



HOUSE OF COMMONS  
CHAMBRE DES COMMUNES  
CANADA

# **Standing Committee on Human Resources, Skills and Social Development and the Status of Persons with Disabilities**

---

HUMA • NUMBER 030 • 1st SESSION • 41st PARLIAMENT

---

**EVIDENCE**

**Monday, March 26, 2012**

—  
**Chair**

**Mr. Ed Komarnicki**



## Standing Committee on Human Resources, Skills and Social Development and the Status of Persons with Disabilities

Monday, March 26, 2012

• (1530)

[English]

**The Chair (Mr. Ed Komarnicki (Souris—Moose Mountain, CPC)):** We'll call the meeting to order and continue with our study of fixing the skills gap, addressing existing labour shortages in high demand occupations, and also addressing barriers to filling low-skilled jobs.

We have with us today, Robert Henderson, an executive director with BioTalent Canada; and Grant Trump, president and chief executive officer of Environmental Careers Organization of Canada.

Gentlemen, I understand each of you will present, and then we will have rounds of questioning by each of the parties.

With that, whoever will be the first to start—I guess it will be Mr. Henderson—go ahead and make your presentation.

**Mr. Robert Henderson (Executive Director, BioTalent Canada):** Good afternoon, ladies and gentlemen.

BioTalent Canada is pleased to be included in your discussion here today.

We're addressing an issue that is very pertinent to the biotech sector, or the bio-economy as we like to call it, which includes industries that stretch from health, medicine, and pharmaceutical manufacturing, to agriculture, medical device, nanotechnology, and even food processing.

While the bio-economy is growing rapidly in areas like agrifood and sustainable development technology, the huge pharmaceutical industry remains a massive contributor to the Canadian economy but is facing huge economic challenges.

Nonetheless, recent estimates conclude that the bio-economy contributes no less than \$86.5 billion, or 7%, to the total of Canada's gross domestic product.

BioTalent Canada is a national not-for-profit sector council currently funded primarily by HRSDC and led by a volunteer board of industry leaders. We provide skills development and human resource information and tools for job seekers and employers in the bio-economy.

Like many industry verticals, labour market research has shown that Canada's bio-economy companies continue to need skilled, job-ready people. Due to the vastness of the sector, the skills that are in

demand range from the highly specialized to those used in lower-skilled jobs.

Through commissioning our own research, we have conducted the only national studies in Canada that are exclusive to human resource issues in biotechnology. In our most recent labour market surveys, we learned that more than 80% of biotech companies in Canada are small to medium enterprises, which means that most of their time is spent innovating, and there is often no dedicated human resources department. Research also indicated that 34.4% of the companies were currently facing skills shortages, and 32.5% had active vacant positions to fill.

In turn, BioTalent Canada identified potential talent pools, including persons with disabilities, aboriginals, internationally educated professionals, new graduates, and retired and retiring workers. While dealing with labour gaps directly affecting persons with disabilities is not BioTalent Canada's specific mandate, of those companies surveyed, research indicated that only 21.9% have hired persons with disabilities. In other words, persons with disabilities is a labour pool whose full potential is not currently being realized in Canada's bio-economy.

BioTalent Canada has developed tools and techniques to bridge the skills gaps identified by those labour market surveys. Our 2009 study, "Generating opportunity", showed a need in the biomanufacturing sector that was specific to skills gaps in positions that required less training.

The problem was two-fold. First, it was found that industry could not find people with the skills they require, and secondly, skills from potential candidates were not recognized as being relevant to the biotech field. Our solution to this was the successful launch of our biomanufacturing skills transfer program, which kicked off in February 2012.

We found that the area we referred to as biomanufacturing—that is, manufacturing related to biomedical devices, agricultural biotech, bioenergy, food processing, nutraceuticals, and pharmaceuticals—lacked skilled workers. In the companies surveyed, 30% of the biomanufacturing positions were vacant. Also, in the recent downturn, we knew there was an available labour pool of unemployed and displaced traditional manufacturing workers in southwestern Ontario region, particularly Kitchener and Waterloo.

Our biomanufacturing program identifies, recognizes, and matches traditional manufacturing skills with the desired biomanufacturing skills. BioTalent Canada then helps these workers connect with industry. Our goal is to transfer 100 unemployed manufacturing workers into jobs in biomanufacturing by the end of 2012.

What has worked best for us is to try to look at skills gaps with a pragmatic approach. For the biomanufacturing skills gap, for example, we took an entirely new approach and looked at areas of the economy where economic conditions resulted in a glut of certain skills—in this case, manufacturing. Then we mapped the deficiencies necessary for those workers to transition into the bio-economy—in this case, biomanufacturing. This skills recognition is a unique approach to addressing competency gaps and a departure from the credential recognition commonly applied in other industries.

From a governmental perspective, with federal funding being cut from all sector councils in 2013, the federal government has effectively put the responsibility for sector skills assessment and corrections squarely in the hands of private industry. While we're working toward the transition, it is quite possible that there will be no national organization like BioTalent Canada to act as the skill-set watchdog for the national bio-economy. There's a real risk that there will be no national vision on sector skills in the future, and no watchdog to ensure Canada's approach remains consistent and competitive with the skills approaches implemented in other countries in the international sector.

This abrogation of sector skills responsibility could pose a real risk to Canada's continued competitiveness for internationally educated immigrants, and for investment in human capital to drive the robust Canadian bio-economy.

• (1535)

Thank you.

**The Chair:** Thank you, Mr. Henderson.

Mr. Trump, go ahead.

**Mr. Grant Trump (President and Chief Executive Officer, Environmental Careers Organization of Canada):** Thank you very much.

It's my pleasure to be here to represent ECO Canada, Canada's sector council for the environment industry. We are an industry-initiated, industry-led, not-for-profit Canadian corporation with a mandate to ensure an adequate supply of people with the appropriate skills and knowledge to meet the environmental human resource needs of the public and private sectors. We believe in forming partnerships, identifying labour market issues, and then coming up with labour market solutions.

We've been in existence since 1992 and are one of the oldest sector councils in existence. We develop recruitment and retention programs for individuals and employers as well as for government—federal, provincial, municipal, and aboriginal—and educational institutions, in order to ensure that the environment sector will reach its full employment and economic potential. We have published over 50 labour market intelligence reports, and those reports are used all over Canada and are considered to be the source of environmental human resource information in Canada and in

some cases worldwide. We currently have over 178,000 members in our organization, and we are very well known and respected.

You should be aware that environmental employment is a significant employer in Canada. Over two million Canadians have environmental employment to some degree. That's 12% of the workforce. Some 682,000 work in environmental employment more than 50% of the time, and that's 4% of the Canadian workforce. Over 318,000 organizations employ one or more environmental professionals. That is 17% of all organizations in Canada. We are the thread that pulls a variety of organizations together. We're in urban and rural areas, including Canada's north. With respect to employment rates prior to the economic downturn, environmental employment was growing at a 60% faster rate than employment in the general Canadian economy. Even after 2008, we are growing at average rates of 7% annually, compared with 1.5% for the Canadian economy. We're involved heavily in the STEM process—science, technology, engineering, and mathematics—and about 37% of our individuals are from that area. About 40% of our employers hired during the economic downturn, but a full one-third of them said they have difficulty finding people with the appropriate skills and knowledge.

The environment sector is going through an evolution. It's moving towards what we're referring to as the green economy, and we have to be ready for that expansion. Some 37% of all individuals in the environment sector have a university or college diploma, implying that 63% do not. We have applicability with highly skilled professionals as well as lower-skilled people. The Canadian Wind Energy Association, CanWEA, estimates that 70% of all jobs in their industry will require entry-level workers, such as skilled trades and labourers. This will also be critical in building construction, renewable energy, environmental remediation, recycling, and green manufacturing. We certainly do cover the entire gamut.

We believe in national occupational standards documenting what people do in functional areas of employment. We believe in building a common language and logic, which we currently do not have, with respect to the green economy and environmental jobs. We're working on that in partnership with a variety of other organizations.

One-third of all environmental workers today are over the age of 45. About 4% of environmental workers are already beyond retirement age. Some 14% of environmental workers will reach retirement age in the next 10 years, creating 100,000 vacancies. We have predicted that this year there will be 40,000 new environmental jobs in Canada. How are we going to fill those jobs? We're going to fill them with youth, transitioning workers, immigration, and aboriginal people. Of those individuals, 30,000 to 35,000 will come from the current post-secondary educational institutions. However, a good number are going to have to come from a variety of other activities. ECO Canada has built solutions. Those solutions are based on attracting young people to environmental careers and making them aware of the environmental activities that are going to lead the future. They are our leaders of the future. We have a green high school program that has, in one year, been in contact with over 42,000 students and teachers.

• (1540)

We also have a Canadian Environmental Accreditation Commission. We are actually accrediting universities and colleges across Canada, and we're the only organization in Canada to actually accredit university undergraduate and postgraduate programs. We have a Canadian Centre for Environmental Education that offers full-blown baccalaureate and master's degrees, 100% online, with no residency requirements. We are Canada's largest aboriginal trainer as well, and currently we have 466 aboriginal people working on contaminated sites cleanup in northern Canada in combination with the federal contaminated sites action plan.

We believe that the environment and the economy go hand in hand, and according to the University of Massachusetts, clean energy investments compared to fossil fuel create 2.6 times more jobs for people with college and university degrees, 3 times more jobs for people with some college, and 3.6 times more jobs for people with high school. We are going to work in partnership with a variety of organizations as we move forward. We believe that ECO Canada is an agent of change, and we will be ensuring that we're able to meet our employment and economic potential.

Thank you.

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

You had mentioned immigration. Did you have a comment to make about how you thought it might be utilized or better utilized?

**Mr. Grant Trump:** Immigration is certainly a project in which we're very keenly interested. We have created partnerships with several provinces across the country. We're actually offering an immigrant bridging process in partnership with local immigrant-serving organizations, where we offer a 180-hour classroom process to tell new immigrants about the ethical conducts of work, and to give them the ability to work within Canada. This is not language requirement or technical. We're assuming they're coming in with that.

We have an immigration portal on which we have some 120 occupational profiles, as well as a variety of other tools that immigrants can use in combination with our ECO Canada job board. We are Canada's largest electronic job board. We post approximately 120 new jobs every month on that site.

**The Chair:** Thank you.

We'll start with Ms. Crowder.

**Ms. Jean Crowder (Nanaimo—Cowichan, NDP):** Thank you very much for coming before the committee today.

Mr. Henderson, you mentioned the impact of cuts to the funding for sectoral councils. Mr. Henderson and Mr. Trump, are both of your organizations going to be affected by funding cuts to sectoral councils?

• (1545)

**Mr. Robert Henderson:** Yes.

**Mr. Grant Trump:** Yes. We will be affected by that, but ECO Canada perhaps will not be affected as much as some other councils, as we do have alternate revenue sources from services that we provide within the private sector.

