaks to our government's commitment with respect to not only investments in infrastructure but looking at innovation policies to drive growth and to really create opportunities for businesses to succeed.

As I mentioned in my remarks, we went out to Canadians in June to engage and to get their feedback. We had unprecedented support with over 1,500 submissions.

After we received that, I went back out in very public forums to talk about the feedback we received. I highlighted the three elements: people, technologies, and helping companies scale up. I alluded very clearly to this being an essential part of our budget process that should be integrated into our budget development process.

**Mr. Alexander Nuttall:** Will it be released prior to the next budget, and will it be released before March 31, 2017?

**Hon. Navdeep Bains:** I am very confident that much of the feedback we received from Canadians will be reflected in our budget, but there's a process entailed.

**Mr. Alexander Nuttall:** Okay.

**Hon. Navdeep Bains:** I'm working very closely with the Minister of Finance and my colleagues, and the hope is to have a lot of these ideas reflected in that.

**Mr. Alexander Nuttall:** So we're over a year in, and there is no plan being put before the Canadian people with regard to jobs.

Last week we had the Premier of the Northwest Territories in committee. He said his goal was 36,000 new jobs over the next 15 years.

Minister, what is your goal for job creation for the next year? All I'm looking for is the number of jobs.

**Hon. Navdeep Bains:** First of all, just to correct the record, we made a significant down payment on the innovation agenda. I talked about the \$2-billion investment with universities and colleges. That was a significant investment with regard to innovation in the 2016 budget, which we rolled out in advance of the original timetable we had. We are getting those investments out more quickly.

We also committed \$500 million for broadband connectivity, which I alluded to in my remarks, which again—

**Mr. Alexander Nuttall:** Again, Minister, how many jobs? That's what I'm asking.

**Hon. Navdeep Bains:** I am getting there, but I also wanted to clear the record. You said we did nothing on the innovation agenda, and I felt it was important for me to highlight just a couple of key aspects. I won't go through the long list that we have in terms of the innovation elements of it.

The other quick item is the \$500 million that we invested in broadband connectivity. Again, this is something that will benefit rural and remote communities.

Just to put things in perspective, the government works with industry and businesses to create conditions for job growth. Based on StatsCan information and the work that we've done so far since we've taken government, we've created 139,600 jobs in conjunction with industry, academia, and other levels of government, and a lot of those jobs have been from coast to coast to coast.

**Mr. Alexander Nuttall:** Thank you.

So, net new jobs are at zero, and you don't have a goal for the next year that you are willing to at least tell us.

**Hon. Navdeep Bains:** No—I just highlighted the jobs that were created, and we'll continue to—

**Mr. Alexander Nuttall:** Mr. Bains, do you believe that the CIP 150 funds are being distributed fairly around the country?

**Hon. Navdeep Bains:** Could you repeat the question?

**Mr. Alexander Nuttall:** Do you believe that the CIP 150 funds, the Canada 150 funds, are being distributed fairly across the country?

**Hon. Navdeep Bains:** Again, we evaluate those on a case-by-case basis. They are based on very clear criteria that have been established. We look at the merits based on that, and that's how we determine if they meet the requirements.

**Mr. Alexander Nuttall:** Is one of the criteria that it's a Liberal riding?

**Hon. Navdeep Bains:** Pardon?

**Mr. Alexander Nuttall:** Is one of the criteria that it's a Liberal riding?

**Hon. Navdeep Bains:** No. The criteria are focused on diversity—for example, young and aboriginal people—and on celebrating Canada's 150th anniversary.

**Mr. Alexander Nuttall:** Of the \$30 million being spent, \$28 million went to Liberal ridings. Of the CIP funds that have been put out in terms of contracts, the highest number of contracts awarded, 31, were awarded in your area of Brampton and Mississauga. Do you think that this is a fair allocation of the resources the Canadian people give the Canadian government?

**Hon. Navdeep Bains:** We have a very robust process. I am very confident in the process that evaluates these projects. Again, these projects are based on what we receive, based on the criteria that we've set to celebrate Canada's 150th anniversary. That is how we allocate the funding.

**Mr. Alexander Nuttall:** So you think it's appropriate that \$28 million out of \$30 million—90% of the funds—has gone to Liberal-held ridings.

•(1600)

**Hon. Navdeep Bains:** Which \$30 million are you alluding to? The Canada 150 is a \$150-million commitment, so \$30 million seems to be a number that doesn't coincide with that amount.

**Mr. Alexander Nuttall:** That's for Ontario.

**Hon. Navdeep Bains:** So when you say \$30 million, you are talking about Ontario. What was your question?

**Mr. Alexander Nuttall:** Do you think that \$28 million of \$30 million is a fair number?

**Hon. Navdeep Bains:** I think the funding allocation should be based on criteria and merit. I've been very clear about that with my officials, and that is exactly how we've deployed those funds.

**Mr. Alexander Nuttall:** Earlier this year, I put forward a motion to have the committee investigate the carbon tax and the effect on our economy. We know how much it is going to pull out of the economy—about \$36 billion a year. Is there money set aside in the supplementals to help Canadians who lose their jobs when this new tax is implemented?

**Hon. Navdeep Bains:** Our government has been very clear about putting a price on pollution. We think that it drives innovation. As the ministry responsible for innovation, science, and economic development, we recognize that we need more money in R and D. We need to find new solutions so that we can not only help create a cleaner environment in Canada, but become more export-oriented. Keeping that in mind, we really work with our regional development

agencies to target and focus investments in clean technology. That's one area.

We have also allocated \$1 billion in our budget to help, again, make investments in clean technologies. The idea is that the government has a meaningful role to play, to develop a partnership to create jobs. We are really focused on clean growth in jobs and on maintaining and enhancing our quality and standard of living.

**Mr. Alexander Nuttall:** On that, you said earlier that governments aren't in the business of creating jobs; they are in the business of creating the environment for jobs. Then you said that the government “has a meaningful role to play” in creating jobs, but you won't say how many jobs you hope to create next year.

Will you tell us how many jobs you are expecting the carbon tax to kill in the next five years so that we can include that in our estimates of where the economy is going?

**Hon. Navdeep Bains:** I believe putting a price on pollution drives innovation, which improves our productivity and competitiveness, which creates robust growth and creates jobs. Based on that philosophy, we already work with industry, other sectors, and other levels of government, and we have created 139,600 jobs since we've taken office. We believe we'll maintain that level of momentum, but I also acknowledge that there are global factors at play. Canada is not an island. It really depends on global growth and how other markets operate, but I am confident that we have strong policies in place, investments in infrastructure, as I alluded to—\$180 billion, which is significant in creating jobs—and, of course, the innovation agenda, which will create jobs as well.

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

We're going to move to Mr. Masse for seven minutes.

**Mr. Brian Masse:** Thank you, Mr. Chair.

Thank you, Mr. Minister, for being here. It's a very difficult job that you have. You cover a lot of files. There's no doubt about that.

I want to be clear in terms of where you stand as an individual and about definitions. In your remarks you mentioned well-paying jobs and the middle class. How do you define a well-paying job? What is it that you and the ministry are looking for in terms of remuneration for employment? In terms of trying to create jobs here, how do you define what that means?

**Hon. Navdeep Bains:** My definition of a good quality job is that individuals have an opportunity to do better going forward. The idea is that the status quo is okay, but they can do better. How do we create opportunities for people to continue to grow and earn more money? That's really what I'm focused on. I'm focused on it when it comes to jobs, and I'm focused on it when it comes to even companies or high-growth firms. We're always looking for opportunities for people to make more money, to earn more money. Obviously, that is a key part of our criteria.

**Mr. Brian Masse:** With all due respect, jobs like that.... For me, it's whether or not you can pay a mortgage, whether you can send your kids to university or college, and whether you have the right to participate in the general economy. That's one of the reasons, in terms of my region, I'm more concerned about the fall of the auto industry. We have dropped to 10th, as I mentioned in the House of Commons today. As well, too, you mentioned your upcoming trade mission to India. I worry about a national auto strategy, and here's the reason, Mr. Minister.

I was approached the other day at a hockey rink by an engineer who is training someone from India who has come over to basically take his job. The concern I have is these different trade missions we have and whether or not they lead to the value-added jobs back in our country. Engineering is a pretty significant value-added job. He works in a high-needed area. He designs and manufactures auto parts, and meanwhile, he's training the person who has come over to Canada to take his job.

What do I say to someone like him who's losing their job? Do you actually review these trips? Has that been done in terms of a full auditing of what comes in return and what we lose? What do we say to that person right now? I'll see him this week.

