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**EVIDENCE**

**Thursday, November 1, 2012**

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**Chair**

**Mr. David Sweet**



## Standing Committee on Industry, Science and Technology

Thursday, November 1, 2012

•(1100)

[English]

**The Chair (Mr. David Sweet (Ancaster—Dundas—Flamborough—Westdale, CPC)):** Good morning, ladies and gentlemen. Welcome to the 46th meeting of the Standing Committee on Industry, Science, and Technology.

We have a number of guests here: from Larus Technologies, we have Rami Abielmona, vice-president of research and engineering; from Open Text Corporation, we have Mr. Davies, chief legal officer and corporate secretary; from the Information Technology Association of Canada, we have Karna Gupta, president and chief executive officer; and from Canadian Manufacturers and Exporters, Martin Lavoie, director of policy, manufacturing competitiveness, and innovation.

We'll begin with opening remarks.

Mr. Abielmona, you have a maximum of six to seven minutes for your opening remarks. We'll go to questions after that.

Please begin.

**Mr. Rami Abielmona (Vice-President, Research and Engineering, Larus Technologies Corporation):** Thank you so much.

Good morning, Mr. Chairman and members of the committee. First, thanks very much for the opportunity to appear in front of this committee to discuss the experiences of our company, Larus Technologies, with regard to intellectual property in Canada.

Let me begin by briefly introducing our company. Larus was founded in 1995 by our current president, Mr. George Di Nardo, and we've established ourselves as a sensor networking and data fusion solutions company. We develop advanced systems for multi-sensor data aggregation, collection, display, exploitation, and fusion, mostly for defence and security.

We are Ottawa-based. We're entirely Canadian, and we have three core business areas: sensor networking and data fusion, software engineering consulting, and research and engineering. That's really why I'm here—the research and engineering part. We have developed significant software expertise and operational experience, both selling to and servicing DND, Canadian Forces, and NATO. We are also relied upon as the prime Canadian developers of many NATO standard agreements, or what are called STANAGs, that serve to establish and maintain interoperability between the allied nations.

The main issue our company has faced revolving around IP is in regard to IP protection funding in Canada. Funding is typically required for three phases that are involved in patent protection. The

first phase is the filing phase, and Canada has done a very good job through IRAP and other initiatives of helping organizations such as ourselves to subsidize the cost of this phase.

The second phase is the prosecution of IP, and here we don't have as many funding channels. There is an existing gap for this phase.

The third phase is international filings, and again, here there are even fewer funding channels available in Canada. Typically, a company has to evaluate whether the invention in question is worth patenting. So we have to ask ourselves, is this novel? Is this non-obvious? Is this useful? But being an organization, a corporation, we have to also ask whether it provides a corporate competitive advantage. Does it reside with an identified target market as well?

If all of these are true, the company goes through the patent process, which involves, as you know, literature patent survey, invention disclosure, patent preparation through lawyers, and, obviously, filing of the patent. There are a lot of costs associated with this process. As I mentioned, IRAP has a fund called ARP, the accelerated review process, that supports Canadian companies when making the decisions to patent or not.

As I mentioned, very few programs exist for the prosecution, the enforcement, and/or the international filings of a patent, which carry significant legal fees. This is unlike other countries. China, for example, has special programs that are dedicated to international filings alone for their local companies. That allows them to better compete on the global stage, and obviously to better protect and hence to market these technologies as their own.

Of course, not all ideas or inventions that come out of R and D are patented. A company has to balance the costs and benefits of doing so. To protect an IP, we can go through a patent, we can go through copyrights, we can go through trade secrets, or we can go through public dissemination. We can simply publish it in a conference or journal, and no one else is allowed to patent it in that manner.

For SMEs, small and medium enterprises such as ourselves, it becomes a matter of cashflow management. Typically, Canadian SMEs would rather hire employees in Canada than invest hard-earned funds to file and protect their IP. Why do I say that? This is the core of my six to seven minutes. It's really the technology valley of death, TVoD—I come from a military defence market, so we like to acronymize everything.

It is an ever-growing problem in Canada. It was recently described by another researcher, Dr. Russell Eberhart. We invited him up to Canada to attend a conference, an IEEE conference called CISDA, in July here in Ottawa. CISDA stands for computational intelligence for security and defence applications. He gave a talk. He's from the U.S. He described a very similar thing that is happening in the U.S., but they're trying to resolve it, and I'll talk a bit about how they try to resolve it.

TVoD occurs around what we call TRLs, technology readiness levels, and there are one to seven or one to nine levels, depending on what you look at.

• (1105)

**The Chair:** Mr. Abielmona, slow down just a bit. The translators probably need a slower pace.

**Mr. Rami Abielmona:** No problem.

We are talking about five to seven TRLs, so the higher ends of the technology readiness levels, mainly due to the lack of support for transitioning out of R and D and into a prototype stage. We're funding R and D. We're funding all the way up to pre-commercialization. But when we get to the commercialization stage, the well runs dry. And it's becoming a very tough burden on Canadian SMEs. This has been expressed to this committee by other witnesses; I looked up the evidence for previous meetings and I saw it in one other meeting.

The TVoD is not to be confused with the commercial valley of death. That's a completely different thing. The commercial valley of death occurs when you've already launched the product. The technology valley of death occurs when you've just finished applied research and you want to get to commercialization. How can we mitigate that gap?

We can better define the programs. We can build in some risk mitigation, some risk reduction. But in the end the organization has to undertake the advanced technical development, or technological development, of the applied research it has finished.

If a company is not able to cross this chasm, it becomes a very big problem. First of all, the question is, if we are able to produce a patentable invention but don't have the means to commercialize it or to bring the invention to market, what's the value of patenting that invention in the first place?

The technology is at a prototype level. We've used up R and D funding, and whatnot, to get it to that level, but it's not yet mature enough to be commercialized. We don't have any funding for commercialization programs, as many as we'd like, to bring it to market. So if it fails, as I said, then it risks becoming stale and unoriginal, particularly in a high-tech world, where the development cycle is less than a year typically. Canada risks losing out to other countries on a lot of potentially valuable IP if we cannot help our local industries bridge this gap.

I'll tell you what the U.S. is doing. The U.S. set up the Small Business Administration, SBA, to run what they call the small business innovation research—SBIR—program. It's really targeted towards SMEs in the U.S. to research, develop, and commercialize their products and services. It allows the SMEs to be the front-line players. SME, to them, means fewer than 500 employees. They can sell to the U.S. government—including the Department of Defense, the U.S. Army, the U.S. Navy, and so on—without having to compete against the major defence contractors, which are, instead, obliged to line up behind SMEs and to partner with them for such opportunities and such programs. We don't have such a major thing in Canada.

Another program they launched is called the small business technology transfer—SBTT—program. It's really to bridge, again, the performance of basic science to commercialization.

I'm going to wrap up very soon.

Canada has SR and EDs. We have NRC-IRAP. We have NSERC. We have the Canadian innovation commercialization program, CICIP. But we feel that we need more concentrated efforts to ensure that Canadian SMEs successfully cross this valley of death. It basically ensures that Canada has job growth, economic prosperity, and international presence.

I'll skip all the way to the bottom and just say that a recent survey was done in the U.S. by the Defense Advanced Research Projects Agency, DARPA, that tried to figure out the factors that determine a successful enterprise, especially in engineering and high tech.

I'll just mention this before closing. They found the following—

• (1110)

**The Chair:** Mr. Abielmona, that will be it. We're way over time.

**Mr. Rami Abielmona:** Okay. Thank you for your time.

**The Chair:** You'll have to squeeze in any other information in the questions.

Mr. Davies, please go ahead.

**Mr. Gordon Davies (Chief Legal Officer and Corporate Secretary, Open Text Corporation):** Thank you very much, Mr. Chair and honourable members of the committee, for providing Open Text Corporation with the opportunity to address you today. We are very pleased to contribute to this committee's study of the effectiveness of Canada's current intellectual property regime.

My name is Gordon Davies, and I'm the chief legal officer and the corporate secretary of Open Text, a corporation headquartered in Waterloo, Ontario, which is publicly traded on the TSX and NASDAQ. Open Text is a leader in computer software applications designed to enable enterprise information management, or EIM. EIM is a comprehensive set of best practices and technologies that address the needs of information workers by providing them with the right information during decision-making, analysis, procedure definition, or process execution. When executed properly, a sound EIM strategy results in significant productivity and efficiency gains, engaging customer experience, and a transparent and defensible information governance system. EIM includes suites of products such as: business process management; customer experience management; enterprise content management, which is the core of Open Text; discovery; and also information exchange.

Open Text's clients are global and include organizations in many fields, including those in the public sector, financial services, manufacturing, energy, and natural resources industries. We were founded in 1991 as a spinoff company by researchers at the University of Waterloo. Open Text has grown to employ more than 5,500 people globally, and it is Canada's largest software company. As I mentioned before, this is a global business with annual revenues in excess of U.S. \$1 billion. Over the years, Open Text has won many industry awards recognizing its accomplishments, and it was again named one of Canada's top 100 employers in 2012.

Open Text is strongly committed to technology transfer between research institutions and industry, and to this end it has, among other initiatives, invested in many joint research and development projects with the University of Waterloo.

At the heart of Open Text's success as a company, employer, and innovator in the software field is its intellectual property. Open Text has more than 200 U.S. and 130 non-U.S. patents worldwide, including those in Canada. Open Text, like other information technology companies, relies mainly on trade secrets, including in particular prior art, copyright, and, to a lesser extent, patents, to protect its valuable intellectual property. Protecting intellectual property through trade secrets or by way of copyright is attractive because, one, the registration of copyright is optional and copyright can be enforced without registration, which is, in any event, relatively inexpensive; and, two, trade secrets, by definition, cannot be registered and there are no registration costs.

Patent protection, in contrast, can be less attractive because it is only available through a costly, application-based process. Additionally, patent protection is less crucial for companies such as Open Text who view patent protection primarily as a defensive tool rather than as a means to drive innovation. For instance, a patent portfolio may operate defensively and make competitors reluctant to enforce their own patent rights for fear of facing reciprocal litigation. As well, publicly disclosed applications and patents may create obstacles for competitors to seek patent protection for the same or

related inventions. For these reasons, part of Open Text's primary methodology is to ensure that it has a robust system of creating, maintaining, and archiving all of its information and documentation related to an invention, or, as I mentioned before, prior art.

In terms of barriers to patent filing, for companies such as Open Text there are disincentives to making greater use of patents as a means to protect intellectual property under Canada's current intellectual property regime. As mentioned, the primary disadvantage of patents is that they are the most expensive and time-consuming type of protection available to innovators to both obtain and maintain. Companies such as Open Text must incur not only the costs of application fees and maintenance fees to achieve patent protection, but also face attendant legal costs at each step in the application process, and in any eventual enforcement, if that becomes necessary.