**Mr. Robert Henderson:** I will say that BioTalent Canada is not quite as advanced in terms of our other revenue sources, though the good news of the cuts is that at least 18 months was given, so that we could make some transition to see if the organization can make a fundamental shift to a different funding structure.

**Ms. Jean Crowder:** My understanding from your presentations and other material is that both of your organizations do things like provide labour market information, and I want to refer to a Conference Board of Canada report called "Skills and Productivity Action Plan for Canada". In terms of increasing the supply of skilled workers, one of their key recommendations for government, communities, unions, partners, and parents is make labour market information more accessible. It seems to me that in terms of planning for the future, one of the most critical pieces of information needs to be around labour market information.

Mr. Henderson, could you comment on that specifically? Then I'll go to Mr. Trump.

**Mr. Robert Henderson:** Oh, I totally agree. I think the sector councils' main *raison d'être* were to provide Canada, and the federal government, with accurate and timely labour market information run by organizations of industry experts. My fear is for those sector councils—not just from the biotech sector, though obviously that's the one I'm concerned with—that will not be able to make the transition.

It will be the industry associations for those certain sectoral industries. They'll be very hard pressed to be able to take up the load, and I think that's going to be very difficult for them in a lot of ways.

**Ms. Jean Crowder:** And my understanding is that the sector councils not only pull together employers, but they also pull together labour representatives and other organizations that have an interest, and I think that's a really important piece. It's a way to facilitate those partnerships that can take that broader view. Is that correct?

**Mr. Grant Trump:** It absolutely is, and I believe that there are three main audiences for this labour market intelligence, or labour market information. One is, of course, that individuals who are potentially coming into the field, or those who are already there, can find out the changes that are going on with respect to where the jobs are, and how the competencies are changing.

The second audience is governments—federal, provincial, municipal, and aboriginal—who are going to make investments in policy on activities related to employment.

Thirdly, there is the academic community itself. The academic community, as most of you know, has a very long lag time, typically six to eight years before they can develop new programming. To keep pace in this fast-changing society—where change is the rule, not the exception—it's absolutely critical that they have the best labour market intelligence in order to be able to develop new programming in a timely fashion.

**Ms. Jean Crowder:** May I have your comments, Mr. Henderson?

**Mr. Robert Henderson:** If I could add to that as well, I absolutely agree with you, Grant.

Also, along with that, in coupling with another government agenda, is the immigrant-serving agencies and immigrants who are coming in, as this is going to become a more and more competitive field for Canada. Having proper and correctly conducted labour market information is not only going to be important to serve that agenda, but also to maintain Canada's international competitiveness in terms of the way other organizations examine their own sector skills. There has to be a concerted and consistent approach to this across many verticals.

**Ms. Jean Crowder:** I have time, Mr. Chair?

**The Chair:** You have another minute.

**Ms. Jean Crowder:** Thank you.

I just have a comment about the labour market information. If we don't get this right, we're going to be making investments in programs, services, and policies that simply won't.... We've already seen substantial skill mismatches out there between what people are getting their training and education for, and what jobs are available.

Mr. Henderson, you raised a very interesting point around the skills transfer, where available workers no longer have work in their particular fields, or maybe a surplus of workers. What kind of money is available to assist or help with the skills transfer?

**Mr. Robert Henderson:** Currently, our bioskills recognition program is funded by the foreign credential recognition program of the department of HRSDC. There are moneys there that we have been tapping into.

**Ms. Jean Crowder:** You said foreign credential recognition program, but what about the manufacturing workers in southwestern Ontario? They won't be eligible for foreign credential recognition.

**Mr. Robert Henderson:** No, absolutely.

In those skills, that was actually through the sector council program. While our core funding is being cut, there are still project funds that we've been told are going to be maintained by the sector council program for LMIs, occupational standards, etc. For a

program like this, we don't know because the new program hasn't been rolled out yet.

This program that we are currently conducting in 2012 is under an existing grant from the sector council program. Those are the moneys of what used to be a \$70 million sector council program, which is now being effectively reduced to, I believe, \$40 million. Grant?

• (1550)

**Mr. Grant Trump:** \$25 million.

**Mr. Robert Henderson:** \$25 million. It's a moving target. It's between \$25 million and \$40 million for the coming years.

**Ms. Jean Crowder:** One of the consistent criticisms that we've heard is a lack of long-term ongoing sustainable funding. I don't know how you plan without it.

**The Chair:** Thank you, your time is up.

We will move down to Mr. Daniel.

**Mr. Joe Daniel (Don Valley East, CPC):** Thank you very much, Mr. Chair. Thank you, gentlemen, for being here. I appreciate your time.

I have a couple of things. I'm not very familiar with the biotech industry at all. I'm just wondering if you could just explain some of the typical jobs that are there in the biotech industry that seem to be burgeoning at the moment.

**Mr. Robert Henderson:** Depending on what you're talking about, as I explained, about 80% of the biotechnology companies currently in Canada are SMEs. We define that as small and medium enterprises of less than 50 employees. A lot of these companies are facing two challenges.

Number one is that they were typically started by a scientist who may not necessarily have the business acumen to attract capital investment and who is wearing a multitude of hats.

Number two is that they are companies that typically have a research and development cycle that is very long and not very politically sustainable. I use that term to mean that it doesn't get political awards within a political mandate of four years. A lot of the time, though, they are a sector that can reap long-term rewards a great deal for a country. Within a short-term mandate, it's very difficult to get anything tangible out the door within three or four years.

The challenges they are facing right now are capital investment and being able to sustain. They are burning up capital as fast as it is coming in the door.

**Mr. Joe Daniel:** Can you highlight any specific skills within your sector that are currently experiencing shortages, or shortages that you are expecting in the future?

**Mr. Robert Henderson:** Certainly. In terms of the specific skills, right now we are certainly looking at it in biomanufacturing. That is essentially a horizontal across many, many verticals, from agricultural and agrifood, etc. About 30% of biomanufacturers right now are looking for skills to fill those jobs. That's certainly one that our labour market information of 2009 indicated.

**Mr. Joe Daniel:** Be a little bit more specific. What is the skill that is missing?

**Mr. Robert Henderson:** The difference between the manufacturing—

**Mr. Joe Daniel:** Let me just finish.

Also, with respect to some of your bridging programs, are they actually being done at some of the colleges and schools that will actually allow these people to get the bridging education needed for this technology?

**Mr. Robert Henderson:** Currently, to answer your first question, the specific skills that are lacking between manufacturing and biomanufacturing are essentially a set of skills called “good manufacturing practices”, which is a labour standard that is set by the industry itself that exceeds that which is right now employed by the Food and Drug Administration in the United States and the agrifood industry here in Canada.

Our program currently allows unemployed and underemployed manufacturers to up those skills by taking a good manufacturing practices skills check, and have it verified by an actual professional in the biotechnology field. That's a program that we've instituted through a grant from the Government of Canada, and is currently operating.

**Mr. Joe Daniel:** It specifically uses things like cleanliness and the use of special tools, etc., that are not available in general manufacturing. Is that what you're talking about?

**Mr. Robert Henderson:** That's correct. They are operational standards that exceed the current government regulations for biomanufacturing. These are for anything that's dealing with food products or products that are invasive to the human body.

**Mr. Joe Daniel:** You talked in general terms about all the percentages, but how many jobs are we going to be short next year, or the year after, or five or ten years from now?

**Mr. Robert Henderson:** I would love to give you a general statement on that, but because the bio-economy is so vast—from the large pharma to nanotechnology and everything else—right now it's all over the map. There is going to be a deficiency in pharmaceuticals and pharmacology because of the clip it's going at. But there is going to be great growth in fields like nanotechnology; agrifood, which is booming right now; and sustainable development technology, as Grant has already expanded upon.

**Mr. Joe Daniel:** Okay.

How much time do I have left?

**The Chair:** You have one minute.

**Mr. Joe Daniel:** Sorry that I took all of the time with you, Mr. Henderson.

**Mr. Robert Henderson:** Sorry. I'll try to be brief next time.

**Mr. Joe Daniel:** On the eco-side, you've talked about lots of skills, etc., that are needed. What are the biggest areas of the skill gap that we're facing?

**Mr. Grant Trump:** We're seeing skill gaps in renewable energy and energy efficiency areas because they are, again, expanding; as well as around retrofitting and construction.

• (1555)

**Mr. Joe Daniel:** Could you be a bit more specific? What does that mean?

**Mr. Grant Trump:** When we're talking about measurement, for example, we're talking about renewable energy and energy efficiency—measuring pollutants that are being emitted, greenhouse gas measurements, carbon measurements, carbon loadings, carbon inventories.

ECO Canada, through our certification program, is the only organization—I won't be able to say this very often—in the world right now that is ISO-accredited to certify greenhouse gas verifiers and quantifiers. That process has been in existence for about a year now. The vast majority of our applicants are from outside Canada, because there is no regulatory regime within Canada that's pushing people in that area.

We're also seeing huge gaps with respect to technical people not having managerial skills, not having communication skills, because they're coming from science, engineering, and technology backgrounds.

We have a whole list of national occupational standards, which are all electronic, that individuals can measure their competencies against, and then be directed toward training to fill those competencies.

**Mr. Joe Daniel:** ISO 14000, I believe, is the ISO standard that's internationally recognized for the environment. Are you involved in any upgrades modifying that because that's been around for quite a while now?

**Mr. Grant Trump:** Yes, ECO Canada is Canada's national certifier for ISO 14000 environmental management systems auditor, so we are the only organization in Canada that accredits or certifies those particular auditors.

**Mr. Joe Daniel:** Thank you very much.

Thank you, Chair.

**The Chair:** Thank you.

Ms. Hughes.

**Mrs. Carol Hughes (Algoma—Manitoulin—Kapusking, NDP):** Thank you.

Hi, and I apologize for my voice. It was quite an exciting weekend for us, as you know.

I want to go back to the fact that you said your budget is being cut. We're hearing that there are shortages out there, yet when we look at a document that was prepared for us, based on HRSDC's Canadian occupational projection system, I find it sometimes contradicts itself. In some places it says that most of the places are balanced right now, and if there is a shortage by 2020, there will be a surplus in some of these jobs. A lot of it is in the sciences field.

I'm concerned because if we're looking at the need to fill positions, the need for employment—and we have people out there who are looking for employment—and your budget is being cut, I'm trying to figure out what impact that will have with respect to being able to entice people to take courses or upgrading or anything like that to be able to move forward.

**Mr. Grant Trump:** If I may, I honestly believe that within the environmental sector we do not have common language and logic. So when you're comparing some of the other numbers, we're not necessarily using the same NOC or NAICS codes to collect that data.

Our data has been accepted by Stats Canada as being more reliable because it deals specifically with functional jobs, and NAICS and NOC have not kept up with that.

I believe, as well, that you're right. Professional development change is the rule, not the exception, in our area, and keeping pace is going to be absolutely critical.