• (1605)

**Hon. Navdeep Bains:** I'm glad you asked that question. I have two perspectives on it.

First of all, with respect to the challenges in Windsor and within southwestern Ontario around the auto sector, it is a really important file for me and for this government, and we have a plan. That is why we extended the automotive innovation fund. That is why we're actively engaged with companies and the automotive supplier innovation fund. That is why, for example, if you look at supplementary estimates (B), we have an amount allocated for the automotive innovation fund and automotive innovation office. That's really to create the investment attraction office. All these are part of a game plan that we have to work with the auto sector, to work with labour, to bring in investments and create jobs.

What I would say is this. If you speak to labour, if you speak to the companies, they recognize the government has stepped up its game, and we're making investments.

**Mr. Brian Masse:** I'm speaking to a father who has a child in hockey. Those are great. But the thing is, why aren't those funds being exhausted or used by the companies?

**Hon. Navdeep Bains:** They will be. As you know, as these investment arrangements with the companies and with the unions are now starting to unfold.... We were very much engaged with the unions, very much engaged with the companies. We're going to be at the table. We want to participate. We're going to deploy these funds. We want to create jobs.

If you look at—

**Mr. Brian Masse:** Aren't you concerned that we actually have jobs that are value added, that we're trying to attract, that are now going to other countries? That's what's happening.

**Hon. Navdeep Bains:** No, I think that's a challenge. I think the rise of protectionism and some of the rhetoric we've heard in the U.S., for example, and what we saw with Brexit, speaks to that

thinking. I understand the anxieties around that, and I understand the challenges. I'm not being dismissive about it at all. But I do fundamentally believe that, as a country of 35 million people, if we are to succeed, maintain our standard of living, and grow, we need to bring in investments. We need to focus and build partnerships with industry to create jobs.

The fact that our government has played a more active role in doing that, I think, sends a clear signal that we're open for business, open to ideas, open to people, and open to investments, which is good for job creation.

**Mr. Brian Masse:** With all that being said, though, wouldn't a national auto policy work in terms of the current thing we're doing now? Duguid from Ontario has been very clear dismissing that idea. Wouldn't a national auto strategy that's being called for by the union....?

By the way, it was the workers. I think this is an important point. When the workers went into negotiations, they chose future for jobs for other people over their own monetary returns. They said to the companies and to their union that they wanted those jobs protected for the future, not extra raises or benefits. They have a billion dollars on the table. We haven't see that use in the past taking place.

We have the chambers of commerce outside. We have the auto companies outside. Some of these companies don't have the senior officials or presidents who come from Canada anymore. Wouldn't a national auto policy be at least a logical way to approach and to go with this? Why would your colleague in Ontario not support that? Do you support a national auto policy that is being called for by others?

**Hon. Navdeep Bains:** I think what people want is action. I think what people want is a government playing a meaningful role and delivering results.

To highlight that, and you mentioned the questions you raised about the auto file in the House of Commons, I too had the opportunity to talk about GM Canada and the thousand engineers who are coming to Canada—

**Mr. Brian Masse:** But that was done with no government money. There was no government money in that.

**Hon. Navdeep Bains:** You asked about engineering before, so I just want to highlight that. Those one thousand engineering jobs are coming to Canada because the car of the future is being built in Canada.

**Mr. Brian Masse:** Yes, but that's a bad example. That's not the innovation funds. That's a bad example, because it was—

**Hon. Navdeep Bains:** No, but I think it speaks to the engineering side, the individual we talked about that—

**Mr. Brian Masse:** I don't mean to interrupt you, but you weren't involved. You're raising about a thousand jobs that had no government participation at all. That's a serious problem for some plan that can—

**Hon. Navdeep Bains:** If you ask GM why they made that investment in Canada, they say it's because of the innovation policies that exist here, because of the talent pool access that they have, both from a domestic academic perspective and through immigration policy. It's the fact that we have 700 suppliers, the fact that we have 40 academic institutions that have some sort of relationship when it comes to the auto file. It's the fact that we have the second-largest automotive jurisdiction in North America. Those are the reasons.

They know there is a government that's going to be at the table working with them making investments. That is why GM Canada is making those investments. That is why we have, going forward—

**Mr. Brian Masse:** Okay, but do you believe in a national auto policy?

**Hon. Navdeep Bains:** I believe in a government that's going to take meaningful action to bring results, and that's exactly what we're doing on the automotive innovation fund, the automotive supplier innovation program, and the amount of money that we've included here for an attractive automotive investment office. We're competing with Mexico and the U.S. and other jurisdictions—

**Mr. Brian Masse:** Absolutely. In fact, we're losing now, big time.

**Hon. Navdeep Bains:** In fact, this year was a very historic year in automotive.

**Mr. Brian Masse:** It's the platinum age of automotive. It's not the golden age anymore.

**Hon. Navdeep Bains:** We had the opportunity to bring in these investments, and I—

**Mr. Brian Masse:** We have driverless vehicles. We have autonomous vehicles. We have new technology. We have record investment across the globe. And Canada is dropping like a stone in a spiral of death related to the auto industry. That's the reality.

When you actually start looking at the facts of it, we see ourselves at 10th in the world globally. I don't understand why you can't join a national auto strategy-type program and show leadership over... That is not just Ontario; it's across this country.

• (1610)

**Hon. Navdeep Bains:** Of course, absolutely.

**The Chair:** Okay, I'm going to jump in.

That was a lively debate—

**Hon. Navdeep Bains:** Very quickly, Chair, if I may, on concluding remarks, we are showing leadership. The auto sector is very important to this government. It's a priority. We've made investments in the budget to reflect that.

I look forward to working with my colleague, as we go to the Detroit auto show, and in Toronto and other places, where we can work together in a non-partisan manner to bring investments here in Canada.

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

We're going to move to Mr. Arya. You have seven minutes.

**Mr. Chandra Arya (Nepean, Lib.):** Thank you, Mr. Chair.

Mr. Minister, I think we have quite excellent programs to support research and development, and hardly any programs to support commercialization. Are you proposing any measures to rectify this?

**Hon. Navdeep Bains:** That is a clear gap that we have.

We're really good if you look at the innovation ecosystem. If you look at the innovation pipeline, we're really good at basic research, and that's very important. We could do better, and I have a feeling that my colleague, Minister Duncan, will speak eloquently to that.

We're really good at coming up with ideas, but the challenge is how we commercialize those ideas. Too often, the case is that individuals, for example, who come up with the ideas, are also responsible for the marketing plan or the business plan. They should be focusing primarily on the innovation and the invention and the solution, and not necessarily on figuring out the business and the marketing plan. That's the challenge that we've had.

We, as a government, obviously have taken many initiatives to support, through the strategic investment fund, as an example. How we can create an ecosystem of start-up companies to help them commercialize?

One area that I must confess we ought to do better in, and we're not going better, is helping to scale up companies and helping those commercial ideas become global champions. That's an area we are working at, looking at. We will provide some solutions in that area, but with regard to commercialization, clearly there is a gap there when it comes to the innovation agenda.

**Mr. Chandra Arya:** Thank you.

The second issue is that one of the natural concerns is the shrinking in size of the number of medium-sized businesses. Especially in manufacturing, that is a real big concern. For us to have very large companies, I think we should start with the small companies, the manufacturing start-ups.

A lot of manufacturing start-ups have difficulty in getting funding. Manufacturing start-ups are quite capital intensive. It is not like setting up a small company to start, say some new software program.

Do you have any plans to address this problem?

**Hon. Navdeep Bains:** The issue of patient capital is really important. The issue of providing long-term support for a lot of these capital-intensive manufacturing initiatives is critical. That's an area we're definitely looking at. We're working very closely with BDC. I believe they can do a better job in that area.

I know you've highlighted that challenge to me in numerous conversations. I understand your concern, and I relayed that to the team there as well. I also believe that the clean tech sector, for example, is very similar in nature. It requires a lot of capital and long-term patient assistance and support. We're looking at measures to provide that, because we need to be able to see those companies grow and succeed, and there is a cash crunch.

We're also focusing on high-growth firms. You're saying the challenges are with the medium-sized companies, and I'm saying that even our larger companies are having difficulty growing at times. If you look at all the companies we have, the high-growth firms, the ones that have 20% year-over-year growth for three years in a row, only about 3.5% have that kind of growth potential.

We need the right data to identify those companies. Then we need to look at all the different tools we have to be able to help them grow and succeed, from government procurement to patient capital financing, for example; in looking with my colleague the Minister of International Trade at how we can help them to brand internationally with the new investment agency we put forward.

We're focused on this, not just on medium-sized companies. In particular, we want to target any company that has enormous growth potential—small, medium, or large—to help it succeed and grow.

**Mr. Chandra Arya:** I'm glad you remember the problems I mentioned regarding BDC. Across Canada during the last 12 months they have funded only 180 small manufacturing companies.

