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Wednesday 23 September 2009

## Standing Committee on Estimates

Ministry of Research and Innovation

# Assemblée législative de l'Ontario

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Mercredi 23 septembre 2009

## Comité permanent des budgets des dépenses

Ministère de la Recherche et de l'Innovation

Chair: Garfield Dunlop Clerk pro tem: William Short Président : Garfield Dunlop Greffier par intérim: William Short

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#### LEGISLATIVE ASSEMBLY OF ONTARIO

#### ASSEMBLÉE LÉGISLATIVE DE L'ONTARIO

### STANDING COMMITTEE ON ESTIMATES

#### Wednesday 23 September 2009

#### COMITÉ PERMANENT DES BUDGETS DES DÉPENSES

Mercredi 23 septembre 2009

The committee met at 1555 in room 151.

#### MINISTRY OF RESEARCH AND INNOVATION

The Chair (Mr. Garfield Dunlop): Good afternoon, everyone. Petitions are now over and we'll carry on with the remaining time we have today.

I'd like first of all to welcome back the minister, Minister Milloy, and the staff of the Ministry of Research and Innovation. But in particular, I'd like to welcome the delegation from the Parliament of Ghana, who are joining us to see our Standing Committee on Estimates today. I hope you enjoy—

Applause.

The Chair (Mr. Garfield Dunlop): The minister will give excellent answers to these questions today and you'll find out.

We are here to resume consideration of the estimates of the Ministry of Research and Innovation. There is a total of one hour and 15 minutes remaining, although I believe we might cut that short because we don't have a lot left, Minister. When the committee adjourned, the third party had finished their 20 minutes on the rotation, Mr. Miller, and it is now the government's turn, followed by the official opposition, and then back to the third party. To the government members, you have 20 minutes.

**Mr. Reza Moridi:** At this point the government has no questions, but I believe the minister has some information to table.

The Chair (Mr. Garfield Dunlop): Minister Milloy, you have some comments?

Hon. John Milloy: Yes, Mr. Chair. I wonder if this is in order, to table a number of answers to questions that were raised during our last two sessions. Obviously, work continues in bringing a complete package to members of the committee, but I wanted to share the information that we have and finalize with the committee. So I'll pass that to the clerk, and members will have a chance to look at it.

The Chair (Mr. Garfield Dunlop): Thank you very much. Minister, do you have any comments on that or just the fact that you're tabling it now?

**Hon. John Milloy:** No, it's self-explanatory. It picks up on a number of the points that were made in our last two—I guess, technically, three—sessions we've had together.

The Chair (Mr. Garfield Dunlop): Thank you very much, Minister. We'll get copies distributed to all the members of the committee.

I understand you want your time stood down for the 20-minute part of the rotation?

Interjection: Yes.

The Chair (Mr. Garfield Dunlop): Thank you very much. I have a few questions from the official opposition. Mr. Bailey can resume the seat.

The Vice-Chair (Mr. Robert Bailey): The official opposition has 20 minutes. Mr. Dunlop.

Mr. Garfield Dunlop: Thank you very much. Just some questions on the Ontario Research Fund, Minister, and these are just generally questions that I'm hoping—I don't think they've been asked yet. We've had almost five hours of questions here. On the research excellence program, how many applications have been submitted as of July 1, 2009? I don't believe we've gotten into that at all, have we?

**Hon. John Milloy:** No. Perhaps the deputy can pick up on that.

Mr. George Ross: Mr. Dunlop, I don't think we've had any questions specifically on the current round of ORF-RE, research excellence, but if you give me a moment I can get some data out right now. We do have a number of rounds that are in adjudication right now.

Mr. Garfield Dunlop: Just really to the deputy: What's the number of applications that have been submitted as of the end of July, how many have been approved—I don't expect you to answer all these questions today, but if you can get back to us after—and the amount given to each of the approved projects. If you can provide that information.

**Mr. George Ross:** We will take a look at that. If I can table it before the end of the session, I will. We have a couple of rounds that are in adjudication right now, so I'm not sure we've had any approvals on research excellence to date, but I will check on that, sir.

Mr. Garfield Dunlop: Okay. Then to the research infrastructure program: Again, how many applications have been submitted, how many applications have been approved, and the amount given to the approved projects. Then, finally, to the innovation demonstration fund: How many applications have been submitted, how many applications have been approved, and the amount given to each of the approved projects.

#### 1600

I guess the key point I'm trying to get to is where in the province these projects have gone; for example, what communities, what parts of the province the programs were successful in or the applicants were successful in. For example, could you give me an example today of anything that's been approved, and the amount of money that has been approved, say, for an organization or a specific company, say, in the county of Simcoe, including Barrie and Orillia? That would be the type of thing I'd be after.

Mr. George Ross: Okay.

**Mr. Garfield Dunlop:** In fact, even now, if you could give me any examples of those, I'd like to know what they are.

Mr. George Ross: Right. So you've asked about three of our programs. First is under the Ontario Research Fund research excellence program. The allocations under that program go to Ontario universities and teaching hospitals. Those are allocated on a peer review system. Applications are submitted, and we have panels of experts that are brought together. They make recommendations to the Ontario Research Fund board, which passes recommendations on to the minister.