Our labour market intelligence indicated that people wanted to have online programming. They wanted distance delivery so they could do it online, because they work in remote areas, and so on. We created a partnership with 25 universities and colleges across Canada and we now offer, as I mentioned, a diploma, a baccalaureate degree, and a master's degree, 100% online, with no residency requirement. We currently have 1,000 students taking 2,500 courses, and 15% of those students are foreign students, which means that in their home country they get a parchment from a recognized Canadian university before they get here. The remaining 85% are professional development.

**Mrs. Carol Hughes:** I'm going to let my colleague ask a quick question before I go back to the questioning.

**Ms. Jean Crowder:** Around the issue of online access to programs, the OECD issued a report that showed that Canada has slipped to 13th out of 34 member countries in its percentage of people with access to high-speed Internet, and that we've been steadily slipping in the past 10 years. What we're hearing fairly consistently is that the way to go is online programming, especially for rural and remote areas where people can't come, and yet high-speed access is a huge problem for many of these areas.

What has been your experience with that?

•(1600)

**Mr. Grant Trump:** It is. We find that specifically in rural, remote areas there are issues.

When we're talking about Canada's north and other areas, there is difficulty—

**Ms. Jean Crowder:** Sorry, I have to go on. I live on Vancouver Island, one hour north of Victoria. Significant parts of my riding are on dial-up. It's not just rural and remote.

**Mr. Grant Trump:** It is an issue, when you're talking about technical data and trying to get people involved in that area, especially if Canada wants to be a leader and offer these programs internationally in order to attract people to come to Canada based upon our educational system.

**Mr. Robert Henderson:** Certainly both allegorical and empirical research have indicated that more people use social media in order to find out what jobs are out there and add up their skills.

So as more businesses—and even small businesses trying to preserve resources—are shifting everything to an online search system, I believe this problem, if it continues, is only going to grow. There is going to be that much more of a disparity.

**Mrs. Carol Hughes:** There are so many questions now that I want to ask—at first, I wasn't sure.

**Mr. Grant Trump:** I can answer. Pick one.

**Mrs. Carol Hughes:** I have 45 seconds.

Basically, I'm wondering if you could tell me what you consider low-skilled employment versus unwillingness to pay decent wages to workers. Can you just briefly talk to me about the low-skilled workers out there?

I'm just wondering because there's a shortage of low-skilled workers, but there's also the fact that there are employers out there who are not paying a good wage, and that's why people aren't vacillating to some of those jobs. I'm just wondering if you could speak to that.

**Mr. Grant Trump:** I think one of the parts of that as well is that our organization looks at a very large difference between a labour shortage and a skills shortage. We don't believe that presently we have a labour shortage; we believe we have a skills shortage. As a result, employers will pay less to individuals who don't have those skills, because they're going to pay them to acquire those skills while they're on the job.

I would anticipate that relatively quickly those salaries should move up as the individual demonstrates that they have those specific competencies.

**The Chair:** Thank you, your time is up.

Mr. Trump, I just have a side question from that.

You mentioned that you're tied in with about 25 universities. One question I have is this. If you're able to do some online programming in your various occupations, would you feel that could apply to others?

Secondly, have you done some quality assessments in terms of those coming through the online system versus those who are hands-on in the classroom, or maybe at a particular training institute?

**Mr. Grant Trump:** Our partners in this whole process are some of the larger universities in Canada, as well as several universities from the United States.

It's only begun; we've only been in existence for three years. Our first master's student started last year, so we haven't graduated any of those as of yet, but it's interesting to note that in the second intake, we had double the number of qualified applicants as we had in the first year.

Certainly, within the industry, the talk on the street was that this is a great program, and let's get involved.

With respect to how we are going to work with the other universities, the universities that are involved as our partners here, they just simply offer their courses up, we accredit those courses, and then they become part of our activity. We use some of that money to identify where the curriculum gaps are and to develop new curriculum to fill those gaps.

It's a self-propagating process because we are indeed a not-for-profit Canadian corporation.

**The Chair:** I have a quick question.



Are you going to have some quality measurements or assessments later?

**Mr. Grant Trump:** Absolutely, we will, because the graduates of the program receive university parchment, actually, from Royal Roads University, which is where our centre is physically located.

**The Chair:** All right.

Mr. McColeman, sorry about that. Go ahead.

**Mr. Phil McColeman (Brant, CPC):** Actually, Chair, that was a good segue into where I was wanting to head with better understanding the post-secondary connection here.

When you say 25 universities, could you name a couple of those universities that you're associated with?

**Mr. Grant Trump:** There are the University of Toronto, the University of Waterloo, and the University of Calgary.

**Mr. Phil McColeman:** If I were a person enrolling in the courses online, would I pay a tuition similar to what I would pay to enrol in the university?

**Mr. Grant Trump:** You would pay the exact same tuition the university would charge for that course online. There is no additional charge to go through this degree.

**Mr. Phil McColeman:** You mentioned an institution right at the end of your comments. What was the name of it?

**Mr. Grant Trump:** It was Royal Roads University.

**Mr. Phil McColeman:** Where is that?

**Mr. Grant Trump:** It's in Victoria and Sidney, B.C.

•(1605)

**Mr. Phil McColeman:** Mr. Henderson, when did BIOTECanada begin?

**Mr. Robert Henderson:** Did you say BIOTECanada?

**Mr. Phil McColeman:** I meant BioTalent Canada. Sorry.

**Mr. Robert Henderson:** They're two different organizations. BIOTECanada is the member industry association for biotechnology. BioTalent Canada was founded in 1997 as a sector council program.

**Mr. Phil McColeman:** Was it founded with anything other than government funding?

**Mr. Robert Henderson:** At that time, as far as I know, no.

**Mr. Phil McColeman:** It was government funded. It was set up as a sectoral council body for the purpose of gathering information, and keeping the government informed as to what was needed in the industry.

**Mr. Robert Henderson:** Certainly in terms of monetizing a lot of its products and services, there was much more going on from 1997 to 2001. Then they shifted the other way. Specifically for the people we were trying to approach, which were students and unemployed or underemployed people, the cost for service, obviously, was a barrier. We felt that the more accessible those products and services would be to them, the more we would fulfill our mandate.

**Mr. Phil McColeman:** Since that time, from 1997 to today, have you had any other sources of funding, other than government funding?

**Mr. Robert Henderson:** Yes, through both our job board and some of our products and services, we have a cost-per-use recovery method.

**Mr. Phil McColeman:** You have a revenue line for services rendered and payments received for those services rendered.

**Mr. Robert Henderson:** That is correct.

**Mr. Phil McColeman:** What's your connection to actual industry?

**Mr. Robert Henderson:** BioTalent Canada, as it was actually founded, was a breakaway from BIOTECanada, as you mentioned. It was a subcommittee, and then it became an autonomous organization. Our board of directors and our bylaws mandate that we have 15 to 18 industry people, people who are actively in the industry and are plugged into the biotech industry, which is where—

**Mr. Phil McColeman:** Ultimately, they are the beneficiaries of your work.

**Mr. Robert Henderson:** They may be indirectly, perhaps, but not directly.

**Mr. Phil McColeman:** Who's the direct beneficiary?

**Mr. Robert Henderson:** The direct beneficiary of our work is the unemployed job seeker who's seeking a job in biotech in Canada.

**Mr. Phil McColeman:** Okay. They benefit because of the information you prepare for them.

**Mr. Robert Henderson:** That's correct. We present two things. Number one is the path of least resistance towards a biotech job. We also do a great deal of branding for biotech as an alternative career path. Immigrants and some Canadians who are not able to be credentialled or licensed in their chosen professions often don't realize that biotechnology can be a very lucrative and productive alternative career path.

**Mr. Phil McColeman:** I'm trying to get my head around this. Maybe either of you gentlemen can help me. I come from an industry. We had an industry association, whose members are the actual players. The players themselves put the money in without any government funding to provide those services you just talked about.

This model is quite a bit different. It is the government coming in and saying that we're going to provide all these resources to the industry.

You're nodding as though you understand these two vastly different models—one government funded and one non-government funded but which the industry is actually paying for as a conglomerate, as a group. In your experience, having seen this, is one better than the other?

**Mr. Robert Henderson:** I think for the biotech model, you have a disparity. You have the 20% that are the really super-big companies, such as the pharmaceuticals, which require a great deal of regulatory lobbying and a great deal of advocacy on their part. That's a great deal of what the member associations do for them.

The smaller ones, which are the vast 80% of the biotechnology industry, the member associations don't serve particularly well, because they're very much into the top 20%. The bottom 80% are the ones that require the HR direction to manage the skills gaps. They're the ones that benefit directly and are the most numerous. They're also the ones that drive the bio-economy. They're the ones that produce the drugs the bigger companies buy. They're the companies the other companies partner with to advance their R and D.

Which model works? Right now I would say, unquestionably.... Should BioTalent Canada have been more plugged into the industry associations at the top end? Absolutely. I think we're realizing that it was short-sighted on behalf of our particular organization.

**Mr. Phil McColeman:** What you're suggesting in that comment is that there's room for alternative sources of funding for your group through the industry.

**Mr. Robert Henderson:** Absolutely. We're currently investigating them now and I certainly didn't want to state that there was absolutely no way that BioTalent Canada or other sector councils could find the funding. However, more specifically, in terms of how each of these verticals is going to pursue filling in of those skills gaps within the verticals, the fact that we are no longer bound by a fundamental mandate or have any encouragement to actually work together, other than hopefully resource-sharing and operational efficiencies, I believe, may be a problem for the government and for Canada in terms of its approach to international sector skills.

• (1610)

**The Chair:** Thank you, Mr. McColeman. Your time is up.

We'll move to Mr. Cuzner.

**Mr. Rodger Cuzner (Cape Breton—Canso, Lib.):** Great. Thanks very much. I appreciate the clarification of the roles that Mr. McColeman sourced out there.

You had indicated that sectoral funding is going to come to an end. You said, they gave me 18 months to work toward it, and I don't know if that's any consolation to somebody on death row. But could you share with us just how that's going to manifest in the short period. You've indicated that you're out there tracking down additional revenue sources. What is the amount of your revenue stream right now and what are the impacts this will have in the short term?

**Mr. Robert Henderson:** Currently we have a two-arm approach in terms of the way that we operate. We certainly had a core fund through the sector council program, which is no longer going to be existing, but in terms of our labour market information studies and all of our products and tools that we produce, we do that through project funding through different branches of the government. Sometimes it's the sector councils. Sometimes it's FCRP. Grant has much more diversified sources in terms of project revenue, as we suspected.

In terms of our operations, a lot of those have not been put on hold. We have to continue them. But we have to ensure that there's going to be an organization that continues to be able to do those types of projects, or if it is apparent that there isn't, we have to make sure that there's a soft landing for the intellectual property that is currently being developed, so that any organization, such as the industry associations that we talked about earlier, would be able to

take up that mantle. Currently, we're not at that stage, but that's what we're working toward—to make sure that this doesn't happen.