Whenever we talk of the manufacturing sector here, a lot of discussions take place around the auto, aerospace, and telecom sectors. There is no doubt they are important in the Canadian context. I feel we need to focus on advanced manufacturing, those sectors that will become more relevant in five, 10, and 15 years: additive manufacturing, robotics, or even the chemical industry. The chemical industry is supposed to be a world sector, but a lot of investments are taking place in the United States in the chemical industry. One of the emerging things for a place like Ottawa is the different C4ISR industries.

If your ministry can do some studies and publish this information for a lot of small companies and a lot of entrepreneurs regarding the potential that is available in these sectors, that will be quite helpful.

• (1615)

**Hon. Navdeep Bains:** I know. Thank you very much for that feedback. We'll definitely take that into consideration. I'll follow up with my team to make sure we can implement that example.

Again, you're absolutely right. We have an area where we can show global leadership. I talk about artificial intelligence, which has a vertical capability, and a lot of good work is being done across different jurisdictions in the country in additive manufacturing and quantum computing. A lot of big data and a lot of these initiatives will help in the manufacturing sector.

These technologies are emerging globally as well, and we as a government recognize this is important. We heard back from Canadians in three areas. First, obviously, was people and talent. Second was the adoption and commercialization of these technologies. How do we take these technologies to be more productive, more efficient, and more competitive? That's a focus of our government.

**Mr. Chandra Arya:** Mr. Chair, I would like to share my time with Mr. Frank Baylis.

**The Chair:** You have about a minute left.

**Mr. Frank Baylis (Pierrefonds—Dollard, Lib.):** Could you elaborate a bit more on the valley of death issues and how you are looking at that? That would be appreciated.

**Hon. Navdeep Bains:** You're absolutely right. Unfortunately, there are multiple valleys of death for companies as they start, grow, scale up, become export-oriented, and ultimately become true global successes.

We looked at those gaps in areas, and they face different challenges. One, as I mentioned earlier, is the challenge around acquiring talent. Too often they need a good CEO or someone who has the ability to write a business or marketing plan. That's the first challenge. Do they have access to the appropriate talent and skill sets? Do they recognize that they need that? That's one area we're focused on.

Second is patient capital and financing. We recognize that's another area that's a challenge, because they need that support to grow.

One area we're looking at proactively as a government, to be able to assist them, is procurement. The government has an opportunity to validate a lot of these companies that are starting off with new ideas, new technologies, and new solutions, and to validate those ideas, so when they go abroad they can say that they do business with Canada. That allows them to succeed internationally as well.

Those are the types of gaps we have identified.

**The Chair:** Thank you.

**Hon. Navdeep Bains:** There are many more—and I know I'm tight on time—but that's what we're trying to address with our innovation agenda.

**The Chair:** We're going to move on to Mr. Lobb. You have five minutes, please.

**Mr. Ben Lobb (Huron—Bruce, CPC):** Minister, the first question I have for you is, since you talked about the rural broadband strategy, do you have a minimum speed that you could tell the committee that you're giving your department to target toward?

**Hon. Navdeep Bains:** As you're very well aware, we had a program called connecting Canadians. This was launched by the previous government.

**Mr. Ben Lobb:** No, I'm just talking about minimum speed.

**Hon. Navdeep Bains:** Yes, I'm just giving you context to the speed question. The connecting Canadians program had targets of 10 megabits per second, for example. That's what they were targeting in the past.

What we're trying to focus on in our \$500-million initiative is fibre. It is fibre to the institutes and fibre to the last mile. We're saying in order—

**Mr. Ben Lobb:** When you say fibre to the last mile, do you mean fibre to every last farm? Is that what you're saying with the last mile?

**Hon. Navdeep Bains:** What we're saying is that we're developing a program that will have those different dimensions to it. Ultimately, the investment that we're talking about, the \$500 million, that fibre to an institute or potentially to a home, is all about making sure that we have support from the private sector.

The way this model will be designed is to make sure the government plays a role—

**Mr. Ben Lobb:** No, but I'm interested in your definition of the last mile, because I've sat around enough tables and talked to people about what the definition of last mile is. If your definition of a last mile is a municipal building, I think you're wrong.

What is your definition of last mile, at 5 megabits per second? Is it to a farm? Is it to a rural light manufacturing facility? What exactly is it?

**Hon. Navdeep Bains:** As I said, fibre to the institute would be to schools, universities, and hospitals. That's how I define that, and that's the commitment we made in our budget.

The last mile does speak to exactly what you alluded to, someone's home, for example, in a rural or remote community, so I think our definitions are fairly consistent.

**Mr. Ben Lobb:** Okay, we'll hold you to that.

My next question is on the Canada 150 funding. Is it your belief that it's the best use of taxpayers' dollars to fund religious facilities, such as churches and mosques?

• (1620)

**Hon. Navdeep Bains:** I believe we have a criteria that really wants to focus on promoting Canada's diversity. What we do is make these funds available, and individuals have an opportunity to apply. There's a proper vetting process. Based on that vetting process, we get recommendations, and based on those recommendations, we approve the projects. I think—

**Mr. Ben Lobb:** Do you see a potential issue with small communities and small areas trying to fix a baseball diamond or trying to fix a community centre, and then they find out on the news that a church or a mosque in the city received \$200,000? Do you see how these communities could be quite frustrated, considering there's no taxes paid by these facilities?

**Hon. Navdeep Bains:** I think the challenge is that when you have \$150 million allocated to celebrate Canada's 150th anniversary, and this amount of money is allocated to all the regions across the country, there's going to be a resource challenge. I understand there might be frustration for individuals who have applied and haven't received a successful response.

**Mr. Ben Lobb:** I would have suggested not funding religious facilities. That would have been a good way to spread the money around further.

You mentioned NAFTA, and we know the Prime Minister has talked about reopening NAFTA. Can you name me one tariff in the manufacturing sector that you would be advocating for Canada to reduce or eliminate?

**Hon. Navdeep Bains:** As you know, the North American Free Trade Agreement has been in place since 1994, and it has had minor changes, I think 11 changes, since then.

**Mr. Ben Lobb:** You're the industry minister. You're responsible for manufacturing in this country. Just give me one tariff that you're looking at to fix up or to reduce, to make us more competitive, just one.

**Hon. Navdeep Bains:** We haven't gotten to that stage. The point I was going to make about the North American Free Trade Agreement is that—

**Mr. Ben Lobb:** You're telling me that your officials haven't mentioned one tariff in NAFTA that you would want to advocate to the Minister of International Trade to represent manufacturers in this country, not one?

**Hon. Navdeep Bains:** No, I'm saying that we will always advance our national interests. I'm saying we'll always find opportunities for our manufacturers to have greater access to the U.S.

What I'm saying is that, right now, we're not at the stage of negotiating anything in NAFTA, and it would be premature for me to —

**Mr. Ben Lobb:** How can you negotiate if you don't even know which tariff you want to eliminate?

We'll get off that one, because it sounds to me like it's zero.

**Hon. Navdeep Bains:** Okay.

**Mr. Ben Lobb:** The next one I want to talk about is Statistics Canada. Can you tell me if there are any issues that are considered red light, right now, between Stats Canada and Shared Services Canada? Can you tell us if there are any in the red light zone right now?

**Hon. Navdeep Bains:** Sure. As you know, and there's been a fair amount of media attention to this, as well, the former chief statistician raised some issues with respect to Stats Canada and Shared Services.

**Mr. Ben Lobb:** Which was correct, by the way.

**Hon. Navdeep Bains:** If you could allow me to now to continue the response, then I would do so. I would appreciate the opportunity to respond.

**Mr. Ben Lobb:** Go ahead.

**Hon. Navdeep Bains:** I am doing so, and you're more than welcome to ask another question.

**The Chair:** We're actually out of time.

**Hon. Navdeep Bains:** As I was saying, the former chief statistician raised this issue, and I'm confident that both Stats Canada and Shared Services Canada will find a solution.

**The Chair:** Thank you. We're going to move over to Mr. Baylis. You have five quick minutes.

**Mr. Frank Baylis:** Thank you for being here, Mr. Minister.

One of the areas that I'm quite interested in is regional economic strategy and the emphasis that we're putting on regional development, such as ACOA, FedNor, FedDev, and all that.

I was particularly happy to see the Atlantic growth strategy come into being. Could you speak a little about that, and how that's going to impact the Atlantic provinces? What are your thoughts to expand that kind of program?

**Hon. Navdeep Bains:** One of the things the Prime Minister has really done effectively is he's really changed the tone, the tenor of this place. He's really created a sense of collaboration. To highlight that point, as I mentioned in my remarks, for the first time in 12 years, I met with my provincial and territorial counterparts to create a table on innovation and economic development. So much effort is put forward by the different provinces and territories around skills development, on infrastructure, on how to deploy broadband initiatives.