We run these in rounds, and the results of those rounds are publicly available with the projects that are funded. They are spread out across the universities across this province, and it really depends on the specifics of the round and the applications that come in and how they're reviewed. But I can certainly dig out some of that information now if you just give me a moment.

Mr. Garfield Dunlop: Okay.

**Mr. George Ross:** Okay. With respect to research excellence: These are projects to support research operating funding. So this is actual staff and operating expenditures in a research laboratory.

The first call for proposals for research excellence was on June 6, 2005. So this program goes back several years. Twenty-six Ontario research institutions submitted 80 applications. The ORF advisory board made funding recommendations on that first round to support 26 projects across the province for \$115 million. These awards were announced in 2007.

The second call for proposals was on May 31, 2007. In response to that call, 49 proposals were received from 18 institutions. So it gives you a sense that many of the institutions across the province participate.

In round two, based on the recommendations of the ORF advisory board, 19 research projects have been approved in nine Ontario universities and research hospitals, for a total of \$114.7 million in new funding. These awards were announced in January 2008. One of these projects has been cancelled by the institution, resulting in a total round two project value of \$107.4 million

The third call, Mr. Dunlop, was on July 30, 2008, and in response 63 proposals were received from 19 institutions. The ORF advisory board made funding recommendations on research excellence round three to support

19 projects across the province and \$73.5 million in funds. These awards were announced in May and June 2009.

The fourth round of competition was launched on March 13, 2009, and in response 61 proposals were received from 22 institutions. This specifically is the round you were just asking about, sir. Those proposals are currently in adjudication.

In addition, a specific targeted round, called the global leadership round in genomics and life sciences, was launched on May 4, 2009, and the deadline for applications was August 31, 2009. Those projects are also in adjudication.

So the ORF research excellence program issues at least one call for proposals per year, and the research operating costs are shared by the ORF, institutions in the private sector; and review panels, as I said, assess the research excellence proposals against a range of prescribed criteria. These criteria are known by the researchers ahead of time, and these criteria include:

- -excellence;
- —the quality of research, obviously;
- —the strategic value of the research to the province;
- —commercialization potential—so could this research turn into patents or company creation?
  - —development of research talent; and
  - —project management skills.

On the basis of their peer-review panel reports, the ORF advisory board makes final recommendations to the minister. So these are very transparent criteria.

The second program you asked about is the research infrastructure program. This is focused on capital, so this is laboratory space, equipment etc. As part of the adjudication process for the 2009 large infrastructure competition, MRI conducted Ontario strategic value review panels. This is some work that we did in Ontario. The result of that process is that MRI will be funding proposals that are of strategic priority to Ontario.

Previously, the province just matched research infrastructure projects that were supported by the Canada Foundation for Innovation. In the future, and in this round that is yet to be announced, we have done our own review on those proposals, based on criteria as well. There will be some decisions made shortly with respect to the 2009 round.

I will follow up. You also asked about the innovation demonstration fund, and I did table—I think, at the last meeting, I ran through some of the projects that have been funded there. I can certainly do that again. But I can get you some data in terms of applications and success and those sorts of things. I'll need to follow up on that.

**Mr. Garfield Dunlop:** Just on the research excellence program, do many community colleges qualify? Is there enough research done that they would submit money to the community colleges?

**Mr. George Ross:** Right. Community colleges are eligible for our programs, and they do apply. They are research institutions. The type of research that community colleges are active in typically is more applied

research, and it can be very focused on solutions that small and medium-sized businesses need.

In the last budget, the government allocated, I believe it was \$10 million, to a program called the Colleges Ontario Network for Industry Innovation, CONII. That program is really to provide funding to support college-applied research and to support their activities directly, working with companies as well. We can follow up with some more information on that, but colleges generally can apply to our programs, along with universities and teaching hospitals.

Mr. Garfield Dunlop: And just specifically to a college like Georgian College, that has the Canadian Automotive Institute out of the Barrie campus—in fact, this weekend, they're having this huge car show. They're having cars from all over North America, that were built in North America, at Georgian for this car show. In a partnership with the college and the Canadian Automotive Institute, could they be funded through something like this, or are we looking at different kinds of criteria for something like that?

Mr. George Ross: No. The requirement of many of our programs is that they have an industrial partner that contributes. Our funding always levers additional funding, whether it's from the federal government granting councils, through the CFI or through matches from the institutions and industry as well. Having a project that has an industrial partner really adds a lot.

I would need to look into the specifics of the activity there, but I certainly could follow up with the institution and give them some advice on how our programs may be applicable to them.

Mr. Garfield Dunlop: I thinking specifically of a case like Georgian where they have a partner south of them, Honda Canada, out of Alliston. I'm not speaking for the college or for Honda Canada, but I'm looking for potential partnerships for research money or something they may be able to utilize under this ministry. So that type of thing, in fact—there's a possibility it could qualify?

Mr. George Ross: Right, and I'd also encourage the college and Honda Canada to take a look at the Ontario Centres of Excellence program as well. The Ontario Centres of Excellence was set up, and continues to be focused on industry-academic collaboration, linking the research activities in the institutions to industry needs. A lot of our programming—much of our programming, in fact—is really focused on relevant research that has industrial application and has potential to create new start-up companies based on commercialization of the innovation that comes out of the research lab.