In addition, because Canada's patent law and application procedures differ from those in other countries, innovators face uncertainty and additional costs when seeking patent protection for the same or related inventions in multiple countries. Such disadvantages, in our view, may cause Canadian and multinational innovators to choose not to seek patent protection in Canada, but instead look to other jurisdictions to protect and commercialize innovative technologies.

●(1115)

In respect of reform, Open Text recognizes and appreciates the recent initiatives that have streamlined and increased the competitiveness of Canada's intellectual property regime. These developments include the patent prosecution highway program, an initiative that accelerates and reduces the costs of examination of patent applications under certain conditions, through bilateral agreements with foreign patent offices. Open Text also appreciates the government's efforts in the recent reform of the Copyright Act.

We believe, however, that Canada's patent protection regime can become more streamlined and efficient in protecting intellectual property. This can be achieved through further global harmonization of patent law, application requirements, and prosecution regimes. For example, harmonization of the requirements of the content and form of patent applications, together with harmonization of the law surrounding what constitutes a patentable invention, will reduce uncertainty and lower compliance costs when applications for the same or related inventions are filed in multiple countries.

In summary, Open Text believes that Canadian intellectual property reform, and particularly patent reform, should include initiatives toward global harmonization to achieve cost-effective and timely granting of high-quality patents. Innovators and employers such as Open Text would benefit from a competitive intellectual property regime that is predictable, cost-effective, and more consistent with regimes in other key jurisdictions worldwide.

Mr. Chair, on behalf of Open Text, we again thank the honourable members of the committee for the opportunity to make this presentation.

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

Now on to Mr. Gupta, for six to seven minutes, please.

**Mr. Karna Gupta (President and Chief Executive Officer, Information Technology Association of Canada):** Good morning, Mr. Chair, honourable members.

My name is Karna Gupta. I'm the president and CEO of ITAC, and I'm very pleased to be here on this intellectual property regime discussion. I have a personal interest because in a prior life I led Certicom, as their CEO, a small public company that had the largest patent portfolio in Canada, with 550 global patents. So the subject is very interesting.

We at ITAC speak on behalf of the Information Technology Association of Canada. We have about 350 members, 65% of which are SMEs. The topic of fostering innovation through IP is of particular interest to our constituents, given that 35% of the R and D spent in Canada is in ICT.

Having said that, there are always diverging views when you have a large membership. I'm going to comment on three specific areas: one area is on commercialization; the second is on education; and the third is on consultation.

On the commercialization side, with regard to innovation, there has been much discussion taking place within the committee about how to take ideas from a research stage across the valley of death to the commercialization stage, and how to keep that successful.

To promote the growth of ICT and IP-based firms in Canada, ITAC advocates a comprehensive government digital economy strategy. That is the underlying the framework. There is a tremendous opportunity for Canada to be the destination nation for both talent and investment. If we have a strategy to create the right conditions, innovation and entrepreneurship will happen.

The ICT industry is clearly a fast-moving and globally competitive market, and IP is a key asset in these companies. If you look at some of the recent studies done by MIT or Berkeley, you would see that 82% of the companies that have a high-value IP are backed by venture capitalists.

We understand that as a smaller market Canada is an office of the second filing for patent applications. At the same time, we need to encourage the Canadian industry to use the system. To do that, it is important that the Canadian patent process be efficient and in line with the global standards. Let me give you a couple of examples.

In Canada, the examination of patent application can be deferred up to five years after filing. The examination takes another two

years. The deferral period makes it difficult for Canadian industry to assess the risk potential of infringement during this process. It's an incentive to move the production outside of Canada. In the U.S., the patents are granted in two to three years. We need to look at a shorter deferral period and ways to speed up the process overall.

Secondly, when the patents are filed in the U.S. first, Canada has a bilateral agreement to process Canadian patents faster than normal, which is typically 6 to 12 months, rather than years. We think this approach could be faster as well, and perhaps a more unified system is an option to keep pace with the globally competitive market.

Investment capital is critical to the success of the ICT industry. We have made a submission in this regard regarding the \$400 million investment from the economic action plan to support the ICT industry working on patents. Again, I will draw your attention to the previous study, where today there are over 12,000 Canadian patents filed in the U.S., fewer than 5,000 in Canada.

Specifically on IP, it might also be helpful to look at ways to incent the revenue generation on patents, as in the U.K. What incentives can be provided to encourage the IP development and revenue-generating ideas? It's very important to drive the revenue generation of the patents through the commercialization phase rather than just patents for patents' sake.

On education and outreach, a number of witnesses have commented that more education on the IP regime is needed for business, and we hear this from our members as well. Stronger skills in IP management will lead to higher-quality patents and help avoid litigation. The officials from CIPO offer outreach programs, but lack time and resources. Associations like ITAC and others could help. There is an excellent opportunity to leverage existing organizations to create a broader outreach through these associations. We can be used as a portal for CIPO to take the patent issues out to the community and to the entrepreneurs themselves. It is a great way to maximize the resources we have to help Canadians and the industry.

•(1120)

Finally, IP is a complex field in terms of consultation. There is a balance to ensure consistency in patent evaluation decisions while at the same time adopting a forward-looking practice, one that can evolve with an industry like ours.

Ongoing consultations with the business community are the best way to stay in tune with the market, to make sure the process is predictable but up to date. This is also a good way to ensure that the Canadian system does not become overly burdened with litigation, as it is in the U.S. As such, we propose that consultations with the industry become a regular part of Canada's IP regime.

In conclusion, we believe there is an opportunity to build on Canada's IP regime by ensuring a more consultative and consistent approach in line with the global markets. At the same time, it is vital to increase our focus on the big picture. Canada needs a comprehensive strategy to encourage IP development and commercialization to truly capitalize on the opportunities at hand.

To give you some statistics, on the innovation side Canada has been rated fifth in the world in terms of pure innovation. On the commercialization side we are a laggard and we are rated as twelfth. A significant amount of work needs to be done. How do you drive patent and the IP regime to move from innovation to commercialization and to sustaining it as a business?

I'll conclude my comments. Again, I appreciate the opportunity to present in front of the committee.

Thank you, Mr. Chair.

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

Now we move on to Mr. Lavoie for six to seven minutes.

**Mr. Martin Lavoie (Director of Policy, Manufacturing Competitiveness and Innovation, Canadian Manufacturers and Exporters):** Thank you for having me today. My name is Martin Lavoie. I'm the director of policy, manufacturing competitiveness and innovation for Canadian Manufacturers and Exporters. We represent about 10,000 manufacturers and exporters across the country.

We applaud the committee for undertaking this study. We believe it's a very important one for us, especially in today's global economic environment.

I would like to focus my remarks on three specific issues of the IP regime that affect the manufacturing sector: the first one is counterfeiting; the second is the commercialization of research; and the third is tax incentives for business R and D, including the proposed changes to the SR and ED tax credit.

Starting with counterfeiting, one of the major weaknesses of Canada's IP protection regime as it relates to counterfeiting is the lack of prosecutorial resources for police and customs agents; in other words, the government does not allow enough resources to conduct searches at the border for counterfeit goods.

Beyond the problems it creates in our domestic market, this has a huge impact on Canada's exports. I would like to point out that both the World Trade Organization Agreement on Trade-Related Aspects

of Intellectual Property Rights as well as NAFTA require criminal enforcement and border measures.

The Office of the United States Trade Representative, USTR, has a special watch list. It's called the "Special 301 Watch List", and it has included Canada for the past several years for our failure to implement our international obligations or to take effective enforcement action against counterfeit and pirated goods, especially at the border. This watch list is an annual review of the global state of the protection and enforcement of intellectual property rights. In its latest version in 2011, it put Canada in a very select group of countries that also included China, Algeria, India, Russia, Venezuela, Pakistan, Belarus, and Thailand.

The 2011 report concludes the Canada section by stating:

The United States encourages Canada to provide for deterrent-level sentences to be imposed for IPR violations, as well as to strengthen enforcement efforts, including at the border. Canada should provide its Customs officials with ex officio authority to effectively stop the transit of counterfeit and pirated products through its territory.

We have been advocating since 2006 for more resources for customs agents to stop the transit of counterfeit products, and for a better share of information between enforcement authorities such as the CBSA and the RCMP.

I want to touch on commercialization of research without repeating what has been said before, both today and at other meetings. One particular aspect of what Mr. Gupta talked about was how to generate more revenues with the patents. Taking a quick look at the patents, you may realize that universities in Canada file many patents every year and they own many patents. Actually, the OECD says that Canada is a good performer in university patents. If you look at the Canadian patents database, you will find that in 2012 Canadian universities were issued 58 patents. Only one of them, however, allowed a third party to license it. In the last three years, there have been over 100 patents issued to Canadian universities and only three made licences available.

My point is that you can develop as many patents as you want. But if you do not actively seek a third-party manufacturer or an entrepreneur to prototype it, test it, and bring it to market, it won't be commercialized. When you take into account that universities spend more than \$10 billion a year in R and D, including more than \$3 billion that comes from the federal government, most of it from taxpayers, it is nonsense that more efforts are not being put into licensing these patents.

We believe that all patents granted to universities or professors should automatically make licences available in the database to any third party on a non-exclusive basis, if possible, and that universities should actively promote these licences in the private sector.

I would also agree with Mr. Gupta that our associations could be helpful to universities in pushing the dissemination of this information through our respective members.

My third point is about business R and D, particularly the tax environment in which businesses compete as they perform R and D.

From a basic economic perspective, businesses maximize their investment in R and D if, one, they make profits, and, two, they compete in an environment where taxes maximize their cashflow.

On the profitability side, we're not the sector that has made the most profit in the last 10 years. Since 2001, the annual average revenue growth in our sector has been 0.3%, which is the second lowest in all sectors of the economy.

●(1125)

However, some tax measures undertaken by all levels of governments, including the decrease in the CIT rate, of course R and D tax credits, federal and provincial, the accelerated capital cost allowance for machinery and equipment, and so on, have helped businesses going through rough times by maximizing the after-tax cashflow available, despite low revenues.

The changes proposed to the SR and ED tax credit, first, are a huge concern for our members. It's more particularly the reduction of 5% in the rate for large businesses, and the elimination of capital expenditures from the tax base eligible for the tax credit, which are the two main concerns we hear more often from our members. The manufacturing sector accounts for 55% of all business R and D in the sector. Combined with Mr. Gupta's sector, we're about 90%. So of course we'll be among the most hit by these two measures. We're also very capital-intensive, I'd like to point out.