We have to do a better job of aligning that. That spirit of co-operation is reflected overall with all the jurisdictions, but I must confess there's a really unique model that we have in Atlantic Canada. That model really speaks to not only the ministers I work with directly but also the premiers. Along with my 32 MPs, again, regardless of their political affiliation in Atlantic Canada, I've actually worked with all of them, including the four ministers, to put forward an Atlantic growth strategy.

This is really a partnership with the premiers of the different provinces to focus on areas of growth and what we can do to better align our resources and better grow the economy in those regions. One area that was identified by businesses and governments was immigration. I know that immigration has a different lens or perspective across the country, but particularly in Atlantic Canada, they are looking for immigration, obviously for population purposes. It's an aging population; it's potential customers. Immigration is such a key element of the economic plan going forward, and how we retain immigrants in Atlantic Canada.

Along with my colleague the Minister of Immigration, we launched a pilot project. It's a project that, again, as part of the Atlantic growth strategy, would speak to how businesses can step up, and government would help facilitate, and bring forward new Canadians, immigrants to Canada, to really help make those business investments, to deal with challenges in the job market or labour market, and to provide more support for the aging population in that area.

That's a really clear example of how the provinces, the federal government, and businesses have come together to tackle a very important issue. I must confess, and I don't want to say too much in advance, that hopefully in January we'll be launching other initiatives as part of the Atlantic growth strategy to really highlight that partnership.

• (1625)

**Mr. Frank Baylis:** It's a very impressive aspect, and then when you turn around, one of the beauties of our great country is, for example, with FedNor, in northern Ontario. I know you were just up in Sault St. Marie, working there. They have completely different needs. How do you make that transition to look at somewhere, for example, like northern Ontario, with FedNor?

**Hon. Navdeep Bains:** I'm glad you asked that question, because I have outstanding colleagues in the House of Commons, from all political parties, but I must confess I see some of my colleagues a bit

more often, the seven MPs, including Minister Hajdu, whom I sit in cabinet with.

We talk a lot about those challenges and opportunities. I even met with some of the large urban mayors from northern Ontario to talk about the unique opportunities. It's urban, and a lot of smaller and rural communities.

We're looking at, again, how to work with them on a range of issues from infrastructure to investments in aboriginal communities, to focusing on young people, to helping with succession planning. There's a range of initiatives and investments that we're making through FedNor, and it really is done in collaboration. It's a bottom-up approach. We deal directly with clients. We deal directly with communities to better understand their needs to make sure we diversify the economy in a manner that allows them to grow and succeed for the long term.

It really is a bottom-up approach, and that's really the success of our agencies. In particular, FedNor is a great initiative, where we're seeing a lot of that success come forward.

[Translation]

**Mr. Frank Baylis:** Can you talk to us briefly about the Economic Development Agency of Canada for the Regions of Quebec? I know you're involved in that work.

**Hon. Navdeep Bains:** That's right. I'm proud

[English]

to be part of such a strong team in Quebec, 40 MPs. We're working very closely with DEC. We have launched a range of projects, especially in rural parts of Quebec, really speaking to those diversifications and challenges around the forestry sector, for example. That's an area where we understand there are a lot of challenges. We're making investments in additive manufacturing. We're focusing a lot on, again, young people. DEC has been really instrumental. We've deployed those funds in a very timely manner and the response has been very positive.

**Mr. Frank Baylis:** Thank you.

**The Chair:** Due to time constraints, here's what's going to happen. Mr. Jeneroux, you have your five minutes. Mr. Massy, you will have your two minutes, and then we'll end it there.

Go for it, Mr. Jeneroux.

**Mr. Matt Jeneroux (Edmonton Riverbend, CPC):** Thank you, Chair.

Thank you, Minister. I'll jump right into it. Thank you for staying a bit longer as well.

The situation in western Canada, particularly in my home province in Alberta.... You're a member of Parliament from Mississauga. That's all right, but you do represent a significant portion of western Canada.

We have been struggling significantly since your party took office. Our unemployment rate has doubled. I'm not saying that's because of your party, but there has yet to be some hope and help come towards western Canada.

Of all the money that you announced you're spending across the country—we heard about the Ontario amount—what types of ideas, what plans do you have to get people back to work in western Canada and particularly in Alberta? We're in a situation that's at a crisis point. We have started an Alberta jobs task force because there doesn't appear to be a plan from this government.

If you could comment on that it would be very helpful to me and to the people who live in my province.

**Hon. Navdeep Bains:** Thank you very much for that very thoughtful question. I do share your concerns about the plight and challenges of Alberta in particular, and about the impact that has not only on Alberta but on the Canadian economy as a whole. We're seeing the challenges to our GDP, and it's an impact that we all feel, in all parts of the country.

As you know, there are a lot of employees in Ontario and Atlantic Canada who worked in Alberta. It is an issue that is of national importance to us. That is why, recognizing the challenges in that region, we immediately provided a stabilization fund of \$250 million to deal with the the direct challenges that Alberta was facing in particular.

As you know, the issue was compounded by Fort McMurray. We worked along with yourself and other colleagues to provide a matching contribution to the Red Cross. As the minister responsible for Western Economic Diversification, I had the opportunity to visit and meet with officials there to get an update, and to continue to make sure that we don't neglect Fort McMurray. We'll focus on how we continue to rebuild that very important community and—

• (1630)

**Mr. Matt Jeneroux:** I'm sorry to interrupt, Minister. It's not just Fort McMurray either. There are a lot—

**Hon. Navdeep Bains:** I know. I'm just highlighting some examples. I just wanted to make sure. That was an important investment. That was an important challenge that we faced and that Albertans faced, and I did not want to miss the opportunity to talk about that.

Of course, my colleague, Minister Sohi, the minister responsible for infrastructure, made significant investments in infrastructure in Alberta, particularly in public transit. That will create short-term jobs and also set us up for success going forward.

**Mr. Matt Jeneroux:** Perhaps I could jump in on some of the infrastructure discussion, just because you brought it up, Minister.

We've only had one project that's actually broken ground in western Canada. That's not creating the jobs that we need. There are a number of initiatives that could be done by your government that would help to create those jobs. We're not seeing that right now. With all the money that you've put into Western Economic Diversification, how many jobs have been created from that money?

**Hon. Navdeep Bains:** On the jobs front, and on infrastructure, my colleague Minister Sohi highlighted in the House of Commons and talked the different investments that he's made and the jobs that have been created. The one that I can speak to is business development. That's a portfolio that I'm responsible for.

We worked very closely with the Alberta government to inject an additional \$500 million for small businesses in particular. As you know, the backbone of our economy is small and medium-sized enterprises. For our small businesses, and for individuals who have lost their jobs and are thinking of starting their own business but need access to capital, we provided that injection of \$500 million. Through WED, we've invested in 46 projects worth roughly \$60.5 million. We're really focused through economic development—

**Mr. Matt Jeneroux:** Did you get the jobs number? I saw your deputy pass you a note. Is there a jobs number with that?

**Hon. Navdeep Bains:** Some of them are maintaining jobs. Some of them are creating jobs. Some of them potentially can create more jobs. The idea is that there are different aspects to this equation. Investments in infrastructure, as I mentioned, are significant. Investments through BDC are significant. The stabilization funding, supporting challenges through transition—

**Mr. Matt Jeneroux:** I'm going to have to cut you off, Minister. I only have about 30 seconds and I want this last question—

**Hon. Navdeep Bains:** I'm just highlighting all the different initiatives.

**Mr. Matt Jeneroux:** I appreciate that.

Regarding Canada 150 grants, you said that decisions were to be made within 90 days from October 26.

Doing my math, there are still people wondering where their grant money is.

Can you comment on Western Economic Diversification, Canada 150 grants?

**Hon. Navdeep Bains:** Yes. Again, sometimes we receive individual requests and sometimes they're in batches. We're very mindful of the feedback that we need to give to potential organizations, clients, and individuals. If they haven't received a response—

**Mr. Matt Jeneroux:** Yes, but a date, though, Minister, when they'll find out.

**Hon. Navdeep Bains:** If they haven't received a response, they will shortly. I know that my deputy—

**Mr. Matt Jeneroux:** Shortly, defined by an hour?

**Hon. Navdeep Bains:** —asked me for some timelines, but again, based on what I have here, they should receive a response very soon.

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

We're going to move on.

Mr. Masse, you have two quick minutes.

**Mr. Brian Masse:** Thank you, Mr. Chair.

With the automotive innovation fund, the supplier fund, and the other funds you mentioned, does your government believe that they should be non-taxable or grants?

