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Chair

Mr. James Rajotte

Standing Committee on Finance

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● (1100)

[*English*]

The Chair (Mr. James Rajotte (Edmonton—Leduc, CPC)): I call to order meeting number 5 of the Standing Committee on Finance. Pursuant to Standing Order 83.1, we are continuing our pre-budget consultations 2013.

Colleagues, we have six organizations as witnesses for this first panel, and we will have two panels today as well.

First of all we have the Aerospace Industries Association of Canada, and then the Canada Foundation for Innovation, the Forest Products Association of Canada, the Greater Kitchener Waterloo Chamber of Commerce, and the Sunnybrook Health Sciences Centre. All are with us here in Ottawa, and by video conference from Toronto we have Polytechnics Canada.

Ms. Robinson, can you hear me okay in Toronto?

Ms. Nobina Robinson (Chief Executive Officer, Polytechnics Canada): I can.

The Chair: Thank you. Welcome to the committee.

You will each have five minutes for your opening statement, and then we will have questions from members.

We'll begin with Mr. Christie, please.

Mr. Iain Christie (Executive Vice-President, Aerospace Industries Association of Canada): Thank you, Mr. Chair.

The recommendation from AIAC today is partnered with one from the Canadian Manufacturers & Exporters: we both made the same recommendation. The purpose of the recommendation is to mobilize and get some more leverage from the money that has already been allocated to the scientific research and experimental development program.

As you know, companies that do not qualify as CCPCs—effectively small Canadian companies—take their SR and ED credits not as refundable tax credits but as non-refundable credits. The net result is that some of them are not in a tax position to claim all or even any of the credits they have actually earned and had approved, and so the money probably sits on their balance sheets as a deferred reduction of taxes in future years until they are in a position to claim it.

Of course, when they do claim it, there is nothing that guarantees that this money will be used to further R and D objectives, because it will simply be a reduction of their taxes and can be used for any purpose they decide.

What we are proposing is that the government offer a targeted program that would allow companies to exchange these earned tax credits for cash contributions to R and D capital projects, in effect offering companies a quid pro quo whereby they could monetize those credits now in exchange for the government having a role in deciding how that money should be spent—in effect, in support of R and D capital projects. Essentially this money would be spent on improving R and D infrastructure.

As you can see in our submission, we believe it is possible to arrange such a program such that is both manageable and fiscally neutral. We think the effect of this will be to make the government's money work three times. Firstly, it will work through the credits that have already been earned—credits that the companies have actually earned by doing R and D. Secondly, it will go towards improving R and D infrastructure, because those credits will then be directed towards R and D infrastructure projects. And thirdly, when that infrastructure has been built, the money will then be facilitating future R and D within the country.

We believe that this is basically giving the government an opportunity to use its money three times to improve the R and D climate in Canada and improve the amount of business R and D done in the country.

Thank you.

The Chair: Thank you very much, Mr. Christie, for your opening statement.

We'll go to Monsieur Patry, *s'il vous plaît.*

[*Translation*]

Mr. Gilles Patry (President and Chief Executive Officer, Canada Foundation for Innovation): Thank you, Mr. Chair.

First, please allow me to thank you, as well as all of the members of the House of Commons Standing Committee on Finance, for your kind invitation.

● (1105)

[*English*]

Today I'll be speaking directly to the topic of federal support for research and innovation. In fact, I'd like to start by offering two recommendations.

Number one is that the Government of Canada enhance its support for world-class research and technology development through the federal granting councils. The second, because research infrastructure is a cornerstone of world-class research, is that the Government of Canada provide the Canada Foundation for Innovation with stable, annual, and predictable funding that will ensure that Canada maintains and enhances its hard-won competitive advantage in higher education research and technology development.

[*Translation*]

Since 1997, the government of Canada has invested some $6 billion in state-of-the-art research facilities through the Canada Foundation for Innovation. Moreover, through its unique funding model, these investments have leveraged close to $8 billion from its funding partners—provinces, the teaching and research institutions and the private sector. This means that some $14 billion were invested in cutting-edge research facilities put at the disposal of our most brilliant researchers.

[*English*]

The Government of Canada's investments in the CFI and in the federal granting agencies are generating the scientific excellence crucial for producing highly qualified people trained at the leading edge of science and technology development who are capable of driving the innovation capacity of Canadian organizations in all sectors. For example, I could talk of Saskatoon's state-of-the-art Canadian Light Source, or CLS, synchrotron. There are also Canada's world-leading research activities in Arctic and marine research, or in the exceptional photonics research centre in Quebec City, and in many other Canadian colleges and universities.

Today the results of this funding speak for themselves. While Canadians make up only 0.5% of the world's population, we are producing almost 5% of the world's most highly cited papers. In fact, in a recent assessment by the Council of Canadian Academies, Canadian research is now ranked sixth in the world for the overall impact of its scholarly activities.

The state-of-the-art research facilities funded by the CFI not only are hotbeds of discovery research but also are open for business. In fact almost 300 research facilities and laboratories in all sectors of research, from social sciences to health research, are set to be part of a new online directory called the CFI Research Facilities Navigator, which will help businesses locate and connect with experts and facilities at universities and colleges across the country.

In these research facilities, companies are finding new ideas to help them develop better technologies and processes to enhance business performance. They also have access to state-of-the-art equipment they would not otherwise be able to afford, and they work with exceptional students and researchers who can apply their skills to real-world settings.

[*Translation*]

The central challenge for Canada today is how to maintain our competitive advantage in science and technology and continue to perform at world-class levels. The fact is that 21st century researchers simply cannot be globally competitive without appropriate research funding and without access to leading-edge research equipment and facilities. And while we have made impressive gains, as a nation, we cannot afford to be complacent.

[*English*]

The central challenge for Canada today is maintaining our competitive advantage in science and technology and continuing to perform at world-class levels. The fact is that 21st-century researchers simply cannot be globally competitive without appropriate research funding and without access to leading-edge research equipment and facilities. While we've made impressive gains as a nation, we cannot afford to be complacent. Therefore, we recommend that the Government of Canada enhance its investments in the federal granting councils, and at the same time that it adopt in Budget 2014 a sustainable, annual, and predictable funding model for the CFI with investments that are in line with historical investments made by the government over the past 15 years.

Thank you.

The Chair: Thank you very much for your presentation.

We'll go now to Ms. Cobden, please.

Ms. Catherine Cobden (Executive Vice-President, Forest Products Association of Canada): Thank you very much, Mr. Chair.

FPAC has made an official submission, so I'll keep my comments brief.

I'll just remind you that the forest industry in Canada is an extremely important part of our rural economy. We are a global player that exports to over 187 nations, but we are also the economic engine of 200 rural communities across the country. In most cases, these communities are almost entirely solely dependent on the forest industry for their livelihoods.

We employ 236,000 Canadians, and we are a manufacturing industry, so it's worth noting that those are jobs that are consistent, well-paid, and not seasonal.

The forest industry has faced significant challenges. We have had the opportunity to describe those to you in the past. As well, though, to respond to those challenges, we've launched a very exciting transformational agenda that is literally underpinned by the adoption of innovation.

Last year, to help understand where this gets us, FPAC launched something that we call “Vision 2020”. By the year 2020, we hope to generate an additional $20 billion of economic activity, hire an additional 60,000 new hires, and further improve our impressive environmental track record by an additional 35%.

The government and all of our partners have been instrumental in supporting this aggressive pathway of change, including support from our embassies, our trade staff, and the pulp and paper green transformation program, and the collective support we've had in funding FPInnovations, which is a world-leading innovation agency based right here in Canada.

However, today we want to highlight a small but effective program that the government established four years ago. The program is called investments in forest industry transformation. We call it IFIT for short. It has a very unique role in ensuring the delivery of all of the innovation systems to the market. It specifically supports the first commercial-level demonstration of these new technologies, so that's at a commercial scale. The risks of trying to do this on your own as a company ensure that these technologies do not actually get adopted.

Our proposal is that this is an area that is critical for government support in order to ensure that we get through this critical stage of innovation adoption. But let me be clear: once the commercial demonstration is proven, the industry is not looking for any further governmental support. This is just so we get to deliver the technology and the innovation for the first time ever to demonstrate it in a commercial setting.

The program has been a great success so far. It was $100 million in its first instance, and the industry proposed projects worth an impressive $2.2 billion. From this significant oversubscription, 15 highly transformative projects have now been supported across this country. For every dollar of IFIT spent, approximately two dollars were leveraged. Of the $100 million, $40 million will be returned back in the form tax revenues. Also, 1,800 jobs have been secured through this program.

These are just some of the metrics of success that IFIT has enjoyed. It is absolutely delivering to the marketplace new products that have never been done anywhere in the world. A few examples are: a bio-based methanol, which is a foundation chemical made from a renewable resource; cross-laminated timber, a phenomenally new building material; nanocrystalline cellulose; and cellulose-based carbon fibres. They are really leveraging the renewal of the resource.

Given that this program is about to sunset, we are asking for a renewal over a longer period of time and for significantly more dollars: $500 million over six years. It's a big ask and we understand that. We have an escalation path that we recommend.

I will close by saying that we have two additional recommendations in our document.

One is to continue the innovation support. It has been tremendously important to us. We have 120 university professors and 400 post-grads supporting our transformation. This is critical.

We ask and urge the government to look at the SDTC next generation biofuels fund. It's been around for six years. It's $500 million. It continues to be unspent. As you can tell from our ask, we have a tremendous need for support for those first commercial demonstrations. It feels unpalatable to have a fund sitting there not being spent. We urge that it be reviewed.

● (1110)

Thank you very much for your time. Working together, we look forward to accomplishing Vision 2020.

The Chair: Thank you very much for your presentation.

Now Mr. Sinclair, please.

Mr. Art Sinclair (Vice-President, Greater Kitchener Waterloo Chamber of Commerce): Thank you very much, Mr. Chair. Thank you to the committee for the invitation to appear again this year.

Our submission this year is not so much focused on recommendations but more on an approach of stay the course. There have been a number of significant developments over the last year that we are quite supportive of.

First and foremost, as a business community our success depends on being able to open up new markets and sell products, whether they be services, wireless communications, or manufacturing technology. So within that perspective, certainly the recent announcement of the new trade agreement with the European Union is a very significant advancement for the Canadian economy, particularly for us in the Waterloo region.

I'd like to quote a letter from an organization that Mr. Christie mentioned, the Canadian Manufacturers & Exporters. The Canadian Manufacturers & Exporters wrote a letter to the premiers recently and the president and CEO of the CME, Jayson Myers, pointed out that this is a particularly important deal for Canada because it provides a market for Canada's advanced manufacturing products. It creates new markets and allows small and medium-sized businesses to develop new partnerships overseas and to help them commercialize new technologies and enter new markets.

That pretty well summarizes the position of our community and, I think, the business community across Canada. We'd like to congratulate Minister Fast and his staff for being able to finalize this agreement.

Second, as the Canadian Chamber of Commerce has pointed out in some recent correspondence and media releases, this is probably a significant development in terms of future agreements, primarily with Pacific Rim partners, Korea and Japan as well. Again, it's important to keep that momentum going.

When we were here a year ago we recommended the extension of the FedDev Ontario agency, the Federal Economic Development Agency for Southern Ontario. Again, we were quite pleased by Minister Flaherty's budget last March that extended that program for an additional five years, until 2019.

In particular, we are quite supportive of the $200 million that has been specifically allocated to advanced manufacturing. I know Minister Goodyear and his staff have been meeting with a number of manufacturers across southern Ontario this summer, gaining some consultations and feedback on how that program should operate. We look forward to that starting in April 2014. Again, we would like to commend Minister Flaherty and the government for recognizing the importance of the southwestern Ontario economy and particularly advanced manufacturing.

The third point I would like to briefly mention, which is what I focused on over the summer and in my brief submitted last August, is the area of workforce development and training, particularly for the manufacturing sector. If we're moving toward advanced manufacturing, where essentially we're looking at robotics machinery or highly advanced equipment to do the work that assembly lines used to do, these use advanced materials and are advanced products, and a specialized skill set is required for maintaining these operations.

Of course, we have seen reports from economists on Bay Street and the academic community who talk about productivity and efficiency. From the perspective of the manufacturing sector and a lot of businesses in our community, if the machinery is not working at an optimum level then we're not meeting our productivity and efficiency levels. Again, there is a requirement for having personnel trained to maintain and operate the equipment in advanced manufacturing.

We are supportive of the Canada job grant program to the extent that it identifies certain areas where there are significant job shortages and it will provide the assistance to people who want to move into those fields.

Thank you.

● (1115)

The Chair: Thank you very much, Mr. Sinclair.

We'll now go to Mr. Julius, please.

Dr. Michael Julius (Vice-President, Research, Sunnybrook Health Sciences Centre): Thank you very much, colleagues. On behalf of Sunnybrook Health Sciences Centre, I bring greetings and thank you for the opportunity to present before the committee.

Sunnybrook is one of Canada's largest and most critical care facilities that are research intensive—and in fact we're dedicated to inventing the future of health care. The concept in the brief I presented to this committee focuses on health care, and actually positions health care as one of the largest expense items that we as a nation are involved in. It's in excess of a $200 billion a year business in terms of taxpayers' dollars.

The focus of the brief is on how can we better capitalize on the largest business that this country is in? How can we better monetize the investments made thus far? The concept presented is that of discovery to clinical impact through the medical marketplace.

Just to skip to the bottom line, research is in fact not an expenditure. It truly is an investment. The research and the innovation it drives is fundamental to solutions for our increasing national health care expenditures: bending the cost curve; increasing cost avoidance; and supporting a material economic upside with private sector partnerships, company creation, and job creation.

The role of technology development commercialization is fundamental to getting our discoveries to our patients. It's high risk and high cost. The need for private sector partnership is absolutely essential, and this mutually beneficial initiative is a rate-limiting step.

Health research is uniquely positioned to lay the foundation for a more innovative and productive society with very clear deliverables. We're not there, but we're getting closer: improving health training for the next generation of health researchers and practitioners; building an evidence-based sustainable system that delivers state-of-the-art health care; and of course driving the development of new products, services, and attracting investments and creating jobs.

To achieve the full gambit we must integrate these activities and resource all stakeholders along the continuum from discovery to clinical impact through the medical marketplace. We're not doing that now. Our investments are currently profoundly imbalanced.

The three recommendations highlighted are not intended to solve world hunger; they're intended actually to make a very positive step forward in rebalancing public investment in this continuum. It focuses on where the gaps are and how they may be better addressed towards doing this business better.

The first one relates to fueling the discovery engine, and I will be very brief on this as my colleague, Gilles Patry, has already highlighted the need for the infrastructure. But we need fuel to fund this engine.

We applaud the Government of Canada for initiating and for its ongoing and continuous support of sustainable funding for the Canada Foundation for Innovation. That gives us place.

We congratulate the government for the Canada research chair program and its ongoing support. That gives us people.

So we have wonderful infrastructure, we have some of the best minds in the world, and when we drive up to the gas station, there's no gas.

Funding to the Tri-Council has not kept pace with the growth in other dimensions, and our first recommendation is to increase that budget. I have to tell you that this is a modest request of $300 million over the next three years to benefit our investments already made in other arenas.

The second recommendation deals with research as well. In order to spend a dollar that any one of us gets from the Tri-Council, it costs another 45¢. Everybody around this table agrees that the full cost of research needs to be funded and once we've achieved that unanimity, eventually everybody leaves the table.

Right now we've made a good start in the indirect cost program. The challenge is how those dollars are deployed. The recommendation is rather than making this a capacity-building program, send the money directly at a flat rate to where the research is happening.

● (1120)

The final recommendation also relates to FedDev. Here, congratulations to the government. Our recommendation is that given the size of the business of health care and medical research, a greater proportion of that FedDev envelope should be applied to medical research.

Sunnybrook is capitalized, it's expressed in the brief, it is an economic driver.

Thank you very much.

The Chair: Thank you very much, Mr. Julius.

We'll now hear from Ms. Robinson, please.