I want to get back to the other question, though. I just wanted to state as well that I think it is fundamental to the sector councils that those who are not plugged in to the industry and to the member associations and everything else will not survive, and I'm not sure that's necessarily a bad thing.

**Mr. Grant Trump:** If I can answer, I think some of the beneficiaries of this are not just industry. In the environment sector, we help governments develop good public policy through a variety of activities that we do. We help universities and colleges develop curriculum. We help provincial governments with school systems, and we accredit environmental high schools, for example, across this country. So we really do get in to assist the public. We help the potential employees and the new labour force coming in through immigration, aboriginal programs, and a variety of others, as well as employers. They do benefit from us. There's absolutely no doubt about it. And the public benefits from what we do with respect to environment as well, because it ensures there are people who are competent to do that particular work.

Our organization is a little bit different, as we began in 1992 and we were self-sufficient in 1995. Then we did get whacked, and we do receive, in order to develop these public policy issues, some infrastructure funding. But we believe that this is a partnership and industry will participate.

**Mr. Rodger Cuzner:** The industry, as Mr. Henderson said, has about 20% of the major players, but then they have a lot of smaller, mid-size start-ups. Would that—

**Mr. Grant Trump:** It's exactly the same for us.

**Mr. Rodger Cuzner:** Okay. I just want to shift gears here while I still have time.

Both of your groups, would you rely fairly substantively on HRSDC's COPS, the Canadian Occupational Projection System? Do you use that in your work going forward? You do?

Could you comment on that, because reading through the briefing notes I found that they provide the information, but it's from 36,000 feet, where they don't break down the types of engineers—mechanical engineers versus electrical engineers. It seems to be a big chunk of information that doesn't really give you a whole lot of detail, and then it's not broken down by region.

Can that information be provided in a better format?

**Mr. Robert Henderson:** For the biotech sector, essentially the bio-economy of the biotech sector is arranged in five clusters, which are regional clusters across Canada. So I would say if you asked me when I talked—

**Mr. Rodger Cuzner:** Are you able to glean the information? You're not. Okay.

**Mr. Robert Henderson:** No, and that is the single biggest issue because not only are they in five different clusters, they're often across different verticals. For example, in Saskatchewan, the cluster there is very heavily agrifood, agrifood-based biotech, and in Vancouver, for example, in southern B.C., it's very much smaller start-up research and development pharmaceuticals. It's very different.

So not only are there regional disparities, but obviously there are disparities along the different skills, along the different verticals within the bio-economy.

So to answer your question, yes, regional is one of the biggest issues that we face.

• (1615)

**Mr. Grant Trump:** Environmental employment is cross-sectoral and multidisciplinary. As a result, we employ individuals from a huge number of science, engineering, technology, humanities, and social sciences—from environmental lawyers and environmental physicians, all the way to environmental scientists and engineers. Therefore, to capture that data is exceedingly difficult, and COPS cannot do that. As a result we've created our own language in terms of functional areas of employment, and that is where people work—do they work in air, land, water? We look at those multidisciplinary skills.

To get that data regionally—let alone provincially—and to have statistical significance at the 95% confidence level would be very difficult because of relatively small populations in certain areas. Also, we are so dependent upon regulatory framework that if there is a new project coming out—whether it be a natural resource extraction project, a pipeline, those sorts of things—there's immediately a whole variety of environmental considerations and there's a huge amount of work tied to them. The ongoing activity after that is probably fairly small, so you may employ hundreds of people initially, and then only a few to do the ongoing environmental monitoring.

Canada has two things to deal with environmentally. One is our past sins—contaminated sites—and cleaning up those contaminated sites through the federal program FCSAP, the federal contaminated sites action plan, a \$3.5 billion project of the Government of Canada, and Superfund in the U.S. The other is where we're going to go with respect to new energy efficiency and new environmental activities. While those old sins are not going to go away—it's going to take us a while to clean those up—we have to plan for the future to look at what those new activities are, and it's going to be an entirely new language.

**The Chair:** Thank you, Mr. Trump.

Your time is up, Mr. Cuzner.

Who's next?

Go ahead.

**Ms. Kellie Leitch (Simcoe—Grey, CPC):** Thank you very much for presenting today. We really appreciate it.

There's one thing, from the standpoint of correcting the record, on a comment you made, Mr. Trump. In my previous life I was an academic at two universities—the University of Toronto and the

University of Western Ontario—and I recognize that people outside those environments may think it takes six to eight years to implement programs, but frequently we can implement them as soon as we see a need, usually within nine months. So I think the academic environment can be responsive when provided the right information by the individuals they work with.

This is specifically for you, Mr. Henderson, at BioTalent. You mentioned a bit about the skill shortages. Could you be very specific on what the skill shortages are, in very specific terms—in the engineering field, it would be a mechanical engineer, not just an engineer—and also region by region? There are, at least from my experience of being on the Genome Canada board and my experience with the National Research Council, substantive differences, and it would be helpful for us to have that sense on a regional basis of what the differences are.

If you have the information, that's great. If you don't, if you could provide it to us at another time, I'd appreciate it.

**Mr. Robert Henderson:** The bad news is that I don't have that information for you right now, or I should say, I could have it in some form, but it's outdated. It's four years old. The good news is that we're currently conducting a new labour market study, a scoping one, in Canada, across all of the levels and all of the regions you were talking about. So we will have more of that data by the end of this year, but not in any kind of timeframe that might be useful to the committee.

**Ms. Kellie Leitch:** All right, then maybe I'll ask a different question.

With respect to the programs that you provide for specific skills, and those skills that you've identified are short, you say you're working on old data, but you specifically said earlier that you were working on specific items now, so there must be some data that you have to provide you that direction. What are the programs?

**Mr. Robert Henderson:** Are you saying the programs that we're currently running?

**Ms. Kellie Leitch:** And how many students do you affect in each one of those programs?

**Mr. Robert Henderson:** Do you mean students, or job seekers? There's a big difference.

**Ms. Kellie Leitch:** Preferably both, because I would hope those students enter into the jobs that you would be providing within your field.

**Mr. Robert Henderson:** Yes, indeed. Currently, because we're not able to take them into the employment standards and because of the fact that we have to link the two—we have to both get the job seekers to use our online tools, and then have the employers register to hire them on that—it's very difficult to track. The point is, they come and get, for example, bio-ready labelled and take the GMP skills check for biomanufacturing, or they continue to take our language course if they're an immigrant or an internationally educated professional, and then they go on to get a job.

So it's impossible for us to track, unless that employer has done so within our portal.

•(1620)

**Ms. Kellie Leitch:** What are your numbers like?

**Mr. Robert Henderson:** Our numbers are exceptional. For example, for our GMP skills check we had over 27,000 downloads last year.

**Ms. Kellie Leitch:** Do you know how many of those individuals are employed in that field now?

**Mr. Robert Henderson:** No, we do not.

**Ms. Kellie Leitch:** Have you made any effort to create a tool in order to be able to do that, and how many do you know, based on that tool?

**Mr. Robert Henderson:** The program that we've done for the biomanufacturing and for the bio-transfer has just been launched in February. We do have a tracking tool on that right now. We had several dozen going through the program as it is, but it's not culminating until December, but all of those will be tracked as we go along.

**Ms. Kellie Leitch:** Excellent.

In one specific area we are running two concurrent studies at this time. One of the components of our second study is really looking at agriculture and aquaculture, areas that we have not been looking at as much. When you talk about skills shortages, people don't put those top of mind—albeit in the Canadian context, specifically in certain regions, they are challenges.

Based on the analysis that you have, where do you see the growth in these sectors? Where do you think the most substantive opportunities are going to be for people to be employed in these areas?

**Mr. Robert Henderson:** Certainly from all of the research, both allegorical and anecdotal, the agrifood sector is booming. There's no question it's one of the things that's driving the Saskatchewan economy, specifically in those areas.

What I've heard, certainly from the SME standpoint, is very interesting. When you talk about biotech, you talk about a minimum science degree, science engineering, mathematical, but what a lot of these people are specifically lacking are the soft skills. When I say “soft skills” I don't want to put that as a negative, but these are entrepreneurial jobs and as much as somebody might be able to look through a microscope, the anecdotal inference is that people need to be able to meet with investors and be able to sell, market, produce, manage labs, and all these other things that are going to be very important to these jobs.

Specifically in those two sectors I see great growth, and that is certainly what we are seeing from our sister organizations. Otherwise we have aquaculture, both of those organizations, had a huge resurgence in the last two or three years, or I should say huge growth since the last time we did our last labour market survey.

**Ms. Kellie Leitch:** Do you have any specific programs that target those areas?

**Mr. Robert Henderson:** No, not currently. Unfortunately, biotech has a very broad vertical. We have not stated specifically for verticals like medical devices or nanotechnology or aquaculture or anything like that. However, it would be wonderful to be able to see if we

could align our programs with those burgeoning fields and academia as we go forward, but for right now, it has been very difficult because you feel a bit like one ounce of butter spread over about a mile of bread.

**The Chair:** Thank you, Mr. Henderson, that is rather aptly put there.

Madam Perreault, you have a few questions. Go ahead.

[*Translation*]

**Ms. Manon Perreault (Montcalm, NDP):** Good afternoon. Thank you for joining us today.

My question is for Mr. Henderson.

I am going from one thing to another, but I just want to understand the topic better. When we talk about biotechnology, we are also talking about agriculture, meaning agronomists, veterinarians, and so on.

I represent the constituency of Montcalm, in Quebec, where 85% of the territory is farmland. A farmer has recently told me that there was a shortage of veterinarians and agronomists. But given the few new young people going into farming, I was wondering whether the shortage might not become a surplus in a few years.

[*English*]

**Mr. Robert Henderson:** The answer to that is absolutely. I'm sure I had a few people wondering when I said the words bio-economy. The problem is that we have a vertical in biotechnology that touches on so many others all the way—pharmaceutical, health care, agriculture, as you say, veterinary medicine, etc. Some of them do find themselves identified within the bio-economy, and some of them do not.

With regard to the surpluses, if I understood your question correctly, as some of these students are coming out of agriculture and some of these other studies are pure agriculture or farming, etc., would there be potential talent pools for biotechnology? Was that the question you were asking?

[*Translation*]

**Ms. Manon Perreault:** No. I said that there were very few new young people going into farming and I was wondering whether the current shortage of agronomists and veterinarians was going to become a surplus at some stage.

•(1625)

[*English*]

**Mr. Robert Henderson:** That's a good question. A surplus in talent for the biotech field, I suppose you're saying, is a possibility. I haven't seen any studies that indicate that right now in terms of a direct transfer. I believe those students may be taking a look at other fields, but I'm not sure that biotechnology right now has been indicated as one of them.

I think one thing the sector itself has to do is market itself a great deal better as a primary career path, not just as a secondary one, to post-secondary students.

I hope that answers your question.