**Hon. Navdeep Bains:** That's a great question. I've been asked that a few times. We're very open to looking at the potential investment opportunities that present themselves, because we're competing against Mexico and southern parts of the U.S., and with the rise of protectionism that we're seeing in different jurisdictions, we really need to up our game.

I can tell you right now we're very open. It all depends on the proposal that we get, the best value that we can get for taxpayers' dollars, the best investment that we can potentially get, and the opportunities for job creation. Those are the considerations that we have in mind.

**Mr. Brian Masse:** Fair enough, and if NAFTA is opened up... prior to NAFTA we had the Auto Pact. Will you be a champion to return that trading agreement that Canada had with the United States, because then we were stronger, and we've dropped to 10th? Will you set goals to move Canada back up there, given the preferential trade that we had in the past?

• (1635)

**Hon. Navdeep Bains:** Yes, my colleague Minister Freeland would lead the discussions on the free trade aspect, along with the Prime Minister, but our whole government will be engaged.

I can assure you that as the minister responsible for so many key sectors across the economy, the auto sector is so critical. It employs directly and indirectly 500,000 Canadians, and that's very important. We're going to make sure we do everything we can to maintain and enhance that footprint, and we're going to demonstrate leadership through the different issues that I've outlined. In any discussions we have with the U.S. or Mexico, we're going to make sure that we always keep that in mind.

**Mr. Brian Masse:** Thank you, Mr. Chair.

**Mrs. Cheryl Gallant (Renfrew—Nipissing—Pembroke, CPC):** Mr. Chair, I have a point of order.

I just want to put on the record that we've had a very short time with the minister. We recognize that in this age of making sure that women are recognized in Parliament, that neither the lady across the way nor myself had a chance to even ask one question, because if I were allowed to ask one question, then I would ask the minister when Mississauga moved to northern Ontario.

**Hon. Navdeep Bains:** If I may, Chair, she presented a very important aspect about participation of women in the discussion, and then she made such a partisan jab at the end, which is really undermining that question. It's very disappointing to see the member opposite trying to politicize a very important issue, which is engaging more women in politics. It's very disappointing to see that.

**The Chair:** We will suspend for one minute, being mindful of the time, so that we can set up for the second minister.

• (1635)

\_\_\_\_\_ (Pause) \_\_\_\_\_

• (1635)

**The Chair:** Welcome back, everybody.

Mindful of time, we won't be able to make it through the entire list, so we're just going to get right to it.

This afternoon, we have appearing before us the Honourable Kirsty Duncan, Minister of Science, as well as Colette Downie, chief financial officer, corporate management sector, and Lawrence Hanson, assistant deputy minister, spectrum, information technologies and telecommunications.

Welcome. Thank you very much, and we're just going to jump right into it.

Minister Duncan, it's all yours.

• (1640)

**Hon. Kirsty Duncan (Minister of Science):** Thank you, Mr. Chairman, and thank you to the committee for the invitation. I'm pleased to be here in front of your esteemed committee.

[*Translation*]

I appreciate the opportunity to speak today about my mandate and what is being done to strengthen science in our country.

[*English*]

I would also like to acknowledge my colleagues here from ISED, and our deputy minister and associate deputy minister.

Mr. Chair, last November, the Prime Minister asked me to take the lead on supporting research in the integration of scientific consideration into our policy choices. The Prime Minister wrote that support for science is an essential pillar in our strategy to create sustainable economic growth and to grow the middle class.

For starters, we have made it clear that government scientists can and should speak freely about their work to the media and to the public.

Last May, I worked with my colleague and Treasury Board president, Scott Brison, on releasing a new government communications policy. The policy is clear: subject-matter experts, including scientists, can speak publicly about their work without being officially designated to do so. To ensure that federal science is fully available to the public, we are establishing a chief science officer position. We will launch this search in the near future. What's more, we're breaking down the silos that prevent federal scientists from sharing their knowledge with each other as they advance shared goals, whether action on climate change, antimicrobial resistance, Arctic science, food security, or the whole-of-government innovation agenda.

To help accomplish this, I met with deputy ministers from science-based departments and agencies at a first-ever retreat this summer. I stressed to them the need to promote greater integration across portfolios, and I am very encouraged by our progress to date. Our three federal granting councils, as well, are key players in the scientific ecosystem: the Natural Sciences and Engineering Research Council, the Social Sciences and Humanities Research Council, and the Canadian Institutes of Health Research.

[*Translation*]

The first two councils support nearly 50,000 researchers and research trainees.

[English]

Also funded through the science portfolio are the Canada Foundation for Innovation and Genome Canada, which support research infrastructure and large-scale genomics projects, respectively. To date, the Canada Foundation for Innovation has provided support to about 9,300 projects at 145 research institutions in 70 municipalities across Canada. Last year, more than 26,000 students and post-doctoral fellows used CFI-funded infrastructure to expand their research skills. What's more, our premier federal research organization, the National Research Council, is also having a profound impact on the research community. Last year, it saw 224 patents filed and 162 patents issued. Eleven Nobel Prize winners have worked at the NRC at one time or another. It lays claim to international breakthroughs in such fields as nuclear medicine, cardiology technology, crop science, and computer animation. This is only a sample of the NRC's work, and I am very proud to have it under my mandate.

[Translation]

We are also making real investments that will improve scientific capacity in all federal departments.

[English]

With more than 20,000 scientists and professionals engaged in federal S and T activities, there is a lot of room for collaboration and innovation within the federal government. For example, last May I worked with the Minister of Fisheries to announce a \$197-million investment that will help us make more informed decisions about our oceans, waterways, and fisheries.

• (1645)

That same investment is creating 135 new jobs in federal science, the single largest recruitment ever toward restoring ocean science.

[Translation]

Mr. Chair, science is essential to Canada's innovation agenda.

[English]

The ability of our country to compete and prosper depends on the creativity and talent of our people. To that end, in June, I launched a panel review of federal support for science to ensure the funding we provide is strategic and effective. I expect to receive the panel's recommendations in the new year. We are also promoting increased collaboration between researchers and companies, and encouraging more co-op and internship opportunities.

At the same time, we have rolled out a number of funding initiatives to boost our academic strengths. These include \$2 billion for research and innovation infrastructure across post-secondary institutions; \$95 million per year to the granting councils to support discovery research, the largest increase in a decade; and \$900 million for transformational research projects under the Canada first research excellence fund.

In October, I also launched a competition for 11 Canada excellence research chairs, at least two of which will be in clean and sustainable technologies.

Just last week, I announced a \$12-million federal investment in the stem cell network to support research in up-and-coming areas of

regenerative medicine. Investments like these also transform our understanding of the challenges and opportunities related to stem cells.

[Translation]

Investments like these are key when you're trying to develop and implement sound public policies.

[English]

All of this is in keeping with our government's commitment to evidence-based decision-making and promoting Canada's leadership on the international stage.

To this end, I've also taken part in several high-level meetings in China, Japan, Belgium, and Germany to promote Canadian science, to see what other countries are doing well, and to build new science partnerships. In September, I attended a White House ministerial meeting on Arctic science.

In all of these places, people are eager to know about Canada, about our vision, our openness, and our plan for the future. That plan involves creating opportunity for researchers, especially for women, indigenous peoples, and other under-represented groups.

[Translation]

Diversity is an important factor in the creative potential of individuals, organizations, and nations.

[English]

That is why we absolutely must take action to remove the barriers preventing women from pursuing careers in science.

To this end, we have reinstated the UCASS, that's the university and college academic staff survey, which will inform policy decisions that concern university researchers and faculty.

Moreover, in the 2016 Canada excellence research chairs competition, we have instituted new requirements that will strengthen the equity and diversity of the program.

Mr. Chairman, from the Arctic to marine biology to quantum computing, and from food security to regenerative medicine, one thing is constant. Canada's world-leading research is fuelled by incredible talent, openness, and diversity.

[Translation]

As we advance the innovation agenda, science will play a prominent role in our decision-making and our investment choices.

[English]

I look forward to building on the momentum of what we have accomplished in the past year.

Thank you.

**The Chair:** Thank you very much, Minister Duncan.

We're going to go right into it. Please be mindful of time.

Mr. Longfield, you have seven minutes.

**Mr. Lloyd Longfield (Guelph, Lib.):** Thanks, Mr. Chair.

Thanks, Dr. Duncan, for being with us, and for what you've done for the portfolio in such a short time.

I'm looking at the supplementary estimates, with \$64.8 million going to the granting agency, the Social Sciences and Humanities Research Council.

How does this compare over the past few years? I'm looking at the need for civil society in Canada to contribute to civil society. A lot of that happens within the universities when we discuss critical thought and ways to enhance civil discourse.

I think you'll find that this committee has mostly civil discourse. Mostly, we're focused on problems, and we're at our best when we do that together.