Ms. Nobina Robinson: Good morning.

Thank you very much, Mr. Chair, for permitting me to join you by video link from Toronto, and for the invitation to present our ideas for the next federal budget on behalf of Polytechnics Canada.

I hope you've noted our August submission to your committee. While I am pleased to discuss our ongoing ideas about improving Canada's prosperity and productivity through support for research and innovation, that is, the theme you have invited us to address today, I will also say a few words at the end about the other critical thing we have presented recommendations for: maximizing employment opportunities for Canadians.

Since we met last year, I am pleased to report that our association has now grown to 11 research intensive colleges and polytechnics, with new members from Saskatchewan and Manitoba. These leading institutions of training and industry innovation are addressing Canada's skills gaps and lags in innovation performance. We are very proud to report to you that our 11 members alone counted over 11,100 students involved in industry-driven R and D projects last year, up from 9,500 students the year before. This represents a growing cohort of students armed with vital innovation skills for the benefit of our industry partners in all sectors. This is the best outcome of the modest funding for federal college research.

Our members are heartened that the 2013 federal budget recognized our recommendations, particularly those relating to college research and apprenticeship. Inclusion in federal programs and equitable treatment of colleges in the research spectrum are two principles that members of this committee have endorsed, and for that we are most grateful. As you have seen in our submission, though financially modest, our ideas for the next budget are practical and actionable because we understand that the fiscal cloth is limited.

We propose two specific research and innovation related recommendations.

First, my colleague made mention of the indirect costs program. Polytechnics Canada was invited to participate in the review of this program, as announced in Budget 2013. Yet a quick analysis shows that the very same college research program I mentioned above, the college and community innovation program—the program that enables us to do industry driven R and D—is not eligible for the indirect costs program. We can find no policy rationale for this. The decade-long exclusion leaves the misplaced impression that college and polytechnic applied research does not meet the standard of excellence that the indirect costs program is designed to foster. We are not advocating an increase in the size of the existing $332 million program, but we hope the committee will support the principle that all those post-secondary institutions that are conducting R and D activity are treated fairly under the program.

Second, for too long we have focused on the technological and manufacturing sectors as the priority for R and D, when Canada's GDP relies heavily on the service sector as well. More specifically, we believe the time has come to focus on the social sector in terms of lagging innovation. The committee should urge the Social Sciences and Humanities Research Council to harness the diverse and deep strength of colleges and polytechnics in social sector innovation, something the current college program is not geared to do. Whether on matters such as early childhood education, nursing practices, or aboriginal community development, we see evidence of colleges collaborating with social organizations to put innovative practices into operation, leading to improved outcomes for all. Yet these kinds of activities are not considered high research. A small pot of competitive funding for colleges to address this demand would benefit many communities.

As I mentioned, Polytechnics Canada also has budget recommendations on your employment theme. We applaud your committee's decision to undertake a study of youth unemployment and underemployment. Our relevant recommendations in this area relate to labour market information and to modernizing Canada's rusted-out apprenticeship system, with as easy an opening of a program like Canada's student loans program to mature Red Seal apprentices. Without a sense of jobs in demand, without restoring dignity to vocational training, employment opportunities are being lost for Canada's youth.

You know that research and innovation lead to highly qualified skilled workers. The time has come to link government support for R and D to government support for learners and workers. No sector can be left out of the innovation game.

Thank you.

● (1125)

The Chair: Thank you very much, Ms. Robinson.

We'll begin now with questions from members. There will be five-minute rounds.

Ms. Nash, please go ahead.

Ms. Peggy Nash (Parkdale—High Park, NDP): Thank you, Mr. Chair.

Welcome to all of the witnesses.

Thank you for the good work all of you are doing.

I'd like to ask three questions.

My first, for whomever would like to comment, is on the Conference Board of Canada's latest report on innovation performance. Their report card gave Canada a "D" in innovation. That's our topic today: research and innovation. The Conference Board explained the grade as follows:

> ...Canada remains near the bottom of its peer group on innovation, ranking 13th among 16 peer countries...It performed poorly on most of the 21 indicators.

I won't go on, but I'm sure you're all familiar with the Conference Board's report.

Would anyone like to comment on why Canada is doing so poorly when there are so many initiatives in place already?

Mr. Patry, would you like to tackle that?

● (1130)

Mr. Gilles Patry: It's a very complex issue.

If I had the answer to that question, we would all be looking at implementing the elements of the solution.

In many ways, it's related to the lack of innovation and productivity that might be taking place within the private sector. A report called *Paradox Lost* was released two weeks ago by the Council of Canadian Academies. Co-authored by Peter Nicholson and Marcel Côté, formerly of SECOR, it essentially tries to identify the reasons why some in the Canadian business sector may not have been as innovative as they should have. In essence, one of their conclusions is that our greatest trading partner, the U.S., has been a privileged trading partner for us, in the resource industry in particular. Also, Canadian businesses—and my colleagues from the Canadian business sector can talk about that more precisely—

Ms. Peggy Nash: I'm sorry, I'm going to have to interrupt.

Mr. Gilles Patry: —have been as innovative as they needed to be to address the situation.

Ms. Peggy Nash: Thank you for that.

The Chair: You have two and a half minutes.

Ms. Peggy Nash: Okay. Thank you.

I'll have to take a look at that study.

Thank you for raising that.

Ms. Robinson, I want to pick up on the last point you made about apprenticeships. That's something many of us are recognizing. There's a skills shortage in some parts of the country. There will be a generational change exacerbating that skill shortage. Yet, not enough of our young people choose the apprenticeship track as a career path.

What are community colleges doing to reach out to high schools and to young people, to encourage them to consider the trades?

Ms. Nobina Robinson: Thank you very much, Ms. Nash, for the question.

There are many answers. Across the country, a diverse set of ad hoc solutions is being done by community colleges.

Ms. Peggy Nash: What are the two or three key things that would need to be done?

Ms. Nobina Robinson: When you have the K-to-12 system abandoning shop class, the first thing we need to do is to get young people to know how to hold a hammer or hold an auto part. That is called pre-apprenticeship. You have to remember that you can't become an apprentice unless you have an employer, and the employer is not going to hire you if you don't know how to do some very basic elements at the technical, first level of the apprenticeship. A lot of colleges are getting into the notion of pre-apprenticeship and exposing grade 7 and grade 8 students to that, or doing a kind of foundational course. That happens in a very patchwork way, sometimes though only very little funding for that activity. That's one.

But before we worry about getting more youth into apprenticeships, the bigger issue is what to do about the 400,000 youth now in the system who are not completing these. If they do not get their final level of certification, then they cannot be the master craftsmen from whom the young will learn. That's the nature of apprenticeship. I encourage you to look at both ends of the spectrum.

Ms. Peggy Nash: Thank you.

I appreciate your recommendations on that.

The Chair: You have 10 seconds left if you want to make a final comment.

Ms. Peggy Nash: Well, let me just throw something out and perhaps someone else can pick it up at a later point.

It seems that in a globally competitive marketplace, one of the key factors around innovation is energy efficiency and reducing our carbon footprint. I'm interested especially in forestry products.

I know you've done quite a bit of work on that, and aerospace, and I'm wondering how we are using that as really a competitive edge for Canada.

The Chair: We'll have to return to that in a later round. Thank you, Ms. Nash.

Mr. Saxton, please.

● (1135)

Mr. Andrew Saxton (North Vancouver, CPC): Thank you, Chair.

Thanks to our witnesses for being here today.

My first questions will be for Catherine Cobden from the Forest Products Association of Canada.

As a member of Parliament from British Columbia, you can imagine how important the forest industry is to me and to my constituents. I just want to mention to you a question that I am frequently asked, namely why are we still exporting so many raw logs? Why have we not gone up to the higher value-added exports?

So I want to ask you, what is industry doing to raise the value of our exports? And are government programs such as IFIT and FIBRE helping in this regard?

Ms. Catherine Cobden: Yes, absolutely. Let me just say that the whole essence of our transformation agenda is to extract more value from every tree we harvest.

Now, there has been a bit of a unique situation with the mountain pine beetle scenario in British Columbia and raw log exports, but that should stay unique and should never become the norm.

So absolutely, to get more value from every tree we harvest, the IFIT program fundamentally does that. It improves our long-term competitive position. It's a terrific solution for that problem.

Mr. Andrew Saxton: Thank you.

Historically the forest industry has been heavily dependent on one market, the United States. I know that in recent years an effort has been made to expand those markets. Perhaps you could share with me what industry is doing to expand the markets for our wood products and also what government programs have assisted in this regard.

We do have six new trade offices in China, and two in India. Is this helping in those efforts?

Ms. Catherine Cobden: Listen, this is a tremendous area of effort, and we are so grateful. What we've managed to accomplish together in partnership is that basically the forest industry is now Canada's largest exporter to China. Our competitive jurisdictions are looking at the successes that we've blazed together and are asking themselves how we have managed to penetrate a rather difficult market.

And by the way, in terms of those efforts, with the return of the U. S. housing market, there is no sense whatsoever of abandoning the China market. This is absolutely the future direction of the industry and we need to keep going.

As well, with regard to the work on India, by the way, we're further behind in terms of the timeline, but I think we're at the stage we were ten years ago on China. We need to continue to pursue it.

Thank you very much for that question.

Mr. Andrew Saxton: Thank you.

In your introduction, you mentioned the industry's success in leveraging public dollars with private dollars for the IFIT program.

I'm interested to know how successful you have been at leveraging public dollars in the FIBRE network.

Just for our viewers, “FIBRE” stands for Forest Innovation by Research and Education. I love these acronyms.

Ms. Catherine Cobden: Yes, sorry about the acronym.

FIBRE is a collective of university professors from across the country. Essentially they are using NSERC funding—actually it's multi-council funding—to support the industry's transformation agenda through the pure R and D phase.

If you look it as a funnel, we have a lot of idea generation, which we critically need. We need to outpace our competitors on new ways to use trees, just to touch on your earlier point about value added. That's what the university network is doing for us. I can't tell you the significant number of innovations that have come out of this—I have a long, long, long list—but I'd be happy to provide the backup material for this.

I was at a meeting yesterday with about ten of those professors, who are just so committed to this; it's truly remarkable.

Mr. Andrew Saxton: Have you been successful at matching or leveraging public dollars?

Ms. Catherine Cobden: So yes, they have to bring in industry partners, and they in fact want to do, and need to do, more. I note that NSERC has made some additional changes in this regard.

Listen, we're not looking for things that don't require industry commitment. We truly believe that a sector-based innovation system gets you the long-term productivity and essentially gets you the competitive edge that you need when you are, like us, competing in a global marketplace.

Mr. Andrew Saxton: Thank you.

I have a very quick question for my friend Gilles Patry from the Canada Foundation for Innovation.

Gilles, one of the priorities of our government is obviously to bring innovation from the lab, from the research centre, into the marketplace, to commercialize that innovation. In your submission to us, you mentioned methods to bring together cross-sector organizations into partnerships.

Can you explain how that would help to commercialize innovation?

The Chair: A very brief response, please.

Mr. Gilles Patry: Yes, absolutely.

We've invested in research infrastructure over the time and these facilities are essentially open for business, as I've indicated. The idea is to try to bring in the private sector to use the facilities that are located within universities and colleges, to benefit from the expertise that is there, the people, number one, but also the facilities that they would not be able to develop or build by themselves. We're seeing a tremendous uptake of that. There's about $1 billion a year that's being spent in universities and colleges by the private sector having access to the people and to the infrastructure that has been provided.

● (1140)

The Chair: Okay, thank you.

Thank you, Mr. Saxton.

I wanted one clarification, as chair. Ms. Cobden, you mentioned the exports to China. Was that by monetary value?

Ms. Catherine Cobden: Yes.

I'm trying to remember the metrics I've got. I have several different metrics that I can provide to the committee, but yes, definitely.

The Chair: If you can provide that—

Ms. Catherine Cobden: Yes, I will. Absolutely, for sure.

The Chair: —to our analysts, we'd appreciate it very much.

Ms. Catherine Cobden: I'd be happy to do that.

The Chair: Okay, thank you very much.

Mr. Hsu, please, for your five-minute round.

Mr. Ted Hsu (Kingston and the Islands, Lib.): Thank you very much, Mr. Chair.

My first question is a pretty straightforward one for Mr. Julius. It's about your recommendation number two, to replace the 18% of Tri-Council direct support to calculate the indirect cost support for large institutions and the 90% for small institutions by a flat 45% of the Tri-Council funding to everybody.

How much is that going to cost?

Dr. Michael Julius: To be absolutely clear, more money is going to be required. It is the direct relationship between where the indirect dollars flow to where the research is being done, which is the ask. Even if we kept everything stable financially, the larger institutions would benefit. We basically have to decide what the indirect cost program is about. Is it an indirect cost program, or is it also a capacity-building program?

Mr. Ted Hsu: In that case maybe I could rephrase my question.

Dr. Michael Julius: Okay.

Mr. Ted Hsu: What does that 45% have to become so that the cost to the government is zero?

Dr. Michael Julius: The 45% is real, and I've articulated in my brief what activities that 45¢ on every $1 covers. If eventually the government decides that we're going to cap the finances in support of indirect costs, then we should ensure that whatever moneys we have are distributed at whatever flat rate we can afford, to the places where research is being done. So 45% is pretty close to real costs, but if the government can't afford 45% but only 30%, to accommodate giving more to the—

Mr. Ted Hsu: The government needs to know how many millions of dollars 30% is. That's what I'm—

Dr. Michael Julius: I'm suggesting that all of this can be done with the current envelope. Basically what has to change is the method of deployment. Flat rate to 45%, or what we can afford, would be an excellent start. Using the envelope currently in hand—

Mr. Ted Hsu: Does that mean it's not going to affect the budget, the overall cost—

Dr. Michael Julius: I am suggesting that without more funds, which are needed, we could do a better job with the moneys we are spending—same moneys, no additional money. Get the money to where the research is happening directly is the recommendation.

Mr. Ted Hsu: Okay.

My second question is for Monsieur Patry.

I've seen the CFI ads at the bus stops around the Hill, and I have two questions related to that.

One question is whether you think that extra money should be given to researchers, especially basic researchers, to engage in public outreach. For example, I believe the budget for the Perimeter Institute has a piece for public outreach.

The second question, and I don't mean to embarrass you, but I kind of scratched my head when I saw these advertisements because I know that the CFI is funded by the federal government. I was a little bit surprised that you'd be advertising on Parliament Hill. There's something funny about that. I wonder if you can address that.

Mr. Gilles Patry: To the first question, our first recommendation is to advocate for more support for the granting council. As I have said, it's important to ensure that we keep pace with the needs. When you mentioned basic research, absolutely, I think there is a tremendous need to continue our investments in basic research.

I simply want to say that I think the debate between basic and applied is an artificial debate. You can have some wonderful basic research that emanates from applied research.

● (1145)

The Chair: You have one minute.

Mr. Gilles Patry: For example, there's the work that's being done at CERN where Canadians have been involved in particle physics. Some of the greatest developments in technology have taken place because of the basic research that's been done there. So that has been a very important aspect.

To your second question, it's part of our outreach activities. It's very important for the CFI. We have a very small budget for our outreach activities to communicate to the public and elected officials the importance of investing in research and innovation. That was meant by the campaign.

You'll see in a couple of weeks—without divulging too many things—a major spread in *The Globe and Mail* . All of this came at no cost to the CFI. It's all our member institutions, colleges, and universities that have been participating in that.

The Chair: Thank you very much for that.

We'll go to Mr. Keddy now please.

Mr. Gerald Keddy (South Shore—St. Margaret's, CPC): Thank you, Mr. Chairman.

Welcome to our witnesses. My first question is for the Forest Products Association. I'm going to take this from a slightly different angle. Your first testimony was interesting, but it was all on the manufacturing end. I want to go back to actually growing the product and looking after the product. I think that's something that's been particularly overlooked. You briefly mentioned the mountain pine beetle and the devastation it has caused in the British Columbian forest, and is now spreading through Western Canada.

