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Mr. Brent St. Denis

Standing Committee on Industry, Natural Resources, Science and Technology

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● (1535)

[*English*]

The Chair (Mr. Brent St. Denis (Algoma—Manitoulin—Kapuskasing, Lib.)): Good afternoon, colleagues.

[*Translation*]

Hello everyone.

[*English*]

I'd like to call to order this Thursday, November 25, meeting of the Standing Committee on Industry, Natural Resources, Science and Technology.

We are honoured to have with us today the Hon. David Emerson, the Minster of Industry. Along with him is his deputy minister, Suzanne Hurtubise. As you have listed, in the gallery behind is the head of the National Research Council, the head of the NSERC, as it's known, and of SHERC, who from time to time may be called upon as members ask questions.

I point out to you that in this two-hour session, the first hour and a half, give or take, is reserved for the minister, and then the remaining half hour, give or take, is for Dr. Carty, the National Science Adviser to the Prime Minister. He does not answer to the industry department, so we had to keep that as a separate part of the meeting.

It was suggested to me by one of you around the table—and I think it's a very good idea—that given that there may be a wide range of issues of concern—and I'm only asking if you want to do this—if you make your questions to the point and brief, we'll be able to get several turns around the table. So rather than use up all your time with the first question, let's try to get to the point, ask a question, and then everybody can be heard two or three times, if that's possible.

Mr. Werner Schmidt (Kelowna—Lake Country, CPC): Mr. Chairman, a point of order. Let's be very specific. Let's not simply say try to be short, because what happens is people forget to try. Let's limit it to 30 seconds or 60 seconds maximum for a question and about the same for the answer. Would that help?

The Chair: Now you know who made the suggestion to me.

Thank you, Werner.

Mr. Werner Schmidt: Are you trying to get everybody to know that?

The Chair: Well, you helped me out.

The minister has given you a copy of his remarks, although I understand he is going to refer to those remarks in a more informal manner. Rather than spend any more time on that, Mr. Minister, we thank you for being here today. We look forward to spending some time with you and invite you to give your remarks.

Hon. David Emerson (Minister of Industry): Thank you very much, Mr. Chairman.

I'd like to say to the committee what an honour it is for me. This is my first time ever appearing before a parliamentary committee—I guess I appeared as a witness on softwood lumber the odd time—so I'm very much looking forward to it.

I'm looking forward to working with the committee, ideally in a collaborative and constructive way, and if we can do things together and accommodate the views of as many of us as possible, that's always my preferred way of proceeding.

I want to say a few words before we begin rounds of questioning. As you noted, Mr. Chair, I did hand out a written statement, but it is too lengthy to read. I wanted to put a little bit of context on the way I think about the world of Industry Canada and the world of Canadian competitiveness generally.

When I think about the Canadian economy, when you get beyond the macroeconomics of how we're doing today and how the fiscal situation is and how we're doing in a reasonably short-term, cyclical context, you get into the structural underpinnings of the Canadian economy. Whenever I think about the structural underpinnings of the Canadian economy, I go back to my early Ph.D. education when Robert Mondell's stuff was very current in Canada on small, open economies, because I think of the Canadian economy as really the quintessential small, open economy. By that, I mean it's extremely trade-dependent, which explains the open part.

We are a small economy in the sense that our Canadian market is extremely small. Canada's 32 million people don't stack up to the population of California, so you're further driven to be very much trade-dependent. And we're an extremely geographically dispersed economy, something that creates unique Canadian issues. It creates issues of regionalization and, in essence, regional economies that behave, in many respects, differently from each other. So the idea that somehow there is a uniform national approach to structural economic policy in Canada I don't think holds water.

When you look at the Canadian economy in that sense and realize that we are the most trade-dependent of the G-7 and one of the most trade-dependent economies of the world, you pretty quickly realize that our trade performance is something we can live or die by. We will either be the most negatively affected by trade-related events that are adverse or we can be the most positively affected by more advantageous kinds of events.

That's the context. Then when I look at where the economy is going over the next 10 years—and I celebrate the job we have done in terms of managing the fiscal situation and the macroeconomy in Canada. When you look forward you cannot be sanguine, you cannot be too relaxed, because there are external shocks and forces that are at play out there, and we know them all too well. Whether it's protectionism, whether it's exchange rate movements, whether it's major shifts and changes in the international marketplace, such as we saw with the Asian meltdown back in the nineties, we're extremely vulnerable.

I therefore come back to my fundamental view, which is that the Canadian economy must evolve and, with the strategic help of government, become the most competitive economy in the world. We're not going to do it on low labour rates or traditional low costs, such as you might see in China or India or those types of economies, so you quickly get into how will we do it. And that takes us, really, to the territory that Industry Canada significantly occupies, which is that we will do it through technology and we'll do it through human capital.

● (1540)

That's why I'm delighted to have some of our granting councils and agencies here in the room, because fundamentally it's critically important that we drive the knowledge base of the Canadian economy; we drive both social research and scientific research; and we ensure that we have the world's best pool of human capital and put ourselves in a leading position in terms of technology.

It's not good enough just to produce good science and to create new innovations and new ways of thinking. You then have to get into how you ensure that the economy takes advantage of the science and the human capital you're creating and that you quickly get to applications of technology. How do you ensure that technology is being applied not just in the private sector but for social and health care purposes, for connecting with remote areas and communities that otherwise would be basically isolated from the economic mainstream?

I have my mind fixated quite significantly on technology application and technology commercialization as one of the themes going forward. I think you will have seen that in some of the recent reports on how Canada is doing competitively, most organizations have a little different view. One will say we're doing pretty good and others will be a little more equivocal. All of them will have a little different view as to the nature of the challenge we face here in Canada.

Increasingly, though, I'm seeing the effect of vigorous competition in the marketplace being a fundamental driver of productivity and competitiveness. Here again, we're paying attention to that through some of the proposed changes to the Competition Act, through the new governance structure for not-for-profit corporations, and through some of the other regulatory initiatives that we have under way.

It will be critically important to drive the Canadian economy so we do have a balanced, competitive marketplace. That is critically important. I know that first-hand because of my experience in the forest industry, where people were essentially burying the sector as being yesterday's sunset industry. But when we had the near-death experience in the last few years because of softwood lumber and environmental challenges and so on, the forest industry had to reinvent and transform itself. To me, the way they did that is a good example of the kind of thing that has to happen economy-wide.

We're going to have to put an awful lot of emphasis on transforming the Canadian economy and the sectors within the Canadian economy. It is not a narrow issue of transforming one company; it is transforming all of the linkages and the supply chains and the clusters that have to connect more efficiently and create a productivity and a competitiveness environment that doesn't depend on any one firm. It must become an embedded characteristic of our economy and the source of tremendous value creation and strength going forward.

Once you create a wealth-creating cluster advantage, it is not one you'll lose easily. It's hard to get, but once you have it, it's very hard for others to replicate a clustered competitive advantage. We can get into what different clusters might be characterized by or look like, but it's something that I think is a very appropriate role for government, because it's a form of intervention that is broader than any one company or any one facility. It looks at government's role in creating linkages and seamless connectors, if you like, between parts of the economy that can positively create synergies for each other.

Mr. Chairman, I'm not going to go on any longer than that.

● (1545)

Obviously there's a range of issues around trade, market access, transportation corridors, and border issues. Those are not specifically my responsibility, but I've been making it my business to be an advocate, in government and publicly, of the importance of dealing with those issues.

Thank you, Mr. Chair.

The Chair: Thank you, Mr. Minister.

With that, we're going to have Werner set the example.

Mr. Werner Schmidt: Thank you very much, Mr. Chair.

Since I made the suggestion, I'd better be careful now.

I want to thank you very much, Mr. Minister, for appearing, and also your deputy minister. It's very good to see you and some of your officials. Welcome.

I'm going to be very short with my first question. It has to do with the smart regulations and their implementation. In particular, I want to refer to the Mackenzie Valley pipeline and the phrase that appears in the smart regulations that says an efficient regulatory framework governing the Mackenzie gas pipeline would provide investors with greater confidence in the selection of a Canadian route for Alaska gas.

Have those problems been addressed for the Mackenzie Valley pipeline? If they haven't been addressed, when will they be addressed, and when can construction begin?

Hon. David Emerson: Thank you, honourable member.