We estimate that all the proposed measures by the federal government in the SR and ED tax credit will reduce the R and D tax incentives in Canada by \$750 million a year, starting in 2016-17 when all the measures are implemented. According to our latest management issues survey, 69% of our respondents said that as a result of these changes they will reduce R and D spending in Canada, while another 20% said they will start to look at other jurisdictions to see what kinds of tax credits they offer for R and D.

Talking about other jurisdictions, this week we published a report that compared the R and D tax credits for large companies across the OECD and some other emerging markets. We found that the international competitiveness of our R and D tax credit will fall from number 13 to number 17, just as a result of the 5% decrease in the investment tax credit rate. What is even more of a concern than the actual rank is to look at the countries that will now be ahead of us. We're talking about countries like Brazil, China, and Turkey, which not only offer bigger market size and lower labour costs, but they will now offer a more generous tax credit for R and D.

These are our concerns. I thank you for inviting me, and now I will shut up.

●(1130)

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

Now we'll move on to questions. Our first round is for seven minutes.

We'll begin with Mr. Braid.

**Mr. Peter Braid (Kitchener—Waterloo, CPC):** Thank you very much, Mr. Chair.

Thank you to all of our presenters for being here this morning. Once again, I think it is another highly qualified and high-quality panel, so thank you.

Mr. Davies, thank you very much for being here from Open Text in Waterloo. I think Open Text is, in terms of success stories in Canada, one of our country's best-kept secrets. I appreciate your being here.

How many employees do you have in the two buildings in Waterloo?

**Mr. Gordon Davies:** I think in the two buildings in Waterloo we would have in excess of 800 employees today.

**Mr. Peter Braid:** How many do you have internationally?

**Mr. Gordon Davies:** Internationally, with our recent acquisition of a company called EasyLink, we're now over 5,000 employees.

**Mr. Peter Braid:** I listened with interest to the debate at Open Text between whether to patent or whether to copyright. I presume that you perhaps use copyright more often because you're a software company and that would be appropriate with respect to that type of technology. Could you just help us understand what thought process the company goes through in terms of determining that decision point—whether to patent, whether to copyright?

**Mr. Gordon Davies:** First of all, we certainly use patents less for protecting our intellectual property, but I have to say, as I said in my comments, that to a certain extent that's because of the cost and expense of the process we're required to go through. We place significant importance, as a result of that, in the prior art of all the documentation and copyright that would surround an invention, and we use that as our primary step in terms of protecting the intellectual property.



That said, though, we have been going through a patent program in the last couple of years where we're trying to file more patents, particularly in Canada. We have a number of people in R and D in the Waterloo region, and in order to encourage innovation within the company, we are encouraging the filing of more patents, and you've seen in the last couple of years now that we're starting to file 10 to 12 patents a year, whereas in the past we were primarily focused on the copyright, as you indicated, as well as prior art.

**Mr. Peter Braid:** You spoke about the notion of looking at and exploring harmonizing some of Canada's IP processes and regulations with other international jurisdictions. I want to ask if you could just elaborate on that a little bit, and perhaps indicate some specific examples of where and what we might harmonize and which jurisdictions offer best practices in this regard.

**Mr. Gordon Davies:** Certainly from our perspective, and because we're an acquisitive company, Open Text is created by... Over 50 companies have been acquired over the past eight to ten years. A lot of the patents that we will receive as a result of that M and A initiative in the United States. As a consequence of that, we do look at whether we should also file the patent in Canada or file the patent elsewhere as well. But to be candid, it's not the filing cost, and it's not the maintenance cost related there either; it's actually the legal cost inherent in being the second filer in Canada.

The reason for that is the regime is different. There's a different form. There's a different analytic in terms of what's a patentable idea. It requires us to get experts in Canada. You can't really just take the work product that's already been done in the U.S., apply it within the Canadian context, and get a similar protection level here. You really have to engage experts and go through an entirely different process to try to achieve the same result.

• (1135)

**Mr. Peter Braid:** Mr. Gupta, thank you for being here. Good to see you again. I want to come back to a point you made, a suggestion you offered in terms of collaborating with CIPO to help with outreach efforts. I think that's a really neat, collaborative, and innovative idea. Here's your opportunity to go for it. Tell us why you think this is an important suggestion, how it might work, and what consultation, if any, you've done so far.

**Mr. Karna Gupta:** Thank you for the question.

I think CIPO did submit in their documentation that one of the issues they're facing is outreach and getting to the community with the information they have. There are multiple organizations around the country, and a lot of them are of a national nature, like ITAC, which would present information technology across Canada. Open Text is our member.

To reach the large constituents... Of our membership, 65% are SMEs. We do have a fairly active SME outreach, and we run several programs in each of the provinces and territories.

If CIPO wants to get the information out about how and what needs to be done, just from a knowledge point of view, one way to do it is to use the associations to get the information out. Often it could be done through a portal. I'll give you an example in this case. A similar thing happened with EDC, for example. EDC does serve our SMEs significantly when they do overseas business, but their reach is limited because they are all inbound calls. We are in fact

working with EDC to establish a portal so they can have a push to the community in terms of what they offer.

We're of the belief, in ITAC's current management and in the board of directors, that a big part of the issue in Canada is that we need to connect these separate dots that are out there. Everybody is trying to do good things in goodwill, but the dots are not necessarily connected properly. So if we can connect some of these pieces to reach out to the community, we can add a tremendous value, even on a consultation. If you run a forum in New Brunswick, CIPO could be one of the guest speakers, or they could have their portal and local community entrepreneurs could come and see what they need to do, because the patent process in Canada is very complex.

As the colleague here mentioned, the searches you have to go through, whether it's an infringement search, a prior art search—there are a bunch of searches. It is a very complex process. Smaller companies often cannot do that, and they struggle. By the time they get something done...post-revenue, it's very hard. So there is room to collaborate and get the information out through the associations.

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

That's all the time we have, Mr. Braid.

[*Translation*]

Now I hand the floor over to Ms. Leblanc.

You have seven minutes.

**Ms. Hélène LeBlanc (LaSalle—Émard, NDP):** Thank you, Mr. Chair.

I want to thank the witnesses for being with us today.

In my riding, LaSalle—Émard, 6,000 jobs depend on the manufacturing sector. Here we are talking about 120,000 jobs in the greater Montreal area. That sector has been hard hit in recent years and we have seen a large number of businesses close their doors. Many of those jobs have disappeared.

Bill C-45, which is before the House of Commons, proposes changes to the research and development program. As I mentioned, research and development lead to innovation. As regards the changes, there is a reduction from 20% to 15%, among other things, and capital expenditure eligibility is being amended. We touched briefly on that aspect.

I would like you to give us more details on the consequences this will have for your members, particularly for our competitive power, especially with the United States.

**Mr. Martin Lavoie:** You are correct. Of all Canadian industries, our sector is probably the one that has faced the most international competition. The emergence of countries where labour costs are lower has hurt, but the fact that it is combined with a rising dollar has made things even more difficult since that increase has caused a rise in labour costs in our industry.

In the long term, of course, the best way to adjust to that is to increase productivity, but also to focus on less labour-intensive and more R&D-intensive activities. In our industry, that is what we are starting to call the "advanced manufacturing sector". In future, you will be surprised to see that, compared to 20 years ago, the new manufacturing plants will really have fewer employees. However, industry workers will be far more educated. They will be engineers, researchers and so on.

It is hard to say how many jobs will be affected, but we know how this will affect the investments of R&D businesses. In our sector, activities will be focused much more on design than assembly. This kind of tax credit is important when a company in our industry makes investment decisions, but we must not overlook companies elsewhere that are looking for the best environment in which to do business.

In the past, we had an enormous competitive advantage as a result of the fact that our dollar was lower than the currency of many other countries we did business with. We no longer have that advantage, particularly relative to the United States, as you said. Like other countries, the United States is introducing aggressive tax measures to attract this new advanced manufacturing sector. In Montreal, for example, Electrolux and Kruger have moved to places like Memphis, in the United States. Some states are also very aggressive from a tax standpoint.

I do not believe we should play at being the country with the lowest taxes, but we should act on our strengths. As our university sector is quite effective, we must take advantage of that. We also have a quite skilled labour force. There are deficiencies in certain sectors, and that is a problem, but we must implement tax systems that enable industries to take risks in those fields.

• (1140)

**Ms. Hélène LeBlanc:** In fact, what you are describing here are good, well-paying value-added jobs.

The Jenkins report, which contained recommendations, stated that it would be important to consult industries before making any changes and to introduce compensatory measures in the event changes were made.

Do you think that compensatory measures have been implemented under the current budget so that the sector can adjust to the significant changes you describe?

**Mr. Martin Lavoie:** I believe that the Jenkins report contained two recommendations on this matter. The first really focused on capital expenditures. According to the Jenkins report, it must be considered that the elimination of capital expenditures, which it characterizes as a labour-based approach, will be painful for many highly capital-intensive businesses. According to the report, that measure should be applied in two phases, starting with small businesses, which tend to require much less investment. It

recommends that the government take the time to consult the businesses most affected and to apply this measure only if it is possible to offset the losses that this could cause them.

The measures were announced in last April's budget. However, all we have heard to date is that other direct support measures will be implemented. I am not familiar with them. Consequently, I do not know whether that will have a direct effect on capital expenditures, for example.

**Ms. Hélène LeBlanc:** I must say that we would have liked to study those measures, which are included in Bill C-45, and to hear testimony on the subject.

Do you think it would have been appropriate for the Standing Committee on Industry, Science and Technology to examine that?

**Mr. Martin Lavoie:** In our report, we recommended that the legislative changes included in Bill C-45 be set out in a separate bill. In our opinion, this is a fundamental change to the tax treatment of R&D and it should be treated as such. I imagine that, in a private member's bill, it would have been studied by the appropriate committee.

Having said that, I nevertheless hope we will have the opportunity to discuss this before the Finance Committee, if we are invited to appear there.

**Ms. Hélène LeBlanc:** As you mentioned, the measures respecting high value-added jobs and innovation are very important.

Do I have any time left?

• (1145)

[English]

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

[Translation]

**Ms. Hélène LeBlanc:** Mr. Gupta, ITAC spends \$5.2 billion on research and development.

In SR&ED, what impacts and changes have been announced to the members of your industry?

[English]

**Mr. Karna Gupta:** Could you repeat that?

[Translation]

**Ms. Hélène LeBlanc:** Your members spend an enormous amount on R&D. I questioned Mr. Lavoie about the announced changes, such as the reduction from 20% to 15% and the amendments respecting capital expenditures.