Where are we on our research and our ability to control these epidemics? We've done it in agriculture for many years with more of an integrated pest management approach to insect outbreaks. Where is your association on that same approach in forestry?

Ms. Catherine Cobden: I mentioned FIBRE. Actually, a significant portion of the FIBRE group is dedicated to this very question. In addition there is governmental in-house research going on through the Canadian Forest Service. It's very critical.

I couldn't agree with you more. If I glossed over it, it's just because I only had five minutes. Fibre supply and the pressures that the fibre resource are facing.... By the way, Canada's natural resource advantage in this area is huge. But those pressures that are mounting on us are driving this need for transformation. So everything I talked about today is fundamentally driven by the challenges you're putting forward on the forestry side. So if we have to cut a tree, we want to get the most value from it, but we want to make sure that we're protecting that natural resource to our maximum ability.

Mr. Gerald Keddy: What about on the government side and the trade side of the equation where we're constantly coming up against a new trade rule? For instance, the pine wood nematode is keeping timber out of the European Union unless the timber's kiln dried. We shipped timber to the European Union for 500 years and all of a sudden there was a new regulation put in 20 years ago that prevents green wood from going in.

Ms. Catherine Cobden: We just stay very vigilant in protecting our softwood lumber industry from trade barriers that come out of nowhere—or actually in some cases they may or may not. But the idea is that we need to stay quite vigilant in ensuring that others are not using it in a protectionist way for their own industry. We are a globally trading industry. So this is critical.

I thought you were going to ask me about soft woods. So the softwood lumber agreement is an important agreement. The prevailing view of the forest industry is that it should be renewed.

Mr. Gerald Keddy: Do I still have a little time?

The Chair: Yes, two minutes.

Mr. Gerald Keddy: Okay, we're doing okay.

My next question is for Ms. Robinson of Polytechnics Canada.

Your recommendation to improve LMIs—labour market innovation—is interesting. Your suggestion is that we put in $5 to $10 million for that total cost. Do you have any further information on how this would actually update in the two surveys that you've done and how further information would be asked for? More specifically, how does this help our skills shortage?

Ms. Nobina Robinson: Thank you very much for your question, Mr. Keddy.

Mr. Gerald Keddy: It's a bit of a tangled question, I know.

Ms. Nobina Robinson: The thing is, we can't get to the bottom of the skills shortage and skills mismatch if we don't have the data. The point of principle here is that the federal government, in its shared jurisdiction with the provinces, runs a series of surveys administered by Statistics Canada. Many of those surveys have been left inactive and should be revitalized, because what we need to do is to connect education, employers, and governments for knowing and tracking outcomes.

We have recommended two surveys that are not our own but Statistics Canada's, the youth in transition survey and the workplace and employees survey, to do just that. But who benefits? High school students would now get reliable information on employment outcomes five years out. Educational institutions would know about Pathways. Employers will get granular local data, which they're all calling for no matter whether they're the Chamber of Commerce, John Manley's council of CEOs, or industry sector organizations.

And at the end of the day, a publicly funded education system would be held to account if we knew what was happening to publicly funded learners across the system. That's why the time is now to solve the skills discussion with evidence. This is LMI.

● (1150)

The Chair: Thank you.

You're right at the end of your time, Mr. Keddy. Thank you.

[*Translation*]

Mr. Caron, you have the floor.

Mr. Guy Caron (Rimouski-Neigette—Témiscouata—Les Basques, NDP): Thank you very much, Mr. Chair.

I thank the witnesses for these excellent presentations. Research and innovation are crucial areas. The fact that Canada lags behind most OECD countries in these areas generally explains, according to most experts, why we also perennially lag behind in productivity.

Mr. Christie, you were ignored until now and I am going to put my first question to you. Your third recommendation is intriguing, and concerns...

Can you hear me?

Mr. Iain Christie: If you could speak English, it would be easier for me.

[*English*]

I'm sorry to use your time in this way.

[*Translation*]

Just a minute, please.

[*English*]

Mr. Murray Rankin (Victoria, NDP): I'm standing up for you, Guy.

[*Translation*]

Mr. Guy Caron: Thank you.

Mr. Iain Christie: Okay, let's go.

[*English*]

The Chair: Mr. Christie, there's English, French, and the floor.

[*Translation*]

Mr. Guy Caron: I was saying that your third recommendation concerning manufacturers and exporters is quite intriguing. According to the exchange program, businesses could take the non-refundable income tax credits they are not entitled to because they are not yet profitable, and transform them into subsidies.

An amount of $6.8 billion has been accumulated in non-refundable tax credits. I fear that this money will never be claimed because a good part of these businesses will never have the opportunity of commercializing a research product and of becoming profitable in that way. A lot of these income tax credits will not be claimed and will be transformed into subsidies, which is not a bad thing. I simply want to point out that the cost estimate you drew up which totalled less than $500,000—that is almost a cost of zero—is not quite realistic.

To reach the same objective, have you considered the possibility of transforming the non-refundable tax credit into a refundable tax credit? What financial impact would that have, and what would be the impact on research and development?

[*English*]

Mr. Iain Christie: It depends on which side of the business you represent, large or small, whether or not you're in favour of extending the CCPC refundable tax credit model to large business. Large business obviously would like to see that.

Since the AIAC represents a collection of both small and large businesses, we don't have a strong opinion either way. It would certainly mobilize that money more effectively, obviously, if it were refundable, but I understand the government's reasons for the current model.

What our recommendation was speaking to was the fact that there is this storehouse of credits that have in fact been earned. They are owed. They could be collected at any time, the timing of which is not dependent on any government policy. It's simply dependent on accounting.

The government has an opportunity to leverage that storehouse of earned but unclaimed credits to its own ends, in a sense, by deciding that increasing our R and D infrastructure is something it would like to support. The government has a tool available, which is fiscally neutral, to effectively encourage that.

● (1155)

[*Translation*]

Mr. Guy Caron: I meant refundable tax credits for SMEs and not for all Canadian businesses. Thank you very much.

Ms. Cobden, we have worked together in the past, before I was an MP. So I am somewhat familiar with the forestry area, just as you are.

The years 2007, 2008 and 2009 were extremely difficult for the forestry sector. However, that sector of the industry really benefited from several opportunities that cropped up. It transformed the crisis into opportunity. In fact you talked about the transition fund, which was extremely profitable. There are several areas where Canada is no longer competitive, for instance pulp and paper and newsprint, in relation to its foreign competitors.

Could you give us two or three concrete examples of what the industry did to make that transition? The situation is really critical. Canada has to develop new market niches where it can be in the forefront so that it can maximize the power of the industry.

[*English*]

Ms. Catherine Cobden: Thank you very much for the question. I do appreciate that you have a wealth of knowledge regarding our sector.

For sure we are thrilled by the progress we have made to date. The innovation we have done, by the way, isn't just in the new products, which IFIT is a fantastic tool for, but also in every element of our business. We have literally been innovating our business models.

If you're looking at productivity, here's a concrete example. We are the lead sector in productivity in Canada. The productivity story is an amazing good news story. I've already talked about how we've innovated in marketplaces and about the work we're doing in China. It's truly the envy of the globe in our industry.

In the bioproduct area, the delivery of new, higher-value products is incredible. This is the journey we're on through IFIT: to create something out of trees—a very plentiful and renewable resource—that would traditionally have come from non-renewable sources, for example, carbon fibre.

[*Translation*]

Mr. Guy Caron: Like Ms. Nash, I'd like to have the opportunity of speaking later. My question is addressed to Mr. Sinclair.

[*English*]

The Chair: We are over time. If we could, let's return to it in another round. I do want to move on to other members.

Thank you. Merci.

We'll go to Mr. Adler, please.

Mr. Mark Adler (York Centre, CPC): Thank you very much, Chair.

Thank you, witnesses, for being here this morning.

I do have a couple brief questions. The first one is for Mr. Sinclair.

How has our government's low tax policy, which reduces the corporate tax rate to 15%, been of benefit to your members?

Mr. Art Sinclair: It's good. It's positive. We've always had this discussion in our organization and every other organization about the relative level of corporate taxation in a recession. I think generally there's a feeling that we're probably at about the right level. I recall Minister Flaherty brought in a program of tax cuts back in 2007 and we've pretty well maintained that level for about the last six years. It's been at that rate. Now compare that to the Province of Ontario, in which essentially they introduced a schedule in 2009 for cuts going into 2013. They cancelled the last year. I think that was a disappointment to a lot of our members. Of course, if you are told in 2009 what your rate is going to be for 2013 and then in 2012 the government states that it is not going to implement that tax rate as scheduled three years ago, that's a problem.

But I think generally there's been strong support. There was a program introduced back in 2007 and it's been maintained. As I said before, we're pretty well at the right level. There are some people—I know we have accountants at the chamber—who said we should be paying off the credit card first. There are varying degrees on the proper levels of corporate taxation. But, I think at the federal level we're at a pretty competitive rate relative to the rest of Canada.

Mr. Mark Adler: And the freezing of EI premiums is all good news to you and your members?

Mr. Art Sinclair: Yes.

Mr. Mark Adler: The elephant in the room is BlackBerry or RIM.

Mr. Art Sinclair: They've had issues.

Mr. Mark Adler: Let's just flip that around a bit. All the people who are being laid off from BlackBerry are really smart people. They're very creative, very technologically adept. Now all these people are being released into the marketplace.

● (1200)

Mr. Art Sinclair: Yes.

Mr. Mark Adler: How do you see that as a benefit to the Kitchener-Waterloo area? There are people here now who can start their own businesses and these are very smart, creative young people.

Mr. Art Sinclair: Yes. Generally we project that there are probably about 1,000 to 1,500 jobs available right now in the technology sector in the Waterloo region. These are the small start-up companies. A lot of them are three guys who knew each other back at the University of Waterloo five years ago; they had an idea in school and now they have a product that's on the market. So you have them. Then there are the larger companies like OpenText that only two days ago mounted a major acquisition of a company down in Maryland. We have an ecosystem now in Waterloo Region where we hope a lot of those people who will be exiting or transitioning from BlackBerry will be picked up by other companies.

In fact, we like to consider that BlackBerry came out of the ecosystem in Waterloo region. BlackBerry didn't create the ecosystem; the ecosystem was there. A lot of it is based on the unique relationship that we have in Waterloo region between the universities and business.

Governor General David Johnson mentions this quite frequently. Essentially, the University of Waterloo came about because the business community—the manufacturers—wanted engineers, and the life insurance companies wanted actuaries. So we had one of the first truly technical universities in Canada. The first president of the University of Waterloo was a gentleman named Gerald Hagey, who was a senior executive of one of the tire companies. He wasn't an academic. So we've always had that unique relationship between academia and business that I think has built that ecosystem that's produced a company like BlackBerry.

Mr. Mark Adler: What lessons can be taught by Kitchener-Waterloo to other parts of Canada to replicate that model?

Mr. Art Sinclair: I think a lot of it is simply that relationship between businesses and the post-secondary institutions. We like to think of ourselves as a chamber of commerce that's a facilitator in a lot of cases. People come to us saying: “Okay, what services can the university or what can Conestoga College provide for us?" It's really breaking down those barriers and building that relationship, because going forward I think that is going to be key in a knowledge-based economy. We've had the discussion here on that. In a lot of cases it's taking technology and putting it out in the market. If you don't have that relationship, it's going to be a lot more difficult.

Mr. Mark Adler: So building partnerships is really the key, and not operating within your own silos.

Mr. Art Sinclair: Exactly.

Mr. Mark Adler: That's great. Thank you very much.

Thank you, Mr. Chair.

The Chair: Thank you, Mr. Adler.

[*Translation*]

Mr. Côté, you have the floor.

Mr. Raymond Côté (Beauport—Limoilou, NDP): Thank you very much, Mr. Chair.

Mr. Christie, thank you for being here to talk to us about one of the most important sectors that involve Canada's outreach. Unfortunately—and this was confirmed by a 2010 Deloitte & Touche Inc. audit, and by the Emerson report—your sector has been considerably neglected by the current government.

I would like us to broach the matter of the Strategic Aerospace and Defence Initiative. In fact, the program reached its peak in 2012. Currently a curtailment has been announced.

Could you give us some idea of the repercussions of this announced decline, and of your concerns in that regard?

[*English*]

Mr. Iain Christie: I think we foresaw the decline coming, which was why we had advocated, prior to 2012, having the Emerson report. There was a general concern as far back as 2009 about the state of the industry and the state of government programs and policies. We have, by and large, been very satisfied with the results of the report. We thought it was an excellent report. It has been well received and implementation is moving along at a pace we are happy with. SADI has been recapitalized. We have a technology demonstration program that has been announced. I think the misgivings we felt seeing that decline coming have been answered, and are in the process of being answered, by the Emerson report and the response to it.

[*Translation*]

Mr. Raymond Côté: I would like us to talk also about the Canadian Space Agency. At a certain point that organization was a powerhouse, but it is now reined in among other things by cuts to its funding. However, some amounts had been allocated but were not used. There was $66 million, that is to say more than 17% of its funding, in 2012-2013. Clearly, things are going very badly.

Could you comment on the internal dynamics at the Canadian Space Agency that led to everything being reined in, and on the fact that there don't seem to be many hopeful aspects in that particular sector?

● (1205)

[*English*]

Mr. Iain Christie: Again, I think this question is exactly the kind of question we were asking two and three years ago. Once again I point to Mr. Emerson's recommendations and the government's response as already beginning to address these questions. Anyone who has heard the current president of CSA, Walt Natynczyk, speak cannot believe that things aren't happening at the Canadian Space Agency. They are.

Although none of Mr. Emerson's recommendations with respect to space have yet been implemented, we believe that progress is being made towards their implementation and we are awaiting their fruition. We believe things are moving in the right direction, but as you point out, things have gotten to a very serious pass. It is not time to take our foot off the gas in terms of trying to revitalize the space sector in Canada. It's important. It is in trouble. Things do need to change. I don't want to take the committee's time in recapping Mr. Emerson's recommendations, but they basically need to be implemented.

[*Translation*]

Mr. Raymond Côté: Mr. Patry, I really liked your remark on basic research as it compares to innovation. You said that we should not make too strict a distinction. In fact, that would be very reductive. Nevertheless, in general, there has been a levelling off of federal spending on research and development.

I'd like to go back to comments made by the senior deputy governor of the Bank of Canada, Mr. Tiff Macklem, when he addressed the Economic Club in Toronto, in October. He talked about very grave concerns regarding the dramatic reality that some Canadian exporters eventually go bankrupt or turn to the domestic market. In fact, there are 20% fewer exporters. I would venture to say that there is a link between that and our shortcomings in innovation. Would you make that kind of connection?

Mr. Gilles Patry: There may be one. Personally I cannot draw such a direct link.

I will come back to your question on the funding of research. Over the past two years, there was certainly a levelling off, but it was during a very difficult economic period for all countries. Even though the funding has levelled off, we have to celebrate the fact that it was maintained.

We must also remember that during that same period, the number of full-time students increased significantly over the past six to seven years. Moreover, there were inflationary pressures on institutions, that did indeed result in a decline in research capacity over the past few years. We have to correct the situation. This may answer the question you raised expressly.

[*English*]

The Chair: Merci.

Merci, Monsieur Côté.

Mr. Van Kesteren, please go ahead for your round.

Mr. Dave Van Kesteren (Chatham-Kent—Essex, CPC): Mr. Patry, with regard to your research council, I just want to understand this. You are in charge of taking the government funds and then finding universities that apply for grants? Do I have that right?

Mr. Gilles Patry: Let me explain—

Mr. Dave Van Kesteren: Be really quick, because I have a whole whack of questions.

Mr. Gilles Patry: —what CFI is all about. CFI is not a granting council per se. We are an independent—and I guess this is why I've been invited here—organization, an arm's-length organization, which benefits from the investments that the Government of Canada is making in the Canada Foundation for Innovation so that we can reinvest these funds into universities, colleges, and research hospitals.

We do this on a competitive basis. We've been in existence for the past 15 or 16 years and we have benefited, as I said in my presentation, from an investment by the Government of Canada of about $6 billion over the last 15 years, so about $400 million a year.