You're probably aware that the Mackenzie Valley pipeline is not part of my portfolio, but I can say that smart regulation is critically important. The Mackenzie Valley is one specific example of a major infrastructure opportunity. If it goes forward, it's going to create billions in wealth and employment opportunities for a part of the world where those kinds of opportunities are few and far between. I think it will be a tremendous opportunity for aboriginal Canadians as well.

We are—and I am, in areas where I have direct responsibility—moving ahead very rapidly on smart regulation. As you know, that means stronger coordination mechanisms across government. In the case of the environment and economy interface, we now have an ad hoc committee that I chair on environment and sustainable economy. It is designed to demonstrate what I believe in strongly: you don't have to trade off high environmental standards and performance against competitiveness. The two can go hand in hand if people work collaboratively and you get ahead of the problem, so you're talking to industry, for example, and other stakeholders five and ten years before fundamental outcomes are to be expected. That way people can shape their plans, shape their capital acquisitions and the nature of the capital they put in place to mitigate some of the threats, environmental threats in particular.

In the Mackenzie, there's an aboriginal issue that needs to be finally resolved. That is in play, and there are discussions and negotiations going on.

● (1550)

Mr. Werner Schmidt: They have not been resolved.

Hon. David Emerson: Not that I know of.

The Chair: Thank you, Werner. Good example.

We're going to Marc Boulianne. If you can try to follow Werner's example, it would be great.

[*Translation*]

Mr. Marc Boulianne (Mégantic—L'Érable, BQ): Thank you, Mr. Chair.

I'll be very brief as well, but I'll nevertheless take the liberty of providing a brief preamble. My question will concern the Quebec clothing and textile industries. We know perfectly well that the clothing industry provides a lot of jobs in Quebec: 70,000 direct jobs and 50,000 additional jobs. The same is true for the textile industry: nearly 56,000 persons work in that industry. Obviously the long-term prospects are quite dim for those two industries. I'm thinking in particular of Canada's opening up to international trade.

A moment ago, you referred to the competition from countries where labour costs, for example, are extremely low. Two events occurred in June. The Liberal government granted better access to the Canadian clothing market, two years ahead of time. And, in 2005, we know that, as provided under the WTO agreement on textiles and clothing, quotas will disappear.

We heard that the government intended to lower tariffs on thread and fabric used to manufacture clothing. So how will that be done? Who will actually be affected by lower tariffs? Inputs, I believe, are the specific responsibility of the Canadian government. What will be the consequences?

[*English*]

Hon. David Emerson: Thank you very much, honourable member.

The textile industry is a really good example of one of those industries that too many people dismiss as a sunset industry. My own view is that it's an industry that has to transform, and you've acknowledged that there are serious competitive threats because of WTO agreements that are being implemented, reductions in and elimination of quota restraints, and so on, that were helping the industry.

When you look at the Quebec textile industry, the textile component tends to be rooted in smaller-town Quebec in many cases, where labour mobility tends not to be as robust. You didn't ask specifically what we're doing, but we have put money in to support the industry in making capital improvements to improve their production techniques and their efficiency.

Minister Goodale, the Minister of Finance, is currently reviewing this. He has been consulting with industry on a list of exemptions that would add up to roughly $27 million to $28 million in tariff reductions. He's getting quite a bit of push back from 20-odd textile companies that are resisting tariff cuts. The minister is looking at where we can reduce tariffs on textiles that are imported but not produced in Canada. In the conversations I've had with him and some industry people, he wants to get that under way as soon as possible, and hopefully in the new year have those tariff reductions in place.

● (1555)

[*Translation*]

Mr. Marc Boulianne: Has the government predicted a sharp increase in imports after those measures? Are there any measures or studies that could eventually evaluate the situation?

[*English*]

Hon. David Emerson: We'll certainly be watching the situation very closely in terms of imports and the possible damage they can do. We do have trade remedies, so we'll just have to assess the situation as it evolves.

Our hope is that the industry has had sufficient notice and is transforming itself so it develops profitable niches. Particularly on the apparel side of the business, it's not just a Quebec industry; there are some fairly strong parts of the apparel industry across the country, even in my home province of British Columbia.

It's something we're going to have to watch, but I think we all have to accept that free trade is good for Canada on balance. We know that as we go to free trade there are going to be some bumpy spots along the road. We're going to have to take care of those so people are not injured inappropriately and so workers are not injured inappropriately.

I will certainly be an advocate for monitoring it closely and watching the employment circumstances of the workers who are affected. To the extent that we can realize a transformation that will transform to a truly competitive industry, I'm going to be four-square behind it.

The Chair: Thank you.

Monsieur Coderre.

Hon. Denis Coderre (Bourassa, Lib.): Thank you, Minister.

In your speech you said that knowledge-based research was important. You spoke about technology application. You said commercialization means you have to be pragmatic. It's not just having a good idea; it's finding a way to apply it.

You also spoke about cluster advantage. I have two questions in that regard, and I'll come back afterwards. When you talk about cluster advantage, in Quebec it's aerospace, but it also has a major impact in Canada. If we want to keep that cluster advantage, do you believe we have to protect industries like Bombardier and all the others that have had a major impact, not only in Quebec, Montreal, but also in Toronto and western Canada?

Secondly, you're talking about knowledge base and research. I know right now that we are in an expenditure review. I hope and believe you are very supportive, just for the record—and we have all the presidents from the councils here. We should make sure we have a strategy of investment. The knowledge is very important, and our government shouldn't cut the budget. We can control the operation and work on the administrative point of view, but at the same time we have to make sure to go to our university chairs, for example, in the money we're spending—as a matter of fact, it's not an expense, it's an investment—to make sure we keep those kinds of cluster advantages. Do we believe, and do you believe as a minister, that research shouldn't be touched at all by those cuts?

On the last point, when we're talking about diversification, of course, we have a great friend called the United States, but we're at their mercy because we have 87% of our trading market with them. Don't you think we should diversify, and through that cluster advantage find ways to maybe check again with Investment Canada to find ways to make business with other countries or continents, so we can be sure we're not at the mercy of that market?

The Chair: Mr. Emerson, please.

Hon. David Emerson: Thank you.

Let me just go at it from a reverse point of view. Diversification I think is critically important to Canada. I think we all know that NAFTA, in aggregate, has been very good for Canada. It has created a few trouble spots that have been more readily identified in the last few years—softwood lumber, beef, hothouse tomatoes, pork, you name it. There have been a number of trade issues. Those will be a continuing source of threat to Canada going forward. Ultimately you can drive the competitiveness of your economy so you can take the punches, take the blows, more readily, but less painfully you can diversify your markets and your product mix and get into areas that are less likely to come under attack. So, absolutely, I completely support diversification.

On the knowledge-based side of things, what is going on today is an expenditure review initiative. I happened to be on that committee. Everybody, every department in government—and the granting agencies were not immune to this—were required to put up a notional 5% cut so they could do some thinking about what their critical priorities would be.

The requirement to do that in no way implies that there will be a cut. I can tell you that I am a very, very strong advocate of continuing with the kind of research we've funded in the past, whether it's basic research or government research—there may be a problem—or industry-oriented. It's fundamental. I don't think we should reduce it. I think we should be increasing it going forward.

That's where my mind and my heart are. When you look again at a Canadian small, open economy sitting next door to Goliath, we have seen an underperformance in terms of private sector research. Not that they've done it badly, but because of the nature of the economy, they haven't done as much in the private sector as would be the case in the United States and some other major countries. As a strategic initiative of government we need to push research through publicly funded mechanisms. So I'm absolutely supportive of that.

On the clustering issue and Bombardier and aerospace, I was actually shocked, because I read some of the expert testimony in papers that came to this committee, I don't know, last week or a few days ago. One of the presenters was very negative on clusters, almost accusing this committee and the government of picking winners.

To me, cluster focus and cluster emphasis is not about picking winners. It's about recognizing the sectors where we have strong linkages already. They've picked themselves. We have a strong aerospace industry in Canada. We have a strong automotive sector. We have a strong forest sector. It's not government that made those industries strong. We're not picking those winners. But what we are doing is recognizing that in those industries from time to time you can hit some situations that are not necessarily of our making, nor are they necessarily avoidable.

The case of Bombardier is a good example of where you have foreign governments that are willing to be predatory by offering subsidies and assistance to take some of the key parts of our industrial cluster, our aerospace cluster, and pull it out of Canada. The types of clusters we have in aerospace are such that if you lose a Bombardier the rest of the cluster isn't far behind.