What will consequences of this matter be for your members?

[English]

**The Chair:** Mr. Gupta, you will have to keep that question in mind, and if you can slip the answer in with another question you're asked, that would be the way to do it.

**Ms. Hélène LeBlanc:** Will it have an impact on your members, yes or no?

**Mr. Karna Gupta:** We did submit specific to SR and ED.

**The Chair:** Your time is up. It was way over already.

Now on to Madam Gallant for seven minutes.

**Mrs. Cheryl Gallant (Renfrew—Nipissing—Pembroke, CPC):** Thank you, Mr. Chairman. All my questions will be directed through you.

Mr. Abielmona, would you please outline the different criteria that were found to be necessary to launch a successful product, as you were about to before your time drew to an end?

**Mr. Rami Abielmona:** Thank you for the opportunity to continue to outline those criteria.

I did a bit of research. I was general chair of that particular conference I mentioned. A couple of talks were related to this technology transition from R and D to commercialization, and I gathered the following points.

First is vision of need. Obviously there has to be a need to commercialize. There has to be some pain from the customers' perspective that you have to solve.

Second is good technology. We have to produce good technology. The technologists who are driving this innovation have to be very persistent.

Third is good working relationships with partners. There have to be partners: other industrial partners; government partners, obviously; and research partners, maybe in the education sector.

Fourth is jointly supported programs. These programs are very important. They are what we're talking about to bridge this technology value. It's not just to support the R and D side; it's also to support the commercialization side, especially for SMEs. We're not talking about the major companies with over 500 employees. We're talking about the majority of members who belong to ITAC, for example. I heard 65% with fewer than 500 employees belong.

Fifth is strong user support.

The last one is transition planning through IRAP. The company, the corporation, obviously has to have a plan in place to transition from R and D to commercialization.

**Mrs. Cheryl Gallant:** You mentioned substantial funds are available through IRAP for the research and development phase. The so-called technological valley of death, where we fall short, is in taking the prototype to commercialization. We have the Canadian innovation commercialization program, and it awards funding to entrepreneurs and pre-commercialization inventions to get to that commercialization point. It provides funding to the entrepreneurs for testing and feedback on the performance of their goods and services, and it provides the innovators with the opportunity to enter the marketplace with a successful application of their new goods and services.

I understand from the budget we're going to increase that by \$95 million over three years, with an extra \$40 million to make it permanent, and a military procurement component is going to be added to this. Would you please describe how this program needs to be tweaked to better serve your needs?

**Mr. Rami Abielmona:** This is a very good question.

CICP is something we've obviously looked at, as have all the other SMEs we've been in touch with, as well as the bigger players. We work in the military and public security market, so the major defence contractors are also at play here. I'll just speak from our experience.

As an SME it's very tough to currently compete on the CICP program. It is intended for pre-commercialized and tested applications. The problem we run into is that in order to get to the pre-commercialization stage, you will have performed your R and D, you may have submitted a patent application if you feel there is a need to do so, and you may have gone all the way up to pre-commercialization. But there isn't yet a user grab; there isn't a client pull.

It's very tough for us, as an SME, to be a solution to everyone's problem, so we try to attract a niche market, a subset of clients. The larger players have the ability—because they have already-existing contracts, already-existing deliverables, already-existing services and products that are selling to the majority of their clients—to bring in their R and D innovations and test them out at those clients' sites, whereas we're running up against a wall, unable to bridge that gap as well.

If we can't get our products and services tested at the client base, then there is no real chance for a CICP application—CICP really requires you to have your stuff already tested out—and obviously no real chance for further testing by particular client bases.

As to the tweaks, I just look to our neighbours in the U.S. and at certain programs they've set up, which aren't tailored and geared towards SMEs. Maybe CICP could have a particular tweak such that SMEs might have a base that they could apply against each other across Canada, instead of applying against every single company that exists in Canada.

• (1150)

**Mrs. Cheryl Gallant:** Are you telling me, then, that there is not a government agency that needs your particular type of product directly, if your product is a component of a larger procurement?

**Mr. Rami Abielmona:** Yes, that is exactly it. Most of our products are OEM'd into these pipelines, and if we don't go to these defence contractors and sell them on our own products, we don't really have a chance to bid on CICP RFPs.

**Mrs. Cheryl Gallant:** What about the industrial regional benefits? Let's say we're buying a piece of military equipment—you mentioned that—and that for a number of items we don't have the manufacturing capability in Canada, so in return we would have to incorporate Canadian technology.

Is that system of any benefit to your type of company?

**Mr. Rami Abielmona:** That's an excellent question as well, because we've run up against IRBs a couple of times in the past. We have participated in whole-day seminars for IRBs in which OCE, at the time, brought American defence contractors into Ottawa for one-day sessions. We had a kind of meet and greet for 30 minutes, in which you would express what your product base lines were, what your services base lines were, to see whether there was a match.

What we noticed from those two long-day seminars was that if it's less than \$10 million, the U.S. guys aren't interested. Our products don't sell for that much, by way of licensing costs.

That was our take out of this. Obviously this is our own opinion.

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

Madam Gallant, your time is up.

Now we go on to Mr. Regan for seven minutes.

[*Translation*]

**Hon. Geoff Regan (Halifax West, Lib.):** Thank you very much, Mr. Chair.

Mr. Lavoie, I would like to ask you a few questions.

As you are no doubt aware, your organization, Canadian Manufacturers and Exporters, released a report last Tuesday, emphasizing in it that a change has occurred in the past 15 years in that labour-intensive activities have been transferred to developing countries, especially China and India, and that developed countries have increased their research capability.

Does research follow production, or is it the reverse, and what does that mean for Canada?

**Mr. Martin Lavoie:** There is a kind of trend. Many companies may not be multinationals, like Magna International Inc., with 80 R&D centres in 18 countries. Many Canadian companies are of medium size. They will open production plants in other countries and then see whether they can try to establish R&D there.

In the past, developing countries had strategies based mainly on low costs. They created industrial areas and invited companies to move there, offering low taxes and cheap labour. They understood quite quickly that this was a race to the bottom and that, if they focused solely on labour costs, sooner or later another country would charge less in that area and develop in certain sectors.

As you said, some countries, such as Turkey, China and Brazil, are no longer content merely to provide low-cost labour to industrialized countries. They want university and industrial research. Consequently, they will definitely play on that and say that, from now on, if you move to their countries, you will have not only skilled labour, but also skilled labour at lower cost than in the industrialized countries, hence the importance of productivity.

•(1155)

**Hon. Geoff Regan:** Your report states that Canada's competitive position in the world, based on tax rates and R&D tax credits, is declining. In 2008, Canada was ranked 9<sup>th</sup> in the world. Before the budget, it was 13<sup>th</sup>, and after the 2012 federal budget it will be 17<sup>th</sup>. How has that happened?

**Mr. Martin Lavoie:** From a methodological standpoint, I would just like to say that that comparison takes repayment of investment into consideration. For every dollar that a large company spends on R&D—we did not look at the situation of small companies—how much money is returned to the tax system? In fact, the tax system has two factors, the corporate tax rate and the tax credit. A 20% tax credit with a 30% tax rate is more favourable than a 20% credit with a 50% tax rate. So you have to look at both.

In 2008, when our tax rate was higher, we had a 20% tax credit under the SR&ED program. For every dollar that a large company spent on R&D, 18¢ was returned to it through the federal tax credit. In 2012, this year, as a result of the reductions in the corporate tax rate, the return is slightly larger for the reason I mentioned, that is to say that our tax rate has fallen, but our tax credit has remained the same.

Other countries have also taken rigorous action, either by lowering their corporate tax rate or increasing the R&D tax credit. This means that countries have been more rigorous than we have on these two aspects and that they have moved ahead of us.

The 5-percentage-point reduction in the tax credit will result in a repayment of investment in the order of 13.6¢ per dollar invested in R&D. I believe that is the figure that appears in our report. That is less than what it was in 2008, even though the corporate tax rate was higher.

In our opinion, this will take us to 17<sup>th</sup> place. As we discussed earlier, a rank is just a rank: 17<sup>th</sup>, 13<sup>th</sup> or 9<sup>th</sup>. However, what is a much greater concern for us, and what we are seeing, is that the countries that will now be ahead of us will not just be industrialized countries; they will increasingly be what we call developing or emerging countries.

**Hon. Geoff Regan:** On that point, you mentioned the difference between large, medium and small enterprises. What is your argument in favour of assisting large businesses? I believe that many Canadians would say we should help small and medium Canadian enterprises that will help Canada grow and create employment. Why not focus on them?

**Mr. Martin Lavoie:** That is a big problem. I believe we have already discussed that here, with other witnesses, in the past.

We need to expand our businesses further. With regard to R&D tax credits, the OECD and other, Canadian observers have said that, in Canada, even if we take into account the SR&ED program tax credit, we are moving from a non-refundable tax credit of 20% to a refundable tax credit of 35%, depending on the size of the business. And it does not take much to cross that line. In fact, we are using the definition of a Canadian-controlled private corporation. I believe that means taxable income in the order of \$400,000.

•(1200)

This leads some people, such as Mark Pearson, of PricewaterhouseCoopers, who published a report last year, to say that this is virtually an obstacle to the growth of small businesses. If they suddenly exceed that level in one year, they lose 15% of their tax credits. If they are not in a profitable position, they will no longer have access to the refund.

In the report it published before the summer, the OECD said that you should slightly reduce tax credits for small business and reallocate them to direct support activities, in particular to provide some harmonization of the tax credit offered to all businesses. To answer your question, I would say that the OECD found that it was much more important to provide direct support for small businesses because assistance is often needed in research pre-commercialization or commercialization activities.

The tax credit may be more important for large businesses in that they have much more mobile capital than small businesses. As I said earlier, multinationals have the ability to go to the most favourable places, whereas the smallest businesses may perhaps not have that ability.

[English]

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

Thank you, Mr. Regan. That's all the time we have for that round.

We're going to move to our five-minute round.

We begin with Mr. Lake, for five minutes.

**Hon. Mike Lake (Edmonton—Mill Woods—Beaumont, CPC):** Thank you, Mr. Chair.

I'm going to continue with this discussion that we've been having, because I find what I'm hearing from the opposite side rather interesting. Some time ago in question period, the finance minister, in referring to the NDP policy on the economy, referred to their concept of a "magic money fairy". There is absolutely no limit to how much money they would be willing to spend—

**Ms. Hélène LeBlanc:** I have a point of order.

**The Chair:** Mr. Lake, Ms. LeBlanc has a point of order.

**Hon. Mike Lake:** Sure.

**Ms. Hélène LeBlanc:** I would like to ask my colleague Mr. Lake to refrain from making personalizations. When I ask questions to a witness, I don't make comments about the government; I ask questions about the policies that are in front of us. I would like the member to just ask the question.