Mr. Dave Van Kesteren: So you receive $400 million a year?

Mr. Gilles Patry: No—and that's the challenge we have. I'm glad you're raising that question. Essentially we receive money at the will of government on a sporadic basis. So for the past 15 years our awards have been somewhat unpredictable depending on the environment and the conditions and so on and so forth.

It used to be that at year-end, essentially when there were surpluses, the Canada Foundation for Innovation benefited from investments that came from surpluses.

● (1210)

Mr. Dave Van Kesteren: I'm going to ask you to stop. Forgive me, because I'm getting more confused. That's a dangerous thing.

In your brief we talk about SSHRC, NSERC, and CFI. Are you part of that granting body?

Mr. Gilles Patry: We are. We call ourselves TC3 plus. So the Tri-Council—SSHRC, NSERC, and CIHR—are the three granting councils that are obviously agencies of government. CFI is another group that essentially supports the research activities by providing research funding for equipment and facilities.

Mr. Dave Van Kesteren: Okay. So if a university, for instance, has a proposal, would they go to one of your agencies and say that they need money for this, and you would help them get that money?

Mr. Gilles Patry: They would go to the agencies—SSHRC, CIHR, or NSERC—for the research funding. They would come to us for the facilities, for the equipment and the installations.

Mr. Dave Van Kesteren: Okay.

I've been a member of Parliament since 2006. I was fortunate to sit with Mr. Rajotte on the industry committee, and as long as I can remember, in this committee and the last committee, we've heard the same thing, that we're spending the money but we're just not getting the results. We don't seem to have the answers to those things.

I'm going to tell you where I'm a little bit concerned. I pulled this up from the web. It's an article in *Maclean's* about pensions and how Canadian universities are just going wild in terms of their pension shortfalls. For instance, from 2008 to 2012 they've gone from a $680-million deficit to one that's over $3.2 billion.

I know you're not directly responsible for this, but is it possible that a lot of this money...? This is just an awful thing to say, but I'm going to say it anyway. Again, I'm not making this stuff up. I just found it. There's the case of a particular university president, and I'm sure Ms. Robinson will love to hear this too, that—

The Chair: You have one minute.

Mr. Dave Van Kesteren: I had better wrap this up as quickly as I can. In 2003 this university president made, I think it was, $237,000, but somehow has raised that to $500,000, and his benefits on pensions would be $320,000 per year.

He would probably be rewarded for bringing in granting money. Is that where a lot of our money is going? Suddenly I'm starting to get really concerned about this.

Mr. Gilles Patry: Let me try to answer that.

The Chair: Put your former hat on, chancellor.

Mr. Gilles Patry: That's what I was going to say, Mr. Chair. I'll put on my former hat as a former university president.

First of all, we have to recognize that defined benefit plans across Canada are very, very challenging in a period where the inflation rate is extremely low and where the actuarial estimates also need to be adjusted, number one.

Number two, I would argue, and this was the case at my university, there was a rule of having a maximum 10% surplus in your pension plan, at which time you had to have a contribution holiday. Even then, many pension plans had to pay the surplus back to employees. I remember very well at the University of Ottawa, where I was the university president, having to take a pension holiday. We did not necessarily want everybody to take a pension holiday, the staff and/or the university. This I think is responsible for a large part of the problem that we have right now.

The Chair: Thank you.

We're over time, Mr. Van Kesteren, unfortunately.

We're going to move on to Mr. Rankin.

Mr. Murray Rankin: I want to build on a question by my colleague Mr. Saxton. This is a question for Catherine Cobden of the Forest Products Association of Canada.

You talked about the importance of the industry in rural Canada and the remarkable and impressive improvements you've made in productivity. But I am very concerned about raw log exports. I get many letters on that topic.

I don't live in an area impacted by the mountain beetle; I live on Vancouver Island. I would like to know whether your organization has taken an official position on the export of raw logs.

● (1215)

Ms. Catherine Cobden: Our position is that from every tree harvested we need to get maximum value. You can interpret that to mean that the shipping of raw logs is not getting much value from the wood.

Mr. Murray Rankin: Do you have any ability to discipline your members who choose to ignore that?

Ms. Catherine Cobden: I'm not sure which of our members are engaged in that practice, actually. I'd have to look into that particularly.

I think we would find that this isn't a common practice amongst the FPAC member companies. In fact, the FPAC member companies are fully committed to trying to get more value from every tree harvested. They are crafting this go-forward agenda.

I understand the frustration, but there are some unique circumstances that we have experienced in B.C.

Mr. Murray Rankin: You mentioned the pine beetle, but I don't see it on Vancouver Island.

Ms. Catherine Cobden: Yes.

Mr. Murray Rankin: Mr. Patry, I have a question for you. You're with the Canada Foundation for Innovation.

Yesterday I made a statement in the House of Commons on behalf of the Canadian Consortium of Ocean Research Universities, referring to a report that appeared yesterday from the Council of Canadian Academies, which you referenced earlier, that said that there is a lack of coordination that limits the usefulness of the excellent ocean research that's being done in places like the University of Victoria and elsewhere. It said that there was no overarching national strategy or vision, little coordination, and inadequate leadership.

Does the Canada Foundation for Innovation accept that analysis, and if so, can it make recommendations on how we can address such a serious issue?

Mr. Gilles Patry: I would even go further. I think we can be an instrument for harmonizing the partnerships between the various institutions.

I was also at that meeting last night. We had nine universities that are essentially world-class universities in ocean and arctic research. One of our jobs at the Canada Foundation for Innovation is to ensure that we can maximize the use of the investments that we're making by fostering partnerships between institutions.

What you saw yesterday was a great example of that partnership and cooperation between institutions.

At the CFI we've invested $35 million in the *Amundsen* to make that vessel a research vessel. That vessel is being used by dozens of universities across Canada and around the world. We just finished a major partnership between the European Union, the U.S, and Canada on how we can best share arctic and ocean research facilities, so that we avoid duplication and minimize—

Mr. Murray Rankin: I really appreciate your saying that because the report went on to talk about Canada's aging research fleet.

At the University of Victoria, people are arriving from around the world to access the research we're doing on oceans. It's quite thrilling to see, but this report is damning and implying a lack of leadership that's very upsetting.

I want to go to Ms. Robinson of Polytechnics Canada and build on a question that Ms. Nash asked. You didn't have a chance to finish, so I hope I can ask you to expand a little bit. I'm very troubled by the apprenticeship deficit in Canada. You started to talk about the K-to-12 issue, then you began talking about some 400,000 people in the apprenticeship system. Can you continue on that? I wasn't entirely clear about the second point you were making.

Ms. Nobina Robinson: I think most Canadians, strangely enough, don't understand how apprenticeship works. It's a contract between an individual, a sponsoring company, governments that give support, and a master craftsperson or journeyperson who must teach the apprentice. That's what it is.

It is currently not part of post-secondary education. It is funded through EI. It is outside our normal community college vocational training for advanced technological credentials, and it's outside the universities.

One point of principle with which I would like to leave the committee is that it's time to treat an apprentice as a learner, not as an employee, and to stop supporting apprentices through the EI system.

Every time you sign up with a company you become indentured. You register as an apprentice at level one, and it goes up to level four. There are 400,000 registered apprentices in the country, yet we are saying we don't have skilled tradespeople. Something is going wrong. What we know, and what most studies—mostly by Canadian Apprenticeship Forum and other research bodies—will tell you is that there is a completion rate problem.

I'm happy to tell you more. We have lots more for you.

● (1220)

The Chair: Thank you.

Thank you very much, Mr. Rankin.

We'll go to Mr. Hoback.

Mr. Randy Hoback (Prince Albert, CPC): Thank you, Chair.

Are we going to have time for one more round for Mr. Jean, or should I be—

The Chair: Yes. I'll finish with Mr. Jean.

Mr. Randy Hoback: Okay. So there will be enough time to get us both in. Otherwise I would have shared some of my time with him. If you figure we'll get to him, then that's fine.

The Chair: We'll get to Mr. Jean. He'll wrap up the whole meeting for us.

Mr. Randy Hoback: Excellent.

You guys in the aerospace sector must be very excited about the new fighter jet program. Can you elaborate on what that means to you, in your sector?

Mr. Iain Christie: Replacing the CF-18s will be one of the largest expenditures that Canada has ever made in the aerospace sector. The entire sector is watching the current process that's under way with a great deal of interest to see exactly what the decision will be on how to proceed with that procurement.

Mr. Randy Hoback: Do you have any idea what the impact could be?

Mr. Iain Christie: I don't have the numbers.

Mr. Randy Hoback: You must have an idea, though. Is it small; is it large?

Mr. Iain Christie: Well, it's obviously large, because it's a very large procurement. It's also very large for the Department of National Defence. Those fighter jets are an important part of our sovereignty and security, and they need to be replaced.

Mr. Randy Hoback: Okay.

Speaking of the aerospace sector, I had the pleasure of being with the Governor General down in Mexico to tour one of Bombardier's plants there and see the partnership between the two countries in the building of not just the Learjet, which is also built in the States, but also, I believe, the Challenger jet.

Can you see those types of partnerships expanding as we do more trade agreements around the world? How do they affect—?

Mr. Iain Christie: Yes, I think they are absolutely essential.

Our large aerospace companies will tell you that they need to expand globally in order to be competitive, and our small aerospace companies will tell you that they're looking forward to other people expanding into Canada to allow them to sell into the global supply chain.

Being global is not just a choice anymore; it's absolutely essential in the aerospace industry. The more we can do to pave the way for this and prepare industry to participate, the more we should do.

Mr. Randy Hoback: Okay.

When it comes to new technologies and their commercialization, are there any examples in the aerospace sector that you see as really good examples that we could draw on of seeing something go right from the drawing board or the brain to implementation?

Mr. Iain Christie: There are a number. They tend to be a bit involved, so they're probably not something I would take the committee's time with, but I can certainly provide examples of success stories of that kind.

Mr. Randy Hoback: Is there a best practice to be learned from some of them?

Mr. Iain Christie: Let's take the entire global example of the DHC-2 Beaver, which was developed because Canada had a north and bush that had to be exploited, on up to the CSeries jet, which is the most advanced modern airliner flying. There is, if you follow it, a direct line from one all the way to the other showing how one led to investment and innovation that led to another—

Mr. Randy Hoback: Absolutely.

Mr. Iain Christie: —with a domino effect.

In that case, it answered an absolutely unique Canadian need that developed the expertise that eventually became the CSeries jet, which as mentioned earlier is an extremely green airliner. It's very fuel-efficient; it's very quiet; it is the epitome of an advanced airliner —and it was built by Canadians.

Mr. Randy Hoback: Is this the so-called “whisper jet”?

Mr. Iain Christie: Yes.

Mr. Randy Hoback: Okay.

Chair, roughly how much time do I have?

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

Mr. Randy Hoback: I'm going to change channels here a little.

Mr. Sinclair, from Kitchener Waterloo, how has the communication hub that is funded through the Centre of Excellence impacted the research centre and worked in your region?

Mr. Art Sinclair: I'm sorry, what was that?

Mr. Randy Hoback: I'm asking about the communication hub.

Mr. Art Sinclair: The communication hub?

Generally it has been critical for many of the startup companies. That, I think, is where a lot of the—

Mr. Randy Hoback: I should say the Communitech Hub.

Mr. Art Sinclair: Oh, the Communitech Hub, yes. It is funded through the province and the federal government, but I think essentially their focus is on assisting, through peer-to-peers and various other mechanisms, the development of young startup companies.

As I mentioned before, we have a unique relationship between the universities and businesses in Waterloo Region, but we also have a very unique business-to-business relationship. What we have essentially evolved within the IT sector is businesses that help each. The Communitech Hub in downtown Kitchener is in an old warehouse that has been renovated. There are about 100 different companies that are in there for a very short period of time, and then they move out once they expand and get bigger. They are there to collaborate. It's a very informal network, really, whereby you have people who are in the same industry who run into each other in the hall and say, "I have this problem. Do you have any suggestions for how we can solve it?"

● (1225)

Mr. Randy Hoback: I was in Taiwan and visited a smart research park. That was much the same idea.

Mr. Art Sinclair: Exactly.

Mr. Randy Hoback: Thanks, Chair.

The Chair: Thank you, Mr. Hoback.

Mr. Jean, please.

Mr. Brian Jean (Fort McMurray—Athabasca, CPC): Thank you, Mr. Chair, and thank you to the witnesses who appeared today. I certainly have heard some interesting information.

I want to talk first of all about apprenticeship programs.

I'm not sure, Ms. Robinson, whether you are aware of the apprenticeship program in Alberta that has been operating for 20 years. I have three sons, aged 23, 24, and 28 now. They were all born in Fort McMurray. They have all had the opportunity, especially the two youngest ones, to be involved in the apprenticeship program in Alberta, which takes high school students in grades 10, 11, and 12 and integrates them into the workforce.

I see you nodding your head in agreement. It has been a very successful program there. Of course, it was brought in by a conservative government in Alberta. It has been very popular.

Would you like to comment briefly on that program?

Ms. Nobina Robinson: [*Inaudible—Editor*]...have one system in the country, so Alberta is leading the way in some of these things and is exceptional. They have also changed ratios, as you probably know.

The biggest thing I see in Alberta, which is very interesting—I'm trying to link back to the research and innovation issues, too—is that in Alberta you can actually have a tradesperson get a business degree; you can have them be entrepreneurs. They are the tinkerers.

This committee is asking why we don't have innovation. It's because we don't have demand-driven innovation; we are not looking at the near-to-market space enough. The balance is needed. We need to fund basic research, but we need to fund people who are part of the "know how" economy, and trades people, as much as technicians and technologists, are all from it. This is the kind of silo discussion that is very unfair to the 21st century that we are in.

Mr. Brian Jean: I agree, it's actually amazing. In fact, Alberta and British Columbia have recently signed a pipeline agreement or a mutual memorandum of understanding to move forward.

Of course, as you're aware, that's going to mean a lot of jobs in Canada. I think somewhere around one in thirteen jobs in Alberta is currently directly related to the energy industry, and this is going to improve that a lot. I think there will be somewhere in the neighbourhood of $30 billion in economic activity over the next few years just from that pipeline alone.

I would like to talk just to FPAC. Very quickly, because I don't have a lot of time left, I'd like you to tell me what the forest products industry was like in 2005 as far as future opportunities and ongoing competitiveness with the world are concerned—because we're competing with the world.

Ms. Catherine Cobden: In 2005?

Mr. Brian Jean: Yes, in 2005.

Ms. Catherine Cobden: Again, it depends on what segment of our industry we look at. In 2005—

Mr. Brian Jean: As far as its future opportunities and competitiveness looked like....

Ms. Catherine Cobden: Yes.

Mr. Brian Jean: I have Al-Pac in my riding and Northland Forest Products—the Ewashkos—two of the most modern mills in the world today.

Ms. Catherine Cobden: Absolutely.

Mr. Brian Jean: In 2004, 2005, and the start of 2006 they were not the most modern mills in the world. In fact I was told that the forest products industry itself was looking at death.

Ms. Catherine Cobden: Absolutely, in 2005, 2006, 2007 we had some pretty deep dark days. We have turned the corner from a sunset industry to a sunrise industry.

Mr. Brian Jean: Exactly.

Ms. Catherine Cobden: But it's predicated on the adoption of innovation, hence I think that's why we've been invited to be here today and the transformation agenda. Al-Pac is one of the success stories that I was mentioning with the IFIT program.

Mr. Brian Jean: Exactly.

Ms. Catherine Cobden: It's a very exciting opportunity that's right in the heart of it.

Mr. Brian Jean: Do you know how much this government gave to Al-Pac for its success?

Ms. Catherine Cobden: I don't know the exact numbers of the $100 million, but it was out of the $100 million IFIT program that they received funding. Do you know the number?

Mr. Brian Jean: I do know several numbers. They've received I think about $70 million for their innovation.

Ms. Catherine Cobden: Okay.