Again, I would encourage the college to make contact with us, and we can sit down and talk to them about how these programs can be made available to them.

1610 M

Mr. Garfield Dunlop: Yes, and I think in a lot of cases—there are so many programs that the colleges are trying to deliver, and they've got the university partnership programs as well that they're working with—sometimes you think there just may be a possibility they may

overlook or miss a potential opportunity to apply for certain funding that they might need in a specific area.

That's sort of what I'm zeroing in on now: trying to look at not only opportunities for the college in my backyard, but for other community colleges, because today, if we look across the province—and I think the minister will agree—the community colleges are delivering. For people who actually attend community colleges, the graduation rate and the successful job applicants are something like 90% or 92% for most of the community colleges. So, you know, any time you get an opportunity to prop them up a little bit—that's kind of what I'm getting at here, whether it's Georgian or one of the community colleges in somebody else's area here.

Mr. George Ross: Yes. I think our experience is that the type of research activity that community colleges participate in is very applied and very relevant to small business especially, which needs the support for rapid innovation, prototyping and real problem-solving, and certainly in our experience, community colleges bring a lot to the table in that regard. So, absolutely.

**Mr. Garfield Dunlop:** Okay. That's really all I had, just the questions on those three, there. And I'll stand down the remainder of my time. Thanks very much.

The Vice-Chair (Mr. Robert Bailey): Sure. We'll move to the third party.

The Chair (Mr. Garfield Dunlop): Thank you very much. I'll move to the other chair again. Now over to the third party.

**Mr. Paul Miller:** Thank you, Mr. Chairman, and welcome, Minister, to your new portfolio.

I've got a couple of local questions that I don't expect you to answer today, but some feedback would be most helpful to the people in the Hamilton area and also Sault Ste. Marie. It's dealing with the steel industry.

I'd like to know how much research and development funding is being channelled into the steel sector. Some numbers would be appreciated.

My second question: Part of the agreement signed federally by US Steel when they purchased a Canadian company—the last steel company in Canada, which was Stelco—was to sink money into research and innovation, and obviously they didn't. It's being challenged by the courts in Ottawa. Mr. Clement has challenged them, and they're being fined on a daily basis until the court deals with it.

What I'm asking is, have you had any interaction with the federal government on research and innovation funding for the steel sector? As you know, the steel sector plays a key role in our province's manufacturing sector, and it's been hard hit in the last five years. Things are not exactly getting better as we speak. US Steel has taken it upon themselves to open one and close another plant, one of our most productive plants. So I want to know.

We used to have a complete research and development division at Stelco when I worked there, which employed a couple hundred people: researchers, scientists. It disappeared in the 1990s and shut down. So I want to know, basically, if you can give me some information on

what programs that you're co-operating on, if any, with the federal government on revitalizing the steel industry in Canada.

As I've pointed out, and I'll reiterate, the steel industry is a key sector in our economy, not just in Hamilton but Sault Ste. Marie and other major centres in our province. We led the world in steel production. In fact, many companies came to Canada, to Stelco, even when I was employed there, to take our innovation—different types of production methods—back to China and India, and have utilized them through research and development. They have surpassed us, left us behind. I have grave concerns about how we can compete on a global basis when our innovation and some of our ideas were taken and utilized in other countries. We have not continued to keep up our research and development. One company that did lead the way in that and continues to lead the way is Dofasco, now ArcelorMittal, but all our other steel manufacturers in this province, in this country, have fallen by the wayside in research and development.

I would like to know what this ministry's plans are to stimulate the steel industry in our country, because as you can appreciate, in my area of the woods, we have a large steel presence. Probably 70% of my community relies on secondary industries that support the steel business. If the steel business is affected and it's closing down, it affects my entire community.

A lot of people are asking a lot of questions on what the governments are going to do about making us world leaders again. I would like some of that information if you could get it back to me. I don't expect it today.

**Hon. John Milloy:** I don't know, we can certainly—well, certainly we're endeavouring, obviously, as is usual practice, to get back to all members in detail on the different questions, but I think the deputy might have some preliminary thoughts on this that he could share, and then we'll get you more specific details.

**Mr. George Ross:** Absolutely. Our role in MRI is not to work with specific industries like that or sectors in terms of recovery work. In partnership with the Ministry of Economic Development and Trade, we can certainly talk to them about these questions.

Much of what we do is focused on providing the innovation and commercialization support to allow industries, like the steel industry, the auto industry and others, to take on new innovations into their processes and to develop competitive products that can go into the global marketplace.

I don't have the data in front of me here. I can certainly dig it out, but there will be a lot of research projects that we have supported over the years that are focused in material science that have a direct relation and benefit to the steel industry. It may not be an absolutely near-term benefit to them, but it supports the kind of innovation that helps these industries be competitive in a global situation. Our focus is very much around the research and commercialization activity.

**Mr. Paul Miller:** Well, with all due respect, Deputy Minister, it's the fact that that's the problem. We have to

support the steel sector and other manufacturing sectors not just with ideas coming out of the universities and college, but hands-on support for these industries, because we're flailing around with no direction and we're not competitive with the world in certain sectors. We've fallen behind in innovation and research, and that's exactly what we do need: hands-on interaction with not only the universities and colleges, but the industries themselves.