Thank you.

**The Chair:** Thank you, Madame LeBlanc.

I remind all members that points of order should be restricted to procedure and not to those things that we debate.

I hope that Mr. Lake, being a kind man, may take your advice, but that really is not a point of order.

**Some hon. members:** Oh, oh!

**The Chair:** Please continue, Mr. Lake.

**Hon. Mike Lake:** Mr. Chair, I forgive her—and I'm not referring just to this meeting but to the last meeting as well.

With respect to the finance minister, I think he might have it wrong: the source of the money wouldn't actually be the magic money fairy, Mr. Lavoie; it would be your members.

To be very clear on this, when you look at the policies we're talking about... During the last election campaign we had a good conversation about the corporate tax rate, for example. We've lowered the corporate tax rate from 22% to 15%. That has been opposed by both opposition parties every step of the way.

How important is that reduction in the corporate tax rate for your members?

**Mr. Martin Lavoie:** It's very important. The corporate income tax rate reduction is important because it increases the after-tax cashflow of businesses. Why is after-tax cashflow important? It's important because it's the main driver of business investment in either knowledge technology, people, or capital. We have been arguing that there would be 200,000 fewer Canadians employed today without these tax reductions.

We also published at the time a report on the economic impact of CIT cuts. We have been quite supportive—I would say across the board among our membership.

Of course, the CIT rate is never the real rate, because there are other tax features that will alter the taxes a company will pay, according to its particular situation. SR and ED is one of them, among others including the depreciation rate used by the CRA on machinery and equipment, taxes on capital that have been eliminated in Canada, and harmonization of sales tax as another one. There are many factors.

But the CIT is definitely the overarching tax rate.

**Hon. Mike Lake:** I'd also like to speak to another proposal by the opposition parties to go to a 45-day EI program, basically where you work for 45 days and then qualify for EI for the rest of the year. There was a lot of commentary on the cost to businesses if we were to go down that road. Of course, that was a Bloc proposal, completely supported by the NDP and the vast majority of members of the Liberal Party in the last Parliament.

Maybe you could speak to the impact that such a change would make to your members.

**Mr. Martin Lavoie:** Again, the employment insurance contributions are in the form of a tax. For companies, it's a spending. It's a tool that you can use to make companies invest more in skills and in the training of their employees.

We've been arguing that you should have a system in which you reward companies' investment in skills training and so on. For example, that's one recommendation we made in our pre-budget submission, to provide a tax credit for employee training that you could apply against your EI premium. That's one example of how you could do it. I think you can use it just as a cost for companies to fund a program. You can also use it as a tool to make companies invest in people, which is one of the three pillars of business investment, with knowledge and capital.

• (1205)

**Hon. Mike Lake:** Finally, during the last election campaign there were a lot of promises funded in the NDP platform. On page 4 of their costing document, you could see very clearly that it was a \$21.5 billion increase over four years in carbon taxes.

I just want to know what the CME position would be on that. Would your members be in favour of \$21.5 billion in carbon taxes? And how would that affect them?

**Mr. Martin Lavoie:** I've never asked our members about this particular proposal, but we did participate in the British Columbia tax panel consultation that was going on during the summer. We did express our opposition to the way they view the carbon tax over there. As a general philosophy, we believe that before you get to a carbon tax, we should use all the tools we have and invest in technologies to make companies more carbon efficient, if I can use that term.

**Hon. Mike Lake:** Thank you.

I'm going to ask you one more question. I had a meeting with the CME in Alberta, the Alberta branch. They told me that they're 141,000 workers short in Alberta right now. Can you verify that number, 141,000 workers short, in just the manufacturing sector alone?

**The Chair:** The time is up, so if you could just say yes or no on that....

**Mr. Martin Lavoie:** Yes.

**The Chair:** All right. That's very good.

Mr. Harris, five minutes.

**Mr. Dan Harris (Scarborough Southwest, NDP):** Thank you very much, Mr. Chair.

With that line of questioning we seem to have gone right off the rails. We'll see what we can do to bring it back onto an actual study on intellectual property, rather than a partisan "magic money fairy" witch hunt.

I'm going to start with Mr. Davies. I notice in your background, and I can't help but go there, that you worked with Nortel for 16 years. When we talk about Canadian companies going under, and the intellectual property and what happens to it afterwards...there was of course a gigantic sell-off of the intellectual property that Nortel had. It was over \$40 billion. It was actually larger than the bricks and mortar sales of their infrastructure.

Do you think Canada got good value for the investments when the intellectual property was sold off?

**Mr. Gordon Davies:** I'm not sure I'm prepared to talk about Nortel here.

You're quite right that Nortel had 55,000 patents, and it ended up being the largest valued asset of Nortel through the bankruptcy process. The various assets were auctioned off, and I believe it was \$4.5 billion that they received for that.

It certainly does make it clear that intellectual property and patents, in particular, particularly in that sector, are very valuable.

**Mr. Dan Harris:** Given that it was a huge part of it, do you think that Canada should take more steps to protect its intellectual property, either through the Investment Canada Act or through other processes, when it's being looked at by foreign companies?

**Mr. Gordon Davies:** Again, we're drifting into a different topic a little bit, from my perspective.

I do believe it is important to protect the intellectual property of the country and the companies within Canada. We have certain cost barriers, and we have uncertainty within that regime today that I think causes companies to look elsewhere to ensure that their intellectual property is protected.

OpenText is an example of that, where most of our patents are filed in the U.S., although admittedly that's in part because we're an acquisitive company and many of the acquisitions were in the U.S., and there was already a robust patent regime there. There are definitely disincentives and barriers to also filing our patents within Canada.

• (1210)

**Mr. Dan Harris:** Also, of course, as a software company, to bring it back to the Open Text context, software is not patentable in Canada. In Europe it's not. In the United States it is.

Does Open Text have an opinion as to which direction Canada should go?

**Mr. Gordon Davies:** We certainly believe that software should be patentable. We have a defensive strategy, and as a result of that, companies such as Open Text would typically focus more on prior art than on the filing of patents. But you're absolutely correct that it is patentable within the U.S., and we think that's an important component of protecting intellectual property in Canada as well.

**Mr. Dan Harris:** Great. Thank you.

Monsieur Lavoie, during your opening statement you said that one of the issues your sector is facing is with respect to counterfeiting and changes that could be made at the border.

In 2007 this committee did a study on counterfeiting and came up with a large number of recommendations. Are you familiar with that study?

**Mr. Martin Lavoie:** I wasn't at CME at the time, but I am familiar with the study.

**Mr. Dan Harris:** Has there been any consultation with Canadian Manufacturers and Exporters about actually implementing recommendations from that strategy? It has been five years now, and we've not yet seen any action from the government.

**Mr. Martin Lavoie:** Not specifically, no.

**Mr. Dan Harris:** That goes to my next point, which is in regard to consultations on the current process. I think you indicated that the industry wasn't really consulted in a fulsome way before changes were proposed in this budget.

**Mr. Martin Lavoie:** Do you mean consulted about SR and ED?

**Mr. Dan Harris:** Yes.

**Mr. Martin Lavoie:** You can argue that the Jenkins panel was a consultation. We did submit at the time, along with many others. We saw a bit of a disconnect between what we as an organization, and a lot of other associations, expressed and what we saw in the report. That being said, we didn't write the report. But we did express these concerns to the government, mainly about their recommendation to use a labour approach only and to make the SR and ED credit labour based. We expressed our concerns to the decision-makers about the fact that we were a capital-intensive industry.

**The Chair:** Thank you, Mr. Lavoie. I'm sorry, the time is up. Thank you very much.

Now we'll go on to the next questioner. It will be Mr. Wallace, for five minutes.

**Mr. Mike Wallace (Burlington, CPC):** Thank you, Mr. Chair, and I want to thank our guests for being here today. This has been very interesting.

I know I seem to be a bit distracted, but I have a flooded basement. We're getting that resolved.

First I have a basic question, and any one of you can answer it.

A number of you have talked about harmonization of the patent system. I don't know a lot about what happens in other countries in terms of the patent system. Would you say that other countries use their patent system as a competitive advantage and that they use it as a reason for you to go there to use their patent system? When you say harmonization, does that mean us matching them? Are they matching us? Should we have a North American patent system that's all the same?

My concern about the United States is that it's a very litigious system down there. The government likes to claim that they're laissez-faire, but I think the government in the United States is fully engaged in the business down there, at all levels, much more than we are in Canada.

I would like an opinion on what you mean by harmonization and whether other countries would even be interested in that. Any of you can answer that.

**Mr. Karna Gupta:** I'll answer your question first.

To answer your first question, on whether a patent is used as a competitive advantage, it doesn't exist in isolation. It's part of the broader issues on the table. Most countries are larger than Canada in terms of market size, so in terms of attracting talent, capital, and innovation, the patent is only one piece.

They do offer an easier patenting process. When I was in the private sector, we patented in the U.S., in European countries, and in Japan before we came back to Canada to patent it, because the markets were larger, they provided the incentive, and it was easier to get done.

It's part of a broader piece, not done in isolation, that's used as a strategy to attract. There are several things at play now.

• (12:15)

**Mr. Gordon Davies:** I would agree with that, but I guess I would expand on it, perhaps to balance it. You mentioned that the U.S. is more litigious. Part of the reason, in a defensive strategy, for filing patents and making sure that you have robust prior art is to protect yourself in that circumstance. It's undeniable that in the U.S., given the measure of litigiousness of other IP owners and the potential damages and outcomes as a consequence of that, we focus on making sure that we're particularly protected in that competitive environment.

**Mr. Mike Wallace:** My friend, Ms. Gallant, talked about the commercialization program, and we did a study of that in another committee I'm on. Our recommendation was to make it permanent and so on, which has happened.

In your view, is taxpayers' money at risk, really? Your response was that it went so far, but we could do other things. When does it become the taxpayer's responsibility for commercialization of product, and when is it the entrepreneur's responsibility for commercialization?

**Mr. Rami Abielmona:** That's a good question. I think the taxpayers themselves.... I come from the high-tech market, so when we look at the high-tech market, Ottawa's been dubbed Silicon Valley North, and there are a lot of high-tech businesses operating in Calgary, Toronto, and Montreal. In the end, the taxpayers are most likely employed within some of these markets. Especially in Ottawa, there are a lot of SMEs coming out due to the fallout from Nortel and JDS back in the nineties and other big businesses that were collapsing in Canada. A lot of SMEs have been uprooted because of that trend.