Mr. Brian Jean: I wasn't just from IFIT, but for other things, the black tar subsidy issue that we have with the United States, and different things like that.

But what I'm asking is this, because I've only got about 30 seconds left. How does the industry look today compared to what it looked liked before the Conservatives took power?

Ms. Catherine Cobden: There's no question that we're leaner. We have had a tremendous job loss for reasons we cannot have controlled—the structural decline in products and slowing global economy as you know. I think we're poised for a tremendous success into the future.

Mr. Brian Jean: My understanding is that we actually lead the world now in innovation in forest products—

Ms. Catherine Cobden: You know, some of the examples I was citing are world leading, but they've been brought to you by the support of FPInnovations, which you've been doing, and the IFIT program. Hence, I'm here to ask you to look at that again.

Mr. Brian Jean: Do you want to congratulate our government?

Ms. Catherine Cobden: Yes.

Mr. Brian Jean: Thank you, you can go ahead and say that if you like.

Voices: Oh, oh!

The Chair: Thank you Mr. Jean.

I want to thank all of our witnesses, both here in Ottawa and Toronto, for being with us here today. Thank you very much for your presentations responding to our questions.

Colleagues I will suspend for about two minutes and then we will begin with the second panel, please.

● (1225)

(Pause)

● (1235)

The Vice-Chair (Ms. Peggy Nash): Welcome. Good afternoon to all the witnesses. We'll reconvene our finance committee, and we have six more witnesses this afternoon.

They include Paul Davidson, president and CEO of the Association of Universities and Colleges of Canada. Welcome.

[*Translation*]

I also want to welcome Mr. Jean Lortie, from the Confédération des syndicats nationaux.

[*English*]

We have Andrew Van Iterson from the Green Budget Coalition. Welcome.

We also have Karna Gupta, president and CEO of the Information Technology Association of Canada.

We have Elizabeth Cannon, president and vice-chancellor, University of Calgary, and vice-chair of the U15 Group of Canadian Research Universities. Welcome.

By video conference we have Mr. Natan Aronshtam from Deloitte LLP. Welcome, Mr. Aronshtam.

Everyone has five minutes for a presentation. Then we'll begin questions.

Mr. Paul Davidson (President and Chief Executive Officer, Association of Universities and Colleges of Canada): Thank you, Madam Chair.

It's great to be back at this committee, and I really wish you well in your work.

This fall Canada's universities welcomed the class of 2017 onto their campuses. These students will be graduating in the spring of Canada's 150th anniversary. The skills, knowledge, and experience these students acquire will contribute directly to Canada's prosperity for decades to come.

In previous years at this committee I've spoken of how every major public policy goal Canada is pursuing passes through the doors of Canada's universities.

I'm here today to focus on university research enterprise and its direct link to Canada's prosperity—and it is a direct link. For example, we know, as the member for Chatham-Kent—Essex knows very well, the tremendous impact of research on agricultural productivity innovation, improving the livelihoods in farming communities across Canada, and feeding Canadians.

[*Translation*]

As the member for Rimouski knows very well, in small communities we can see the impacts and direct effects of cutting-edge research, for instance at the Institut des sciences de la mer of the Université du Québec in Rimouski, which I had the privilege of visiting last summer.

[*English*]

In April of this year I spent a day with 25 university presidents in the riding of Fort McMurray—Athabasca where we saw firsthand the role of research and innovation in the responsible development of the oil sands.

The member for Kings—Hants, not currently present, is very familiar with how Acadia University's Tidal Energy Institute is advancing the science of harnessing the tides for clean energy.

I will add that I don't need to elaborate for the member for Kingston and the Islands the tremendous impact of research being done in that constituency.

Canada's universities conduct over 38 per cent of all research done in Canada. It's vital for Canada's future that the right policies and programs be in place to drive research and innovation, and the global competition for research and talent is unrelenting. The parliamentary secretary and I had the chance to see just how intense that global competition is as part of the Governor General's mission to Singapore in 2011 where, during the course of the mission, members of our delegation were being actively recruited by Singaporean research institutes.

Canada has done well, but we can do better. Canada, at this moment, has a unique opportunity to scale up innovation, to advance our competitive position in the global marketplace, and to equip a new generation of young people to achieve their potential.

We must view this objective with a sense of urgency to seize the moment. More than half of all faculty members in Canada have been hired in the last decade. They are a generation of top researchers in full flight. They are at their most productive and innovative with the greatest potential in their careers. Let's not miss out on that potential and tell them they need to wait another half decade.

Graduate student enrolment, which is low compared to U.S. and European competitors, has grown by 80 per cent in this decade. There are now 150,000 graduate students in Canada, with the fastest areas of growth being in the STEM disciplines. More than two-thirds of these graduate students will ultimately work outside universities, mainly in the private sector. We want to ensure they develop the research, innovation, and entrepreneurial skills to drive Canada's competitive advantage.

As I mentioned, AUCC's pre-budget recommendations focus on research. The first recommendation is for the government to commit to the principle of sustainable, predictable funding for the federal research granting councils, investments that lead the rate of growth in the economy. The research the councils support is foundational to all other aspects of Canada's research enterprise.

[*Translation*]

The AUCC also recognizes the importance of investments in infrastructure and joins with the Canada Foundation for Innovation to demand a multi-year reinvestment strategy.

● (1240)

[*English*]

AUCC was pleased to see a review of the indirect costs research program announced in Budget 2013. We believe that the indirect costs program is essential to Canada's universities. The program is effective, but has been chronically underfunded since its creation in 2003.

In our submission, we indicated that addressing the ICP is a priority. We have also advanced an innovative new proposal to meet public policy objectives and link to Canada's competitiveness strategy. Canada's universities support the creation of a new research excellence fund that would be complementary to, not a replacement of, the indirect costs program. This fund must be open, competitive, flexible, and based on peer review.

Dr. Elizabeth Cannon, president of the University of Calgary, is here today as well, and she will elaborate in a few moments on the merits of a new research excellence fund.

Madam Chair, like all members of this committee, Canada's universities share ambitious world-leading aspirations for our country. As we welcome the class of 2017, investments in Canada's universities will help young Canadians fuel innovation and strengthen economic prosperity in communities right across the country.

Merci.

The Vice-Chair (Ms. Peggy Nash): Thank you very much, Mr. Davidson.

[*Translation*]

Mr. Lortie, you have the floor. You have five minutes.

Mr. Jean Lortie (Corporate Secretary, Confédération des syndicats nationaux): I would like to make three remarks concerning these pre-budget consultations.

Regarding innovation and research, there is a tool in Quebec that is known as the workers' funds. There are two. These workers' funds generate hundreds of thousands of jobs, particularly in venture capital sectors where there is a need for innovation, and where there is innovation thanks to this available venture capital.

Over the next few years, the federal government intends to gradually reduce the 15% tax credit that is granted to these workers' funds. This will cause considerable damage to venture capital generally, in Quebec in particular, because these two workers' funds invest and are on the front line where venture capital is most needed, that is to say in innovation in green technologies, and in information technology.

The fact is that the government thinks it will be recovering millions of dollars, but it will not be doing so. Indeed, for each tax dollar that is spent, it recovers $1.09 in direct or indirect jobs. There is thus a net gain for the federal state when it provides this 15% tax credit to Canadian and Quebec workers who invest in these workers' funds, either those of the CSN or the FTQ.

I want to take advantage of my opportunity to speak to the parliamentary committee to underline that fact. If we are to have research and innovation, there has to be a favourable environment for it. The Conservative government will certainly not be improving conditions for people by adopting anti-labour laws. These laws are going to affect 4.3 million unionized Canadian men and women, who make up the middle class in Canada. The Conservative government's plans will make these people vulnerable in the years to come. We are particularity concerned because the economic climate in Canada is going to deteriorate considerably and this will affect millions of consumers.

To continue on the topic of innovation and technology, the next federal budget includes large funding cuts for CBC/Radio-Canada. We consider that our public broadcaster has to be funded in order to be considered a national public network and not a private enterprise.

The Confédération des syndicats nationaux is particularly concerned; we represent more than 300,000 working men and women throughout Canada, among these, federal corrections workers, and the employees of CBC/Radio-Canada in Quebec and Atlantic Canada.

We wish to take advantage of this forum to reiterate that these workers' capital funds are essential to Canada's economic development, to research and innovation, as well as to support small and medium enterprises that are capital-poor. Bay Street does not lend to Main Street; that is the role of workers' funds. We want the federal government to reinstate the 15% tax credit for these workers' funds so that they can play their role fully, which is that of a fundamental agent of economic development.

● (1245)

The Vice-Chair (Ms. Peggy Nash): Thank you, Mr. Lortie.

[*English*]

Mr. Van Iterson, you have five minutes.

Mr. Andrew Van Iterson (Manager, Green Budget Coalition): Honourable committee members, thank you very much for inviting the Green Budget Coalition to speak to you today.

The Green Budget Coalition, as many of you would know, is a unique initiative that brings together 14 of Canada's leading environmental and conservation groups representing over 600,000 Canadians, ranging from Ducks Unlimited, the Nature Conservancy of Canada, to Nature Canada, and the crazy radicals at Greenpeace.

We exist to present an analysis of the most pressing issues regarding environmental sustainability in Canada and to make a consolidated annual set of recommendations to the federal government regarding strategic fiscal and budgetary opportunities.

Please note that we sent you a more detailed set of our recommendations back on October 8, 2013, and later this month we will send you a final set of recommendations.

We want to thank the government for its environmental progress in Budget 2013 and subsequent announcements, including reductions in subsidies to the mining industry, funding for nature conservation, the major infrastructure investments, and for committing a couple of times to enshrine the polluter-pay principle in legislation.

To build on this progress for Budget 2014 we have identified and developed three feature recommendations as well as 10 complementary recommendations.

Firstly, to build further on the government's progress in increasing tax neutrality and phasing out inefficient fossil fuel subsidies, the coalition recommends two targeted measures: enabling the Canadian exploration expense only for unsuccessful exploration, which is only about 10% of the wells that are drilled, and not renewing the mineral exploration tax credit for flowthrough shares.

These were both identified as subsidies for potential reform by the Deputy Minister of Finance in a March 2010 memorandum to the finance minister and could save the government about $340 million, helping to reduce the deficit further.

Secondly, we were pleased to see the government's throne speech recommit to implementing the national conservation plan, a unique opportunity to accelerate Canada's conservation achievements by our 150th anniversary in 2017. To be effective, Canada's national conservation plan should focus on completing the terrestrial and marine protected areas networks, ensuring sustainable management of working land and seascapes, maintaining or restoring healthy populations of species of wild plants and animals, and building a conservation ethic in Canada by better connecting Canadians with nature.

Thirdly, Canada's fresh waters are of national and regional importance and contribute extensively to the social, ecological, and economic wellbeing of our country. The Green Budget Coalition recommends the government set up a five-year Canadian water fund to build on past and current progress to address some of the gaps in these efforts by focusing on alleviating land-based runoff of pollutants and nutrients in areas specific to federal jurisdiction as well as actions specific to the Great Lakes and invasive species.

We also have further complementary recommendations in our document that were not in the brief addressing energy sustainability, climate action, and green infrastructure. I'd like to focus on three of those opportunities that relate specifically to today's theme.

Regarding energy storage and electricity storage, the coalition recommends amending classes 43.1 and 43.2 of the Income Tax Act to specify that capital cost allowances also apply to expenditures on tangible, stand-alone energy storage investments, and to create a 30% investment tax credit for emerging energy storage technologies. Both of these would help to drive renewable energy growth and help to make our energy systems more efficient across the country.

Further, to reduce diesel fuel dependency in northern and remote communities, we are recommending a strategic $10 million to $15 million fund be set up to provide feasibility staged funding in the range of half a million to $2.5 million per project—which is not easily available right now—to catalyze renewable energy, transmission interconnection, large-scale improvements in community energy demand, and major enhancements to promote enhanced home and building facility energy efficiency for off-grid communities.

These measures together would help make Canada achieve transformative progress towards environmental sustainability as well as creating numerous jobs across Canada in time for our 150th anniversary in 2017.

Thank you very much.

● (1250)

The Chair: Thank you very much for your presentation.

We will now hear from Mr. Gupta, please, from ITAC.

Mr. Karna Gupta (President and Chief Executive Officer, Information Technology Association of Canada): Thank you, Mr. Chair.

Thank you to the panellists for inviting us.

ITAC represents the ICT sector. In our case we represent over 325 companies across Canada, and 80% of our members are what you call small and medium-sized businesses.

With respect to the jobs, growth, and innovation, just to make a point we represent about one million jobs, direct and indirect, in the ICT sector. The growth in revenue was about $155 billion, growing at a 5% rate and outpacing the overall economy.

On innovation, I would underscore that the total private sector spending is about $4.8 billion and it is about five times the second-largest, which is the pharmaceutical.

I am very pleased to be here because the main priorities of ITAC are very much in line with this topic. One of them is driving the adoption of technology and productivity in the country. The second is driving innovation and competitiveness in the technology sector.

We did submit a pre-budget submission. We had several recommendations, but given today's discussion, I'll focus on the three that capture the area of tax, R and D, and finance.

The very first one is the venture capital action plan. ITAC was extremely pleased with the announcement that was made by the government on this area: leveraging a $400-million allocation and turning it to $1 billion by leveraging the private sector. However, the process of getting it in play has been very, very long, and companies in our sector are struggling.

The start-ups are in micro-electronics. These complex software areas are particularly challenged by this delay when you have other issues, like the removal of SR and ED. Our recommendation to the government on the venture capital action plan was that we needed to get this moving and engage the sector recipients in this case to not only design but also implement how it needs to be allocated across various sectors. So we are looking forward to further action in this area.

The second area I want to cover concerns indirect tax measures to support innovation. In the budgets of 2012 and 2013 the government began to remove the indirect tax credit, which was known as SR and ED, from research and development and made some announcements on direct measures.

Consultation is under way on the direct funding initiatives, and we expect these will be rolled out later in 2014. This delay is hurting the industry quite a bit, particularly on advanced manufacturing, where funding is required now.

We continue to believe that indirect measures like SR and ED are one of the best ways to continue to support the Canadian ICT sector, in large part due to the small businesses. This is a predictable source of funding to drive the innovation.

One thing I would note is that the ICT sector jobs are highly migratory. If we do not have the proper instruments in place, these high-paying jobs and the innovation we're seeing in the country may not be here for long.

So our recommendations, as submitted in the budget document, state that we do need to revisit the SR and ED, and in the meantime the government should continue to track the changes and what the impact has been. Our recommendation was to take the qualified pool balances from 15% to 17% or return capital expenditures for R and D.

Finally, we need to have the tools that clearly measure the impact of these programs to support the research and development.

The last item I will cover today is the adoption of innovative technology. One of the key ways to make Canada promote the innovation is to support the adoption and use of technology in business. This is fundamental to improve productivity. The Canadian companies continue to under-invest in technology. Canada's current rate for ICT investment per worker is only at 53% of the United States.

To address this, the Canadian government needs to be the champion in promoting the benefits of adopting technology.

There are also some specific initiatives to consider here. It can be difficult for small and medium-sized businesses to get started on technology projects when their main priority is just making a go of it.

There was a government program called DTAPP, a digital technology adoption pilot program, which is winding down. I believe we should reinstate that program in some fashion and call it the generation two of the program and engage the industry to not only design but also to implement that program in the field.

● (1255)

The adoption of innovative technologies is key to Canada's ability to grow and prosper, and we need to take some action now.

In closing, research and innovation is fundamental not only to the ICT companies' growth, but also for all sectors of the Canadian economy to fully benefit from the adoption of new technologies.

Thank you, and I look forward to your questions during the Q and A session.

The Chair: Thank you for your presentation.

We'll now hear from Ms. Cannon, please.

Dr. Elizabeth Cannon (Vice-Chair, President and Vice-Chancellor, University of Calgary, U15 - Group of Canadian Research Universities): Thank you, Mr. Chair.