For people to say that government has no business supporting a Bombardier or supporting assembly in the automotive industry because the market should be free and do its own thing.... To me, this would be a complete disaster for some very, very important sectors, and literally thousands, if not hundreds of thousands, of jobs in Canada would be at risk.

So I think the government has a role to intervene strategically. We shouldn't roll over if other countries are going to be subsidizing. We should fight back. And, yes, we should fight against subsidies by everybody, under WTO and NAFTA, but until that day that nirvana arrives, we have to fight back and hold on to what we have—in fact, grow it.

● (1600)

The Chair: Thank you very much.

Brian, then Brad, then Jerry.

Thank you for your brief questions, colleagues.

Mr. Brian Masse (Windsor West, NDP): Thank you, Mr. Chair and to the members for being here today.

I want to follow up on the automotive industry. The CAPC report was tabled over three weeks ago. I asked a question in the House of Commons about that. At that point you stated that within a couple of weeks you'd be bringing something forward. Where are we with that? I'm still concerned that we don't have an official auto policy, and I know there are discussions with the GM Beacon project.

I'm encouraged to hear your words about fighting back because for far too long we've watched the plants be set up in the United States at the expense of Canadians. It didn't matter about the dollar and it didn't matter about health care. All those things that were used as the mantra of the day before to track investment didn't work when you had a massive subsidization that we competed with. So can you give the committee an update in terms of where we're at with an auto policy and your opinion on the CAPC recommendations submitted to you?

● (1605)

Hon. David Emerson: Thank you very much, honourable member.

I very much like the work of the CAPC committee. To me it is the type of mechanism or process that is of great value to government because it's not just companies from one region or one part of the sector. It covers all of the sector and all regions where the sector has a footprint, if you like. It has academic input and labour participation. It's an excellent way to get a balanced view on the industry. What I really like about it is it's forward looking. It's not worrying about what's around the next corner. It's worrying about what's two valleys ahead of us, ten years out. I like that. I like the CAPC report. Would we adopt every single bit of the CAPC report? Probably not, but there's enough in there that we are shaping our approach to the automotive sector in a significant way around the CAPC thinking.

I didn't like it, for example, when they led off their recommendations with the call for major financial support for the industry, because to me the idea is to lead off the report with the need to be transformative and competitive and recognize that it's going to take time. It's going to be a broad-based initiative. We have to build linkages. We need research. We need people and training and skills. I didn't like that, because it smelled like an ask for big subsidies on an ongoing basis. But that's just a minor presentational quibble.

As for timing, I'm overworking Suzanne and the people in the department, but we are getting quite close on our first cut at a recommendation for a sector strategy for aerospace and for automotive, trying at the same time to be ready to go forward with a broader concept piece on competitiveness. You've heard me yak on about competitiveness. We're trying to make sure that the pieces are put together in a very compressed timeframe, but not in such a way that we get some of the micro pieces ahead of the macro pieces, because they really flow from it. I'm suggesting that in terms of cabinet consideration—and I don't know the degree to which I can be open about that, but I'd like to think that we can get feedback from cabinet before Christmas.

On all of the micro pieces, you mentioned the Beacon project. We dealt with Ford. Bombardier is bubbling. There are other pieces out there. I have been very insistent that where there is a demonstrative business requirement to get decisions quicker, I'm saying let's get the decisions on the critical timeframes that are required so as to not jeopardize any particular critical investment decision.

Mr. Brian Masse: That's good. We lost an opportunity in Windsor, the DaimlerChrysler opportunity. I will be glad to see the Ford one play itself out. Even the former chair of this committee criticized the government actions at that time on the DaimlerChrysler one. I'd still like to see...I hope that in the new year we have a full transparent policy in front of Canadians.

Hon. David Emerson: That's our intention.

The Chair: Thank you. We'll come back to you.

Brad, please.

Mr. Bradley Trost (Saskatoon—Humboldt, CPC): Minister, my questions are going to deal primarily with NSERC, so Mr. Brzustowski might be able to help you.

I noted earlier that the NSERC budget has doubled over the last seven years. It has been roughly a 10% increase every year. My concern is that the money be spent wisely, and I have a bit of a concern that odds and ends of cash are sometimes floating around where they shouldn't be.

In particular, I have a question about an NSERC budget expenditure of June 14, during the federal election. A sole-source contract of about $27,000 was awarded to EKOS Research Associates for public opinion research by NSERC. It's my understanding that government contracts over $25,000 are supposed to be tendered out. The beginning of my question is this. Why was EKOS awarded this contract in a non-competitive manner? Part of the concern is because of the ties EKOS has had to our current Prime Minister.

● (1610)

Hon. David Emerson: I don't have the answer, personally. Could we take the question under advisement and get you an answer?

Mr. Bradley Trost: Okay. I'll follow up with a few of the other details so that you have a better background of the question here.

We came up with this information through an ATIP, and it provides some interesting background on NSERC e-mails. Some of the people at NSERC were a little concerned since this was a public opinion research study, and apparently that is not in NSERC's mandate. It's conducted through, of all things, POR, public opinion research, or some such thing.

When looking through the information, what struck us as interesting was that people realized: "We may need to get permission from various bodies to get involved in the public opinion survey work." This is a quote from an e-mail.

Basically, why was NSERC doing any polling whatsoever, particularly during an election campaign? It's outside their mandate.

Hon. David Emerson: I don't know the answer to the question, and I will get back to you.

I will say this, though. There are a number of bodies that are conducting polls on scientific research and the public attitude towards science. I'm not certain that's what NSERC was doing in this case.

In fact, I received a copy of one a couple of days ago. It was actually a very beneficial document on the way in which the public views research, what kind of research they place the most priority on, and whether they like government research institutions versus private versus university. There's a lot of public opinion research where it's appropriate that it be done by the people who are involved in the policy formation process, if you want to get it right. Whether this was the case or not, I'm not sure.

Mr. Bradley Trost: I'll close here with a common question. Again, my concern is in watching the budget grow. I'm roughly using the rule of seventy. At 10% per year, every seven years, the budget doubles. That's a considerable amount.

If other things such as this have been happening in the NSERC budget, then the money is not going to researchers. That $27,000 could very easily help a university graduate student on an outstanding project. I think that would be my concern. I would appreciate it if you could get back to me.

Hon. David Emerson: Yes. We'll follow it up and get back to you with an answer directly, perhaps in writing. I'm not sure of the process.

Mr. Bradley Trost: Thank you.

The Chair: Thank you.

Jerry, please.

Hon. Jerry Pickard (Chatham-Kent—Essex, Lib.): Thank you, Mr. Chairman.

Mr. Minister, over the last five or six years, we've invested about $13 billion in research and development. Everyone agrees that research and development is important, but can you give us an indication of how Canada has benefited from that investment? On the broader spectrum, are we able to bring industry into this type of investment and are we working in that direction?

Hon. David Emerson: In my opinion, there has been a tremendous benefit to Canada from some of the money that's been spent on research. You have to recognize that the more basic the research, the longer-term the payoff is; so if people get into a mindset that you have to get a rapid return on your money, you're just not going to. That's not the nature of research, but it's critically important.

NSERC is a good example of an organization that flows money into university research. It's not just the research they are doing that is critically important; that is important, and we try to keep politics completely out of it, because it is peer reviewed and it's driven off expert opinions on what leading-edge research would be and what constitutes interesting new contributions to science, and those kinds of thing. But the fact is, we can do things like our university chairs program, where we're getting Canadians who've left the country in many cases to come back, and we're bringing in experts who may not be Canadians but are world experts in a field. Certainly, we're seeing all kinds of examples of where world experts are coming to Canadian universities because they see that we have this kind of long-term, fundamental, solid commitment to research. We're creating communities of high-powered people who feed off each other, and it is driving some really revolutionary technologies and science. Genome Canada would be a good example. You can go through so many different areas where we have publicly funded research and have attracted some extremely vital, expert people to Canada. It has been a critical part of the strategy.

One of the things we need to do better is to make sure the output of the research can be pulled out of the university or the public institution that has carried out the research, so that it can be deployed into the economy. Some people have told me, "We'll, you're going to muddy the waters with the people at universities if you try to turn them into venture capitalists". That's not what I have on my mind. I think the university researcher should focus on research, but we need to find mechanisms in terms of our technology-commercializing enterprises. It may not even be like a typical venture capital firm but a firm populated by people who have post-graduate degrees in science, plus some business finance background, who are much more patient than your typical venture capitalist, who really just wants to bet on some IPO opportunities and who might do four, five or six of them. We need technology-commercialization enterprises that can fish for commercially applicable and relevant and value-creating innovations in science, so we can make sure the benefits of taxpayer-funded research get dispersed throughout the economy, whether it's for health care or productivity enhancement or business process enhancement, or whatever.