[Translation]

**Ms. Manon Perreault:** That sort of gives me an answer.

On another note, let's talk about the horse racing industry. This industry was quite important at one point. Right now, there is almost nothing left. As a result, I assume that there is currently a surplus of workers and veterinarians. All those who worked in veterinary medicine at the racetracks had to be transferred. Were there any programs to help them diversify more?

[English]

**Mr. Robert Henderson:** No, although I think your point is quite laudable. As I mentioned about the transfer from manufacturing to biomanufacturing, let's say we were able to look across more verticals beyond just biotechnology. Some of the other sector councils could compare notes so that we could see some talent pools on one side where there's really no short-term solution.

For example, on the manufacturing downturn in southwestern Ontario, are there other industry verticals that could make a transfer from one to another, like we have done for biomanufacturing? Certainly that has to be done. Unfortunately, the resources available to us to be able to have those discussions and continue to pursue them are very limited.

[Translation]

**Ms. Manon Perreault:** Okay.

I really want to understand. Right now, is there a shortage of professionals or lab technicians?

[English]

**Mr. Robert Henderson:** Currently, according to labour market information, in a lot of the lower-skilled work, specifically in biomanufacturing, that doesn't necessarily require a master's degree or a PhD in biotech or anything else, there is a direct indication that there are skills shortages. So with lower-skilled jobs, such as in manufacturing, that is a possibility. But that was just one sector under the labour market information where we were able to go.

A lot of these jobs are quite technical in biotech and require a great deal of technical know-how. So we were able to take one that was common from manufacturing to biomanufacturing. For the others, much more skills mapping in occupational standards, etc., will have to be done before we'll be able to pinpoint them.

[Translation]

**Ms. Manon Perreault:** Thank you very much.

[English]

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

This might be a good place to suspend.

I'd like to thank both of you for your presentations and for answering the questions. Thank you very much.

• (1625) \_\_\_\_\_ (Pause) \_\_\_\_\_

• (1635)

**The Chair:** We'll recommence.

There are a couple of budget matters that I want to talk to the committee about, so we'll adjourn about 10 minutes before our

scheduled time to cover that off. We'll try to govern our questions accordingly.

We have with us here today members from the Department of Industry. I understand they will make a presentation to us.

Go right ahead, and we'll have questions afterwards from each of the parties.

[Translation]

**Mr. Alain Beaudoin (Director General, Information and Communications Technologies Branch, Department of Industry):** Thank you, Mr. Chair.

My name is Alain Beaudoin and I am Director General of the Information and Communications Technologies Branch. Joining me is Shane Williamson, Director General of the Program Coordination Branch of the Science and Innovation Sector.

My remarks today will consist of two parts. First, I will be providing a quick overview of the federal support provided through the granting councils. Second, I will speak to our recent efforts on the issue of talent for the information and communications technologies sector.

[English]

To support the supply of talent in all sectors of the economy, the federal government has a number of programs in place to promote the development of a highly knowledgeable workforce and support researchers, as well as graduate and postgraduate students, who are critical to success in a knowledge economy.

The three granting councils support a suite of post-secondary research talent programs. New programs have been created in recent years to support students or researchers who have demonstrated a high standard of scholarly achievement and excellence in research.

The Vanier Canada graduate scholarship helps Canada's universities attract sought-after doctoral students from across Canada and around the world. The Banting post-doctoral fellowships support top-tier post-doctoral talent from Canada and abroad. In the coming months the Minister of State for Science and Technology, the Honourable Gary Goodyear, will announce the 2012 Vanier scholars and Banting fellows.

Other significant investments have been made, including the establishment of the Canada excellence research chairs program targeted at attracting the very best internationally recognized researchers and their teams to conduct groundbreaking research at Canadian institutions. Established in 2008, this program now supports 18 chairholders at 13 universities, who are making positive contributions to Canada's global competitiveness and well-being.

Budget 2011 announced funding for a new CERC competition to award 10 new chairs to Canadian universities. The competition was launched in November 2011, with appointments expected in late 2013.

[Translation]

The CERC program builds on the success of the Canada Research Chairs (CRC) program, which allows Canadian institutions to strengthen their position as global leaders in research and development, bringing together greater economic and social benefits for Canadians.

In addition, the government supports programs that connect students and researchers with industry, such as the Industrial Research and Development Fellowships program, and the Industrial Research and Development Internship program. These provide students with valuable research experience in an industrial setting. Not only does this bridge academia and the private sector, it also helps to strengthen Canada's innovation performance.

• (1640)

[English]

As part of Canada's economic action plan, significant support was provided through the knowledge infrastructure program for the repair, maintenance, and construction of university and college facilities. A total of 520 projects were funded through this temporary \$2 billion program, helping post-secondary institutions refurbish their existing infrastructure and build new facilities. By enhancing the research and training capacity of Canadian universities and colleges, this program will help provide a new generation with the advanced skills they need to thrive in the knowledge economy.

[Translation]

Now let me turn to the specific issue of talent for the ICT sector.

In 2010, the ICT sector accounted for approximately 5% of Canada's GDP, performed 33% of all private sector research and development, and employs approximately 563,000 Canadians, with salaries 52% higher than the national average. In order to compete and innovate, ICT companies must attract and retain the best possible talent.

During the 2010 Digital Economy Strategy consultations and the Minister of Industry's recent roundtables with the ICT sector, the industry emphasized the importance of talent for their sector. To help us shed light on supply and demand of Canadian ICT talent and support our work with provinces and territories, we hired the firm Nordicity. Between January and March of this year, Nordicity conducted interviews and an online survey of ICT firms and associations in key clusters.

While there are limits to the data collected in Nordicity's research, respondents identified current and future talent shortages, especially for media developers, programmers, and for software and computer engineers. Additionally, it found that there is a lack of executives with five years or more experience. Survey respondents also felt that college and university graduates need more "real world" skills, such as communications, project management, and overall business acumen.

[English]

Many company executives stress that talent is top of mind, and that speed in hiring is a requirement to keep pace with rapid technological changes and global competition. However, they

indicated that the current immigration processes take too long to address their needs.

Earlier this month, Nordicity shared these results during an ICT round table organized by Industry Canada. It is important to note that the responsibility for ICT talent is shared and that while it resides primarily with academia and the private sector, governments also have a role to play. As such, the round table comprised industry, associations, and academia as well as federal and provincial government officials. The round table participants agreed with the broad findings of the report and on the importance of collaboration between all partners.

At the conclusion of the round table, participants identified five key priority areas that warranted action. The first priority was to increase ICT enrolment and graduation rates of ICT professionals. The second was to increase collaboration between industry and academia to ensure that curricula are more relevant and current to the needs of the industry. The third priority was to further private sector investments in upgrading employee skills and entrepreneurship, and to help develop executives who will help grow firms. The fourth was to reduce delays in the current immigration system to attract specialized and experienced workers.

Finally, participants agreed on the need for additional ICT labour information and data to better understand supply and demand dynamics.

[Translation]

Mr. Chair, we presented the results of the roundtable to FPT Economic Development ministers who met last week on the digital economy. Ministers acknowledged the critical need for digital skills and talent for the ICT sector. They also committed to working with the ICT sector to seek potential solutions to its skills challenges. As next steps, the FPT ICT Working Group will develop an action plan with various partners on the priorities identified during the roundtable and explore opportunities for collaboration.

My colleague and I would welcome the committee's questions.

[English]

Thank you.

• (1645)

**The Chair:** Thank you very much for that presentation.

We'll start with Ms. Hughes, in the first round.

**Mrs. Carol Hughes:** Thank you very much. We greatly appreciate the time you took to come here to explain this to us and make your presentation.

I want to follow up on your presentation. You said, “A total of 520 projects were funded through this temporary \$2 billion program, helping post-secondary institutions refurbish their existing infrastructure and build new facilities.” Could you elaborate on the timelines of that temporary program?

**Mr. Shane Williamson (Director General, Program Coordination Branch, Science and Innovation Sector, Department of Industry):** Yes. That was part of Canada's economic action plan introduced in budget 2009. Originally, all projects were to be completed by the end of March 31, 2011, but as you may recall, the original project deadline was extended to October 31 for eligible projects. So that's the timeframe we're working on.

**Mrs. Carol Hughes:** On that note, have you done any follow-up to see what stage those projects are at, and could you tell me if there are any that look like they're not going to be able to meet that deadline?

**Mr. Shane Williamson:** The deadline has passed now. It was October 31—

**Mrs. Carol Hughes:** 2011?

**Mr. Shane Williamson:** Yes. Did I say 2012? I'm sorry if I did.

That was the deadline.

**Mrs. Carol Hughes:** So they're all done? The projects have all been completed?

**Mr. Shane Williamson:** The extended projects had until the end of January to provide us with all of their audited reports and their statement of substantial completion. Of the 520, we had 189 that were extended past the original deadline, so we are still in the process of completing our review of the audited financial statements, etc.

The plan for the government is to provide an overall report for the economic action plan in the future. We are working with our colleagues as well in Infrastructure Canada, who delivered a large part of it through the infrastructure stimulus fund, and there will be a global accounting of the impact and the results that were achieved.

**Mrs. Carol Hughes:** Okay, so all of that information isn't available right now?

**Mr. Shane Williamson:** That's correct.

**Mrs. Carol Hughes:** Okay. The other thing is that at the conclusion of the round table, you had what we could call recommendations. Based on the recommendations and looking at the labour shortage right now, I'm just wondering what your view is with respect to the best way to address the labour shortages we're facing right now.

We know there are a lot of people who are still unemployed. I know we've heard over and over again that immigration has to be streamlined to better assist people to come forward and to be able to get into the job market. I'm just wondering if you're able to provide a little bit more of your view with respect to dealing with the labour shortage.

**Mr. Alain Beaudoin:** Thank you.

With regard to your question, the round table agreed to identify five parties that, they thought, warranted actions by all the partners in order to help address the situation. As I mentioned, first and foremost, they wanted to work towards increasing enrolment and graduation over time. This is not a short-term priority. It will take participation and close collaboration between academia and the industry in order to address this issue.

The second was to increase collaboration between academia and the industry in order to improve the curricula to ensure that the curricula would better meet the industry's needs, which are ever-changing because of technological issues and because of various externalities.

The third was to work towards continually improving training on the job, because companies felt that it was really important to continue that training in order for their staff to keep pace with technological changes, as well as to help increase their competitiveness and to allow them to keep innovating.

The fourth one was to work towards improving immigration and accelerating entry.

The fifth was the issue of data. It's a very complex issue with regard to the ICT sector, and other sectors as well. In our case, there are various subsectors. There is a different reality from one to the other—the issues the digital media industry is facing are different from those that the telecom equipment industry is facing.

Their stakeholders recognized that this was a complex issue that warranted collaboration to move forward, so that's what we're going to work on in the next few months.

● (1650)

**Mrs. Carol Hughes:** We have heard in other aspects of studies—just before your presentation as well as at different committees that I sit on—about Internet access. Being from industry, I am just wondering if there is a movement to address the shortage or the need to have better access to the Internet. There is still a big shortage out there with regard to high-speed Internet.