I'm not suggesting to you that the government is going to directly support private industry, but what I am saying is that, through innovation, through research, they can become more competitive and turn out a better product.

We've been in the steel business for a long time—since the late 1800s in Hamilton—so we were world leaders, but we have fallen off the map in comparison to our competitive ability throughout the world, especially in Europe. China and India are now surpassing us in technology.

I'm saying to you: Yes, you can support, but you also have to push, from the government's perspective, into these fields where we're lacking. The way you push is support, indirectly, to the industries through programs that they may suggest that may not actually go through the Ministry of Training, Colleges and Universities, but it would also fall under economic development and trade and innovation and research. You could work hand in hand with two bodies of government as well as private industry to make us more competitive and back into the world market, where we belong and where we led for many years. That's what I'm suggesting. Anyway, you don't have to answer that. That was more of a local concern that my people have in the Hamilton area.

I'll move on now to more general questions. I know one of the concerns of the ministry is Ontario's lagging productivity. Can you tell me how Ontario's growth productivity compares to comparable states in the United States?

**Hon. John Milloy:** Again, I'll see if the deputy wants to—

**Mr. Paul Miller:** Do you want me to repeat that?

**Mr. George Ross:** No. I think your question related to our productivity measured against—

**Mr. Paul Miller:** Comparable US states. **1620** 

Mr. George Ross: Comparable US states. I actually don't have any economic data available right now but I can certainly endeavour to look into that and get back to you with that. There are some comparisons that are available.

Mr. Paul Miller: I appreciate that, Deputy Minister. Red-flagging those types of inquiries would probably be beneficial to the province of Ontario as a whole in the manufacturing sector, as well as research and innovation. I know for a fact that there are even companies that have gone into solar that are replacing automotive makers and parts manufacturers in the northern United States. Minnesota and other states have gone into full solar production, which obviously goes hand in hand with

innovation and research. They are now becoming world leaders. We missed the bus on that one and we've missed the bus on a lot of things where they're moving ahead quicker. Of course, to my chagrin, there is obviously a lot of American protectionism going on that they're not admitting. That's another story for another day.

My next question would be, what specific ministry programs address Ontario's productivity deficit most directly?

Hon. John Milloy: If I can start off—I'll turn it over—I think you've hit upon a very important point in terms of productivity and the way in which we compete with other jurisdictions. That actually is the whole purpose—I'm not trying to be cute because I know we can talk about some specific questions, but the whole purpose of the ministry is to address issues of productivity, to look at how we can position ourselves for the future. It's how we can catch up with other jurisdictions that are ahead of us and be leaders in areas.

I certainly do not share your pessimism. I think Ontario is a leader in a number of fields and I think we have a lot of strengths that we can build on. There are areas in terms of new technologies and approaches. On Monday, for example, I was at Linamar; the Prime Minister was there as well. They were opening a new centre. The government had provided support through a different ministry, but just to give you an idea, a big chunk of the centre's work was on issues around productivity and competition and how they could find new skills and approaches that were going to make a plus in terms of the auto industry. I think the auto sector is very much part of the economy of the future. What we do through various programs is support these industries in finding ways to be more productive and more competitive.

I will refer to the deputy minister, who may want to talk about some of the examples of where we're focusing on that productivity—

Mr. Paul Miller: Just a rebuttal to the minister's comment about pessimism: I think I come from good roots. We have lost 28,000 jobs in the Hamilton area in the last 12 years, so my pessimism is deeply rooted and with a lot of numbers behind it. So that's why I'm feeling the way I do. Innovation and research are great if you employ a few hundred people, but when you're losing thousand and thousands of manufacturing jobs because of our lack of ability to compete, that is a very serious concern for me.

Go ahead.

Mr. George Ross: The key to productivity is industry's ability to innovate and to commercialize new ideas. The programs that the Ministry of Research and Innovation delivers on behalf of the government are focused on providing for that innovation, which is key to productivity. You asked what programs we deliver to support productivity. We think of our programs in four groupings.

The first one is discovery and knowledge transfers. These are our research programs. We talked earlier today about some of those programs. We have the Ontario Research Fund, including the research infrastructure

program, the research excellence program and our global leadership round in genomics and life sciences. All of these programs require partners and a commercialization pathway for the programs that are supported under the Ontario Research Fund.

We have a series of research talent programs that support development of top minds. Those top minds come out of our institutions and go into industry. That's critical to productivity in the future. We do have a number of programs that support the development of post-doctoral fellows, early researchers and others programs.

We have signature research programs such as the Ontario Institute for Cancer Research, which is a significant investment in cancer research that's focused on curing and combatting cancer, but also in developing new commercial products that can go into the pharmaceutical industry and other industries as well. The list goes on under the research programs, but the key to all of those programs is that the talented people who are doing that research in those institutions are the ones who provide solutions for industry, and that helps with the productivity.

Mr. Paul Miller: Just one question for the deputy. You're correct that those research people and the people who work in those institutes do improve the productivity approaches and gaps, but I'm not sure that those people create jobs. You can create productivity processes and you can create innovation, but I'm not sure it's addressing the job loss problem. We are a changing society and now we have to compete globally, but what we need is the jobs to go along with the innovation and research. Fifty jobs here, 100 jobs here, 20 jobs here doesn't cut the 300,000 jobs we've lost, so that's all I'm saying.