● (1615)

Hon. Jerry Pickard: Mr. Minister, three weeks ago I had the opportunity to talk to the president of Research In Motion, and he told me that for every dollar they put into young people coming into the firm, they get tenfold or twentyfold back. Why are we not getting industry to see that view, see that energy, see that perspective, and move in that direction to make our corporations the leaders in research in this country?

Hon. David Emerson: I think Research In Motion is a classic case where government intervened strategically through the much-maligned technology partnerships program. Now you have a world-class, extremely dynamic technology company. As I think you might have noticed, it has surpassed its two-millionth subscriber, and I think one million of them came in the last ten months. Probably everybody in this room has a BlackBerry.

When you think about Research In Motion and technologies that might not otherwise land in Canada, this is a classic example. This is the technology that connects us all. It's not just of benefit to one individual company; it allows companies and people who are creating value in the economy to communicate virtually in real time with each other. Start thinking about the power of that and it's remarkable.

We have to do more of it, but you have to be realistic. For every Research In Motion, there are ten companies you will probably never hear of who maybe have faded away already. This is a game where you're not going to win every time out. When you win, you can win big and you can create clusters and communities of enthusiastic people, the budding Microsofts and RIMs and so on. You have to be patient, but there's always the scope for being criticized because of the ones that go sideways.

To me, it's the role of government in a small, open economy to be prepared to get in there, share risk, and make sure that innovation and commercialization and wealth creation and human capital creation occurs that wouldn't occur by itself.

● (1620)

The Chair: Marc, then Andy, and then Michael.

Marc.

[*Translation*]

Mr. Marc Boulianne: Thank you, Mr. Chair.

With regard to research and development, your answer, although partial, convinced us. Last Tuesday, Professor Holbrook gave us a presentation that also convinced us of this need.

My question will concern the social sciences and the humanities. You'll clarify what I'm about to say for me. It would appear that the government is preparing to cut the budgets of the social sciences and humanities research centres. Will those cuts still enable us to keep what we have, or will they prevent us from adapting to changes? Are there in fact radical cuts in this area?

[*English*]

Hon. David Emerson: Thank you, honourable member.

I know there was a cut a year or so ago of about $1 billion. A portion of that was absorbed by some of the granting councils. Then we have this expenditure review process that's going on right now in government.

I can tell you I am not advocating a cut in SSHRC. In fact, I believe we have to continue to support social sciences and humanities research. I have a Ph.D. in economics and I've found it quite useful as part of my package of human capital.

The answer right now is, I can't tell you where the budget will end up, but I can tell you that my position is to continue to be supportive. SSHRC has received increased funding over the last few years. I'm not even sure there was a year when it declined, but we continue to want to push that forward.

The Chair: Merci, Marc.

Andy.

Mr. Andy Savoy (Tobique—Mactaquac, Lib.): Thank you, Mr. Chair.

Welcome, Mr. Minister.

Mr. Minister, I'd like to start on an issue that's received some attention, R and D. In looking at our situation on R and D in Canada, I would think we should have a competitive advantage in terms of other jurisdictions, other nations.

If you look at the R and D tax credit of 35%, it's substantial. If you look at the IRAP program, it's an amazing resource, especially for smaller manufacturing companies, resource-based companies. Look at Technology Partnerships Canada. Look at the environment we have in Canada in terms of being culturally diverse. We should enjoy a competitive advantage, but I see us continually falling behind, especially in terms of corporate R and D investment in Canada.

In moving forward, we have to look at, in our study—and in terms of resources from Industry Canada—how we can reverse this situation. Certainly with your background you have a lot of knowledge on the issue of moving forward in resource-based sectors—all sectors, but being a rural member of Parliament, I'm particularly concerned about resource-based sectors. What advice do you have for this committee and what are some of the resources Industry Canada may have to put forward to help reverse this trend?

Hon. David Emerson: Well, that's a very good question. I have a view that we have not put enough emphasis over the years on the transformation of our traditional industries. There's been a bit of a public media and opinion leader glibness about dismissing mining and forestry and textiles and the fisheries industries and so on as “has been” industries. I can tell you from my experience that nothing can be further from the truth.

I'll just give you an example of what happened in the industry I came from. The forest industry has been criticized as raping and pillaging the land and not being a responsible manager of the forest. The NGOs have pummelled the forest industry with their customers all over the world. It was accused of having a rusted-out industrial equipment base. It was seen as yesterday's industry.

What happened was, when the competitive pressure was severe, the industry reinvested in the science of land-based management. It developed very advanced ecosystem-based ways of managing the forests. Using technology, it reduced the industrial footprint in the forest. It went to a lot of virtual forest management. It went to simulating forest management out 100 to 150 years. It went to different patterns of cutting and silviculture and using genomics, if you like, to modify some of the seedling stock. It went into the logistics of getting fibre from the forest into the mills. In the mills, it implemented scanning and optimizing technology, a lot of which comes out of Quebec. Some of the very best scanning and optimization technology in the world comes out of Quebec.

So what the forest industry did was to turn the mills into high-tech mills. There's no green chain anymore, no rusty equipment. There are ergonomic places for all the workers. They're happy as heck. They're watching the whole operation on a dozen different computer screens. It's highly automated.

Then you focus in on product quality and you apply technology to product quality. You apply technology to tracking of product, so you can track a two-by-four that comes from a given mill somewhere in Quebec or northern B.C. and is bought by somebody at a Home Depot in Atlanta, Georgia. You can track it by computer.

So the whole supply chain—and again this is clustering—is a long thin cluster from way up north in the forests through the mills and down the rail and road systems to the final customer. But this is a cluster of activities where what was done was to inject technology into every stage of the value creation process. Now, some clusters are much more spread out and less focused on a linear supply chain model.

What we need to do is ensure that our programs, like Technology Partnerships Canada and other programs, tax programs, are providing incentives for and encouraging the application of technology, for driving it right into the business in all areas, in every corner of the business. And you have to complement it with human capital. You have to worry about our human capital programs, our apprenticeship programs, our approach to making sure that workers who were trained on rusty iron are still able to be productive employees.

I'm sorry. I have a bleeding nose here.

● (1625)

The Chair: Do you want a break?

Hon. David Emerson: No.

Mr. Andy Savoy: Actually, I have another question for the copyright group.

The Chair: We'll suspend for a moment or two.

● (1628)

(Pause)

● (1631)

The Chair: We're back in business, and I think Andy wanted to conclude with a short comment.

Mr. Andy Savoy: It's a very short comment. In looking at the copyright budget, I don't see a big change. With the new ratification of WIPO, or the equivalent to ratification of WIPO—and I assume, now, that we'll have to direct this to Suzanne—what new resources will be needed by the copyright group? Has that been taken into account in the estimates?

Hon. David Emerson: I can take that.

We actually haven't ratified WIPO yet. We'll have to get the Copyright Act amended. We're in the process right now of concluding, with the Minister of Canadian Heritage, some of the changes that we would be proposing to Parliament on that. It is our intention—or my intention anyway—to drive forward with modifications that hopefully would get the support of the House and that would put us in a position so that we could ratify. My deputy tells me we should not expect any new resources to administer that program, that we should be able to do it with the existing resource base.

The Chair: Thank you very much.

I'm going to go to Michael, Brian, James, and Denis.

Michael Chong, please.

Mr. Michael Chong (Wellington—Halton Hills, CPC): Thank you, Minister, for coming to this committee.

My question is about the NRC, the IRAP program in particular, and, related to that, TPC, because they are linked for grants under $3 million.

In your speaking notes you mentioned, as have other people, that one of the big problems we have in this country is that we have a huge productivity gap between neighbouring jurisdictions. As part of that, related to that, R and D in recent years has been declining as a percentage of the GDP in this economy, yet we still seem to be taking the same approach to addressing this productivity gap when it doesn't seem to be working.

We spend a lot of money on TPC. Some of it has worked, as you pointed out. Research in Motion did take advantage of the program, but many other cases of it haven't. If the companies are not generating the cashflows or the profit margins to repay these loans, then you really have to question whether or not the program, in those instances, is working. That relates to IRAP as well, and to other approaches the industry department is taking.