**Mr. Alain Beaudoin:** I'm not an expert on high-speed Internet. Today, with regard to the ICT sector, it's a question of technology itself. You spoke about shortages. At the end of the day, in our case, we're looking at the data.

As I mentioned, we think we need to do more work and to work with various partners to have a better sense of what the supply and demand dynamics are, moving forward. We feel that we don't have sufficient data to allow us to identify, specifically, where the needs are.

**The Chair:** Thank you, Ms. Hughes.

We'll move to Mr. Mayes.

**Mr. Colin Mayes (Okanagan—Shuswap, CPC):** Thank you, Chair, and my thanks to the witnesses for being here.

I really did appreciate your presentation. The words that caught me referred to developing real-world skills, such as communications, project management, and overall business acumen.

We had witnesses earlier who said there wasn't a labour shortage; there was a skills shortage. As I see some of the demand for people in the future, one of the things we should look at is the sectors, and how we can do things better with fewer people.

I was also impressed with your second point—to increase collaboration between industry and academia to ensure that curricula are more relevant and current to the needs of industry.

I'm from British Columbia, and today a mill that used to have 125 people is down to 30 people because they have programs that automatically pile lumber, cut lumber, and that type of thing. Are you communicating that connection between the various sectors and our universities, and finding ways to decrease the number of people we need through automation and innovation?

**Mr. Alain Beaudoin:** I can't answer your question directly, but I can go back to the reason the round table identified this as a core issue. Because of the nature of the ICT sector, because of the rapid technological changes, because of global competition, and because of a blurring of the lines between what traditionally would be called hardware and software, industry is finding that the graduates of today have good technical skills but need more of what some people refer to as soft skills—the ability to work in teams, stronger communication skills, and a better understanding of global or business dynamics. That's what they referred to.

A number of universities or colleges are working closely with the industry to identify the requirements, but participants at the table felt the need to improve that dialogue. This will be taking place between academia and the industry.

**Mr. Colin Mayes:** Is there a communication of solution skills? Are there people coming out of university to work with people who are part of a particular sector? Are these people learning to sit down as a team to look at solutions—whether it be in manufacturing or resources extraction—that would make the industry more competitive and less labour intensive? Do you have the ability to do that with the various sectors?

• (1655)

**Mr. Alain Beaudoin:** I don't think we have the ability to do that with various sectors, but I think you refer, to some extent, to the need for industries to become increasingly competitive. The adoption and use of ICTs is critical to becoming more competitive and innovative. That's why in last year's budget the government launched the digital technology adoption program, which provides mentoring and advice that allows companies to improve the adoption and use of ICTs to increase their competitiveness and their innovation. Also, the BDC has set aside \$200 million through loans to support the SMEs in acquiring the equipment they require to become more competitive.

**Mr. Colin Mayes:** Our B.C. caucus met with the Mining Association of Canada and we asked them what their one ask would be, and they said 3,000 people, right now. So we need more people. Do you have any suggestions for moving those skills from one region to the other? The mining sector has needs in British Columbia and Ontario, and the oil and gas sector in Alberta needs people too. Are we focusing on different regions as we try to meet those needs domestically?

**Mr. Alain Beaudoin:** I think you have a very important question, but I would say that this is above my knowledge. I would encourage you to invite my colleagues at HRSDC to help answer your question.

**Mr. Colin Mayes:** Thank you.

**The Chair:** Okay. You got an answer.

Ms. Crowder.

**Ms. Jean Crowder:** Thank you very much for coming before the committee today.

Have you done any analysis on the actual industry itself, on the employers themselves? Do you know, for example, the percentage of employers that are SMEs, small and medium-sized enterprises?

**Mr. Alain Beaudoin:** Do you mean in the ICT sector?

**Ms. Jean Crowder:** Yes.

**Mr. Alain Beaudoin:** Yes. We know that the ICT sector comprises about 32,000 companies in Canada. About 83% of these firms have fewer than 10 employees.

**Ms. Jean Crowder:** Okay. That's really important, because we've heard from BioTalent Canada, which appeared before us, that 80% of their employer sector is SMEs, and they have far less capacity in terms of doing the on-the-job training and all those kinds of things.

Based on that.... I'm going to go at this in a roundabout way. We heard earlier as well that there isn't a labour shortage, but there's a skill shortage. We know, of course, that in Canada, depending on your region, our unemployment rate is anywhere between 5% and 8%. It depends on where you live. Sometimes it's even higher.

So we have a labour force that's out there and available, but they just don't happen to have the skills that are being looked for. Has Industry Canada examined anything to address that mismatch between an available labour supply and the skills that are required?

**Mr. Alain Beaudoin:** Thank you for your question. It's a very good one.

In the case of the work that we're undertaking, we've focused on what we call ICT professionals—

**Ms. Jean Crowder:** Professionals, I presume, need some sort of university—

**Mr. Alain Beaudoin:** University graduation.

**Ms. Jean Crowder:** So you're not looking at the sector that has grade 12 or less...?



**Mr. Alain Beaudoin:** No, because in our case as it relates to the ICT sector, as I referred to in my opening remarks, the ICT sector performs about a third of all the private sector R and D. In order to compete and to innovate, they need to perform R and D in the future. As such, we look to the types of professionals and the type of talent they will require in undertaking that type of R and D in the future. That's why we looked specifically at the issue of ICT professionals.

**Ms. Jean Crowder:** With ICT, with professionals, we know that sector is changing rapidly. Today you can graduate with a four-year degree or a graduate degree that is already out of date by the time you graduate. They'll have transferable skills because they're in the sector, but the technology is changing so quickly. Are Industry Canada and the industry looking at other methods or other educational requirements?

• (1700)

**Mr. Shane Williamson:** I can respond to that in part. A lot of my work is with the research granting councils: the Natural Sciences and Engineering Research Council and the Social Sciences and Humanities Research Council. We always endeavour to respect federal jurisdiction, of course, so our mandate really and truly is to focus on the research. So the students that our programs in these areas are targeting really have to be graduates—master's degrees and Ph.D.s.

But to respond to your question, there are a number of internship programs that really serve a dual purpose. The first purpose is to actually demonstrate to industry the value of highly qualified people, whether they're at the master's, the Ph.D., or even the post-doctorate level in some cases. But also, it's to encourage students, to demonstrate that there is an alternative to an academic lifestyle. Often we find that people in the university stream would like to stay in that area, and we're just trying, through these programs, to demonstrate that there are opportunities.

**Ms. Jean Crowder:** How many interns do you fund?

**Mr. Shane Williamson:** It varies. The Natural Sciences and Engineering Research Council has a suite of programs. The post-grad scholarships are for graduate students, for a duration of one to three years, and they need to spend 20% of their time on site with the sponsoring company. Last year, there were 150 awards in that. At the

**Ms. Jean Crowder:** Do you have any idea of what the percentage is of students who are in those programs?

**Mr. Shane Williamson:** I'm sorry, which programs?

**Ms. Jean Crowder:** Well, for the 150 awards, I assume there's a range of particular disciplines.

**Mr. Shane Williamson:** I wouldn't have the breakdown by discipline, but we could—

**Ms. Jean Crowder:** But here's what I was curious about. If you're giving out 150 awards, what's the total eligible student population?

**Mr. Shane Williamson:** Yes. That's a good question.

**Ms. Jean Crowder:** If it's 1% or half a percent or a quarter of a percent, it's not that significant. If it's 20%, it's significant for everyone.

**Mr. Shane Williamson:** It wouldn't be 20%.

**Ms. Jean Crowder:** I'm sure it wouldn't.

**Mr. Shane Williamson:** I can endeavour to get that.

I understand also that the Natural Sciences and Engineering Research Council is appearing in the next couple of days. I can advise them.

**Ms. Jean Crowder:** It would be useful, because one of the challenges graduates often face is that they don't have any work experience.

Because it's a sector that's moving so quickly and I'm assuming that profit margins are always an issue, for them to actually take on students who don't have the work experience is a challenge, because it takes them a while to get productive.

**Mr. Shane Williamson:** That's precisely why it's a matching program. The granting council will provide some funding to support the activities of the graduate students, but the firm also needs to provide some either in-kind or financial support to demonstrate commitment.

**Ms. Jean Crowder:** Is my time up?

**The Chair:** Yes, it is. You're a minute over.

Mr. Daniel.

**Mr. Joe Daniel:** Thank you very much, Mr. Chair, and witnesses.

I have an interesting question that you may be able to help me look into. You talked in your speech about attracting world-quality researchers here to Canada, but my question, to turn it around the other way, is how do we support researchers in Canada to actually become that internationally renowned talent?

It is supporting, in particular, initiatives, such as CERN in Switzerland and working with them in terms of becoming associate members of CERN, so that we can actually put our high-end Canadian talent in there to get some of this international experience or be right at the bleeding edge of technology, and become some of these world leaders but be Canadian ones.

**Mr. Shane Williamson:** Alain, in his comments, referenced the Canada excellence research chairs, but there is also the Canada research chairs program, which provides funding for up to 2,000 academics across Canada in two tiers.

To respond to your question about how we build it, there is a tier one, which provides funding for up to five years for emerging researchers—they don't have to have a solid track record, it's just a promising researcher. And then there are the tier-two chairs, who are established researchers with a solid track record.

So through the granting councils—it's a tri-council program managed by the three primary granting councils—we do that.

You had referenced CERN. The federal government, through the National Research Council, provides significant funding for TRIUMF. It's based at UBC, but many universities are involved in that. As part of that contribution, TRIUMF allows access to our academics to collaborate with researchers at CERN as well.

• (1705)

**Mr. Joe Daniel:** I was specifically looking to see.... I think there is an opportunity on the table at the moment to become an associate member of CERN as part of their international program, of which a significant amount of the funding actually gets implemented in Canada. I'm really wondering if that is something your department supports, or which department would support that.

**Mr. Shane Williamson:** I believe that's something under consideration and that it would ultimately be a decision for ministers.

**Mr. Joe Daniel:** Okay. What are some ways that you feel the federal government could assist in encouraging young people to enter the areas that are currently experiencing shortages?

**Mr. Alain Beaudoin:** With regard to your question—thank you very much—I said in my remarks that the issue of talent is a shared responsibility. The industry and the associations and the post-secondary institutions are actually collaborating through the Canadian Coalition for Tomorrow's ICT Skills. What they're trying to do is to really encourage young Canadians to enter into those types of studies in order to get excited about it and to understand the parameters.

On that front, HRSDC is providing funding to this coalition in order to promote the entry of students into those professions. You may want to consider, because they have experience with it, inviting the Canadian Coalition for Tomorrow's ICT Skills to talk about what they see as best practices and opportunities to promote to young Canadians.

**Mr. Joe Daniel:** One of the things that certainly some young Canadians face, even once they graduate, is getting that first bit of experience and being mentored into a position somehow. Are there any initiatives related to that?