As president of the University of Calgary and vice-chair of the U15 Group of Canadian Research Universities, I'd like to thank the committee for its invitation to participate in its pre-budget hearings.

The U15 is an association of 15 of Canada's top research-intensive universities, focused on advancing research and innovation at Canadian universities. From Dalhousie to UBC, we include institutions from coast to coast. U15 universities conduct $5.3 billion worth of research each year, $1.5 billion of which is privately funded. They account for 87% of all contracted private sector research in Canada and hold 80% of Canadian university patents and start-ups. They are home to 47% of Canadian university students and 71% of full-time doctoral students.

The talented and creative people who teach, learn, and conduct research at our universities are the foundation of our nation's research and development capacity. They inspire the innovations that offer enterprises crucial advantages, create new businesses, strengthen health outcomes, enhance security, and ultimately drive the social, economic, and cultural development of our country. The federal government understands and supports this, as demonstrated in the vision articulated in its white paper, *Mobilizing Science and Technology to Canada's Advantage*, and its commitment in last month's throne speech to "continue making targeted investments in science and innovation", as well as the ones in 2011 and before.

Even with the recent economic downturn, the government has worked to preserve the research base that is so integral to Canada's innovation ecosystem, continuing to make targeted investments in key programs. Yet despite these investments, Canada faces growing challenges as our international competitors, both advanced and emerging economies alike, seek to secure advantage by focusing resources and introducing programs that enhance the ability of their universities to compete among the global best for the most talented faculty and students, for the most important research projects, and the most prized and profitable partnerships. It is in this context of heightened international competition that we are proposing the Advantage Canada Research Excellence—or ACRE—fund.

ACRE will add to the strong foundation for research already established in Canada. It is based on measurable excellence as judged by rigorous peer review through the Tri-Councils. It builds strategically on existing programming, supporting the best of Canada's research talent, scholarship, and innovation.

The ACRE fund will support the global positioning of Canadian universities as preferred partners for the best international research universities. It will improve partnerships with industry to create research industry clusters, attract and retain the best talent from around the world, stimulate the rate of ground-breaking discoveries, and enhance our international competitiveness. The government has stated that its support of research excellence and innovation is a means of advancing our social and economic goals, domestically and abroad. We firmly agree.

Central to the ACRE proposal are the established principles of excellence and inclusion. All Canadian universities that meet this standard based on measurable excellence, as judged by independent peer review, and are currently employed as a hallmark approach that is the Tri-Council programs, will be eligible to be benefiting from the fund.

Success under the ACRE fund will also be measured on excellence. This includes universities' abilities to attract research funding from international public and private sources; increases in a number of international research partnerships; improvements in Canada's international standings; the attraction of new, highly qualified people; and improved knowledge translation and commercialization. Each university will be accountable through straightforward framework agreements with the government.

We propose that the government implement ACRE over multi-year timeframes, starting with an initial investment of $100 million of new money, gradually increasing over four years to $400 million annually, as fiscal capacity allows. Through previous investments, Canada has established a strong research foundation on which to build. We believe ACRE will be a game-changer for the country, and we fully support its focus on excellence.

Thank you for your time. I'd be happy to answer any questions.

● (1300)

The Chair: Thank you very much, Ms. Cannon.

We'll now hear from Mr. Aronshtam.

Mr. Natan Aronshtam (Global Managing Director, Research and Development and Government Incentives, Deloitte LLP): Thank you very much.

Thank you to the committee for inviting me. I will try to say a little bit about the global competitive landscape of what's happening and then focus on three recommendations, with time permitting.

In general we see Canada continuing to do well relative to the rest of the world. At the same time we are constantly looking at Canadian productivity and are seeing tremendous challenges in our competitiveness. Our view is that innovation is the tool that will help Canada improve our productivity, and we truly think that is the essence of how Canada will become globally competitive.

When we look at the global landscape we see many countries very actively and thoughtfully approaching.... As Mr. Gupta said very well, global R and D today is very competitive, and we think it's time for Canada to really think through a number of issues: balance of direct and indirect support models for business, refundability of tax incentives, patent boxes, small versus big business strategies, capital expenditures and how they are treated, as well as the links between academia and industry.

Just to give some data points—and these are very real and very recent—governments at just the state and local level in the U.S. are spending $80 billion annually in business support. In the EU over the next seven years the European Parliament has allocated $500 billion euros in business support. In that, there's a $70 billion euro program just to promote innovation.

There's a new special economic zone in China just announced a couple of weeks ago, and similarly just a couple of weeks ago Spain announced that they were making their new tax credit—the classic R and D tax credit—fully refundable.

We've seen in the U.K. both an R and D tax credit and the patent box, and in general we see patent boxes appear all across Europe and, by the way, Asia as well.

Just to list some of the European countries: the U.K.; Netherlands; Belgium; China—not European; France; Hungary; Ireland; Liechtenstein; Luxembourg; Spain; and Switzerland. That's just to give you a flavour of how common these are becoming.

We have seen that incentives in Canada have achieved tremendous results. We can use Ontario as an example with our digital media credit here. It has demonstrated that a government policy and focused incentives can achieve tremendous results, and we're seeing that these are a great tool to attract foreign investment. But we're also seeing a lot more activity in the rest of the world, and we are concerned about Canada falling behind.

Let me focus on three specific recommendations that we've made to the committee. The first one is to encourage foreign investment through full refundability of R and D tax credits.

The second one is spurring the start-up economy with improved financing support and then considering the introduction of the patent box model as is being done in other countries.

Our view is that only full refundability of SR and ED tax credits can achieve the kind of financial result that modern businesses look for, and it is a trend around the world.

I think that we've studied the tax consequences, especially to the U.S. companies, of our current non-refundable SR and ED system and we think that a solution of making it refundable will come a long way.

We clearly think that the B.C. angel tax credit has been a good test and has shown that it's a good way to promote innovation and get companies launched and moving in the right direction. We think that more of that kind of angel tax credit modelled on the B.C. tax credit would be a very good way to get these companies ready for venture capital when it flows.

On the patent box I've listed the countries that have already done this. Patent boxes are not complicated, but it is a way to make companies hold their IP in Canada in return for preferential tax treatment. We think around that IP you will see more innovation and more jobs.

● (1305)

The Chair: If we could ask you to wrap up just very briefly please, sir.

Mr. Natan Aronshtam: I am actually done, but I look forward to your questions and comments.

The Chair: Thank you very much for your presentation.

We will begin members' questions with Ms. Nash for five minutes, please.

Ms. Peggy Nash: Thank you all for your very interesting presentations.

We only have five minutes each for our questions.

Mr. Gupta, you spoke about venture capital and said that we need to take more action in that area. Can you give us a sense of the impact today in Canada of having insufficient access to venture capital? What is the impact on our economy?

Mr. Karna Gupta: Maybe I'll answer from two aspects. One is not having available structured funds. Most early-stage companies always have to go through family, friends, and then angels. It's a very difficult way to grow past the first stage. They continue to struggle and cannot scale.

I can name for you companies that are going through that. They are stuck, because scalability is an issue after some point in time. At the early stage, angel funding is good, and family and friends are good, but after, when you want to scale a company, you need structured financing. We just don't have sufficient venture funding taking place. This is stunting the growth of the sector at this stage.

Ms. Peggy Nash: Would you agree that we have a particular problem in Canada with growing small companies into medium-sized or large companies because of the lack of access to venture capital?

Mr. Karna Gupta: That is correct.

Ms. Peggy Nash: This would mean economic losses, job losses, as a result.

Mr. Karna Gupta: Absolutely. If we cannot build companies of scale, we cannot compete globally.

Ms. Peggy Nash: Would the government's intention to cancel the labour-sponsored venture funds exacerbate this particular problem?

Mr. Karna Gupta: I think it would. The impact is obviously there; you're right.

Ms. Peggy Nash: Thank you.

I have a very short time, but Mr. Van Iterson, your approach is very interesting. The whole green budget notion, I think, is very important.

I raised this question and didn't get time for an answer in the previous panel. We're in globally competitive markets, and part of our competition is around energy efficiency and our ability to invest in innovative new energy efficiency technologies. Is it your sense that Canada is keeping pace with the best countries in the OECD in energy efficiency and in our innovation around new and green technology?

Mr. Andrew Van Iterson: I don't think I can accurately assess where we stand compared with other countries, but I can certainly say that putting in new tax incentives for energy storage would be a critical step forward. Stronger energy storage would be a real tool to accelerate the growth of renewable energy and of energy systems as a whole. These are structures that we already have in place.

Ms. Peggy Nash: Let me also ask you a very concrete question. Mr. Gupta described the information and communications technology sector, and you would think that in a country of the size and scale of Canada geographically, we would be world leaders in ICT, as in transportation—and we had the aerospace industry here in the last panel.

I want to ask you about rail transportation. It's a very local question for my community. The Government of Ontario is putting in rail service from Union Station, the rail station, to the airport.

They are going to be running up to 400 trains per day to the airport, and they are investing in diesel technology. The community very strongly wants this rail service, but they want it to be electric.

Do you have an opinion on that?

● (1310)

Mr. Andrew Van Iterson: I think the cleaner electric service would certainly be a better way to go in all facets of growing your electricity—

Ms. Peggy Nash: It would be a little quieter too, and probably a lot more energy-efficient.

Mr. Andrew Van Iterson: Absolutely. I think one problem is that we don't yet have full pricing of pollution and energy impacts; that when governments and businesses are looking to make the right choices, the fiscal framework doesn't give them the right structure.

Ms. Peggy Nash: The World Health Organization has declared diesel a carcinogen, so maybe it is not the best investment for a highly dense urban area.

Mr. Andrew Van Iterson: Not at all.

Ms. Peggy Nash: Thank you.

The Chair: Thank you very much, Ms. Nash.

We'll go to Mr. Keddy, please.

Mr. Gerald Keddy: Thank you, Mr. Chairman. Welcome to our witnesses.

My first question will go to Mr. Davidson. Welcome to the committee.

You state, and I think everyone on both sides of the committee will agree, that Canada's universities are recognized as some of the top universities around the world. I don't think there's any question about that. You highlight that indirect costs of research are a barrier to maximizing Canada's potential.

Do you have specific recommendations on how the government can address this? And what impact would they have, first of all on students and second on the government?

Mr. Paul Davidson: This has been a longstanding issue before this committee and before Industry Canada. For many years, the AUCC has been speaking of the importance of getting the indirect cost program up to globally competitive levels. Globally competitive levels are somewhere between 40% and 50% of the direct cost of research, and the present average is about 21.6%, so there is quite a gap to close. That's why I say that the primary challenge is a question of funding.

In recognizing the challenges facing the government, Canada's universities have been working at alternative ways of addressing the problem. That is why the new excellence fund may be a way that is more appealing and more able to achieve a variety of public policy goals. But as we see our global competitors being funded at substantially higher levels for the indirect costs of research. It is a challenge.

With regard to the impact on students, I think it is fair to say that many universities need to cross-subsidize their research programs by taking money raised from students and directing it towards the research programs to meet those costs.

What are those costs? They arise from such things as improved ethics compliance, improved guidelines for the use and the storage of hazardous materials, and improved care for animals. These are real costs, and they are growing.

Mr. Gerald Keddy: Thank you. The big challenge, though, is still the 29% gap, without question.

Mr. Paul Davidson: Yes.

Mr. Gerald Keddy: This is for Elizabeth Cannon, with the U15 group.

You recommended that we provide predictable long-term support for Canada's research granting agencies. Everyone here agrees with the concept of supporting research and innovation; it is certainly a foundation for securing long-term prosperity. But can you expand on how Canadian businesses would benefit?

Dr. Elizabeth Cannon: Thank you very much.

Mr. Gerald Keddy: I mean not something that will come in five or 10 years' time, but that is of direct benefit.

Dr. Elizabeth Cannon: When there are investments in Canadian research, there are multiple outcomes. One that we talk about is commercialization, and depending on the research area, that could be medium- to long-term. But it should be recognized that the vast majority of research funding that is invested in our universities coast to coast supports graduate students.

We have seen an 80% growth in the number of graduate students over the last 10 years. We've also seen some of those funds support undergraduate students who are interested in research—summers in labs and that type of thing. It's those graduates who will have an immediate impact upon the Canadian economy. They bring their knowledge to business and help innovate and grow companies. We know that although we in Canada have had a tremendous growth in our graduate student cohort over the last 10 years, we are still lagging such countries as the U.K. and the United States in terms of the number, given our population, of our graduate students.

Higher investments mean more graduate students being able to become well trained and able to go out into the economy and build businesses.

Mr. Gerald Keddy: I think we're all in agreement on that as well. But if we look south of the border at the private funding that American universities are able to attract, we do not seem to have the same ability. Some of it might be due to economy of scale for the American economy and the population, but we don't seem to have that ability.

What is the biggest detriment getting in the way of attracting those private funds in Canada?

● (1315)

Dr. Elizabeth Cannon: Well, it is certainly an ecosystem that has to be created. Government has its role, and we have talked about significant and sustained funding through difficult times. We also look at ways of bringing industry to the table. As I mentioned, the numbers—$1.5 billion per year of private sector research happening at our U15 universities alone—are significant. But all of us are interested in elevating our ability to work with industry to form partnerships, so that we can solve some of their challenges and help them innovate through our graduates and through our technology and innovation.

In terms of what those gaps are, part of it is building the mechanisms to get industry and universities sitting across the table. Some of this was talked about by some of my colleagues here. Part of it is the realization that we have to put all of our capacities together, if we're really going to have the level of discovery, creativity, and innovation to increase productivity.

The Chair: Thank you very much, Mr. Keddy.

We'll go to Mr. Hsu, please, for your round.

Mr. Ted Hsu: Thank you, Mr. Chair.

My first question is for Mr. Gupta. You mentioned the idea of returning the eligibility of capital expenditures to SR and ED. It reminded me of the work I did in this committee a year ago opposing the removal of the eligibility of capital expenditures.

Here is my question for you. You talked about a time delay in moving from indirect credits to direct spending. How many dollars of investment have we lost because of the time taken to transfer? Do you have a number for that?

Mr. Karna Gupta: I don't think there is an exact number, but we know that the SR and ED changes that were made equalled about $300 million worth of funding being removed. If you take that and extrapolate it, particularly in a technology sector, it would be equal to somewhere between 1,800 and 2,000 jobs on a sum-sustaining basis. That is the relationship.

What we don't have is a countdown by corporation showing that these 10 companies, for instance, lost—

Mr. Ted Hsu: Sure, but I think you are saying as a rough estimate that around 2,000 jobs were lost because of this loss in investment.

Mr. Karna Gupta: Yes, or the equivalent of that: it is money being removed from the system. We're basically extracting funds out of the economy and haven't poured them back, so it has a direct impact on jobs.

Mr. Ted Hsu: That's good. I wanted to know the impact of that government policy.

Mr. Davidson, you asked for sustainable and predictable funding for the Tri-Council agencies. I'm wondering whether we should also have sustainable and predictable mandates and policies. I remember when the research tools and instrumentation fund was cut and then more or less brought back. That wasn't a result of a cut in funding so much as of the government's saying "we'll spend new money in this area, and you can't cut these other areas" and of NSERC's deciding that the only thing left to cut was the research tools and instrumentation program, which caused an enormous uproar in the research community, because it's such an important program.

Would you agree that we should perhaps have some predictable mandates and policies as well as funding levels?

Mr. Paul Davidson: I think there has been some very good work done at a number of levels over the last few years to look at Canada's research and innovation space. I think of the Jenkins report and of the Council of Canadian Academies report on Canada's place in the research ecosystem. What they talk about is a clarity of mandate and a clarity of purpose, and those are things we would support.

We have to acknowledge that the granting councils, like every other public agency, have really been under scrutiny to reduce their costs and deliver effective and efficient programs, and they come out at the top of their class in terms of the quality of their work and the efficiency of their administration. We have to acknowledge that the government has largely protected those investments. But given the number of faculty and the number of graduate students, now is the time to make significant, sustained investments at the rate of growth of the economy.