If we're saying that the taxpayers working in the high-tech market are also forming their own SMEs, in the end, those SMEs have to be given a hand, they have to be lent a hand, so they can bring their products to market.

I think the question should just go back to how many SMEs exist across the Canadian landscape. Are we giving them a fair chance to compete on the national as well as the international stage? Our opinion is that we are not.

**Mr. Mike Wallace:** Thank you.

How much?

**The Chair:** You have ten seconds left.

**Mr. Mike Wallace:** I just wanted to make a comment on the SR and ED. I know you've had a lot of questions on it. The envelope is not changing based on the Jenkins report, and it was a consultation. We have heard that IRAP is a good program of direct funding, and we are going to continue with that.

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

Mr. Stewart, for five minutes.

**Mr. Kennedy Stewart (Burnaby—Douglas, NDP):** Thank you, Mr. Chair, and thank you to the witnesses for coming today.

It's my understanding that the envelope is changing, actually, on SR and ED and there will be some reductions, and some of that money will be put towards other means, so I'd like to continue on with questions about that area.

Last week, I believe, we had representatives from Research in Motion come before us, and when we asked them about the reduction in SR and ED benefits they said it would reduce their direct benefit by about a third. That was their statement. I'm wondering, perhaps Mr. Abielmona and Mr. Davies, if you could say, perhaps in the same terms, how this change would reduce your benefits.

**Mr. Rami Abielmona:** In our preliminary calculations, I don't think we'll see a reduction. We don't have many capital expenditures, so we don't anticipate any major reductions.

**Mr. Gordon Davies:** I'm afraid I don't have an answer to that question.

**Mr. Kennedy Stewart:** You don't have an answer. So you haven't done any calculations on how SR and ED is going to affect one of the biggest companies in Canada?

**Mr. Gordon Davies:** It may very well be the case that we've done a calculation on it, but I don't have that answer.

**Mr. Kennedy Stewart:** You don't have it, okay.

If there was a reduction, do you think that would reduce your investment in R and D?

**Mr. Rami Abielmona:** From our perspective, it would. If there was a reduction, we would decrease our investment in R and D. We are 16 employees at Larus, as opposed to some of the larger companies, so we have to be very judicious and cautious with our cashflow management. We heavily invest in R and D. We've done so since 2006-07, and we are seeing the fruits of our investments. SR and ED is a major player for our R and D investments.

• (1220)

**Mr. Kennedy Stewart:** Can I just follow up? So it's a cut from 20% to 15%, but you're saying that's...?

**Mr. Rami Abielmona:** Yes, from our preliminary calculations, it doesn't impact us much.

**Mr. Kennedy Stewart:** Okay.

Mr. Davies, through the chair, if you do eventually calculate a reduction, do you think that would affect your R and D investment?

**Mr. Gordon Davies:** Certainly, it goes into the calculation, but I'm not sure it would affect our investment in R and D, no.

**Mr. Kennedy Stewart:** That's interesting. So you approve the changes?

**Mr. Gordon Davies:** We're in a slightly different circumstance. We're a much larger company. We have over \$1.2 billion in revenue. We have a tremendous number of R and D engineers, both in Canada and elsewhere, so, yes, it's an important component of it. But I wouldn't be prepared to say today that this would result in a decrease.

**Mr. Kennedy Stewart:** Thank you.

We've talked about standardization of patents. The argument has been that if we're standardized it will make us attractive for

investment and for people to register their patents here. My question is, why don't we go beyond what we see internationally? Why don't we have longer patent protection in Canada? If you're following a rationale that the longer the patent, the more R and D investment you have, wouldn't it be a good idea to have longer patent protection here in Canada?

I can open that up to whoever would like to answer.

**Mr. Karna Gupta:** I think longer is one element of it. It's the other costs that go with it that are important. It's not only the filing process and going through the searches, but also the length of the patent. The big piece that also ties in with this is the enforceability. If you are going to have a patent, you should be able to enforce it if there is an infringement. So that process needs to be dealt with as well. You can't say having your patent length increased from 17 to 20 or 25 years is going to draw an investment. There are other issues that play into it.

**Mr. Kennedy Stewart:** I'm a little confused because we've been hearing, basically across the panel, that we need longer patent times, and now you are saying that patent time doesn't matter that much.

**Mr. Karna Gupta:** It does, but it is one of many things. Only changing one variable may not be sufficient or attractive for a lot of companies. When you look at companies that are filing patents in Canada, they have Canadian indigenous companies that are filing patents here, and you also have the multinationals that are in the centres everywhere else filing patents in Canada. So the issues are slightly different. One element doesn't necessarily create a wholesale draw.

**Mr. Kennedy Stewart:** In the hierarchy of elements, where would you put it? Is it near the top or near the bottom?

**Mr. Karna Gupta:** I think it is an important one. It's a big variable.

**Mr. Kennedy Stewart:** I would like to ask the other witnesses if they agree with Mr. Gupta's statement.

**A witness:** I certainly agree, yes.

**Mr. Rami Abielmona:** I agree, but I think IP licensing, which was brought up by one of the other witnesses, is very important. I didn't realize that out of, I think it was, 100 patents in universities, only a few of them were actually licensed. If we can put in some measures to help the licensing to third parties, that would probably be of higher importance than lengthening the patent.

**The Chair:** Thank you very much, Mr. Abielmona and Mr. Stewart.

Now Mr. McColeman for five minutes.

**Mr. Phil McColeman (Brant, CPC):** Thank you, Chair, and thank you to the witnesses for being here.

Mr. Gupta, you made three points. On the first part, on the commercialization front—as a context for this—admittedly, we could always be better. We can always do better than we are currently doing. That's simply part of the way the business world works.



As a country, when we get the ranking of people like *Forbes* magazine saying we're the best country in the world to invest in right now, and the OECD and the IMF comments about Canada.... Relative to your comments about commercialization, how does that square?

**Mr. Karna Gupta:** Let me answer that from two points.

Given the economic turmoil that's currently playing havoc in the world, Canada's rank and its strengths show it is a good place to invest and is a safe place to come and build your operation.

By the same token, there are a couple of other statistics we need to be mindful of. If we are talking about the universities, if you look at the total patent and royalty revenues in Canada, the university side has only generated 1.14% of it, to be exact, based on a study by The Canadian Institute, whereas in the U.S. that number stacks around 5% and 6%. So there are some significant disconnects we're still dealing with that we need to correct in terms of the patent regime, to attract more talent and innovation into the country.

• (1225)

**Mr. Phil McColeman:** Good point, and thank you for saying that.

This has been one of the channels I have been asking regular questions on. I have a specific interest in post-secondary education and how we're adapting to be able to help move from the lab to commercialization. I believe you are right; I think we have a big job to do in terms of making sure the post-secondary institutions get it right.

There's a whole variety of models that are used by post-secondary right now, in terms of moving toward commercialization.

The other point I wanted to raise concerns what you said about the need to speed up the process, that we're laggards in that capacity. You mentioned the U.S. having a two-year to three-year timeframe. In your opinion, what would be the fastest possible process to use? Should we emulate the United States? Should we be developing our own that is speedier than that? What is your opinion on that?

**Mr. Karna Gupta:** Synchronizing with the U.S., not in terms of exact copying but from a timeframe point of view, is a good aspirational goal to have. It cuts our timing by half. Currently, we are sitting between five and seven years, compared with their two to three years.

I think it would be a good aspirational goal that we should have to reduce that timeframe. It does help the inventor, not only from a patenting point of view, but also from the point of view of going down from a commercialization process, and also managing the infringement process.

It is a good goal to have. Whether the exact laws and everything needs to be the same, I don't know, but it is a good aspirational goal from a timeframe point of view.

**Mr. Phil McColeman:** When you look at our competitiveness in terms of our IP and patent regimes, what other things could we do to have a more competitive advantage?

**Mr. Karna Gupta:** I think there are several. One of them could be this: a lot of our young companies talk about generating revenues on patents and royalties, similar to some of the other regimes, like the U.K.'s. Maybe that should be incented, so you force the right

commercialization of the patents. There are a lot of patents that sit there and don't get commercialized. You want to incent the commercialization process to create the economic activity.

The goal is economic activity and job creation. If that's the intent, then you need to incent that portion so that when the patents are commercialized and generating revenue, those revenues get special treatment. Maybe that's one of the things to look at. There are policy issues on the table that we need to look at, to support that process.

**The Chair:** You have about 20 seconds.

**Mr. Phil McColeman:** Thank you.

I'm finished.

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

Now on to Madame LeBlanc for five minutes.

[*Translation*]

**Ms. Hélène LeBlanc:** Thank you very much.

We have nevertheless had some interesting discussions about research and development and we have seen that the rate change from 20% to 15% will generate revenue for the government. The government has chosen to transfer some of that revenue to the Industrial Research Assistance Program, the IRAP. It cannot be blamed for this, but that results in a shortfall.

I would like to go back to Mr. Gupta and Mr. Lavoie. What would be the right combination to enable your members to compete in a research and development environment so that Canada could be competitive?

**Mr. Martin Lavoie:** As we said, the rate change will affect 2,600 companies that are considered large businesses under the scientific research and experimental development, the SR&ED, program. That is why the person at the end of the table said there was not much impact on the rate reduction. His business probably has a 35% tax refund, which was not affected by the budget. So that is 2,600 businesses, out of a total of approximately 23,000 or 24,000 businesses that use the SR&ED program. This reduction will affect those 2,600 companies.

The National Research Council Canada's Industrial Research Assistance Program, the NRC-IRAP, is a program we like a lot and that is very good for small businesses, but it is not available for businesses that have more than 500 employees. The largest businesses in the country, the multinationals, which often have more than 500 employees, suffer the greatest negative impact as a result of this rate change. We are not really talking about the same thing; we are talking about money, support for larger businesses, that is being taken away and perhaps handed over to smaller businesses.

I would say the same thing about the \$400 million in venture capital that will normally go to start-up businesses. Although there is more direct support, we have not forgotten that the biggest hit is borne by large businesses. I do not want to turn this into an issue that pits large businesses against small businesses.

• (1230)

**Ms. Hélène LeBlanc:** No, indeed.

**Mr. Martin Lavoie:** All businesses are important. As I said, you have to take into account the fact that there are approximately 25,000 companies in Canada that are engaged in R&D and are eligible under the SR&ED program. However, the 75 largest businesses incur 50% of all R&D expenditures in Canada.

**Ms. Hélène LeBlanc:** We want to ensure that there is a favourable climate. So we do not want to take something away from one to give to the other. We want to ensure that we have an appropriate environment.

Talk to me a little about the importance of capital expenditures, in particular, for your sector.