**Mr. Shane Williamson:** Yes. I had mentioned the internships, and again, they were pitched more at the graduate student level. But for example, the National Research Council has a youth employment program, and they provide small and medium-sized enterprises with some funding support to allow them to employ post-secondary students to tackle some of their technology programs. So there are programs in place of that nature.

**Mr. Joe Daniel:** Are they of significant size? We have lots of graduates coming out of school every year, but if you only have five places—

**Mr. Shane Williamson:** There's \$25 million that is dedicated to it, per year.

**Mr. Alain Beaudoin:** If I may, to complement Shane's answer, a number of universities have co-op programs as well, and a number of firms in the industry are high users of those co-op programs, and they seem to be working well.

They're good practices. For example, the University of Waterloo and the Université de Sherbrooke put a lot of emphasis on those co-op programs, because they recognize the benefits for the students and for the industry as well.

**Mr. Joe Daniel:** Yes, I fully agree with that. I went through a program similar to that. But I have a lot of students in my riding saying, "Give us something to do", and that's a challenge, particularly when you come in without any major experience in your degree program.

Thank you.

**The Chair:** Your time's up. Thank you.

Mr. Cuzner.

**Mr. Rodger Cuzner:** Thank you very much, Mr. Chair. Gentlemen, thanks for being here today.

I have three sons between 19 and 24 years of age, and so it may look a little self-serving—me wanting to get them off my payroll and onto somebody else's—but I'll ask these questions on behalf of the almost 15% of young Canadians who find themselves unemployed. There's an even more alarming stat, which is those who are disengaging completely from the workforce. I think everybody around this table knows it's in everybody's best interests to do what we can, and make the suggestions we can, to close that gap.

That being said, as Jean said in her comments and Mr. Daniel mentioned in his, mentorship and work experience are key components of this, and I think the federal government has a role to play in mentoring. I know that one of the great opportunities is through summer work experience, through the federal branch, but we see that through Industry Canada's summer work experience program, between the years of 2006 and 2011, the department did not spend over 25% of its annual budget allotted for summer workers.

Could you explain to us how that might have happened?

• (1710)

**Mr. Alain Beaudoin:** We're not familiar with the details on this, so we'll take note of your question and we will get back to you if this is the wish of the committee.

**Mr. Rodger Cuzner:** You know, it concerns me that between 2006 and 2011, on the summer work experience program alone, over \$11 million was returned—over 26%—and on the career focus program, just shy of \$4 million.

If we're talking the talk, I think we want to have our best game forward as well. So 25% of a budget allocation, when we're looking at trying to—

**The Chair:** Mr. Cuzner, if I might interject, I think those questions probably would have been better put to HRSDC officials, as those programs—

**Mr. Rodger Cuzner:** No, they're related to Industry Canada's employment.

**The Chair:** Industry Canada? Okay.

Is that correct?

**Mr. Alain Beaudoin:** We'll check in terms of the details.

**The Chair:** Yes, my sense would be it probably is—

**Mr. Alain Beaudoin:** Me too, but we will check.

**The Chair:** If it's within your department then we would expect a response. If it's not, I think the question would be better put to Human Resources.

**Mr. Rodger Cuzner:** This disconnect, this is what you live. Where is it coming apart? We've heard from first nation groups and some of the companies that are trying to develop opportunities in the north that they've really tried to focus now—and they've adjusted their focus over the last number of years—on trying to get into public schools to share information with young people from first nation communities about the opportunities that are there and help prepare them for the careers of tomorrow.

Do you have any sense of where the biggest gap is in getting to young Canadians? Is it through the public schools that we make them aware of those opportunities? Is it in training opportunities at post-secondary institutions, or in the provision of mentorships?

Do you have a sense of where the gaps are happening and where we're not addressing them?

**Mr. Alain Beaudoin:** Thank you for your question.

I think the answer to this question would be very complex and I feel that we don't have the answer to it, other than to say that in our case, with regard to the ICT sector, we felt that we needed to have an ICT round table with the various stakeholders in order to identify the priorities moving forward. I referred to the five priorities earlier and we intend to move forward and work with the various partners in the coming months.

With regard to your specific question as to what would be warranted in order to convince kids to enter new professions or get them excited about what needs to be done, I think it's an issue that a lot of people are grappling with. But as I mentioned to one member of the committee a bit earlier, if you're interested in knowing what the Coalition for Tomorrow's ICT Skills has done and is doing currently with the industry and with academia, in order to increase awareness and get kids excited, I would recommend that maybe you consider inviting them to tell you about what their experience is all about and what they think.

**Mr. Shane Williamson:** Also, in our area, with the granting councils, we concentrate on what we called the STEM disciplines: science, technology, engineering, and mathematics. The Natural Sciences and Engineering Research Council does have an albeit small program—\$3 million per year—the PromoScience program, that provides funding to organizations that do try to encourage interest at a young level. There are programs for disadvantaged, underserved, or underprivileged youth, for example, programs to provide information for teachers in the K-to-12 level.

But we identify issues, if you will, at each stage. At the early stage, it's by ensuring young children have an interest in the STEM areas. Also, once you get to the graduate level, we make sure they're interested in working with industry, in particular, in tackling industry problems.

• (1715)

**The Chair:** Thank you, Mr. Williamson. Your time is up.

We need to break a little early, but I understand Madam Perreault has a question.

If that's the case, go ahead.

If you have a question after, we can certainly deal with that.

[Translation]

**Ms. Manon Perreault:** Thank you.

Good afternoon. Thank you for being here.

I have a few questions about persons with disabilities.

Have you adopted any measures to further encourage persons with disabilities to consider going into information technology?

**Mr. Alain Beaudoin:** That's a very good question.

I am not sure whether specific efforts have been made to this end, but I know that efforts are made in various departments to ensure that these individuals have access to the information they need. But I am not sure about the professions you are referring to.

**Ms. Manon Perreault:** Along the same lines, in your opening remarks, you talked about internship programs. Is a portion of that funding set aside for people with disabilities?

[English]

**Mr. Shane Williamson:** Not to my knowledge, but I could verify.

[Translation]

**Ms. Manon Perreault:** I have one last question.

Is Canada lagging behind the United States in terms of information technology?

**Mr. Alain Beaudoin:** What area are you referring to specifically?

**Ms. Manon Perreault:** I am talking about computer science and this sector.

**Mr. Alain Beaudoin:** Are you talking about implementing and using ICTs?

**Ms. Manon Perreault:** Yes.

**Mr. Alain Beaudoin:** I am not an expert in that area, but various studies have shown that the rate of implementing and using ICTs by Canadian businesses is lower than that of American companies, which has an impact on their competitiveness and productivity.

That's a fact and that is why, as I said earlier, the government has invested in the programs I mentioned. Actually, the objective is to ensure that small and medium-size enterprises have access to consulting services that allow them to find solutions to increase their ICT use.

That is also why the BDC has set aside \$200 million. Their goal is to support the efforts of those small and medium-size enterprises in implementing more information technologies to increase their productivity and competitiveness.

[English]

**The Chair:** Thank you.

I understand, Mr. Butt, that you have a pressing question.

**Mr. Brad Butt (Mississauga—Streetsville, CPC):** I wouldn't say it's pressing, Mr. Chairman, but I did want to thank the gentlemen for being here.

I just want you to expand on what you indicated in your presentation was the third priority of the round table. It said here that the third priority was to further private sector investment in upgrading employee skills and entrepreneurship, and help develop executives who will help grow firms.

Can you be a little bit more specific on that?

I guess what I'm struggling with is the role of the government and the role of the private sector. They're the ones getting these skilled employees or helping to improve the skills of the employees to benefit their businesses, to help them make money. So my concern is, as I sit here as a member of Parliament as someone who came from the private sector before here, what is the real role of the private sector in all of this when they say that private sector investment and upgrading employee skills is a priority for them? What exactly are they meaning? Or how do you interpret that priority clause that was in your presentation today?

**Mr. Alain Beaudoin:** What will be done in the future is we're going to work with various stakeholders to identify what can be done over the short and medium term. Part of the findings that came out of our work with Nordicity, and we thought it was a positive, is that companies themselves were putting a lot of effort and resources toward on-the-job training because they recognized that this was a requirement in order to keep pace with technological changes and also to increase their competitiveness.

So with regard to the future, the primary responsibility resides with the private sector. As we move forward and work with various partners, we're going to have to determine who does what. But I think it was maybe to figure out best practices as well, because there are firms that are very successful at it, and at the same time at the round table, the industry said this is a requirement. This is a must, from our perspective, in order to succeed in the future. So as I said, it's a complex issue.

• (1720)

**The Chair:** Thank you very much for that presentation.

Did you have one quick question? Sure, go ahead.

**Ms. Kellie Leitch:** Sir, I'm not really trying to run out the clock or anything.

Just a very quick question. First, thank you very much for your presentation. I am a new member of Parliament here.

I know Industry Canada has run some programs that essentially help bridge academics with the commercialization of product. One item that I think has been a challenge is, and you addressed it, Mr. Beaudoin, in your remarks, is the soft skills gap. Do those academics have the right skills to commercialize their products?

What is your quick comment on whether you think that's a whole new group of skills and a whole new group of people we should be educating to help take things from the bench to the bedside, in my health care profession or otherwise. Or, should we be giving skills to the people already in that pipeline? I don't know if we know the

answer to that. Do you have programs focusing on that, to help us answer that programming question?

**Mr. Shane Williamson:** I guess the best example of a program is the Centres of Excellence for Commercialization and Research. There are 22 now across Canada that were provided up to \$15 million, not to support research, but to support all the activities surrounding it to get it to market—not only to market it but to make an impact in the health field.

It's a fairly new program, and it has been a rich source of examples. They are quite a diverse group, and we're learning a lot about the types of approaches that work well or not. The most difficult part is having a good core of executives who can decide if an idea is something that has legs in an industrial setting. Although an idea is quite interesting and is leading-edge research, we're not sure there's a market for it. That's the challenge. But what these centres bring is all the other skills that academics may not have—there are always exceptions—such as the business plan and the marketing, even approaching venture capitalists and securing that next round of funding. So these are a policy experiment, if you will, for us to see what kind of approaches work in helping get academic discoveries into the marketplace.

**Ms. Kellie Leitch:** They're creating new jobs as opposed to just giving a new skill set to those academics.

**Mr. Shane Williamson:** That's right. They are bringing the needed skills to them, yes.

**Ms. Kellie Leitch:** Very good. Thank you.

**The Chair:** Thank you.

Thank you very much for presenting.

Mr. Cuzner posed a question, and if it is within the purview of Industry, we'd expect you to respond back. If it is not, respond back indicating that it's not the case. Okay? Thank you very much.

I'll ask the committee to stay back for a moment. I just want to discuss a couple of travel plans before the budget comes in next Wednesday.

With respect to the travel budget—Rodger, you weren't here before we broke for the break week—the Liaison Committee wanted to get a budget for both our eastern travel and our western trip. They wanted to see budgets for both legs of the trip, and the 905 trip, so I've asked the logistics officer to put something together.