One of the things I've heard back from a number of different reports is that one of the reasons why Canadian businesses aren't investing enough in capital expenditures and in R and D is that there are some penalties here vis-à-vis other jurisdictions, whether that means the CCA and the way Revenue Canada structures its classes in the capital cost allowances; whether or not we charge sales taxes on purchase of capital assets; or whether or not we should accelerate the elimination of the capital tax.

What have you or your department done or what are you going to do to truly address this productivity gap?

● (1635)

Hon. David Emerson: To begin with, when you look at the TPC program, which has a linkage with IRAP for a significant part of it, about 88% of that has gone to small and medium-sized businesses. While economy-wide you may lose the impact of what the program is accomplishing, I think it is important to note that it is helping a lot of businesses, and for every one who might be critical of the program, I think you could find five or ten who would be very grateful for the support that it does give.

When you look at repayability, you alluded to that. I just want to go clearly on the record here, saying that if you apply a banking standard to TPC—in other words, did you get your money back and did you get a return for the taxpayer?—you're really asking the wrong question, because if you could get a return on your money, the government wouldn't have to do it. The private sector would be in there like a dirty shirt to fill that gap in the financial market. So I view TPC and TPC-like programs as a way the government can get involved in areas that help particularly the small or medium-sized business sector, share risk with them, and do it in a way that helps them to implement technologies they wouldn't otherwise implement but that can drive their competitiveness and their productivity over time.

We look at those programs as having a significantly higher risk and significantly lower reward profile than someone in the private sector might. The key then is, are you applying that public sector intervention in a way that is most likely to have broad public benefits, which is the test that should apply to public policy? That is my view.

You alluded to sales taxes and CCA. I think there is work to be done, and we are looking right now at what advice to give to the Minister of Finance, because I think there are opportunities, through capital cost allowances in the tax system, that may be a beneficial way of more broadly reaching out to people who are investing in technology. That's something we're actively looking at.

On sales taxes, my own perspective—and I would be subject to expert advice from officials—is that the biggest problem area with sales tax is at the provincial level. A number of provincial governments—I know British Columbia is one—are still taxing capital inputs. To me, that's bad tax policy, because really you're causing the cascading of taxation and disincenting the kind of productivity enhancement that you and I would both favour. I've actually been an advocate for a long time of harmonizing GST and provincial sales taxes, but I'm considered a pariah with people who don't like the distributional implications of that.

The Chair: Thank you very much.

Brian, James, and then Lloyd.

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

One of the issues I'm very concerned about is the Investment Canada Act and the opportunity for non-democratic governments to purchase Canadian companies, like the case of China Minmetals versus that of Noranda. I have to start by saying I found that the government's position and that of the Deputy Prime Minister, when she stood up and talked about sanctions and repercussions to the Ukraine for not following the will of the people, was a very good and proud moment. At the same time, I don't know what the government's position is about non-democratic governments owning Canadian companies.

In China, just less than 4,000 miners were killed last year. It was a record year. They have political prisoners. What is the position of the government? Are North Korea, China, and Saudi Arabia all the same in terms of purchasing Canadian companies, versus private companies from democracies?

Hon. David Emerson: It's a very good question and I would say that circumstances heretofore have not really brought that issue so squarely into focus as the possible acquisition of Noranda by Minmetals. I would have to honestly say we have been dealing case by case, and it's only when you're hit with a really major watershed case that you have to suddenly step back and ask about the broader policy implications of it.

As parliamentarians and as Canadians, we have some very serious sober thinking to do—let's stay with the China example for a minute—about what are the best ways of encouraging China to improve its human rights record while at the same time recognizing that if there is a developing market that has the potential to serve our trade diversification agenda, China has to be at the top of that list. So we're all going to have to consider how to tackle simultaneously the concerns about democracy and human rights but not do it in a way that, in effect, sacrifices the employment and wealth creation opportunities of the next generation of Canadians.

I have in my own private mind a view as to how one could, under existing statute, ameliorate the potentially negative consequences of a transaction like that, but I don't want to venture off onto hypothetical ground.

● (1640)

Mr. Brian Masse: What we're not talking about is not trading in China. What we're talking about is the Chinese government owning Canadian companies. There is a difference there. What is the government's position on that? Can non-democratic countries own Canadian businesses? And what is the government doing if that's not acceptable? What's the plan to deal with the situation in terms of bringing forth changes, or is it simply going to be acceptable?

Hon. David Emerson: As I say, for the time being—and I understand this committee is going to do some thinking about it, and I'm happy to have your advice. If it were as easy as saying we want access to your market, we want better air bilaterals, we want this, we want that from China and everything is fine...if you say no, you can't make investments in Canada, then I guess the problem goes away. I'm not sure it's that simple. That's why I think we need to tread fairly carefully. There is an awful lot of expert opinion, and probably dialogue with people within Canada and possibly international dialogue, that we need to engage in to make sure we get it right.

Mr. Brian Masse: The committee is dealing with it, but we're not going to get to the bottom of a comprehensive response any time soon. It is a serious issue for the government, and I think there has to be work other than in this committee to deal with it.

Hon. David Emerson: And we are dealing with it. All I'm saying is that we haven't finished dealing with it.

The Chair: Thank you very much.

James, then Lloyd.

Mr. James Rajotte (Edmonton—Leduc, CPC): Thank you, Mr. Chairman.

I have a number of brief questions I want to pose, Mr. Minister. Hopefully, I can get all of them on the record.

Page 12 of the estimates talks about the Copyright Act, which Mr. Savoy raised. Can you explain why Canada has not ratified the WIPO treaty to date? It was ratified by the U.S. in 1998. Canada played an active role in this. Why have we not ratified it, and when will we ratify it?

Hon. David Emerson: We haven't ratified it because there are certain parts of our Copyright Act, and I gather certain legal court cases, that have in fact created some problems in terms of people protecting their intellectual property rights. We're in the process of going through and identifying the critical parts of the Copyright Act that would bring us into compliance. There are some fairly complex issues, as you know, given the evolution of the digital communications economy and the downloading and the uploading and the file sharing and the different mechanisms that can be put in place in a digital economy, to ensure that the fair and appropriate rewards to creators are captured without unduly jeopardizing users' opportunities to access material.

● (1645)

Mr. James Rajotte: Might I then encourage you to act very quickly on that? There are a lot of artists, producers, and distributors in this country who have been waiting for a long time, and I think they desperately want this done. The U.S. did it in 1998, so I think it's about time Canada did. I think you'll find agreement in different political parties as well.

I want to move to another subject, about foreign ownership restrictions in the telecommunications and cable sector. As you know, this committee recommended some time ago—it was a recommendation endorsed by the Liberals and the Conservatives—to entirely remove these ownership restrictions. First of all, I want to ask why that has not happened.

Second, I want to ask why the committee's fourth recommendation—endorsed again by the Liberals and Conservatives—to set up a parliamentary joint committee to study this issue, which was not opposed by Heritage, hasn't happened. This would have looked at the role of the CRTC; it would have looked at federal departmental organizations between Industry Canada and Heritage.

Further to that, on the same topic, a motion introduced by Mr. Fontana, former parliamentary secretary to the last Minister of Industry, moved to strike a small review panel that would have reported by the fall of 2004. I seconded this motion and it was agreed to unanimously by all parties. This motion was not acted upon.

When we have agreement on issues like this, I am wondering why the ministry and the department are not acting on these sorts of issues.

Hon. David Emerson: Thank you, honourable member.

As you know, I wasn't here then. This is a different committee than the one that made that recommendation. I'm certainly willing to be responsive, if this committee and the heritage committee can come together and have a unified view on the issue of foreign ownership.

I think you know from my background and some of my sloppy public comments that I'm not terribly resistant to more liberal foreign ownership regimes, although to me it's not the number one issue to tackle in terms of achieving a high level of competitiveness for our broadcasting and telecommunications industry going forward. If there is a consensus out there to liberalize, I will certainly be cooperative and move in a timely way.

We're doing some more work internally. We're separating the ownership issue from issues of regulating carriage and distribution. We'll have more to say to the committee in the new year. Candidly, we have so much on our plate with competitiveness issues and automotive, aerospace, and a raft of others that we simply did not have the resource capacity to also treat that on an urgent basis in this first six months.

Mr. James Rajotte: Thank you, Mr. Chairman.

Before putting my final question, I respectfully submit, Mr. Minister, that this is a report from April 2003, so it should have been acted upon. The motion was made in the last session by a Liberal member of this committee, endorsed unanimously. I would submit also that this is very important to certain industries in this country.