I guess my next question, which you began to answer for me, was, how can you explain to me what each of these programs does across Ontario? But you were starting to touch on that, so I can actually skip over that question.

Mr. George Ross: Perhaps I could go on and just talk a little bit about some of the—I talked about one of those categories of programs. We also have the technology and product development field, so we do work directly with industries and at the interface between research and industry needs. We have a series of programs that directly support the commercialization of ideas. Those do create companies, those do create jobs, and they create jobs that create jobs down the line.

We also have a series of programs that support acceleration of the growth of those businesses, so these are business mentorship programs, entrepreneur and residence programs, and these are all programs that actually help those small, nascent industries grow and become new industries that create wealth and jobs prosperity in the future

Our last category of programming is around markets, about helping companies grow into global markets. Before this committee I've talked about a series of venture capital programs we have as well.

Mr. Paul Miller: Thank you. My next question. A 2005 study by the Centre for the Study of Living Standards suggests that Canada's poor productivity performance over the past several years can be attributed in part to a substantial shortfall in the growth of ICT—information and communication technologies—capital stock relative to what is necessary in order to catch up to the level of technology employed by US industries. Essentially, the same argument has been made in a number of recent reports by Ontario's Institute for Competitiveness and Prosperity. Could you give me some feedback on that?

Mr. George Ross: Could you just—

Mr. Paul Miller: The lack of productivity performance over the past several years can be attributed in part to a substantial shortfall in the growth of ICT—information and communication technologies—capital stock relative to what is necessary in order to catch up to the level of technology employed by US industries.

**Mr. George Ross:** I believe your question relates to capital investment, productivity investment. I don't have any data in front of me right now that I can comment on that.

Mr. Paul Miller: Could you look into that for me?

I've only got three minutes left. My final question: These reports suggested that an adoption tax credit that would encourage the adoption of ICT, particularly by small and medium-sized enterprises, which account for 65% of all private sector employment in our province, would be quite helpful. Would you support an ICT adoption tax credit for this province?

Hon. John Milloy: I'll certainly start out by saying that there are a number of tax measures that have been brought forward to support the sector, including work that's been done in terms of a tax holiday for those discoveries that are made based on a Canadian institution which are commercialized here in Ontario. I will certainly tell you that I've had, over the last couple of months, the chance to speak to a number of people in the ICT sector, and one of the most important things they feel our government is doing on the tax side is the harmonized sales tax. We are talking about—

Mr. Paul Miller: Well, we differ on that one but—

Hon. John Milloy: Well, it's very, very important. Go talk to the high-tech sector and they will tell you that the more steps in terms of product, and all of us know the ICT product is very complicated—the number of steps along the way—the more opportunity there is for that hidden tax. The idea of turning it into a value-added tax has certainly been identified by a number of members of the high-tech sector, the ICT sector—it's going to be a big benefit for them.

1630

**Mr. Paul Miller:** With all due respect, that wasn't my question. My question was, would you support an ICT application tax credit? Yes or no?

**Hon. John Milloy:** Well, as I say, there are a number of tax measures that have been put forward. Obviously, this is the time where my ability to talk about taxes has

reached a limit, because it would be up to the Minister of Finance to move forward. I think that we have a number of R&D tax supports. I don't know, Deputy, if I can ask you to comment on some of the things—

Mr. Paul Miller: Deputy—sorry for interrupting—would that not fall under your jurisdiction, to recommend to the Minister of Finance that this tax credit would be beneficial to that industry?

Mr. George Ross: Tax matters are really the purview of the Ministry of Finance. We're here to talk about our spending estimates today, so we can certainly refer this question over to the Ministry of Finance. We work in close collaboration with a number of different ministries, and as the Minister said, there are a series of tax measures that are in place to support innovation in the private sector, and obviously the signature system is the SRED system that allows the refund of expenditures when it comes to R&D. That's a system that's been in place, and there's a series of other measures that are in place that Ontario has as well. I can certainly follow up and detail some of those for you.

**Mr. Paul Miller:** Thank you very much. That's the end of my questions.

The Chair (Mr. Garfield Dunlop): That's just about the 20 minutes anyhow. It's only about 30 seconds shy of 20 minutes. Do you have any other questions today?

Mr. Paul Miller: Well, I could probably go on for a while, but no, not actually directed by our research. So I don't want to step into a venue that I'm not—it's not really my committee, so I don't want to—

The Chair (Mr. Garfield Dunlop): Okay, just clarifying something with this. Now we'll move over to the government members.

**Mr. Reza Moridi:** Mr. Chair, at this point we don't have any questions from the government side.

The Chair (Mr. Garfield Dunlop): There are no more questions?

Mr. Reza Moridi: No more questions.

The Chair (Mr. Garfield Dunlop): Okay. Mr. Bailey?

Mr. Robert Bailey: Yes. Thank you. I have a couple of questions I wanted to get on the record. I think Mr. O'Toole has something too, but he had to go get a document. My main question was something that took place in the past and it's in my riding of Sarnia–Lambton—the college there; I know the Minister is well familiar with Lambton College, and they're doing a great job there. They've got a number of apprentices and that, that are working there, and we're an important part of the Chemical Valley, as they train people for the new economy. Another part is the University of Western Ontario Research and Development Park—I know there have been major investments there—and there's a lot of work going on at the University of Western Ontario research park at this time.