Mr. Ted Hsu: Thank you very much,

Ms. Cannon, regarding the ACRE proposal, what fraction of the funds you are asking for might go towards pushing the results of research excellence out into the commercial world? For example, how much of it might you want to invest in technology transfer offices?

I'm not talking about industry-academic partnerships in which industry says, " I have a problem. Can you please solve it?" I'm talking about something that happens, for example, in my own riding in a place called GreenCentre Canada, where there is a dedicated laboratory and scientists who actually look at research that comes out of universities and try to find a place for it in industy, taking advantage of industrial partners.

Is there a place for that in the ACRE proposal?

● (1320)

Dr. Elizabeth Cannon: The ACRE proposal has three key areas of deliverables. One is in global excellence, the second is in talent, and the third is in knowledge translation. It is in that third area that some of the funds would absolutely be used to help push technology and create the industry pull to get the ideas out to the marketplace. The concept, though, is that individual institutions would be able to determine how much of their funds would be dedicated within that scope. I think it would be significant, but it could vary between institutions.

So absolutely, getting technology out to the marketplace is a key deliverable of ACRE, in addition to creating the entrepreneurial culture within our students that is also critical.

Mr. Ted Hsu: How many seconds do I have?

The Acting Chair (Mr. Dave Van Kesteren): You have 15 seconds.

Mr. Ted Hsu: Well, regarding the application of the capital cost allowance to energy storage, how much would that benefit people simply storing energy for backup and how much would it really benefit peak saving or the storing of intermediate renewable energy?

The Acting Chair (Mr. Dave Van Kesteren): We're out of time. I'm sorry, because it's a good question. Maybe somebody else will pick it up.

Mr. Ted Hsu: I'm sorry. I didn't say it fast enough.

The Acting Chair (Mr. Dave Van Kesteren): Mr. Saxton.

Mr. Andrew Saxton: Thanks to our witnesses for being here today.

My first question is for Mr. Aronshtam from Deloitte. In your opening remarks and in your submission you suggest an angel tax credit to enhance financial support for businesses during their early stages.

Being from British Columbia, my home province, I am interested to know what your opinion is as to why the angel tax credit has been successful in British Columbia and how it works.

Mr. Natan Aronshtam: The angel tax credit is a 30% tax credit of up to $200,000 annually. It allows a very young company, which typically funds itself through friends and family, to find people who are more entrepreneurial and have access to funds and to leverage the funds for growth at a very young stage, typically well before an experienced venture capitalist would come in. That's the model.

In our view, the more young and exciting companies you can get into the economy that are well funded at that very young age, the more attractive businesses we will see in front of venture capitalists and then in front of the next tier of investors.

In our experience of watching it in B.C., we can learn a lot of lessons. I think it's a very good program.

Mr. Andrew Saxton: If we were to introduce something similar on a federal level, how would you tweak it for a federal program?

Mr. Natan Aronshtam: I would keep it very similar. I think the experience in B.C. is showing that this model, with that ratio of a 30% credit with a cap, works very well. I haven't analyzed the actual cap, as to whether $200,000 is the right amount if you take it federally, but I think it's that model, plus or minus a little bit.

Mr. Andrew Saxton: Thank you.

My next question is for Paul Davidson from the Association of Universities and Colleges of Canada.

Welcome, Paul. It's good to see you again.

In your submission to the finance committee, you recommend that the government provide predictable long-term support for Canada's research granting agencies. Can you explain or expand on how Canadian businesses would benefit from this proposed funding?

Mr. Paul Davidson: Absolutely. As I mentioned in my opening remarks, the discovery research that granting councils support is absolutely foundational to the whole Canadian research and innovation enterprise. Without discovery research, what is there to innovate? Where is there room to innovate?

Investments in the granting councils will help equip a new generation of graduate students, two-thirds of whom will end up in the private sector, participating in the economy and bringing their most recent skills and knowledge to the marketplace to help grow Canadian businesses.

Mr. Andrew Saxton: Thank you.

The other question, which was touched on earlier by my colleague Mr. Keddy, is this.

U.S. universities have been so successful at raising money from the private sector—huge foundations, billions of dollars. Why is it that we have had more difficulty?

I have to admit that in the last 10 years we've seen a lot more private contributions to universities than we had ever seen in the past, but how can we build on that? How can we create more private interest in supporting our universities?

● (1325)

Mr. Paul Davidson: There is a different philanthropic tradition in the United States and a different connection between alumni and their alma maters in the United States.

To give you a sense of scale, the endowment of one Ivy League U. S. institution is larger than the entire endowment of all Canadian universities. That's the kind of gap that there is between the two. It's a different political culture, a different culture of giving, a different ecosystem.

You heard from Imagine Canada yesterday about some of their recommendations. Those are ways of facilitating increased philanthropic giving to the universities. In terms of direct, private sector participation in universities, President Cannon referred to the one and a half billion dollars in private sector-funded research. That's a significant contribution to Canada's research enterprise.

Mr. Andrew Saxton: Thank you very much.

My next question is for Mr. Gupta, from the Information Technology Association of Canada.

Mr. Gupta, in your submission to the finance committee you called on the government to implement a venture capital action plan. Could you explain how, in your opinion, this action plan would roll out?

The Acting Chair (Mr. Dave Van Kesteren): You have 30 seconds, sir.

Mr. Karna Gupta: Right now the plan has leverage to grow to $1 billion, including some private-sector funding. That is very good news.

What we don't have is a sense of how it is going to be doled out by each of the sectors and regions; we're still waiting for that. The only way to make it work is to get the recipients engaged in design and implementation, rather than just the money managers. That's what we are asking for: to get the people who are going to use it to be part of the process of determining how best to allocate the funds.

The Acting Chair (Mr. Dave Van Kesteren): Thank you.

Sorry, Mr. Saxton, you're out of time, sir.

[*Translation*]

Mr. Caron, you have the floor.

Mr. Guy Caron: Thank you, Mr. Chair.

Mr. Gupta, I'm going to continue on the same topic of venture capital.

We are talking about $400 million. You are quite fortunate in that regard, since there are problems with venture capital in Canada, including in Ontario. However, the two workers' funds in Quebec, the Fondaction and the Fonds de solidarité, submitted a proposal to the Minister of Finance to attempt to convince him not to eliminate the tax credit for contributors. Indeed, venture capital derived from the general public is really rare.

The two workers' funds proposed that the number of shares issued be restricted so as to limit tax expenditures. In addition, $550 million would be invested in private funds in Quebec, and it would be possible to invest everywhere in Canada. In that way, $400 million from these two funds would be invested in private funds outside Quebec, including $120 million in the two national funds included in the Venture Capital Action Plan. Moreover, a sum of $1.05 billion would be invested directly in businesses, in addition to the money from those funds, over the 10 years of the federal action plan.

The Minister of Finance rejected the proposal. Canadian venture capital—we are about talking about Quebec, but also about other areas outside of Quebec as well—lost $200 million a year in investments. That represents $2 billion over a 10-year period.

Would you not have preferred to benefit from these $2 billion, rather than the $400 million proposed by the federal government?

[*English*]

Mr. Karna Gupta: I think it's a good question. In our submission when the announcement came out, we did go back to the proposal that's on the table from the Quebec government.

Directionally, it has the right approaches. Whether or not the ratios and the numbers exactly need to be replicated, that needs to be revisited. But directionally, it does have some of the elements that the ICT sector is welcoming.

[*Translation*]

Mr. Guy Caron: Thank you very much.

Mr. Lortie, could you comment on what I said? Was it accurate?

Mr. Jean Lortie: Absolutely. I would say that the workers' funds are effective. They allow Canadians and Quebeckers who contribute to them to have a pension fund aside from the Canada Pension Plan and the Quebec Pension Plan—or another, depending on the province—but chiefly, they allow small and medium businesses who want to grow to have access to venture capital. So it is not necessary to go and raid the pockets of mom and pop. These funds are structured. There are governance rules, and through them, we have managed to create or maintain hundreds of thousands of jobs in the technology sector, green technologies and innovation as a whole. These are very important areas in the Canadian economy. The funds do good work.

Unfortunately, the federal government refused the proposal from the workers' funds. That is really unfortunate, because we are going to have to recreate those funds elsewhere. We may have to start all over again rather than be able to use what had already been done successfully.

● (1330)

Mr. Guy Caron: The capitalization of the two funds is currently about $10 billion, is it not?

Mr. Jean Lortie: That's right.

Mr. Guy Caron: Can you confirm that thanks to the initiative of the funds, Quebec is now third overall among all OECD members—after Israel and the United States—as to the percentage of GDP allocated to venture capital?

Mr. Jean Lortie: I don't have that particular piece of information, but I think I saw that recently. I can confirm it.

Mr. Guy Caron: Can you confirm that Canada's Venture Capital and Private Equity Association is opposed to the elimination of the tax credit?

Mr. Jean Lortie: Yes.

Mr. Guy Caron: Thank you very much.

Mr. Gupta, you mentioned the insufficient level of venture capital funding, particularly in Ontario, where you work. There used to be a tax credit for workers' funds that invested in venture capital, but it was abolished in 2005.

How much time do I have left, Mr. Chair?

[*English*]

The Acting Chair (Mr. Dave Van Kesteren): You have one minute.

[*Translation*]

Mr. Guy Caron: Since 2005, funds available for venture capital in Ontario have been dropping precipitously. They currently represent 36% of Canadian venture capital as a whole. In Quebec, where the GDP is much lower than Ontario's, the percentage is also about 36% of the overall Canadian amount.

You confirmed to the committee the crucial importance of workers' funds that invest in private funds, and the fact that they are essential for organizations and businesses, particularly the ones you represent, who want to have access to this venture capital.

[*English*]

The Acting Chair (Mr. Dave Van Kesteren): You can take about 15 seconds, Mr. Gupta.

Mr. Karna Gupta: Okay.

I think we agree with that, because we even asked the Ontario government, in our submission, to revisit exactly what's going on in the Quebec market on the venture side.

The Acting Chair (Mr. Dave Van Kesteren): Thank you, sir.

Mr. Adler.

Mr. Mark Adler: Thank you, Chair.

I'd like to begin my questioning with Mr. Aronshtam. You're looking quite lonely in Toronto there.

Could you talk about how successful the angel tax credit in British Columbia has been in creating new businesses?

Mr. Natan Aronshtam: There are many examples that have been published in B.C. as far as how that's progressed, but there was a recent study done of that credit that showed that for every dollar in tax credits, $2.91 in federal and provincial consumption and income taxes came back. From that point of view it showed that it's quite successful, but there are numerous case studies where young companies were able to evolve and grow through finding the right angels. I don't have any names with me today.

Mr. Mark Adler: Okay, but your general assessment is that it's been fairly successful in B.C.

Have any similar experiments been tried in other jurisdictions, to your knowledge, that have met with similar success?

Mr. Natan Aronshtam: There have not been, to my knowledge, in Canada, no.

Mr. Mark Adler: In terms of our personal tax regime, how does that compare to other countries?

Mr. Natan Aronshtam: It's not really my area of expertise, but in general our personal income tax rates are relatively high compared to many other OECD countries', as I'm sure many of you know.

Mr. Mark Adler: Our corporate tax is considered to be very low, which is a strong incentive for attracting investment. Wouldn't you say that?

Mr. Natan Aronshtam: In my view, there is no correlation between, let's say, a 15% federal tax rate combined with a provincial rate that gets you to about 25%, 26%, as being an investment-attraction vehicle. I don't think there is evidence to support that.

Mr. Mark Adler: You're saying there's no evidence to support that a 15% federal corporate tax rate has been successful. Is that what you're saying?

Mr. Natan Aronshtam: [*Inaudible—Editor*]

Mr. Mark Adler: That's interesting.

I have a couple of questions for Mr. Lortie.

The Conservative Party just had its convention last weekend in Calgary. I didn't see you; I hope you had a good time. You declared that the union's goal is to defeat the Conservative Party in 2015, and you denounced a number of resolutions passed, from defunding the CBC to public pension reforms and the perceived suppression of aboriginal and Quebec cultures.

Could we talk about some of the resolutions that have been passed at CSN conventions, such as supporting the boycott of, divestment from, and sanctions against Israel and about claiming that Israel is committing human rights violations and is an apartheid state? Could you tell me how that further advances the interests of workers as members of the CSN?

● (1335)

Mr. Jean Lortie: Absolutely, sir. I was in Calgary last weekend with my federal correctional officer and I saw what happened at the convention. There was a union-bashing process there, with more than 15 resolutions voted on and debated on the floor—

Mr. Mark Adler: I'm asking about your resolutions.

Mr. Jean Lortie: I will answer about my resolutions, also.

CSN is a very politically active organization and it has been so since 1921, when it was founded. Even a former Liberal federal member, Jean Marchand, said that unions have the right and the obligation to do political activism for the benefits of its members, but also for the general population, because we're not just working in plants—

Mr. Mark Adler: How does criticism of the only democratic state in the Middle East advance the interests of your workers?

Mr. Jean Lortie: Historically, we have been critical of human rights violations—

Mr. Mark Adler: You're not answering my question.

Mr. Jean Lortie: Oh, I am answering your question—

Mr. Mark Adler: No, you're not.

Mr. Jean Lortie: Oh, yes, I am. Israel has had massive human rights violations in Palestine against the Palestinians, and we've been denouncing them for decades. That is a historical statement from our organization, and I will sustain that.

Mr. Mark Adler: And you stand by that?

Mr. Jean Lortie: Absolutely, sir.

It's been voted on by our convention and members.

Mr. Mark Adler: That I know.

I was just curious whether you stand by that or not.

Mr. Jean Lortie: We do.

Mr. Mark Adler: Clearly you do. Interesting.

The Acting Chair (Mr. Dave Van Kesteren): You have 15 seconds, Mr. Adler.

Mr. Mark Adler: Okay. I'm fine then. That's good for me.

The Acting Chair (Mr. Dave Van Kesteren): Next up is Monsieur Côté.

[*Translation*]

Mr. Raymond Côté: Thank you very much, Mr. Chair.

I would like to remind my colleague Mr. Adler that in the 1950s, President Eisenhower's Republican government was very proud to see the number of unionized workers increase by 2 million in the United States. However, as they say, things have changed a great deal since then.

We welcome a lot of very interesting witnesses. I am somewhat frustrated to have only five minutes to put questions to them. I am going to address my questions to Ms. Cannon and Mr. Davidson, and they will be on research in the academic sector.

I had the great privilege of meeting a person I consider a heroic figure in Canadian research, Mr. Louis Fortier, who founded ArcticNet. Mr. Fortier, it must be said, has no problem speaking his mind. He told me, as a point of interest, that the network of relationships in the university research environment, and even outside of it, is a great source of pride for Canada. It is one of the things that people sat up and took notice of throughout the world. However, when it comes to financial support, our performance is weak.

What do you think of what Mr. Fortier said to me?

[*English*]

Dr. Elizabeth Cannon: I think we have seen the Government of Canada, consistently over many governments, invest in research and development in this country. That's acknowledged and certainly appreciated. That has helped Canada attract talent to our country and to develop innovative students who graduate to drive our economy and society.

What we are saying is that for Canada to be able to position itself on the world stage and compete with other countries that are investing significant funds, we must continue to have those investments of research funding.

For example, France has recently announced it's putting 7.7 billion euro into an excellence fund, there's 2.7 billion euro in Germany, and $1.67 billion in Australia. Then emerging countries like China and India are also investing significantly in their universities to gain prominence on the world stage. Although the ecosystem in Canada has been strong, if we look to the future we have to ensure that those investments are not only continued but also accelerated.

● (1340)

[*Translation*]

Mr. Raymond Côté: Thank you.

Mr. Davidson, could you make a brief comment, so as to allow me to ask another question?

Mr. Paul Davidson: Briefly, I would like to add this.

[*English*]

ArcticNet is an outstanding example of international research collaboration, where Canada is playing a leadership role.

It's the kind of work where there's a global appetite for Canada to do more of.

If I can borrow a phrase from the Prime Minister, he speaks about how we can go further and faster. We are in a globally competitive world, and it's no longer good enough to be just a little better than the next country. We have to up our game.