I do want to now move to the focus.... I know we're very focused on aerospace and auto in Canada, for obvious reasons, but I do want to add focus on the issue of Technology Partnerships Canada, because ministers for years have come to this committee and said we will be fully repaid on this, in fact that we'd be repaid even above the 100% level. The repayment rate is about 3%. I want to know if the minister is satisfied with that level of repayment, first of all. Second, what level of repayment can the Canadian taxpayer expect to receive?

The minister indicated that this government would be intervening in certain industries, like aerospace and defence and auto, through mechanisms like TPC. As you know, TPC was set up mainly for aerospace and defence and it has been expanded into other areas. If the government is going to pursue this strategy, will TPC be open to other areas on a more consistent basis— for instance, shipbuilding— to address some of the concerns from the east coast and oil and gas? It's not a road I would suggest going down, but if the government is going down the road of government intervention in the economy, it has to be fair to all regions and all sectors. It cannot only favour certain regions and certain sectors of the economy.

● (1650)

Hon. David Emerson: Those are good questions.

On the repayment rate, I don't think I've ever said all of these TPC contributions would be recovered fully with interest, or probably even without interest, because it is a higher risk part of the government's attempt to support implementation of research and technology in Canadian companies. I would not be committing to that being the case, although I believe we need to retain repayability. We need to do it in ways that reflect the potential success of companies, once they have implemented a technology where they've had taxpayer support. We try to do that through a reasonable system of royalties. When you do that, you're really looking 10 to 20 years out in terms of when the repayment cashflows can start to accelerate. My own sense is that TPC repayments are now beginning to accelerate, but if you were to look at the repayment rate today in relation to the life of the program, you'd say it's not really where you'd want it to be.

So I wouldn't put a target on what we should strive to get. What I would do is to focus much more on ensuring we are engaging in the right kinds of investments, on reasonable terms, and not simply crowding out private venture-type investments; that's not something governments should be doing, and it's no service to the economy to do something that would be done by the private sector if you did nothing. Those are my broad comments.

On the structure of the program, I will say that I view strategic sector interventions around cluster notions, which I alluded to earlier —though you may have been out of the room—as an important part of the government's arsenal in terms of transforming the economy and promoting the competitiveness agenda, particularly where significant established industries are going through some difficult periods and where some government role can be justified. TPC is an instrument that is there. It works reasonably well in a number of those cases, but my own feeling is that TPC probably needs to be restructured—and we're reviewing that right now. It's not clear to me that we should be using it to drive major, let's say, $100-million-plus strategic initiatives. It strikes me that we need to be looking at other instruments, or maybe a cluster of instruments, that can be efficiently brought to bear on some of those big sector issues. Maybe we need to be looking at a restructured TPC, where these mammoth projects don't, in effect, crowd out the small and medium-sized enterprise part of the business. That's something we're looking at right now.

I absolutely and totally agree that TPC and big sector initiatives need to be as available in Alberta or B.C. or Saskatchewan as in Ontario or Quebec, and the same for the Atlantic region. There ought not to be any systematic barrier to any industry in any region, in the qualifying circumstances or in getting get access to the program. That's something that we will certainly be sensitive to as we go through all of the instruments for how we can incent competitive transformation going forward.

The Chair: Thank you.

Lloyd, and then we'll see if we can wind it up with two one-minute questions.

● (1655)

Mr. Lloyd St. Amand (Brant, Lib.): Good afternoon, Mr. Minister.

I'd like to ask you about Aboriginal Business Canada. My interest is spawned by the fact that my riding, Brant, in south central Ontario, contains a very large aboriginal community of some 11,000 people who live on the Six Nations of the Grand River. I note from the main estimates that Aboriginal Business Canada's funding for the upcoming year has increased to over $38 million, which is an increase of 25% or $8 million from last year.

My first question, Minister, is what is the purpose of Aboriginal Business Canada? Secondly, as the program has been under way for a while now, what results has it achieved for aboriginal communities?

Hon. David Emerson: Thank you for that question.

Just on a general level, let me say that in addition to Aboriginal Business Canada, we're giving quite significant priority right now to how Industry Canada can participate through the aboriginal round table exercise on economic development opportunities for aboriginals. We've got a process and a meeting set up in December in Ottawa to talk to aboriginal leaders about the role we can play.

Aboriginal Business Canada is set up to do just that. It's to help foster successful self-owned and controlled aboriginal businesses. I understand it's had a reasonable record of success. I see here that it's helped to increase the number of businesses in Canada by 27,000, which is a significant number. The overall survival rate is 69.8%, which is pretty good when you consider that the rate for all Canadian businesses is about 65%. So it's doing something right.

It's something that we will continue to look at as a key part of our strategy for helping create economic opportunities for first nations.

The Chair: Thank you very much.

In our last minute, Marc, do you think you can fit your question into one minute?

[*Translation*]

Mr. Marc Boulianne: Earlier you referred to the exporting of industries and operations to foreign countries. We know that the rising dollar has an effect on labour costs. Do you think the present exchange rate will encourage Canadian businesses, for example, to exploit their operations outside the country?

[*English*]

Hon. David Emerson: That's a very good question.

I've been through foreign exchange cycles from the other side, in the private sector. You tend to get windfall games when the currency is down and then you pay the price when the currency is up.

There is no doubt that the effect of currency movements, up or down, is stronger the more value-added you create within Canada, because that's the part of your business that really takes the foreign exchange hit. If you've got a lot of imported inputs, you have a natural exchange wash that tends to insulate you from exchange shocks.

The reality is that the appreciation of the dollar does create a competitive penalty, if you like, for Canadian industries, which is why I have been so loud and aggressive about the need to pursue a Canadian competitiveness strategy and to shockproof the Canadian economy. Whether the shock is from an appreciating dollar or a protectionist attack or some other security event, as has really hurt the Canadian and world airline industry, you've got to be ready. That's why I keep coming back to the role of industry being that of driving productivity and competitiveness.

I don't want to comment on Bank of Canada policy. To be realistic, I think all of us in this room know that the Canadian dollar today is as much driven by what is happening to the U.S. dollar as anything else. I don't think David Dodge can manage the U.S. dollar.

● (1700)

The Chair: Thank you very much, Marc.

Mr. Minister, I want to thank you and your deputy minister for being here, and your officials in the gallery. You have been most helpful. I know your officials will prepare an answer for Brad Trost on the question of the NSERC EKOS contract.

With that, we're going to suspend for one minute while we excuse the minister.

We'll invite Dr. Carty up to the table so he can tell us a little bit about his job for the Prime Minister.

Hon. David Emerson: Mr. Chair, may I just say thank you to all the members for being so constructive. I apologize to, and appreciate, my Quebec colleague for tolerating my English-only answers.

The Chair: Thank you.

We're suspended for one minute.

● (1701)

(Pause)

● (1703)

The Chair: Colleagues, in our remaining half hour or so we have at the table, Dr. Arthur Carty. Some of you will know that previous to his current position as National Science Advisor to the Prime Minister, he was the head of the National Research Council. So he comes with tremendous qualifications.

We're going to invite you to say a few words, Dr. Carty.

I know Werner has a question for Dr. Carty, and Brad, and Denis has a short one. In the short time, I'll try to get everybody in.

Dr. Carty, please go ahead.

Dr. Arthur Carty (National Science Advisor to the Prime Minister, Privy Council Office): Mr. Chairman, honourable members, ladies and gentlemen, thank you very much for the opportunity to address you today in my new capacity as National Science Advisor to the Prime Minister.

This is the first time I've had the opportunity to address a standing committee in my new role, although of course as President of the National Research Council of Canada I have appeared before this committee on many occasions, and I must say I've always appreciated the interest and commitment the committee has consistently devoted to science and technology.

That's really why I'm here today, to reiterate to you the fundamental importance of science, technology, and innovation to the future goals and aspirations of Canadians for prosperity, quality of life, and societal well-being.

I'd like today to start off by making three key points that I hope will help guide your deliberations on the future of science and technology in industry. First of all, I think you probably appreciate that the Canadian government has made major strides in their support of science and technology over the last seven years, which, if sustained, will not only raise Canada's international profile and its relative performance but will pay off for the long-term benefit of all Canadians.

Secondly, we must continue to build on those achievements in the coming years to ensure that Canadian industry is in a position to compete globally based on its intellectual assets.

Thirdly, we must focus our efforts in key areas where Canadians have a chance to compete, not simply today but ten years from now.