I wondered if you or the deputy could just speak to that investment: what we could expect in biomass research, what you expect for that investment, and maybe if you could tell us what the dollar is and where, and what you expect to return to the public over time.

**Hon. John Milloy:** I'm going to have to refer to the deputy on the—

Mr. George Ross: Okay, so perhaps a little bit of context for my response. The innovation agenda, the province's innovation agenda, speaks to the need to have a focus for our activities to make sure that the investments we're making actually register on a global scale. The province has selected three areas of focus for our innovation agenda, and one of those is bioeconomy. This is really providing the support for companies and research and development activities to commercialize new products that could go into new value chains, global value chains, that rely less on traditional feedstocks and more on bio-based feedstocks.

In the case of southwestern Ontario, your riding, there's a wealth of agricultural feedstock that, with some R&D, with some development work, can go into new materials. The Minister of Research and Innovation has made some strategic investments to develop those value chains and to develop the products that can go into those over the last several years, not the least of which is some infrastructure in key parts of the province to allow the R&D to go ahead. Many of the products and many of the processes require some more research and development and commercialization support so they can get into those value chains.

We have provided some foundational investments in southwestern Ontario, in Kingston at the Queen's industrial park. Also, we talked earlier in this committee about an investment we made in northwestern Ontario, CRIBE, which is focused on forest bio-based feedstocks.

What I'm going to do is ask, with your indulgence, my director of commercialization, Bill Mantel, to come forward. Bill could perhaps give us some more details on this

Mr. Bill Mantel: Bill Mantel, director of the commercialization branch. One of the specific investments that we can talk about is the Sarnia-Lambton Bioindustrial Innovation Centre. We're just completing a \$10-million investment in that centre. The whole idea there, as the deputy was talking about, with southwestern Ontario and hopefully the transportation links to the north, was the potential to use biomass as both a source of energy and a source of other molecules, chemicals, that replace industrial feedstocks, from which we would normally derive oil. It's in the early stages, but I think an area of very high potential.

That was a lot of the impetus behind investing in the Sarnia-Lambton Bioindustrial Innovation Centre. It's to help push that whole industrial complex more towards replacing petrochemical feedstocks with biologically based feedstocks.

The investment there—just a bit more detail on that—really was what I guess I'd call an innovation infrastructure investment to help get a set of labs set up, space for small innovative companies to reside and start doing their pilot projects in some lab space. That included the construction of a new 60,000-square-foot building and the renovation of some existing research and develop-

ment space that was once occupied by Dow Chemical, so I think that was a good transition of that space. It is now being operated in partnership with the University of Western Ontario research park. So we've been working very closely with that organization in that whole effort.

Additionally, that investment leveraged a \$15-million investment from the federal government, and I have to say that the local government, the region and the city, have been very active in helping to get that park up and running. I forget the numbers offhand, but they have a substantial financial investment in that park as well.

I think that's one that is emerging as a very exciting area, and in a very strategic location, given the industry that's there and the biomass sources.

**Mr. Robert Bailey:** Thank you very much. I appreciate that. There is a lot of good work taking place there. Thank you.

**The Chair (Mr. Garfield Dunlop):** Mr. O'Toole, you have a question?

Mr. John O'Toole: Yes. Thank you very much for your appearance here today. I just want to compliment the staff in the area. I see a former member of the faculty at the University of Ontario Institute of Technology here, who's a person I have a lot of respect for. If that is emblematic of the quality of the people working there—and I've seen in the last few years some of the people at the table there as well.

A few years ago, I had the privilege of sitting in one time on one of the grants to the university on the commercialization processes you've described, so it's a long-standing tradition of governments of all stripes to work on innovation. It's important to see that you are here today to sort of respond to those, and it's good to see the ministry staff giving us some actual insight into, for instance, the bio-based research that you've just described. I think that's very important.

I have a couple of really quick questions. I just want to get them on the record, if you understand what I mean. On the bio-based thing, a few years ago I was aware of a trial that was done using the material hemp, commonly referred to as marijuana. It's a very strong fibrous material that could be used for many things besides smoking. Is that research still ongoing—because it is a very logical, genuine bio-based material. It's a very strong fibrous product that could be used in ethanol, that could be used in materials—in fact, laminated materials for vehicles. Is there anything on that?

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**Mr. George Ross:** We do support that. I'd have to get specific projects for you, Mr. O'Toole, but we do support some research and development activities.

Mr. John O'Toole: Yes, because it is a fibrous material that's very strong. There's a whole debate around ethanol from fibre-based as opposed to corn-based ethanol. The federal government has a lot of money invested in that. Are we doing anything on that as opposed to the corn-based ethanol, which seems to have aged as a technology solution? Fibre-based ethanol is very prominent in the United States. They're almost changing their whole focus. Is there anything on that?

**Mr. George Ross:** Globally there is a trend toward looking for non-food-based commodities or bio-based—

Mr. John O'Toole: The general statement on that—and I appreciate that—today was announced by the Premier's difficulty in dealing with having solar energy, which is an innovative solution for energy, take up agricultural land, which really fits in to the point I'm making. Which comes first, the food commitment or the commitment to class 1, 2, 3 land?