[*Translation*]

Mr. Raymond Côté: Thank you very much.

Mr. Aronshtam, Mr. Albert de Luca, your colleague from Deloitte Canada—I know that it is a very big firm—made some comments on the government's plan to inject $400 million in venture capital to offset the decrease in the workers' fund tax credit. In fact, speaking about workers' funds, he said this: “We are told that these things are interrelated. But if I have to choose between a program that has proven its worth and another that has not, I will choose the former.”

The American venture capital expert, Stephen Hurwitz, underscored the fact that in the Canadian context, workers' funds are fundamental.

Do you have any comments to make on that?

[*English*]

The Acting Chair (Mr. Dave Van Kesteren): You have one minute please, sir.

Mr. Natan Aronshtam: Let me apologize. I'm really not an expert in labour sponsored funds.

I do a fair bit of work with venture investors all over the world. My experience in that area is that they are critical to a successful start-up economy, and I do think that historically in Canada we've always observed a significant shortage of venture funds.

My view, not backed up by research, but just looking at what's happening in the rest of the world, is that $400 million is not a lot. Even multiplying that to $1 billion is still not a lot for a country of our size.

I think it is important for the government to look at how we increase the amount of venture capital in Canada, but I can't really comment on labour sponsored funds. It's not something I practise.

The Acting Chair (Mr. Dave Van Kesteren): Thank you, sir.

It's the chair's turn to have a round.

I'm going to go to Mr. Van Iterson.

Can you pronounce your name for me?

Mr. Andrew Van Iterson: It's “I-terson”.

The Acting Chair (Mr. Dave Van Kesteren): It's a good Dutch name.

Mr. Andrew Van Iterson: Absolutely.

The Acting Chair (Mr. Dave Van Kesteren): I should have known how to pronounce it, then, I guess.

Voices: Oh, oh!

The Acting Chair (Mr. Dave Van Kesteren): I don't think there are too many people who would disagree with a greener world; I think we all want it.

You mentioned something about batteries. I'm going to tell you that this intrigues me. Where I live in southwestern Ontario, we don't have any trees, because it's great farmland and they cut them all down. But we have windmills—wind turbines, we like to call them. We have a forest of wind turbines, and they're all pushing....

The trouble is, as you probably know, that they turn when the wind is blowing, and oftentimes that's not when we need the power. As a matter of fact, we don't need the power, so we sell it more cheaply and we have to buy.... So there's a problem.

Batteries? Listen, I believe batteries represent an answer, but here's the problem that comes to mind. I know that when we got really excited about solar energy—I think we still look at the possibilities—we pumped billions of dollars into it. As a matter of fact, I think President Obama put a billion dollars into a company, and a year later they went broke. Why did they go broke? It's because the Chinese made them, and the Chinese make them a whole lot cheaper.

The same thing is true with wind turbines. I've been to those Chinese plants, and I've seen them crank those machines out. It's an awesome sight; it's a scary sight. We can't compete with them.

Let's say that we start to invest the money that you're suggesting we invest in batteries. Have you any idea of how we could keep the jobs here? Please don't tell me that it's because we have trade agreements. They can still bring them here, if they pay the tariffs. They do that and still clean our clocks.

How do we compete with the emerging economies in producing that stuff once we develop the technology?

Mr. Andrew Van Iterson: This sounds more like industrial tax policy.

● (1345)

The Acting Chair (Mr. Dave Van Kesteren): It's not tax policy; it's a problem. It's a fundamental problem that we have in the economy.

Mr. Andrew Van Iterson: I certainly see the problem. I think there are a lot of brilliant people in Canada, and if we can bring in the kind of tax policies that will help drive the emergence of those technologies, it will certainly put us in a lot better place to compete and to make better use of renewable energy across the country.

Also, I think that a comprehensive program would realize that a good energy system will use renewable energy but also fossil fuels, to some extent, and so the tax.... When class 43.1 and class 43.2 are amended, it should be done in a broad enough way that fossil fuel energy and even co-energy costs would be stored as part of that system.

The Acting Chair (Mr. Dave Van Kesteren): I'm not saying this to be critical. I guess what I'm saying is that if you approach the government—and I think you guys do a wonderful job and have come up with some great ideas—it's always helpful to have something in place such that you say, "Here, if we do this...." And I don't think you have that yet. I suggest that maybe, if you went back to the drawing board....

This is something that I think we all struggle with, with governments.

I'm going to go to Mr. Lortie, because we left with such a sour note. I'm a bridge builder. I don't want the folks at home thinking that there's no love here at the table. But there has been a little bit of antagonism towards the Conservative government from your group.

This is a simple question. Our government has—Mr. Davidson will tell you this—spent an enormous amount of money on research. Let's face it: Quebec, as well as the rest of Canada.... I have 300,000 workers—whom you represent—in highly skilled professions, who benefit enormously from this. I'm thinking in terms not only of wages.

Do you support those actions? I'm trying to find some good common ground here so that we all come to the same table. Do you support those actions of the government?

Mr. Jean Lortie: What I would support is a government that supports a strong middle class, working in a good economy in which productivity is high, with highly trained skilled workers and a social environment that provides good working conditions for people: the right to organize, the right to negotiate, and the right to strike or use whatever means are necessary to obtain gains, which was recognized by the Charter of Rights and Freedoms. That is, for me, a good government. If your government does that, I'll acknowledge it as a good government.

The Acting Chair (Mr. Dave Van Kesteren): Good. I can't argue with that.

I have a few seconds and I want to be fair to everybody.

Would you support the lower taxes, especially for the middle classes, which you mentioned. Would you support the government's actions on lower taxes for the middle class?

Mr. Jean Lortie: I am middle class, and taxes are good. Taxes allow us to have good schools and good universities, hospitals, roads. It is taxes that do that, and I'm in favour of that.

The Acting Chair (Mr. Dave Van Kesteren): I think we're starting on the right path.

Some hon. members: Oh, oh!

The Acting Chair (Mr. Dave Van Kesteren): Mr. Rankin, you're up.

Mr. Murray Rankin: Is it my turn? Thank you, Chair.

Welcome to all of our guests. I have a very short time and I want to start with Mr. Van Iterson of the Green Budget Coalition. First, I want to commend you and the 16 prominent environmental and conservation groups that you represent for a very constructive contribution to this process. Thank you.

I want to focus on a couple of your recommendations. The first involves reference to the natural areas conservation plan. You referred to it with respect to the Speech from the Throne. Yesterday —or the day before, I guess—the environment commissioner, an independent officer of Parliament, said that there was a serious problem with biodiversity and species at risk. He said, for example, that there's a more than ten-year backlog of species at risk recovery plans.

Now, you recommend a science-based framework for conservation action, and you say that "Federal investment in completing well-managed networks of marine and terrestrial parks and protected areas" and conservation of "working land and seascapes" is something you would get behind and promote.

What about the natural areas conservation program of the government? Is it working? What is your take on that program to date?

Mr. Andrew Van Iterson: Thank you for the question. I'll clarify for everyone. There is the national conservation plan that the government has committed to in two Speeches from the Throne, which would be a comprehensive conservation effort. And there is a natural areas conservation program, which you mentioned, that this government has financed and that the Nature Conservancy of Canada has played the lead role in implementing.

My impression is that it has been a really successful program. It could be a really key component of a successful national conservation plan. I think they have protected more than 3600 square kilometres of ecologically significant lands and waters across the country and have also found matching funds from private and other investors across the country, so that any investment in that program is really creating double the value.

● (1350)

Mr. Murray Rankin: In another area of your report, you have a recommendation on what you call "hidden liabilities in the Arctic offshore and nuclear power".

I understand from material I've looked at that environmental liabilities have grown by $4.7 billion since the Conservatives took power in 2006, an increase of a staggering 80%. The government says that it's going to make polluters pay, but increasingly it has left taxpayers on the hook.

So how can the government best ensure that taxpayers aren't on the hook for such pollution? What steps should we take to do so?

Mr. Andrew Van Iterson: That's another great question.

We appreciate the commitment in the throne speech to enshrine the polluter-pay principle. There have been announcements from the government over the last few months, and we'd like to see new legislation on nuclear power and on Arctic offshore to ensure that operators of nuclear power plants and oil and natural gas drillers are fully responsible and fully liable for any accidents that take place and would have to put up a sufficient amount of money so that the taxpayer is protected and that they actually can cover accident costs. If they are liable but there isn't a protection fund set up, they can go bankrupt, and we're stuck in the same place.

Mr. Murray Rankin: And the taxpayer is left holding the bag.

Mr. Andrew Van Iterson: Exactly.

Mr. Murray Rankin: The other area that I thought was interesting is your recommendations on protecting Canada's fresh water. You may know that the NDP has tabled a motion in the environment committee for the study of a national water strategy. What would such a study look like? What are the economic benefits of protecting fresh water, in your view?

Mr. Andrew Van Iterson: That's a great question.

Fresh water is one of those areas that have benefits right across the spectrum. It is critical for our health, critical for providing clean drinking water for Canadians or for anyone who lives near fresh water, which is most of us. It's fundamental for recreational opportunities for people who like to go to the beach in the summer and swim and sail. It makes us a lot healthier and it also creates for many of us, probably on both sides of the table here, fishing opportunities.

Mr. Murray Rankin: So what would you do in the budget to address that and improve our clean water for Canadians? What would you recommend?

Mr. Andrew Van Iterson: We have four recommendations: $60 million a year for alleviating land-based runoff of pollutants and nutrients in areas specific to federal jurisdictions involving a number of regionally important freshwater lakes; $25 million to expand and improve upon what the government is doing on aquatic invasive species; a similar amount for the Great Lakes water quality protocol; and about $5 million a year for the Great Lakes-St. Lawrence River adaptive management plan.

Mr. Murray Rankin: Thank you very much.

The Chair: Thank you, Mr. Rankin.

I want to apologize to our guests, as I had to get our budget approved for this current study at another committee. Thankfully it was approved, so we will actually be able to fund this.

Some hon. members: Oh, oh!

The Chair: I want to thank you very much for all of your presentations. I have a number of questions. I will try to get through them all.

Mr. Davidson, I've heard about indirect costs since being here in 2001, on the industry committee at the time. They have been a challenge.

Part of the reason they have been a challenge is that this is probably the least sexy part of research funding. You have the granting councils; you have the Canada research chairs, which fund people; you have CFI, which funds facilities; we had during the stimulus time the knowledge infrastructure program, which funds facilities.

It's very exciting to open a facility and very exciting to fund a researcher and talk about the work a researcher is doing. Indirect costs are the stuff that has to be funded, but even the phrase “indirect costs” is sometimes somewhat perplexing to people.

Can you speak to why it is so essential that we fund indirect costs at a level commensurate with funding people and facilities?

Mr. Paul Davidson: Thank you for the question.

Yes, we have been around the mulberry bush on this several times. I would agree that the name of the program and the description of the program are difficult to explain and articulate to parents and families across the country and say why it's important.

It is critically important because these are real costs that are large and growing. They're the unmet costs, the costs that aren't funded by the federal or provincial granting agencies, the tuition costs or other costs in the university budget. They're the real costs, such as caring for animals or making sure that research ethics are done, or driving the translation of knowledge into the commercial space and engaging in international research. These are real costs, which are large and growing. When we look at how other countries address those issues, we see that they choose to fund them at a substantially higher level.

So we welcome the reference in Budget 2013 to having a look at this question. We're looking carefully with the industry department and others to see whether that provides the best vehicle to move forward or whether an excellence fund might be a way of addressing public policy issues and contributing to Canada's competiveness.

● (1355)

The Chair: I appreciate that very much.

My second question, for Ms. Cannon, is really the teleological question of why—why you are putting forward your proposal. That's the first big question.

The second one is why 15? Why not 5? Why not 30? Why have you and other presidents decided on 15 as the number of institutions that should be put forward? Then, to answer the basic teleological question, why should the government invest in this?

Dr. Elizabeth Cannon: Maybe I'll start with the second question, why 15. We are here as the U15 to talk about the ACRE fund as a new opportunity for Canada. But to be clear, this is fully supported by the AUCC, which is inclusive of the 97 universities in this country. So ACRE has the full support of the AUCC membership as well.

This program actually presents a tremendous opportunity for Canada. I think, as we have heard thePrime Minister say, this is Canada's moment. It's about shining on the international stage; it's about being bold and positioning ourselves as we head toward our sesquicentennial.

This program is about excellence—excellence in the way the funding is allocated—and it's inclusive. If you have Tri-Council funding, you are able to access the funds through the ACRE opportunity. It is also built on excellence in terms of deliverables. Understanding that as government you're looking for payback if you're investing money, what are you going to get? Three areas: global excellence, talent, and knowledge translation....

This program is very complementary to other programs that the government has launched. It provides institutional flexibility, because each institution can determine how they use the funds in those three areas. At the University of Calgary, we're very strong on unconventional oil and gas; we're looking at increasing research opportunities in that area. That would be a natural home for part of those funds from our side. In other parts of the country, other institutions would use those funds differently.

It's flexible, it's built on excellence, and it helps build Canada's brand internationally.

The Chair: Okay. I appreciate that very much as well.

I want to go to Mr. Gupta. Concerning your adoption and use of technology, it may interest you to know that this committee is at the forefront in moving Parliament. We're the first to put our submissions online. We're doing a paperless project with all of our iPads starting this year. We're in fact trying to do what you're suggesting.

I have just a very quick question about the adoption and use of technology. You talk about the private sector, but there is the public sector as well. Do you do work with Canada Health Infoway on the adoption of technology particularly in the area of health care?

Mr. Karna Gupta: Yes, we do. In fact, over the last couple of days we did sign a MOU with Canada Health Infoway to start looking at certification of health software across the country, just because we have 14 jurisdictions and every jurisdiction's needs are different. We're trying to find a way to simplify and standardize those so the throughput for R and D and costs could go down. We do work with Canada Health Infoway.

The Chair: And you're trying to transition it more where it's more the patient in terms of accessing and using the technology? Right now, I think a lot of the physicians and institutions are, but fewer patients are.

Mr. Karna Gupta: It will impact both the patient side and the clinician side, because informatics covers the whole domain at this stage, so patient care will definitely get improved. If you have a better technology implemented in hospitals, the wait times obviously will go down.

It is a big issue for our country, the amount of money that we spend on the health sector, and every jurisdiction is slightly different from a vendor's point of view. Everything is custom, so nothing could be scaled and nothing could be exported. We're trying to simplify those things to increase the throughput.

The Chair: My last topic is a big topic, and I don't think I'll have much time to get into it with you and Mr. Aronshtam, but I've been to the San Francisco area in the last two years in the fall, and this year I was at Google and Twitter. I see that in your R and D tax incentives ranking, the U.S. isn't even on the list anywhere, and yet you could arguably say that an area like Mountain View, California is perhaps the most innovative region on the planet. Shouldn't we be studying more of what they're doing at companies like that and regions like that?

I would like to—and I think some of my colleagues probably raised this earlier—have a little more focus on what the private sector can do to drive innovation. We do hear a lot about what the government ought to do in terms of venture capital funds, tax credits, and other measures, but the private sector has to step up as well in those areas.

● (1400)

Mr. Natan Aronshtam: Well, there's no question that the private sector has to step up. In my view, actually, the private sector does a lot of R and D. I think the challenge is how we keep it in Canada. Even the companies you named, they do R and D all over the world. They don't just do it in the Valley. I think the real question for me is, how do we make sure it happens in Canada?

I do think a lot of governments today compete with very generous incentives for the really attractive R and D. I think that's where Canada also needs to understand what our policy and strategy will be. It's fun to visit Silicon Valley, but they are part of a very large global machine, and it's just one area. Amazing R and D happens in every corner of the world today.

The Chair: I have a response to that, but I'm out of time and our session is up. Hopefully we'll continue that discussion another time.

I want to thank all of our guest witnesses for being here and responding to our questions.

Colleagues, thanks to all of you for your time.

The meeting is adjourned.