First of all, let me just say a little bit about my mandate. The position, as you know, was announced in December 2003, but I took up the responsibilities only in April 2004 because of my duties at the NRC. The overall mandate of the position is to provide sound, independent, non-partisan advice to the Prime Minister on science issues and on the directions and priorities for Canadian science and technology.

Obviously, starting an office from scratch we had to focus our activities, and we picked a small number of issues on which to put our attention. The first is to contribute to the design of a long-term plan for science and technology in Canada, balancing a solid research base in excellence in science and technology with benefits to society and the economy.

The second is commercialization and innovation. This, I should point out, is the principal mandate of the Minister of Industry, Mr. Emerson, but the National Science Advisor was asked to work with the minister to develop a comprehensive plan for commercialization.

The third issue is responding to the Prime Minister's challenge of bringing Canadian expertise and technology to bear on the problems of the developing world.

The fourth is revitalizing government science and encouraging horizontal collaborations between departments, agencies, institutions, and business to ensure better coordination and integration.

And the last issue is major science investments, helping to design a transparent framework and process for evaluating big science projects in Canada.

If I may, let me first start by taking stock, a little bit, of Canada's progress and achievements—and some of this you've heard, directly or indirectly. The fundamental economics of Canada are sound, balanced books. Running a surplus and bringing down the federal debt, of course, have enabled investments in science and technology as well as many other things.

At the same time, the government has made a significant commitment to strengthening Canada's research capacity, injecting $13 billion into the science base over seven years, to the point where Canada's R and D spending per capita in universities and research institutes has now reached the highest in the G-8 group of advanced countries.

Canada, as has already been mentioned, has one of the highest rates of tax credits in the world and has invested significantly, both directly and indirectly, in R and D.

The past year has also seen some pretty remarkable milestones in the history of Canadian science and technology. One of your members asked for some successes of the Minister of Industry. In October I had the pleasure of attending the opening of the Perimeter Institute for Theoretical Physics with the Prime Minister.

● (1705)

As you probably are aware, Michael Lazaridis, the co-founder of the company Research in Motion, has himself donated $100 million toward the formation of an institute for theoretical physics in Waterloo, not directly on the University of Waterloo campus.

The object of that is very simple—to put Canada at the leading edge of theoretical physics, to draw the best brains in the area to Canada, and to make Canada a world leader in the area.

Now, Mr. Lazaridis is the first to argue that we cannot neglect our support for science, nor should we force-feed it to the market. Rather, we must create the conditions for science to flourish and an environment for companies to innovate.

Later in October I attended the opening of the Canadian Light Source in Saskatoon, which was a tremendous achievement and a truly wonderful day for Canadian science. The CLS will put Canadian science at the cutting edge of research in many domains, with potential applications in agriculture, biopharmaceuticals, environmental technologies, and industrial products. It was a very proud moment to be there to see the CBC covering this event live and to see so many people tuned in and interested in science.

The point I want to emphasize here is that Canada has made enormous strides over the past decade in strengthening its research base. We are drawing worldwide attention for that. So we must build on those investments and achievements that have not only enhanced our university and research hospital infrastructure, but have also attracted brilliant new talent to Canada.

Since its inception, for example, the Canada research chairs program has attracted over 190 talented expatriate Canadians back to Canada and some 210 international stars to come and work in our universities.

Despite these significant investments and the remarkable progress we've made in getting to the top, we still trail the OECD average in terms of our gross expenditures in R and D as a percentage of GDP. Private sector performance of R and D continues to be among the lowest of the G-8. The World Economic Forum ranks Canada twenty-seventh in the world in propensity to compete on the basis of unique products and processes. This is a serious challenge, and I believe we must respond to it.

Doing a much better job on commercialization, of course, will help, but I would admit that the debate on commercialization of research over the past year has led some to what I think are shortsighted conclusions. First of all, Canada's investments in R and D over the past decade should not be seen as unique answers to our commercialization challenges. The private sector should play the most critical role in this. We should not look for short-term payback for that $13 billion we have invested, nor should we push research out of the laboratories prematurely for the sake of increasing our rate of spinoffs or licensing performance.

The most important asset coming out of our university research environment in the coming years will be well-trained, educated, and motivated people who will work in industry and academia. They will be the next generation of innovation leaders in this country.

Secondly, investments in university research, although exceptional over the past seven years, should not simply be traded off against other objectives. We need to look at the long-term viability of the three pillars of Canada's innovation system—research in academia, public-good research in government laboratories, and industrial innovation—as being part of an integrated system that works toward long-term goals as well as shorter-term outcomes.

Our intramural federal science capacity is a critical part of that equation. That must be reinvigorated to respond to the policy priorities of Canadians in health, environment, security, and economic growth. But of course the business sector must also be a leading player because that's how products and processes and services get to the marketplace and generate wealth for the country. Of course, strong economic growth will also allow us to afford further investments in science.

Now let me just say a little bit about moving ahead on commercialization of research in new technologies.

● (1710)

The Chair: Please excuse me, but I have to get you to wrap it up. I know it's very important, but I want to make sure my colleagues have time for some questions. Some of us have planes.

Dr. Arthur Carty: All right, fine. Well, let me stop there and go to the questions.

The Chair: Thank you very much, sir. We appreciate that.

I may have to leave a little after 5:30 to catch a flight, and Werner is going to take over.

Werner, would you start, please?

Mr. Werner Schmidt: Thank you very much, Mr. Chairman.

Thank you, Dr. Carty, for appearing.

We've had the opportunity of meeting on a number of different occasions, but I've always been impressed with your knowledge and commitment to the field of research. The commercialization is now moving forward. I remember your work as president of Waterloo University, where you made some major steps forward in exactly this area. I think the programs you developed are absolutely outstanding.

I do want to ask a question on something that I think you, as the senior advisor to the Prime Minister, could have a major impact on. It has to do with the big science projects or, if you will, the big research projects that are currently in process in Canada. Some of them have been in operation for about three or four years now and their funding seems to be in jeopardy at this point.

There are two questions I'd like to ask.

First of all, what is the long-term sustainability of these projects? Some of them are really accelerating to the point where they're about to make some major discoveries, but apparently there's now a threat that the funding may be pulled back or reduced. They're not sure. These people feel insecure in terms of living here and in terms of where the projects are going and whether they should continue to move forward.

The second question has to do with the variety and the myriad of bewildering places where they have to go to find the money, even from government departments. It isn't one department; they can't go to a single one. They go over here, and over there, and the next thing you know they're spending 20% to 30% of their time simply filling out application forms rather than actually doing research.

I wish you could comment on both of those questions.

● (1715)

Dr. Arthur Carty: Thank you, Mr. Schmidt. That's an important question.

In terms of my mandate, I did mention that we had been looking at the development of a transparent policy framework and process for evaluating big science projects to ensure that some of the issues you've talked about are not missed.

For example, it doesn't seem very sensible to have five-year funding for a very large, major science project and then have to face the issue that you might shut off the funding after you've spent hundreds of millions of dollars putting it in place.

It also doesn't make sense that we don't have a practical system for funding the operating costs of these facilities on a continuing basis. For example, Canadian Light Source was a real mishmash of funding from a number of different sources. Even that was insufficient to get the operating dollars that were required to do a seven-day, 24-hour operation, and it was in fact a rescue operation.

We shouldn't have to get into that kind of scene. When proposals are submitted, they should include the life-cycle costs, not only the capital costs and the costs of operations, and what it will realistically take to operate these facilities in a way that will make them available to the Canadian scientific community for the length of time required.

There are a lot of things to sort out, but the framework that has been put together by NSERC and NRC is in the form of a discussion paper, which we will shortly be circulating to the community. All of you will get a chance to have a look at what we're proposing. I think it will make some big improvements to this consideration of big science.

The Chair: Will we get a copy of that to circulate?

Dr. Arthur Carty: Yes.

The Chair: Dr. Carty, what is the timeline for that circulated document?

Dr. Arthur Carty: We should be able to get it out before Christmas.

What is your timeframe? We can get you a draft copy of it right away.

The Chair: I think a draft, at the earliest opportunity, would be acceptable to the committee.

Is that okay, Werner?

Mr. Werner Schmidt: Yes.

The Chair: Denis has a short question, and then we'll have either Michael or Brad, or both.

Hon. Denis Coderre: Merci beaucoup, Dr. Carty.