Could you maybe elaborate a bit on where social sciences and humanities research plays into what the world needs more increasingly in civil society?

• (1650)

**Hon. Kirsty Duncan:** I'll just begin by explaining how we fund research in this country. The majority of research is funded through the Canadian Institutes of Health Research, CIHR; through the Social Sciences and Humanities Research Council, SSHRC; and through the Natural Sciences and Engineering Research Council, NSERC.

I was really proud that in budget 2016 we gave a top-up to the three federal granting councils of \$95 million. That was the highest top-up in more than a decade. CIHR received \$30 million, NSERC received \$30 million, SSHRC received \$16 million, and the research support fund received \$19 million. I was also very proud that we started to close the gap between CIHR and NSERC, and SSHRC, which points to the importance of social science research. This is about the science that tells us about how we relate to one another, how we relate to society. One of the areas SSHRC is doing important research in is looking at immigration and refugees. Of course, we were so pleased to bring over 25,000 people from Syria, new Canadians.

**Mr. Lloyd Longfield:** The youth internship program is very interesting when we look at engaging youth in internships; it's something that we looked at in our manufacturing study as well. How does this represent an increase over previous years in the investment in youth? Is there a goal of how many internships we want to support going forward?

**Hon. Kirsty Duncan:** I think everyone around this table wants more jobs. We want more opportunities for our youth.

Under the previous government, we saw the highest rates of youth unemployment in Canadian history. I've been an MP for eight years, and in those seven years who was coming into my office really changed. More and more it was about people, and particularly our youth, looking for jobs. They would have a diploma, they would have a degree, they would have two degrees, and they still couldn't

get jobs. I think anything we can do to give our youth an opportunity to hit the ground running when they transition from education through to employment, the better that is.

In budget 2016, we announced \$73 million for new, work-integrated learning opportunities. We also have these opportunities through the industrial research assistance program. I've met some of these incredible young people. They've had their opportunity, and because of it they want to pursue a life in science.

**Mr. Lloyd Longfield:** Thank you, and some of those hopefully are females.

**Hon. Kirsty Duncan:** Thank you. Can I talk a bit about women in —

**Mr. Lloyd Longfield:** Please. We have about 40 seconds left.

**The Chair:** You have a minute and a half.

**Hon. Kirsty Duncan:** Since I took on this mandate, I made it very clear that I would work to increase the representation of women, indigenous peoples, those with disabilities, and other under-represented groups. If you look at the numbers in Canada, you see that young women now earn close to a half of the undergraduate STEM degrees in science, technology, engineering, and math; and they earn about a quarter of the engineering degrees. But as you go up to the graduate degrees, there are fewer. By the time you get to the Ph.D.s, they're 33% of the Ph.D.s in science, compared to 49% in the U.K. and 46% in the U.S.

I just want to mention the workforce. In 1987, women accounted for 20% of the STEM workforce; today it's only 22%. In 2016, surely we can do better.

• (1655)

**Mr. Lloyd Longfield:** There's not much progress.

I know you've been travelling around Canada and around the world, and you've looked at areas where Canada can excel, in fact, where we can be number one. Could you highlight any of those areas for us for maybe our future studies?

**Hon. Kirsty Duncan:** I'm awed, inspired, overwhelmed by our Canadian research every time I travel. Having said that, there are a few areas I would highlight: agriculture and agrifood, brain, photonics, quantum, and regenerative medicine. But really, I came from a university. I think I know the university, and the research that's being done by our researchers is world class.

**Mr. Lloyd Longfield:** It certainly is. Thank you very much for your time.

**The Chair:** We're going to move to Mr. Dreeshen. You have seven minutes.

**Mr. Earl Dreeshen (Red Deer—Mountain View, CPC):** Thank you, Madam Minister, for being here today.

Your government promised an evidence-based approach to policy-making, yet the Minister of the Environment eliminated more climate scientists than was ever done under the Conservative government. Stats Canada reported the number of scientific and technological personnel within Environment and Climate Change Canada would be reduced this fiscal year by nearly 11%, or 406 jobs, compared to 2015-16. I know there's always been a lot of talk about the cuts that were made during the Conservative time, but of course, we're taking a look at the difference between what happens in a recession, which was in 2008, where every department had taken changes.... You also should recognize that even though there was a cut from 2010-12, by 6%, it then grew by 9% the next year. In 2014, another Harper year, the number of scientists at Environment Canada peaked at an all-time high of 3,830. There was a lot of talk about the different things that took place, but I think the Liberals are also finding that it's not easy being green.

As the Minister of Science, I wonder if you could comment on the decision for job cuts, and how your government manages the differences between an ideological interpretation on the file or a science-based opinion for your climate change strategy.

**Hon. Kirsty Duncan:** Thank you to my honourable colleague. We were glad to have you join us when we went to Belgium and to Germany. It was a pleasure to have you then, and it's nice to speak with you today.

This is a government that is committed to science and to evidence-based policy. Since you have mentioned the previous 10 years, science funding flatlined under the previous government. We had cuts across scientific departments, and for the first time in Canadian history we had scientists protesting, on Parliament Hill, the death of evidence.

You've asked a batch of questions here, so I'll try to address them.

**Mr. Earl Dreeshen:** The main question was, simply, the ideological interpretation versus science-based. It was only, really, the one question.

**Hon. Kirsty Duncan:** Actually, then you went through to talk about a cut to scientists.

**Mr. Earl Dreeshen:** Okay, yes. I—

**Hon. Kirsty Duncan:** I mentioned in my speech that we actually have had the largest hiring, in terms of 135 scientists for oceans and waters.

Your question, very specifically, is about evidence versus ideology on climate change? Is that the question?

**Mr. Earl Dreeshen:** Basically, where I wanted to go with this, Madam Minister, is there have been a lot of discussions about how scientists are going to have this great opportunity to speak, to speak out. We saw what happened when there was a discussion about the Zamboni treatment for MS, when scientists were out, talking, and recognizing that maybe they got ahead of themselves. These were issues.

We have just seen, on the procurement side, that your government has put gag orders on individuals to not speak about things that are happening in procurement. That isn't the way we want it to go. If your intent is to make sure that scientists have this right and this ability to go out and speak, you're not going to work your way.... It

sounds good and you're saying all the right things, and you're going back to issues from before that really were based in fact on how you must handle delicate situations, as I mentioned with the Zamboni approach. That's really where I wanted to go with my question.

• (1700)

**Hon. Kirsty Duncan:** The very first act of this government was to reinstate the long-form census. Why? Because we need evidence, fact, and science. The second act of this government was to un-muzzle our scientists. In May, we made good on our promise to put in place a policy regarding communication. The new policy states that communicators are able to speak in an official capacity without being designated, and that includes scientists. That means scientists can speak in an official capacity where they have direct responsibility and expertise, and on scientific and technical matters related to their work.

We know that culture change takes time, so in August, I and Minister Brison wrote a joint letter to all ministers and all departments, to remind them of this new policy. When I meet with journalists I always ask if they see a change in terms of communication. What we've been hearing is that now the scientists are contacting the journalists and offering stories, to the point, in fact, that they can't keep up with them. That's a real change, and one I'm very pleased to see.

**Mr. Earl Dreeshen:** Of course, there always is the difference between physical science and political science, and the two seem to meld in every once in a while.

One of the other things that you spoke of, and this is something that I appreciate, was the opportunity to go to Belgium and Germany with you. When we had a chance to talk to researchers in Germany specifically, we found that the dollars that Canada was investing in research were actually the same for GDP and the same for population in Germany. Of course, the issue and the concern was that we weren't getting the buy-in from business.

We have six time zones that we deal with in the discussions. We also deal with 13 different jurisdictions, which is a main key. The third part, of course, is that we aren't the draw. Germany is the draw in Europe, and that's where you want to make sure people and businesses want to invest. In North America there are other options.

Earlier today Jack Mintz was speaking in Calgary about Canada's declining competitiveness. Tax increases are to blame, and again it could get worse with what is being offered up by the new Republican government that is to take place.

**The Chair:** You have thirty seconds.

**Mr. Earl Dreeshen:** When we add CPP, carbon tax, and small business taxes that are not going to be aligned to what's happening in the U.S., could you comment on how we can increase competitiveness when we tie the hands of our businesses?

**The Chair:** You have about fifteen seconds.

**Hon. Kirsty Duncan:** To address everything from fundamental to applied science, from Max Planck to Fraunhofer to Jack Mintz.... I'll finish by saying I was delighted to meet with Professor Mintz just last week.

**The Chair:** Thank you.

I'll move to Mr. Masse.

You have seven minutes.

**Mr. Brian Masse:** Thank you, Mr. Chair.

Thank you, Madam Minister.