On the western trip, we start in Vancouver and end up in Estevan on Thursday. We bring everybody back to Toronto, or wherever you might be going, on Thursday. She had lumped in the Barrie trip that was suggested by the parliamentary secretary on Friday, and I had indicated that we would all be travelling home on Thursday, or wherever we would be going on our points, and that Barrie should be a separate trip by itself, at some other date. So we wanted to split that off.

The other part that you can be thinking about, and I'll ask for comments, was that the western trip has some late-night flights. Since we decided not to go with a charter, it's a little more problematic to arrange flights.

To give you some idea of what it might look like, we would leave Vancouver at 6:30 and arrive in Whitehorse at 8:48, so no problems there. From Whitehorse we need to get to Fort McMurray, and we need to travel through Calgary. So if we left Whitehorse at 7 p.m., we would get to Calgary at 10:37 at night. We could overnight in Calgary or catch the 11:30 flight to be in Fort McMurray at 1:45 a.m.

Now, if you overnight in Calgary, it would mean an extra \$5,000 and change, with \$800 in flight costs and so on.

Does the committee wish to do a late flight into Fort McMurray or do an early flight to Fort McMurray? I think the early flight would leave at 7:35 in the morning. If you left late and got there late, you would start later.

The rest of the flights aren't too bad. You would get into Regina at 8:51, which would be fine. On the reverse side, getting you back to Toronto, it would be leaving Regina at 6:35, getting into Toronto at 23:38, if that's where you were going, on Thursday night.

So there are some late flights involved. The question specifically is with respect to Fort McMurray, I guess, because I think that one gets you in at 12:45 in the morning.

Do you want to do that or do you want to overnight in Calgary? We have to settle that question so that she can work it accordingly.

Does anybody care...?

Ms. Crowder.

•(1725)

**Ms. Jean Crowder:** I'm too old to do the 12:45 a.m. flight. I mean, you won't get into your hotel until 2 o'clock in the morning by the time you leave the airport, get to the hotel, get checked in.

For some people it becomes a health issue, I think. I don't mind the other flights that are at 9 o'clock or 10 o'clock at night, or even 10:30, but when you start getting in at 2 o'clock in the morning, where we can avoid it, I—

**The Chair:** It would be 12:45 a.m.

**Ms. Jean Crowder:** Yes, exactly.

**Ms. Kellie Leitch:** I'll be really honest with you. I don't want to play doctor on this trip.

**Ms. Jean Crowder:** Well, exactly.

Honestly, I think it ends up being 14-, 16-, 18-hour days, and I just think it's too much of a health issue.

**The Chair:** So is it the consensus that we do overnight in Calgary and leave in the morning?

Go ahead, Mr. Shory.

**Mr. Devinder Shory (Calgary Northeast, CPC):** Mr. Chair, if I heard it correctly, then we have to leave at 7 a.m.

**The Chair:** It will be 7:35.

**Mr. Devinder Shory:** So we'll be checking into a hotel for five or six hours.

**The Chair:** Well, you would be arriving in Calgary at 10:37. There is a hotel at the airport, so with all said and done, you'd be in bed by 11:30 and up and ready to go at 7:30.

**Mr. Devinder Shory:** I'll go home.

**The Chair:** Well, you could.

This was the only flight that concerned me when I saw it. It's after midnight, at 12:30, and that might be pushing it. I think the other nights are late, but they're not pushing it past midnight.

Okay. I take it that the consensus is to overnight in Calgary.

**Ms. Jean Crowder:** I don't expect a full schedule from the clerk for now until June, but could we get the next couple of weeks of witnesses, just so we know what's in front of us? It helps us to prepare a little better. I know sometimes that not all the witnesses are confirmed, and I understand the clerk and the analysts are doing incredible jobs trying to get this on. But for whatever we've got scheduled, could we know what it is?

The other thing is that I wonder if we have any confirmation on the estimates yet.

**Ms. Kellie Leitch:** [*Inaudible—Editor*]...the potential for what could happen with either committee of the whole or other items. I have asked and I have not received a notice yet. But I have asked, so it has definitely been flagged. We were more waiting on your new leadership and what was going on.

•(1730)

**Ms. Jean Crowder:** Well you guys control the supply days, though, and we have to schedule the—

**Ms. Kellie Leitch:** I was waiting for confirmation of what's going to end up happening with respect to all the—

**Ms. Jean Crowder:** With committee of the whole. Okay.

**The Chair:** Just so you know, Evelyn has been ill for the last couple of weeks or so, and other clerks have been filling in. That's been a little problematic.

But having said that, if you're able to provide us with a couple of weeks, that would be good.

**Ms. Jean Crowder:** That would be great.

**The Chair:** I should also mention that, with respect to the Barrie trip whenever that takes place, it's about an hour and a half from Toronto, which would mean a bus from Toronto.

I would take it we'd probably want to fly into Toronto, as opposed to going by some other means of conveyance. You can go by train, but that becomes a long day. I would think we would fly to Toronto and then get to the next point.

**Ms. Kellie Leitch:** I don't know if Manon knows the program *Welcome Back, Kotter*.

[*Translation*]

The show was called *Welcome Back, Kotter*. On the show, one of the characters, Horshack, made funny noises.

[English]

Nonetheless, my question for the chair, who would know *Welcome Back, Kotter*, is can we get a listing of where we're going to be and on what days? Do we have an idea yet of what the travel days would be and where we would be on which days?

**The Chair:** It would be the days we gave the clerk, so I'm sure we can get those days.

**Ms. Kellie Leitch:** Do you know when we would be getting that program from you, the clerk, or...

**The Chair:** I would say that on Wednesday we're going to put the budget before this committee for approval and we should have those dates and times circulated to everybody.

Now in fairness to the clerks, they're trying to get a budget for the flights and the dates we've suggested not knowing exactly what we're going to be doing there. It's a bit problematic. They're trying to give us a start and an end time for flying.

I would ask committee members, particularly those who are involved with an area we're going to be visiting, especially in the east, to propose the people who should attend at the round table and where the site visit might be so that the logistics people can start putting that together. They're putting a budget together, particularly for the eastern trip, without having all of the details and information because we need to have that approved fairly quickly, so anything you can do to supply that information would be great.

For now we will have the dates, and obviously the flight times, for both east and west. I think we'll leave Barrie open-ended. We will select the date when it's convenient.

Are there any other thoughts or comments? If not, I'll pass this on to the clerk, who will pass it on to a logistics officer. We hope by Wednesday to have a budget with some dates, times, and things we can look at in a concrete fashion.

All right. Thank you.

---









**MAIL  POSTE**

Canada Post Corporation / Société canadienne des postes

Postage paid

Port payé

**Lettermail**

**Poste-lettre**

**1782711  
Ottawa**

*If undelivered, return COVER ONLY to:*  
Publishing and Depository Services  
Public Works and Government Services Canada  
Ottawa, Ontario K1A 0S5

*En cas de non-livraison,  
retourner cette COUVERTURE SEULEMENT à :*  
Les Éditions et Services de dépôt  
Travaux publics et Services gouvernementaux Canada  
Ottawa (Ontario) K1A 0S5

Published under the authority of the Speaker of  
the House of Commons

### **SPEAKER'S PERMISSION**

Reproduction of the proceedings of the House of Commons and its Committees, in whole or in part and in any medium, is hereby permitted provided that the reproduction is accurate and is not presented as official. This permission does not extend to reproduction, distribution or use for commercial purpose of financial gain. Reproduction or use outside this permission or without authorization may be treated as copyright infringement in accordance with the *Copyright Act*. Authorization may be obtained on written application to the Office of the Speaker of the House of Commons.

Reproduction in accordance with this permission does not constitute publication under the authority of the House of Commons. The absolute privilege that applies to the proceedings of the House of Commons does not extend to these permitted reproductions. Where a reproduction includes briefs to a Committee of the House of Commons, authorization for reproduction may be required from the authors in accordance with the *Copyright Act*.

Nothing in this permission abrogates or derogates from the privileges, powers, immunities and rights of the House of Commons and its Committees. For greater certainty, this permission does not affect the prohibition against impeaching or questioning the proceedings of the House of Commons in courts or otherwise. The House of Commons retains the right and privilege to find users in contempt of Parliament if a reproduction or use is not in accordance with this permission.

Additional copies may be obtained from: Publishing and  
Depository Services  
Public Works and Government Services Canada  
Ottawa, Ontario K1A 0S5  
Telephone: 613-941-5995 or 1-800-635-7943  
Fax: 613-954-5779 or 1-800-565-7757  
publications@tpsgc-pwgsc.gc.ca  
http://publications.gc.ca

Also available on the Parliament of Canada Web Site at the  
following address: <http://www.parl.gc.ca>

Publié en conformité de l'autorité  
du Président de la Chambre des communes

### **PERMISSION DU PRÉSIDENT**

Il est permis de reproduire les délibérations de la Chambre et de ses comités, en tout ou en partie, sur n'importe quel support, pourvu que la reproduction soit exacte et qu'elle ne soit pas présentée comme version officielle. Il n'est toutefois pas permis de reproduire, de distribuer ou d'utiliser les délibérations à des fins commerciales visant la réalisation d'un profit financier. Toute reproduction ou utilisation non permise ou non formellement autorisée peut être considérée comme une violation du droit d'auteur aux termes de la *Loi sur le droit d'auteur*. Une autorisation formelle peut être obtenue sur présentation d'une demande écrite au Bureau du Président de la Chambre.

La reproduction conforme à la présente permission ne constitue pas une publication sous l'autorité de la Chambre. Le privilège absolu qui s'applique aux délibérations de la Chambre ne s'étend pas aux reproductions permises. Lorsqu'une reproduction comprend des mémoires présentés à un comité de la Chambre, il peut être nécessaire d'obtenir de leurs auteurs l'autorisation de les reproduire, conformément à la *Loi sur le droit d'auteur*.

La présente permission ne porte pas atteinte aux privilèges, pouvoirs, immunités et droits de la Chambre et de ses comités. Il est entendu que cette permission ne touche pas l'interdiction de contester ou de mettre en cause les délibérations de la Chambre devant les tribunaux ou autrement. La Chambre conserve le droit et le privilège de déclarer l'utilisateur coupable d'outrage au Parlement lorsque la reproduction ou l'utilisation n'est pas conforme à la présente permission.

On peut obtenir des copies supplémentaires en écrivant à : Les  
Éditions et Services de dépôt  
Travaux publics et Services gouvernementaux Canada  
Ottawa (Ontario) K1A 0S5  
Téléphone : 613-941-5995 ou 1-800-635-7943  
Télécopieur : 613-954-5779 ou 1-800-565-7757  
publications@tpsgc-pwgsc.gc.ca  
http://publications.gc.ca

Aussi disponible sur le site Web du Parlement du Canada à  
l'adresse suivante : <http://www.parl.gc.ca>