We have spoken a lot about science, but I'd like to hear from you a little bit more on the specifics. I'm a believer in human science. I think every time we talk about cure, we should talk about prevention. If there's one thing we need to have, it's the proper environment, so we need to understand the proper environment.

We just had the Minister of Industry before us and we spoke a lot about the clusters advantage, and we surely talked a lot about the knowledge base. Do you believe our universities are underfunded, that the next move we'll have to take is perhaps to gather all our counterparts, our stakeholders, and invest more at that level? I truly believe it's as important as health care.

Second, do you believe, since you've been through one of the councils, that even if the flavour of the month is expenditure review, as the senior advisor—and you're surely not partisan—one part of your advice to the Prime Minister should be first, do not touch any funding at all, that as a matter of fact we should invest even more, because one of the requirements to keep that cluster advantage is knowledge? We have a small market, and frankly one of the reasons we're that strong at many levels is because of that kind of knowledge base, and we surely have to expand on it. Would you be able to provide already that kind of advice to our Prime Minister?

● (1720)

Dr. Arthur Carty: As far as the first question is concerned, yes, I do believe that from an overall perspective the universities in Canada are underfunded compared with the levels, for example, at which comparable institutions in the United States and in other advanced countries are funded.

On the other hand, I wouldn't say that at this point in time they're underfunded in terms of research. In fact, I would say we have the best environment now in universities for research that we've had in 50 years. The underfunding is for the universities in general, for education and the general mandate of the institutions. It's not specifically in the research area.

The other question was about the expenditure review. Let me start off by saying I believe the Prime Minister and the government in speeches from the throne and in past budgets have indicated that science is a priority. I don't think one could have got other than that impression from the recent Speech from the Throne or from other statements. If science really is a top priority—and I believe it should be, as the national science advisor—then it is very important that we not cut back on science funding. That is the message I will be conveying to the Prime Minister.

The Chair: Thank you, Denis and Dr. Carty.

We'll go to Michael, Marc, and then Brad.

Mr. Michael Chong: Thank you, Dr. Carty, for appearing in front of this committee.

You mentioned in your remarks that there were three pillars to the national science strategy. One was pure science in academia; another was quasi-academic science in government labs or government programs; and then there was the commercialization of science.

My query concerns the third pillar. Over the last number of years we've seen consistently, in report after report, that Canada's productivity is not where it should be, and directly related to this, that the amount of money being invested in research and development by Canadian companies has fallen behind as a percentage of GDP. I'd be interested to hear what your thoughts are as to what public policy initiatives the government can undertake to reverse that trend.

Dr. Arthur Carty: The facts of the matter are that with regard to the innovation system, the innovation system is really a three-legged stool. You have the knowledge base, principally in the universities but in government labs too; you have public-good research for health environment, for regulation, and for special economic growth; and you have research in the private sector for innovation, because after all it is principally the private sector that gets products and processes to the marketplace.

The trend in research and development investments by the private sector until 2001 was a steady increase. It was going up at about 5% per year. In 2002, when the dot-com bubble burst, there was a major setback, because Nortel, which is of course the principal contributor to research and development in our corporate sector, had a crisis—it's still in crisis—and cut back on its R and D investments. You saw a curve, which had a spike in 2001 and went down again. We've actually only just got back to the point we were at in 2001.

There are many reasons why this is the case in Canada. First of all, fewer than 200 companies invest 90% of the R and D expenditures. Most of those companies—46%—are in the information technology sector. We have an industrial structure that is very different from the structure in the United States or in France, for example, or in Germany. It's a structure that does not have a large number of big companies investing heavily, and it has an enormous number of small and medium-sized enterprises that often don't have the money to invest in research and development.

Unless in Canada we can create, sustain, and grow more companies into the giants of the corporate marketplace.... And we've done so. There are some examples, such as Open Text, which is now an $800-million company, and Research In Motion, a billion-dollar company. I could quote a dozen companies that have come up and grown like that. We have to do a better job of creating, sustaining, and growing our companies, particularly focusing on the fast-growing ones.

There is a role for government in incenting that, in helping those companies to move ahead. They will be the ones that will invest significantly in the future.

● (1725)

The Vice-Chair (Mr. Werner Schmidt): Thank you very much, Dr. Carty.

Marc.

[*Translation*]

Mr. Marc Boulianne: I'm going to come back to the Social Sciences and Humanities Research Council. We're a bit troubled about this. Earlier, I asked the minister a question about the cuts. I believe the Council is currently engaged in a transformation process; that's what we've seen in research. Greater emphasis will be placed on research, that is to say on knowledge, and on grants. Can you elaborate on that subject? What is that initiative?

Dr. Arthur Carty: I think it's an utterly modern vision of the Council, that is to say that the SHRC is trying to transfer the knowledge that researchers have discovered. Through research, we're trying to convince the community to transfer that knowledge to the cities and communities of Canada to try to give it value. It think this is entirely new for the social sciences and humanities research community. I entirely agree with this initiative.

A few weeks ago, I spoke with the persons responsible for the research chairs of the Social Sciences and Humanities Research Council, and I agree with this vision, which I believe is new. It may be hard to accept for a community that didn't previously think that way, but my impression is that it will succeed.

[*English*]

The Vice-Chair (Mr. Werner Schmidt): Thank you very much, and thank you, Dr. Carty.

Can you stay for a couple of more minutes?

● (1730)

Dr. Arthur Carty: Yes.

The Vice-Chair (Mr. Werner Schmidt): Thank you. Then go ahead, Brad.

Mr. Bradley Trost: Let me say, as the member whose riding the synchrotron is in, I very much understand what you were saying about its being pieced together—and as the member who may veto the veterinary infectious disease organization. We're going through an identical process with it right now, the mishmash of putting it together.

I have a complete change of topic here, completely different from what everyone has asked about. I just want a short answer.

Industry Canada, on its website, says:

> Industry Canada will also facilitate the development of several Climate Change Technology Roadmaps with the objective of accelerating the development of cost-effective technologies for greenhouse gas mitigation in multiple sectors.

They are going to do work on the greenhouse issue.

Here is my question. Do you feel, as a scientist, completely confident that the climate science is solid enough for the Government of Canada to spend billions of dollars on the implementation of the Kyoto Protocol? Why, or why not?

Dr. Arthur Carty: That's a good question. I do believe the evidence that we're in a period of climate change is incontrovertible; there's no doubt that we're in a period of climate change. I don't know whether you've had the chance to read the Arctic climate impact assessment that was published just two weeks ago, but there are devastating effects and observations in the Arctic that clearly show it is a region of the globe to which we have to pay attention. The temperature change in the Arctic is said to be twice as large as it is in other parts of the world. Ice is melting; the tundra is softening. We're looking at potentially catastrophic circumstances and major impacts on the lives of the indigenous people who live in the Arctic.

My office has been supporting the work Canada is putting into the international polar year that occurs in 2007-08. This is a major opportunity that Canada has to participate in an international research program that can combine the human elements with the science and engineering elements of the Arctic.

While there is still a debate over the reasons for climate change—why it's happening—I don't think there is any doubt at all that it is happening. There are probably 90% of scientists on one side of the debate and 10% on the other, but this is a debate about the mechanisms of change rather than the fact that it's changing.

Mr. Bradley Trost: Agreed, but there is a difference between natural change and man-made change. So you are confident that the science is solid enough behind it that we should spend billions of dollars to reduce our emissions of carbon dioxides, methanes, and other greenhouse gases, are you?

Dr. Arthur Carty: Yes, I'm convinced we need to do that.

The Vice-Chair (Mr. Werner Schmidt): Thank you very much, Brad.

On behalf of the members of the committee who are left, I want to thank you very much, Dr. Carty, for appearing. It was a real pleasure to see you again and to hear your comments. We are looking forward with great anticipation to the draft report before Christmas, as soon as you have it available. That will be very helpful to us.

Just for the members of the committee concerning our own operations, we will meet on December 2, next Thursday, and we will be hearing witnesses on Bill C-19. The Canadian Bar Association, the Canadian Chamber of Commerce, and the Canadian Council of Chief Executives will be our witnesses at that time.

I want to thank as well the people in the gallery who stayed around. Dr. Brzustowski is still here. It is great to see a gentleman like you here and to see your dedication.

Dr. Carty, we wish you well in your new role. It's a very difficult one and a very challenging one. We look forward to great things from your office.

Dr. Arthur Carty: Thank you very much, Mr. Chairman.

The Vice-Chair (Mr. Werner Schmidt): The meeting is adjourned.

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