Sadly, with the unmuzzling of scientists, it's the journalists now who are becoming more the rare commodity with regard to what's taking place, especially in print media.

I do want to talk about scientists, oceans, and water, and move specifically the Great Lakes. There has been some allocated funding to the Great Lakes. We have the Great Lakes institute in Windsor and, of course you have the work done by the IJC. Water is obviously an issue, not only just for health and environmental reasons, but it's going to become very much a political issue. It already is a political issue for many nations including ourselves with our relations to the United States with clean water access and diversion. We have everything from algae blooms to invasive species.

Has there been any thought to creating a specialized component for the Great Lakes that would be able to bring in all the partners and the organizations? The mayors have recently advocated for more of a semblance of a group. Has there been any thought that this department actually might take a lead on that?

• (1705)

**Hon. Kirsty Duncan:** First of all, thank you for the important question because water is of course a fundamental area. I used to teach at the university there and have worked with the Great Lakes institute, so thank you for mentioning the good work they do.

This is actually led by NRCan, but I'll talk about this independent review we've undertaken. My job is to strengthen science and evidence-based decision-making. I mentioned that we had a good budget for science in budget 2016 with \$2 billion for infrastructure, research, and innovation. There's a \$95-million top-up for infrastructure to the three federal granting councils, and I could go on.

We want to strengthen science, so we are undertaking the first ever fundamental review of federal support for fundamental science. That panel is a distinguished one. It's a nine-member panel led by Dr. David Naylor, the former president of the University of Toronto. We have regional representation with Dr. Martha Piper from the University of British Columbia in the west. In the east it's Dr. Martha Crago from Dalhousie. In Quebec, the chief scientist is Dr. Rémi Quirion. We have Dr. Art McDonald, our newest Nobel Prize winner, and Mike Lazaridis of BlackBerry, and the list goes on.

The point is, they have done the first major consultation with the research community in a very long time. They received 1,200 submissions, and then there were round tables across the country, so

there were another 300. They're going to make recommendations on how we can improve our support for fundamental science in the report in the new year.

**Mr. Brian Masse:** The New Democrats have carved out an official critic for the Great Lakes. What I worry about is that there doesn't seem to be, in the Great Lakes, a concentration or a point lead. There is everything from the economics of transportation on the H2O highway to...but there is also the issue of water quality, invasive species, and a number of different factors—

**Hon. Kirsty Duncan:** Water quantity.

**Mr. Brian Masse:** —water quantity, all those things.

It seems, and I'll be quite frank, that science seems to get eclipsed, no matter what government is here. It's not often one of the quotable, daily top-of-line issues, but it's fundamental. Our Great Lakes are not only for our economy, but also for our health and well-being in our nation state. I worry about them getting continually lost in the file.

The end of my question would again be, has this government considered consolidating a point lead for the Great Lakes, with science being a major role in that component?

**Hon. Kirsty Duncan:** I would have to get back to you because it's an NRCan lead, but I will mention that in September we rolled out \$900 million for CFREF. This was for 13 projects across the country, and one of them looks at ocean marine water.

But we would be happy to get those numbers to you.

**Mr. Brian Masse:** No, that's fine.

I think, though, the difference is that NRCan, for the work it does, still doesn't have the political clout that the Great Lakes need at this point in time. I'll leave that one for you to just consider, but that's my general point: leaving it to departments and agencies that don't have that political clout is hurting the ability for a lot of different reasons.

To move quickly to your patents that have been filed—224 is an example from this past year and there are other examples you used, such as 160 patents issued—do we track them now, though? My concern from when we were doing our manufacturing report is getting patents to actually be manufactured if they're goods and services from Canada. Do you track them past being issued? Now that they're issued, does anybody in the government track them to where they actually get into the marketplace?

**Hon. Kirsty Duncan:** Let me talk a bit about the NRC, then.

It has a new president, effective August 2016. His name is Iain Stewart. He comes with a wealth of knowledge in academia, in government, in science-tech innovation, and in economic development.

I was actually just at the NRC last week for their internal awards and to see the new applications, not only the research excellence that's being done by the NRC, but also on the application side. The example I'll give to you is a new seat for helicopters that reduces the vibration. Another was de-icing technology. Another one was how you teach surgery.

They have 100 years of research excellence and getting innovation out that benefits all Canadians. We want to see that continue in terms of science excellence, building these clusters, and helping industry.

• (1710)

**Mr. Brian Masse:** What our main—

**The Chair:** You have 10 seconds.

**Mr. Brian Masse:** Okay, thanks.

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

We're going to go over to Mr. Jowhari.

**Mr. Majid Jowhari (Richmond Hill, Lib.):** Thank you, Minister.

I'm going to ask you two general questions. One of them has to do with the increased funding for the three federal granting councils, and the other one has to do with stem cells.

Let me start with the increased funding that you announced for the three federal granting councils. Can you tell us what these additional funds are allocated for? What were the gaps that you felt you needed to increase those funds to close? What are some of the benefits? How can it be translated into more jobs, better products, or breakthroughs in certain fields, such as stem cells?

That leads me to my next question once you have responded.

**Hon. Kirsty Duncan:** As I said, budget 2016 was a really good budget for science. We had \$2 billion invested in the strategic investment fund, which was designed to increase research and innovation infrastructure across our country and we're already rolling out those projects. There was \$379 million for space, \$237 million for genomics, and we had that top-up to the three federal granting councils, which is \$95 million. As I said, that was the highest top-up in more than a decade. I can go on.

There was \$50 million for the Perimeter Institute, which is one of the foremost theoretical physics institutes in the world.

Of that \$95 million, \$30 million went to CIHR, \$30 million went to NSERC, \$16 million went to SSHRC. Again, we're closing that gap to show the importance of social science research. There was \$19 million for the research support fund. People may not know what that is. There are indirect costs associated with research. It costs money to keep the lights and the heating on, to run the air conditioning, and that funding helps offset that. People will apply for this increase. The research community is excited to have that increase because it's going to allow them to fund more areas.

You mentioned stem cells. We announced in budget 2016 the allocation of \$12 million for the stem cell network and last week, we announced \$9 million would be used for 31 new projects and clinical trials across Canada. I know you have a strong interest in regenerative medicine. It allows us to replace, repair, and regenerate damaged cells, tissues, and organs, which can be damaged by illness or disease. There is such promise in stem cells.

Stem cells are really Canada's science. Dr. Till and Dr. McCulloch trained the next generation, and that's how you see the stem cell network built. Due to this research there is great promise, for example, in cancer, diabetes, heart disease, and autoimmune disorders.

**Mr. Majid Jowhari:** I'll go back to the stem cells. As you mentioned, you announced last week funding in the amount of \$12 million and I think this was part of the initial bundle that was already announced as part of the 2015-16 budget. Was this just being released or was this on top of the initial allocation?

**Hon. Kirsty Duncan:** In budget 2016, we announced \$12 million for the stem cell network. Again, this is Canada's science. There's such promise for the future that I thought it was important to provide that money. Then last week, we announced \$9 million of that \$12 million for the 31 projects and clinical trials across the country.

**Mr. Majid Jowhari:** I'm going to advocate very strongly for an increase on top of that, like we got increases for the others.

You mentioned that there is a gap and that, actually, there was a downward trend when it came to stem cell research and the participation of women in that field. My daughter is quite interested in stem cells. Can you expand on what initiatives the government is taking to close that gap and bring that back up, both in gender equality, as well as a balance in getting compensated for it?

• (1715)

**Hon. Kirsty Duncan:** Please give your daughter my best wishes. We want to see many young women, as well as indigenous people and other under-represented groups, go into science, technology, engineering, and mathematics.

Again, I have made this a key feature of my mandate. In the spring, we began having conversations with the post-secondary education community about the fact that this is an issue and needs to be addressed. I don't think a country can afford to lose half its talent. In September, I was pleased to bring back the UCASS survey, which was cancelled under the previous government after having been going since 1937. Why does UCASS matter? Come next April, we are going to have data. Are women progressing through the ranks at the same rate as male colleagues? Are they making equal pay? That data matters. In October, we announced 11 new Canada excellence research chairs. These CERCs are important. They are among the most prestigious awards internationally; \$10 million over seven years. Of the 11, we announced that two would be in clean and sustainable technologies, and with that, we announced new equity and diversity requirements that universities would have to put forward. Their equity and diversity plans in those will be tied to the Canada research chairs.

The last thing we did, also in October, was to place all this data on the SSHRC website. We are trying to lead here by taking action on this, but we are also leading internationally. When we went to Beijing for the international Carnegie meeting, Canada worked with Japan to put forward a motion to study women in science, technology, engineering, and mathematics. It was one of three subject areas studied internationally.