I know they haven't published the regulations on that yet but innovation has its limitations with respect to the bio-based solutions when it comes to a third of the world starving each day. That's what the public—I'm one of those people from the public. I just want that on the record. It's my position that the innovation and technology people can find solutions without eliminating other options for class 1 and 2 agricultural land.

I live in a riding that has very prosperous farming. I have to say that the De Jongs were recognized by the Premier of Ontario, I believe this year and last year, as being one of the lead agricultural operations in, if not all of Ontario, Durham, certainly.

Now, I'm going to get down to specifics here. Another resource that is questionable in my riding—MOE is spending a lot of time there, there are several charges before the courts, on Peat Resources. It's my understanding that peat has no mercury when used as a fuel and it isn't used by—the Ontario government has a trial going on, I believe, I'm not sure if it's at Nanticoke or northern Ontario. Is there any substance to that? That's research that's ongoing now to eliminate some of the coal side effects.

**Mr. George Ross:** I can refer this question over to my ADM Tony Rockingham.

**Dr. Tony Rockingham:** Thank you very much, Deputy Ross. Yes, the government does have a program that is actually led by the Ministry of Energy and Infrastructure; that is through a grant to create the Atikokan Bio-Energy Research Centre. The government has chosen the Ontario Centres of Excellence to help establish the research that's going on through that grant funding.

The asset that really makes this attractive is that Ontario Power Generation has agreed that the Atikokan power station can be used, where appropriate and safe and not damaging to the station, for the testing of various different fuels.

So part of the work that has been ongoing is working with universities and industries that have interests, identifying the sorts of tests that can help Ontario move forward in terms of bioenergy. As you say, some of the proposals have been around the use of fuels such as pelletized wood or peat. At this point, I'm not sure on the status, whether there has been agreement to actually harvest the peat. One the challenges, of course, is drying the peat and putting it into—

**Mr. John O'Toole:** I appreciate that very much, Mr. Rockingham.

The other thing—it's on the record. There is an issue where the MOE is doing one thing kind of counterproductive; the person is in court and it's my understanding, having met with them and their legal counsel, that they've spent around \$38,000 fighting MOE on four charges when they could be producing other values in Ontario. But you are at the same time using a northwestern Ontario stock-exchange-listed company called Peat Resources that's actually being innovative and looking at solutions that are used around the world.

The other one I want to get on the record clearly is, again, a contradiction. There was a commitment, I believe, by the Premier, and the Minister of Energy as well—great fanfare, \$40 million is going to be invested in energy—a billion dollars in Ontario under the Green Energy Act, which is good. I mean, I'm all for green energy. My riding is home to the Darlington nuclear plant, the home of nuclear energy, probably a third of the supply of energy in Ontario.

Here's the deal. The University of Ontario Institute of Technology—in fact, the staff person, Kamiel Gabriel, who's here, was the head of the science thing, I believe, the dean of that area. That university was geared—it's the first university in Canada that has a specific degree in nuclear engineering. A great investment; thanks very much. In fact, OPG, one of the principle partners, invested—I don't know what they invested, because that's a public sector thing. They invested taxpayers' money called "energy costs" at the university for \$10 million. Good. I was there. I had the photo taken with the president, Ron Bordessa, and all that. It's all good stuff. It's the number one project for commercialization jobs in Durham region and Ontario, including Etobicoke, a lot of jobs in the nuclear CANDU technology group. Now the Premier and the Minister of Energy have put some uncertainty around this university, with all the students in the training pipeline, the very highly qualified CANDU technology people.

What's the future for nuclear energy under CANDU, not just in Durham but in Ontario? Or are we going to fight with the federal government—and Atomic Energy of Canada Ltd. is the federal agency that is actually the technological hub of this. These are knowledge-based jobs that have been put into uncertainty and questioning for students and for employees. There's innovation. Are you going to protect these jobs, are we going to go with the French program, Areva, or not have nuclear? That's the question there.

**Mr. Bob Delaney:** On a point of order, Chair: If my memory serves me correctly, I believe the Minister of Energy and Infrastructure is still due to come up. Am I correct? Or has he already been?

**The Chair (Mr. Garfield Dunlop):** Yes, he's already had his opportunity. You're drawing a bit of a—

Mr. John O'Toole: Well, it's an innovation job.

**The Chair (Mr. Garfield Dunlop):** Yes, it's kind of overlapping. I understand. But if you could be a little more specific, we could get an answer there.

I think you have enough to answer on, anyway.

**Hon. John Milloy:** In all fairness, and with the greatest respect to Mr. O'Toole, I think the questions he is referencing are really best addressed to the Minister of Energy and Infrastructure.

**Mr. John O'Toole:** I have questions on the order paper. They're only 22 days old, so the minister still has time—he has four days, actually—to answer them, or I'll be raising it in the House.

Here's another one. It's very important in my riding. We had a very important investment by Premier McGuinty and probably you—George, everybody, was there for the photos—and the project was called the Beacon project at General Motors, millions of dollars, taxpayers' money. What's the future of the auto sector in the work you're doing in this ministry? Are we just going to walk away from it and give it to Toyota or something like that? What's happening? One in seven jobs was related to the auto sector. We're talking real jobs. What are you doing in innovation to create and maintain, or at least retain, those existing skilled, high-paying jobs?