**Mr. Martin Lavoie:** In our sector, and in the manufacturing sector in general, when we talk about technology investments, we are talking first of all about investment in machinery and equipment. Many R&D expenditures are increasingly incurred for equipment specific to this concept of telecommunications products, whether it be high performance computers or cloud computers. This is machinery and equipment used to conduct R&D. It is often considered as capital.

Under the SR&ED program, if equipment is used to conduct R&D more than 50% of the time, you are entitled to tax credits. That also has an impact on production because the equipment may perhaps be used to conduct R&D and may wind up on the production line two years later.

For part of our sector, the manufacturing sector, which operates to a large degree in product refinement and the processing of natural resources, this is even more important. Two companies in the mining sector—you will be reading this in the newspapers—will be putting in place what are called pilot plants, which will test new ways of processing ore, for example. In that case, we are talking about capital that will be far more than just machinery and equipment. We are talking about buildings, land, about that type of equipment.

**Ms. Hélène LeBlanc:** This really is something important for a country like Canada, which has an appreciable comparative advantage in resources. However, we do not want to ship them in an unprocessed state to a country where value will be added, where jobs will be added, where they will be processed and so on. That is where research and development become important. That is where jobs are interesting and well paid.

In addition, does the fact that we have capital expenditures help keep businesses in Canada, or instead, rather than just keeping them here, does it help root them here so that jobs stay here?

[English]

**The Chair:** That will have to remain a rhetorical statement for the time being. It's a good one, I know, but way over time, Madame LeBlanc.

[Translation]

**Ms. Hélène LeBlanc:** I see.

[English]

**The Chair:** Now on to Mr. Carmichael for five minutes.

**Mr. John Carmichael (Don Valley West, CPC):** Thank you, Chair, and thank you to our witnesses as well.

As I've listened this morning, I feel the discussion really has centred on so much that does work. SR and ED works, IRAP works

—there are a lot of good tools and devices available to industry and to SMEs to develop product and get it to market.

My first question is to Mr. Abielmona, with regard to your comment that with these tools we get it to commercialization and there it stops. You talked about your valley of death. I come from a business background, so I wrestle with the responsibility between taxpayer risk and how we manage that versus the business risk of the entrepreneurs, SMEs, and developers that bring these products to market.

To your comment of bringing it to commercialization and hitting the wall at that point, what would you recommend in commercializing, in ensuring that we take what we think are fairly strong competitive advantages to market? What do we do at that point? What would you recommend?

**Mr. Rami Abielmona:** One suggestion I have is, for example, within the CICP, a category that could be put in there just for SMEs. I come at it from an SME perspective. I didn't say that Canadian companies cannot commercialize their R and D; indeed, we can. It's just a matter of SMEs commercializing their innovations.

We always have to judge. If we want to protect our IP, we have to go through this patent flow chart and we have to say: do we want to patent this? Do we want to copyright this? Do we want to keep it as a trade secret or do we want to publicly disseminate it? We'll lead down one of these paths, and in the end, if we choose the patent path, then we have to incur a lot of costs to do that, which again hits our cashflow. We have to make sure our cashflow is managed properly so that we can actually patent the stuff.

Then if we get into prosecution of IP, if we get into enforcement of IP, do we have the cashflow to do that? Probably not. If a big company comes at our patent and says there's an infringement case, we probably will just let that one go, unfortunately.

If, within CICP, for example, there was a category for SMEs, at least we would have a path that we could commercialize the R and D; we spent so much money to actually patent this, we can get it to commercialization. The enforcement part is another topic of discussion altogether.

I point to IRAP, which is a great organization and it's been helpful to us as an SME. But, at the same time, IRAP has also changed mandates. We've been involved with IRAP for three or four years. We had two major projects with them over a five-year span. In the beginning it was big "R", small "d". They really wanted a lot of research and not as much development, so they didn't even want to hear about pre-commercialization. Then it switched to small "r" and big "D". That throws companies off, especially SMEs, because we have to plan for the next few years. We can't just do that over a yearly basis.

•(1235)

**Mr. John Carmichael:** Thank you.

Mr. Gupta, you talked about patents and not looking at them in isolation. I think you're right on that. I look at our government structure, or our governance structure, if you like, within the tax regime. We have tax credits that are available to us, but we have the overall business tax that has been lowered to the extent that it has. Our government is about jobs, job creation, and economic growth.

As we come to the end of our session, can give me your thoughts on examining the IP regime and the Patent Act? Are there any other things we should be looking at within that framework that would be beneficial?

**Mr. Karna Gupta:** I think there are several things, and we have recently submitted several of them as part of the digital economy strategy to Industry Canada and to the ministry of finance. To foster the SMEs, you need to look at it from three vectors: one is the access to market, another is access to capital, and the third one is access to talent.

In terms of each one of them, there has to be some policy framework put in place so that Canada becomes the destination country for all of these. Only then can you create a condition where you have innovation taking place, and then the patent regime, if it is done right and comparable to the rest of the world, and we're competitive. We can try to commercialize products.

In the case of talent, there's been a lot of work in the current government and past governments looking at immigration issues. Yes, you need to have programs to send our kids to, these STEM programs, but that's not going to solve our problems. We need to have the best talent come here.

All of these pieces, from a policy point of view, need to support the question you're asking, and the patent is a big piece of it at the end, as you commercialize and have those in place.

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

Thank you, Mr. Carmichael.

That ends our second round now, and I'm going to stay tight on the five minutes. Then we'll be able to squeeze in the next short round of five minutes.

We'll go to Madam Gallant for five minutes.

**Mrs. Cheryl Gallant:** Thank you, Mr. Chairman.

I would like to pick up where we left off with Mr. Abielmona, and that is after the IRBs. What has been explained to the committee is that the large, for example, American outfits were looking for contracts worth at least \$10 million. Earlier in his testimony, he mentioned the American small business innovation research program.

How is it that through the U.S. program they are able to help commercialization for SMEs in this larger market, whereas what we have through CICIP is not? What are we missing?

**Mr. Rami Abielmona:** Simply stated, I think we need a program in Canada that allows SMEs and only SMEs to be the front-line players. There has to be a program that's targeted to SMEs, whatever the definition of an SME is within that program. They are the primes of those particular contracts, so there's a conduit that goes in from SME to end client, and what we're facing, as I mentioned before, are

those barriers to entry. We have a lot of barriers to crossing that chasm and getting to the end client.

We need a program that's specifically geared towards SMEs, such as IRAP, but as I mentioned, IRAP is more pre-commercialization. We need a program similar to IRAP, or maybe it's IRAP itself, but either way there has to be a program that's geared towards SMEs. If we don't do that...that's why I keep referring to the technology valley of death, and I know the previous questioning was along this line. If we don't do that, those entities—we're talking about small companies. We've grown from five to sixteen employees in three to four years; we're still a rather small company. If we don't do that, these companies will go under. If they do not have the funding support to bring it to commercialization, they will go under. How many companies do we want in Canada where we invest so much taxpayer money into R and D but then don't help them to cross that chasm so that they can commercialize? It's a losing situation.

•(1240)

**Mrs. Cheryl Gallant:** The CICIP program is administered through the Office of Small and Medium Enterprises, but let's go beyond that.

Are you looking for an intermediary that will require the use of your technology in a government procurement program?

**Mr. Rami Abielmona:** No. I think the SMEs are able to find out off line who their users are and who the client base is. But there has to be a formal way of getting it to them, and there is no such formal way.

CICIP is one way, but you're competing against everyone else, as I said.

**Mrs. Cheryl Gallant:** Okay.

In your initial comments you spoke about the shortcomings in the Canadian prosecution enforcement and international filings. Specifically, what are the shortcomings in terms of prosecution and enforcement? Where do we fall short?

**Mr. Rami Abielmona:** Unfortunately, it goes back to funding. From an SME perspective, it's all about cash and cashflow management. We are given funding support to perform the first filing, but if there's a prosecution after that—and the other witnesses have pointed to that—it's really the legal fees that come at it. It's not really the process itself of the maintenance fees after the patent has been awarded. It's mostly the legal fees. There isn't a channel we can turn to. If the IP goes through prosecution, if it's granted, if it goes through enforcement for some reason, or if you want to file internationally, there aren't any programs to turn to in order to help fund those activities.

**Mrs. Cheryl Gallant:** Are you saying there is financial help required from the government in terms of legal fees?

**Mr. Rami Abielmona:** Not legal fees, but in the end, it's offsetting costs. In the end, as I said earlier, we have to decide whether we go through enforcement or not. If we don't have the cashflow to manage that, then we'll just let that litigation go and we'll move on to another product or another service or another contract.

**Mrs. Cheryl Gallant:** In terms of international filing, do you have the right contacts? Are the people who are working the trade desks in the different countries doing what you need them to do in terms of IP protection?

**Mr. Rami Abielmona:** I don't have an answer to that. In the Government of Canada, if there is an agency that we can turn to that could facilitate that, that would be very helpful. There might already be such a department, but I'm not aware of it.

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

Thank you very much, Madam Gallant.

Now on to Mr. Harris for five minutes.

**Mr. Dan Harris:** Thank you very much. It's nice to get another round.

Mr. Lavoie, I wanted to ask you a little bit about the Canadian Manufacturers and Exporters' position on SR and ED. I believe they have made some comments that they believe there may have been an underestimation from the government as to how much has been reinvested. What comments has your organization made on that? How much do they think the government has underestimated their reinvestment?

**Mr. Martin Lavoie:** When we say "underestimation", it's pretty much based on the way it has been calculated by Finance officials. In the last budget, what they have calculated is the impact on government revenues. Now, government revenues on SR and ED are spendings. You have to keep in mind that if you are not in a profitable situation as a large company in Canada, you can carry them forward for 20 years. What we know is that about 65% of the companies use it the same year they claim it. There are another 35% that don't use it the same year. So in terms of government revenues, if you carry them forward, it doesn't impact the revenues that same year.

• (1245)

**Mr. Dan Harris:** It's hard to measure the exact impact right now.

**Mr. Martin Lavoie:** What we calculated is the impact on the financial incentives. From a company point of view, whether you use it in the same year or use it in three years, it's going to disappear. The gap, just on federal, we estimated as \$663 million per year instead of \$500 million. The other thing you need to take into account is that all provinces except Quebec that offer a provincial SR and ED use the CRA to administer their own SR and ED program. All of the measures announced in the budget—excluding the ITC rate reduction because each province can choose their rate—in terms of capital expenditure, the reduction of the proxy use to claim overhead costs, and the profitability aspect of third party...they would probably automatically just reduce in the same way, just to copy the federal model. You have to add another \$80-something million to that.