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

We are going to move to Mr. Lobb for five minutes, please.

**Mr. Ben Lobb:** Thank you, Minister, for attending today.

Your mandate letter talks about environmental assessments and using the information found in there to make decisions. If a municipality is awarded a project that is going to require an environmental assessment, does it make sense that the federal government and the provincial government basically do the same environmental assessment? Do you support that, or do you think it should just be the province that does the environmental assessment?

**Hon. Kirsty Duncan:** You and I have worked together for a very long time, so it's nice to see you today.

Again, this is a government that is committed to science and evidence-based decision-making. My mandate letter requires that I work with the Minister of Environment and Climate Change to review and reform the environmental assessment process. It requires that I work with the Minister of Labour to develop new co-op positions in STEM fields, and with the Minister of Fisheries and Oceans to look at the impacts of climate change on Arctic marine ecosystems.

You asked about environmental assessments. This is a government that is committed to consultation, so the consultation is currently out, and—

**Mr. Ben Lobb:** Just so I'm clear... The consultation is out right now to reinstitute a federal and an overlapping provincial environmental assessment. Is that what you are looking at?

**Hon. Kirsty Duncan:** That is not fair. There is a consultation to ask for Canadians' input on environmental assessment, and we'll have to wait for the evidence.

**Mr. Ben Lobb:** Okay.

Your mandate letter also talks about using science and scientific information to do other things. I won't quote it specifically, but the question I have for you is, if there are outstanding concerns or issues in certain areas, for example green energy.... In the riding I represent, there are a lot of outstanding issues around the impacts of industrial wind turbines in and around rural areas where people live. Health Canada did a study, and some of the criticisms were that some of the instruments used were out of date.

Is this something you would support, to revisit the high-end tools and machinery that are available, to do studies like that, before the government goes ahead promoting or supporting any more green energy subsidies for, say, industrial wind turbines, just to make sure people's health is safe and sound?

● (1720)

**Hon. Kirsty Duncan:** Thank you for the question. You've packed a lot into it: green energy, industrial turbines, and Health Canada.

Again, we are a government that is committed to science and to evidence-based decision-making. This would be a question for the health minister in regard to the health impacts, the potential health impacts.

**Mr. Ben Lobb:** Well, actually, though, it would be under your department, which would be conducting the work with you and Minister Bains. Specifically what I'm talking about is using.... I know that in one of your answers you talked about noise studies. I think that perhaps it was in regard to rail. For these types of devices that I'm talking about, is this something that you would make available if there were to be another study, in order to have your scientists use the latest and greatest to do a study on, for example, the impacts of industrial wind turbines?

**Hon. Kirsty Duncan:** Ben, for the department I serve, along with my colleagues Minister Bains and Minister Chagger, there are no scientists associated with our department, so if you're looking at potential health impacts, the correct place to go would be to the Minister of Health.

**Mr. Ben Lobb:** Okay. Maybe at a later date I'll sit down with you and show you the first study they did with the impacts in it.

The other thing is—

**The Chair:** You have 10 seconds.

**Mr. Ben Lobb:** Fair enough.

In 10 seconds, I can't ask you another question. I'll turn it over to somebody else.

**The Chair:** I'm sorry.

For the last question, we're going to go to Mr. Arya.

**Mr. Chandra Arya:** Thank you, Mr. Chair.

Thank you, Madam Minister.

Investment in discovery research is quite important, and I'm very glad you're emphasizing it.

I would like to quote Dr. Douglas Barber, distinguished professor-in-residence at McMaster University. In the study conducted in March 2013 by this committee, he said:

We are at the top in our investment in the knowledge of our people, and not matched by any other country, but when it comes to creating value from that knowledge, we're close to the bottom of the list.

He also said:

...the post-secondary learning environment is commerce-averse. "Customer" is a bad word, "sales" is a bad word, "commerce" is a bad word, and "profits" is a really bad word.

The third statement from him, as noted in the report is that:

...commercialization within the academic setting is not viewed in a favourable light [and] it is possible that students who go on to join the professoriate may also view commercialization this way, and thus, continue to maintain this culture in Canada's post-secondary institutions.

While it is very important that we emphasize discovery research, if we do not highlight the need for creating commercial value, maybe it's going to be a problem in the future too. What do you think?

**Hon. Kirsty Duncan:** Mr. Chandra, you're absolutely right. We need both. We need discovery research. It's a continuum right through to application research, but science is messy. It's not a neat continuum. You may have incremental research and there may be breakthroughs, but we need both ends funded.

To that effect, under the previous government, in 10 years we fell from third to eighth on higher education R and D. On business R and D, we fell from 18th to 26th. I don't like that trajectory. We need to reverse that trajectory.

You've talked about commercialization. Commercialization and application absolutely matter.

I'd like to give you two examples. In the CFREF money, we've talked about that \$900 million, and we've seen other research on the brain. We have an aging population today. If we look at Alzheimer's disease, which has this terrible human toll, we can see that there's also an economic impact. Today, someone is diagnosed once every five minutes, and the cost to the system is \$15 billion. In 30 years, we're looking at someone being diagnosed once every two minutes, at a cost of \$153 billion. We need those applications. We need to understand the science, but we want to find treatments.

The second example I'll give you is that of quantum computing. Canada has wonderful strengths in quantum computing. I don't think it's a secret to this committee that we are in a race to build that first quantum computer.

• (1725)

**Mr. Chandra Arya:** Thank you, Madam Minister.

Mr. Chair, I'm done. Thanks.

**Mr. Frank Baylis:** Mr. Chair, I have a quick question, if I may.

"Chief science officer" is something new. How do you see that role playing out and having an impact?

**Hon. Kirsty Duncan:** My mandate letter says that I will create the position of chief science officer. Under the previous government, there was a similar position that was eliminated. It was not eroded, but actually eliminated.

Just weeks after taking on this new role, I began the first consultation. I talked to chief science advisers, chief scientists, and chief innovation officers in Australia, Israel, New Zealand, the U.K., and the United States. Our officials talked to one another, and we began a broad consultation across Canada. In the seven years that I was here prior to this role, no one ever asked me for my opinion. I made sure that all parliamentarians were asked about this important role. Good ideas don't come from one party only.

I'm pleased to say that we received valuable input from over 80 experts, stakeholders, and parliamentarians from across the political spectrum. In the near future, we will be launching a search for that position.

**The Chair:** That's excellent.

Thank you very much.

On that note, I wish to thank the Honourable Kirsty Duncan for her comments.

Thank you for being here today. We will let you go, and then as a committee—I've spoken with the vice-chairs—we will proceed with the vote. We've agreed that we will bundle all of them into one.

Thank you very much again.

**Hon. Kirsty Duncan:** If I may, I will say thank you to the committee for the invitation.

**The Chair:** Shall vote 5b under Atlantic Canada Opportunities Agency, vote 10b under Canadian Space Agency, votes 1b and 10b under Department of Industry, vote 5b under Department of Western Economic Diversification, votes 1b and 10b under National Research Council of Canada, votes 1b and 5b under Natural Sciences and Engineering Research Council, and votes 1b and 5b under Social Sciences and Humanities Research Council, carry? On division? Okay.

ATLANTIC CANADA OPPORTUNITIES AGENCY  
Vote 5b—Grants and contributions.....\$1

(Vote 5b agreed to on division)

CANADIAN SPACE AGENCY  
Vote 10b—Grants and contributions.....\$10,000,000

(Vote 10b agreed to on division)

DEPARTMENT OF INDUSTRY  
Vote 1b—Operating expenditures.....\$3,138,061  
Vote 10b—Grants and contributions.....\$271,750,173

(Votes 1b and 10b agreed to on division)

DEPARTMENT OF WESTERN ECONOMIC DIVERSIFICATION  
Vote 5b—Grants and contributions.....\$1,247,010

(Vote 5b agreed to on division)

NATIONAL RESEARCH COUNCIL OF CANADA  
Vote 1b—Operating expenditures.....\$1,618,017  
Vote 10b—Grants and contributions.....\$10,000,000

(Votes 1b and 10b agreed to on division)

NATURAL SCIENCES AND ENGINEERING RESEARCH COUNCIL  
Vote 1b—Operating expenditures.....\$1,410,000  
Vote 5b—Grants.....\$64,394,137

(Votes 1b and 5b agreed to on division)

SOCIAL SCIENCES AND HUMANITIES RESEARCH COUNCIL

Vote 1b—Operating expenditures.....\$1,158,112

Vote 5b—Grants.....\$39,869,571

(Votes 1b and 5b agreed to on division)

**The Chair:** Shall I report the supplementary estimates (B) 2016-17 to the House?

**Some hon. members:** Agreed.

**The Chair:** Thank you.

Good night, all. The meeting is adjourned.

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