Hon. John Milloy: Certainly we can talk about the auto sector from the vantage point of the Ministry of Research and Innovation. Obviously we work in close collaboration with the Ministry of Economic Development and Trade, which has a lot of the leadership in terms of the auto sector.

At the same time, as I think I referenced a few minutes ago in an answer to another question, I really believe that the auto sector is part of Ontario's future. It is a future industry. Certainly as a government we've always talked about support for the sector in terms of transformation, in terms of developing the new products, the new approaches, the new technologies to move forward.

To talk again from the viewpoint of MRI—and my colleague Minister Pupatello could give you a perspective from economic development and trade—to just give you some of the examples of what we're working on, and I think I referenced this in another session that we've had here: We've invested \$1 million through the innovation demonstration fund in the Woodbridge Group. Woodbridge, of course, is developing a clean technology called BioFoam, which is made from renewable soy oil, using local feedstock. The government is also helping the automotive sector by supporting the initiative for automotive manufacturing innovation through the Ontario Research Fund's research excellence program. This university-industry consortium will research and develop new technologies to produce lightweight, cost-competitive cars. Our government is also supporting the automotive and manufacturing sectors through funding to the BioAuto council. The BioAuto council looks at opportunities to position Ontario as a global leader in the manufacture of auto parts, related materials and chemicals from biological feedstocks.

There are some of the larger auto-related funding announcements we've made. But also through other programs we're supporting research and commercialization, which is certainly related to the auto sector and to the auto parts sector. As I say, very much our attitude is transformational.

**Mr. John O'Toole:** Thank you. I think that has been helpful—just in a specific case—for me representing my constituents as effectively as I can, but also the industry that's in transformative change.

One last question—and it's not treacherous. It's probably a little bit outside of the scope here, but when you look at the two things, the bio-based solutions, probably for fabrication, to get lighter weight and all that—I'd expect that the biggest thing is the battery. Is there anything going on in innovation in battery technology in research? We've got two—we're not California. We have two competing forces: We're not flat and we're very cold, both of which are a drain on batteries. With these electric cars, to which you're giving \$10,000, there should be a lot going on on the battery side of this. Is there anything going on specifically, where you're partnering with somebody developing new solutions? The real problem is the weight, and batteries don't last in the cold.

The Chair (Mr. Garfield Dunlop): We've just got a minute left in this round.

**Hon. John Milloy:** Yes, I think we may have touched on batteries earlier. I don't know, Deputy, if you want to, or ADM Rockingham.

Mr. George Ross: Right. There are a number of research projects going on at Ontario institutions focused on battery technology. I'd have to go into our records, take a look at how much support we've provided to them, but I know that the University of Waterloo and McMaster and other universities are focusing on battery technology; yes, absolutely.

**Mr. John O'Toole:** Good. I appreciate the time. Thank you.

The Chair (Mr. Garfield Dunlop): Thank you very much, Mr. O'Toole. Mr. Miller, do you have anything?

**Mr. Paul Miller:** Just a clarification for me: The minister earlier tabled some answers, I guess he said. Obviously these answers won't appear on the television, but they will appear on official records, the answers to Mr. Bisson's questions and anyone else's questions?

The Chair (Mr. Garfield Dunlop): Yes.

**Mr. Paul Miller:** Where will they appear and what access would the public have to the answers?

**The Chair (Mr. Garfield Dunlop):** Yes, yes. They'll be—

**Mr. Paul Miller:** And the public would have access to the answers?

The Chair (Mr. Garfield Dunlop): I'll have to ask the clerk.

The Clerk pro tem (Mr. William Short): They will be exhibited with the minutes of the proceedings, which are public documents. So they'll be exhibited, and as well, they'll be distributed to all the members of the committee.

**Mr. Paul Miller:** And would they appear on the website or anywhere?

The Clerk pro tem (Mr. William Short): No. They'll be accessible to the public by our office.

Mr. Paul Miller: Okay. Thank you.

**The Chair (Mr. Garfield Dunlop):** Any more questions, Mr. Miller?

Mr. Paul Miller: No.

**The Chair (Mr. Garfield Dunlop):** Mr. Delaney? *Interjections*.

The Chair (Mr. Garfield Dunlop): There being no further questions, we will move to the vote, committee members. Thank you very much.

Shall vote 4301 carry? Carried.

Shall the estimates of the Ministry of Research and Innovation carry? Carried.

Shall I report the estimates of the Ministry of Research and Innovation to the House? Okay.

Thank you very much, members of the committee. We'll adjourn the meeting now. We'll reconvene next Tuesday morning at 9 o'clock.

Hon. John Milloy: Mr. Chair, can I—

The Chair (Mr. Garfield Dunlop): I'm sorry; yes, to the minister.

**Hon. John Milloy:** I just want to get 10 seconds to thank the committee and thank the Chair, but also to thank all the good folks at the Ministry of Research and Innovation, who I know put in a lot of long hours to prepare for this. I just want that on the record, to thank them, and obviously, as I say, thank the committee.

The Chair (Mr. Garfield Dunlop): And in closing, I too would like to thank you, Minister, for appearing, and all the people from the Ministry of Research and Innovation. Great job, and thank you very much.

With that, we'll adjourn the meeting.

The committee adjourned at 1654.

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