In total, you are talking about \$750 million in reduced incentives for companies. How that will impact companies' actual investments in R and D...based on the surveys we have done, the reduction of business R and D expenditure will be between 25% and 30% as a result of these measures. You're talking somewhere between \$1 billion and \$1.5 billion, according to the survey we conducted this year.

**Mr. Dan Harris:** Thank you for that. That's frankly quite an alarming number—a 25% to 30% reduction in R and D—considering the importance of innovation, research, and development, and making sure we're prepared for the 21st-century economy.

In your opening remarks you also mentioned that your industries had a growth percentage of about 0.3%, which seems very low. Of course, considering all the assistance that has been available, it would seem that without that, the industry would be even worse off.

I want to ask about the high Canadian dollar and what kind of impact you think that has had on your industry in terms of job creation or job losses.

**Mr. Martin Lavoie:** The majority of the job losses—a big part—that happened in the manufacturing sector are due to the rapid appreciation of the dollar. It's not that the high dollar is necessarily the problem, but the rapid appreciation has been the problem. You don't adapt to a 40% increase in your dollar in two years. The way you adapt to it is through, as I said, productivity.

**Mr. Dan Harris:** It takes time.

**Mr. Martin Lavoie:** Productivity doesn't happen overnight. We're starting to cope with that. If you look at employment, manufacturing is about 10% of total employment in Canada. It's now stable since last year. If you look at TD Economics' forecast, you are talking about between 10% and 12% of total employment in the next couple of years. We're expecting some jobs to be created in the sector, but it's not going to go back to what it was. As I said before, we're going to be less job-intensive. That being said, our contribution to exports will by far exceed any other sector, as well as R and D.

**Mr. Dan Harris:** Okay. Excellent.

Mr. Gupta, I haven't asked you any questions yet today, but one comment you made in your opening remarks was about the importance of a digital economy strategy. I won't have much time here. You could perhaps make a small elaboration, and if you have anything in addition to share with the committee on that strategy, perhaps you could do so afterwards by submitting it to the clerk, and then it could be distributed.

**The Chair:** At this point, any input on a digital economy strategy will have to be distributed to the clerk.

Now we go on to Mr. Lake for five minutes.

**Hon. Mike Lake:** Thank you, Mr. Chair.

In regard to that comment about the high Canadian dollar, I guess the one thing I would assert is that a high Canadian dollar is a good thing. It may present some challenges, but overall the high Canadian dollar is a sign that the Canadian economy is strong. I think we always have to remember that. Our economy right now is stronger than just about any developed economy in the world. That's a good thing for Canadians.

There are just a couple of things I want to focus on here in terms of the conversation around SR and ED. I guess the two principles I want to focus on here are the concepts of balance and constant improvement, in a sense. Canadians would expect that the government would look at ways to constantly improve the balance we have, in terms of whatever mechanisms we're using.

The word “balance” also comes into play with my constituents a lot. The priority is to balance the budget by 2015, so they're taking a really good look at what we're spending money on. As you look at these changes, one of the things we're trying to do here is to make sure that while we're making a change in one area, we're also adding something in another area.

As for IRAP, I'll read from the budget:

Economic Action Plan 2012 proposes an additional \$110 million per year starting in 2012-13 to the National Research Council to double Industrial Research Assistance Program. This will allow the National Research Council to support additional small and medium-sized businesses that create high-value jobs, and to expand the services provided to businesses through the program's Industrial Technology Advisers. The National Research Council will also create a concierge service that will provide information and assistance to small and medium-sized businesses to help them make effective use of federal innovation programs.

Maybe I'll start with Mr. Davies. How important is that step in improving the environment for small and medium-sized businesses in Canada?

• (1250)

**Mr. Gordon Davies:** Well....

**Hon. Mike Lake:** You were one once.

**Mr. Gordon Davies:** Yes. I guess I'm surprised you started with me, as we don't necessarily consider ourselves a small or medium enterprise.

**Hon. Mike Lake:** I'm thinking about where the suggestion originally came from. You might have some connection to that.

**Mr. Gordon Davies:** I guess I would briefly say that we certainly do think it's important. It's where you're going to foster innovation. The focus on small and medium-sized enterprises, from that perspective, will allow the fostering of innovation. For them to be able to protect intellectual property and the results therefrom has to be seen as positive. Indeed, as you say, that's what we grew from.

**Hon. Mike Lake:** Go ahead, Mr. Abielmona.

**Mr. Rami Abielmona:** Yes, I think it's a great thing that the Government of Canada is actually looking out for us through IRAP. As I said, we've run through two IRAP projects and they were great. The IRAP ITAs, the whole landscape, the whole symbiotic relationship between the IT administrators as well as the companies are great. They have business ITAs; they have technological ITAs. They can vet the ideas through, across the Canadian landscape.

They can put you in touch.... It's not just about funding; IRAP is about networking. It's about the availability of corporate intelligence, knowledge, and so on. IRAP is not just about dollars. Dollars help, obviously, so that we can hire R and D employees and not services or consultants, so that we can grow our Canadian IP, but we still have that disconnect, as I mentioned, which is the technology valley of death.

I'll point to one other thing, which I'll steal from engineering. We have these things called measures of performance and measures of effectiveness. Measures of performance are, are we doing things right? Measures of effectiveness are, are we doing the right things? It seems to me that we have to come up with some measures of effectiveness to see how this injection of cashflow into IRAP is effectively helping out the SME landscape across Canada.

**Hon. Mike Lake:** Thank you.

I'm just going to go further on that. It's an IP-related issue, in a sense. One of the challenges we've heard over and over and over again through this committee study is that there needs to be an education process for small businesses, for startups, in terms of IP. I would sense that a transition to an increased investment in IRAP, an increased investment in these industrial technology advisers, would be a real step forward in terms of giving the tools to small businesses.

**Mr. Rami Abielmona:** I completely agree with you.

**Hon. Mike Lake:** I don't know if anyone else wants to jump in on that.

Mr. Lavoie, would you like to?

**Mr. Martin Lavoie:** If I may, but more on the first part of your question.

We have calculated how much is taken out of SR and ED and how much has been announced in new measures in the budget. So far, you can't really compare IRAP and what is taken out of SR and ED. As we said, \$750 million was taken out of SR and ED. A big part of it is for large businesses.

In the new budget announcement, only four programs will have money available for private companies: NRC-IRAP, business-led networks of centres of excellence, venture capital, and the Western Economic Diversification innovation fund. But they don't make up the same amount. We were told that there's something else coming up. But of these four programs, only one—the business-led networks of centres of excellence—is actually available for larger companies.

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

We're now on to Mr. Regan for five minutes.

[*Translation*]

**Hon. Geoff Regan:** Thank you again, Mr. Chair.

Mr. Lavoie, you say in your report that the manufacturing sector is responsible for more than 50% of research and development expenditures in Canada. We have already talked about the difference between large businesses and small and medium enterprises. However, I would like to talk more about that subject.

What proof is there that the job creation benefits arising from expenditures that are made by the government in this area stay in Canada? Is there a difference between large businesses and others?

• (1255)

**Mr. Martin Lavoie:** To answer that question, I would remind you that someone appeared before your committee on this study. I believe he said that there was a study showing that 60% of businesses that had received venture capital in Canada were bought out by foreign companies and went elsewhere.

These are things that can perhaps be commercialized here but that do not necessarily stay in Canada. That is the risk you take with small businesses. They have to be assisted in commercializing their products. They have to be assisted in growing, but they also have to be assisted in staying in Canada, I hope, and eventually expanding. When they grow, that is where they will have an impact on research, development and employment.

On this point, Mr. Gupta talked about the pattern box model, which is a model used in the Netherlands and Great Britain. That could be a tax incentive for commercialization in Canada. I also suggest you look at the \$400 million that will be invested in venture capital. Other countries such as Israel use these funds as matching funds. Will we increase the likelihood that a small business will remain in Canada if it receives \$20 million in venture capital funding and another \$20 million from a multinational company established in Canada that will assist it in commercializing these items? There may also be another option, the matching fund criterion in venture capital. That seems to work in other countries. We talked about Israel. That country put its first fund in place in 1993. Today, businesses in that country spend more on research and development as a percentage of GDP than in any other country in the world. I am not saying that this is the only thing to do. We discussed other tax measures in our report, but this is definitely one to look at once this fund is put in place.

**Hon. Geoff Regan:** Your members include large Canadian companies and also multinational companies. Is there a difference? I imagine that, when a multinational company conducts research and development in Canada, that does not necessarily affect direct long-term benefits in the creation of jobs here in Canada that will go elsewhere in the world. Do you have any comments on that topic?

**Mr. Martin Lavoie:** According to the surveys of our members, the majority of businesses that do not have their head offices in Canada but that have subsidiaries in Canada, make their decisions on what are called global product mandates at their headquarters.

When you consider 40% to 50% of manufacturing sector companies whose headquarters are outside Canada, the reduction in research and development tax incentives will definitely have an impact where the decision is made because those companies have a more global perspective.

I do not mean that companies based in Canada do not necessarily have the ability to go and see what is going on elsewhere. As I said earlier, companies such as Magna and Bombardier are able to conduct research and development in other countries. Those are decisions that are made based on a host of factors, but the research and development tax credit, that is to say the return on investment

from a tax standpoint, represents something important. Eventually, I believe that, when these decisions are made, whether the head office is in Canada or not, the generosity of the tax credits will definitely be discussed. There can be no doubt about that.

**Hon. Geoff Regan:** On the one hand, I heard one Conservative colleague say that the government had not reduced research and development expenditures or spending on the SR&ED tax incentives program. On the other hand, the parliamentary secretary spoke about the efforts to reduce the deficit that the Conservatives created before the recession started.

What is the situation based on your report? How did you determine that it had been reduced?

**Mr. Martin Lavoie:** Basically, there is a \$663 million reduction in federal money for the SR&ED tax credit. There is an injection of \$333 million in new direct funding, which will be available to private businesses.

There have been other announcements. For example, the granting councils have received new funding. The Canada Foundation for Innovation has received some as well. However, private businesses will not have access to that money. So those aspects cannot be compared.

Thus far, \$633 million will be withdrawn and \$333 million reinjected annually. That is a ratio of two to one. Will other measures eventually be announced? I do not know and we cannot really rely on that. What we are also hearing from our members—and if there is one criticism that should be made it is this—is that we cannot base our future investments on what we do not know. What we do know is that SR&ED will be reduced. We do not know whether there will be new types of direct sectoral investment.

● (1300)

[*English*]

**The Chair:** Thank you, Mr. Lavoie and Mr. Regan.

That's our meeting for today. We'll see you next week.

The meeting is adjourned.

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