HOUSE OF COMMONS
CHAMBRE DES COMMUNES
CANADA

Standing Committee on Transport, Infrastructure and Communities

TRAN • NUMBER 024 • 1st SESSION • 41st PARLIAMENT

EVIDENCE

Thursday, March 1, 2012

Chair

Mr. Merv Tweed

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● (0850)

[*English*]

The Chair (Mr. Merv Tweed (Brandon—Souris, CPC)): I call the meeting to order.

Good morning, everyone. Welcome to the Standing Committee on Transport, Infrastructure and Communities. This is meeting number 24.

Our orders of the day include committee business. At the end of the last meeting we had a motion on the floor from Mr. Nicholls.

We have our guests here, so I apologize, but we will be, I hope, very brief on this matter.

Go ahead, Mr. Nicholls.

[*Translation*]

Mr. Jamie Nicholls (Vaudreuil-Soulanges, NDP): Thank you, Mr. Chair.

I am presenting this motion because it is an opportunity for all parties to come together and accomplish a concrete goal. This motion is the result of work done among the parties. I know that the parliamentary secretary is a fan of the book *The Art of War*, by Sun Tzu, a classic on strategy. This is an opportunity to avoid confrontation and adopt a collaborative approach. So I extend my hand to the parliamentary secretary and his party, as well as to Mr. Coderre and his party.

Without further ado, I would like to explain the reason for my motion.

The Government of Quebec has formally asked the federal government for financial support for the western train. It's clear that renovations to the Turcot interchange, the Champlain bridge and the Bonaventure highway will cause significant traffic problems, which will hinder the productivity and competitiveness of the Montreal economy and the flow of the road network, and as a result, commercial transport will be compromised.

I would like to point out that traffic congestion costs $3 billion a year. We see that the cost of traffic congestion in Montreal is increasing drastically each year. In 1993, it was $550 million; in 2004, $780 million; in 2009, $1.5 billion. These figures need to be doubled to include the delays caused by construction and accidents. That's how we got to $3 billion.

The demand for public transportation is increasing dramatically on the West Island of Montreal. For each block of 370 passengers currently, there will be 74 more passengers in the next 15 years. The percentage of trips using public transportation has increased by 36% since 1998.

I will also point out that this initiative is supported by all the parties. I know that Senator Smith said that…

[*English*]

he wants to see "our own trains, our own tracks, and doubling the frequency of the volume of trains".

He said, "I want to bring"—

Mr. Pierre Poilievre (Nepean—Carleton, CPC): On a point of order, Mr. Chair, I'm wondering if there's anything in the Standing Orders that indicates this committee has the authority to provide financing for a project of this kind.

Could you check with the clerk on whether a vote in this committee would be able to provide the millions of dollars in funding that the honourable member requests?

The Chair: There is nothing in the standing orders that would indicate that.

Mr. Pierre Poilievre: On that basis, is there any reason to continue the discussion?

The Chair: It's a motion that's been put forward before the committee.

Go ahead, Mr. Nicholls.

Mr. Jamie Nicholls: I will continue.

Senator Smith said, "I want to bring all of the parties together and be able to negotiate the access to land, consolidate the money and prioritize a time frame."

He noted that the recent closing of the Turcot West exit lanes as well as the long-term reconstruction of the entire exchange will be serious challenges to motorists. He also said, "The benefits will give more options for commuters, employers will be attracted to the location, and hubs will grow around the expanded frequency. This would bring growth and jobs to the West Island, which is part of our national platform."

Mr. Chair, I've heard similar comments by members of the Liberal Party. I think we can all agree that this project deserves our attention and would help the regional growth of Montreal in a significant way.

I'd like to underline the fact that my constituents lose a lot of time in traffic. A transit that should normally take 45 minutes sometimes takes an hour and 45 minutes, even up to two and a half hours, because of traffic problems.

This is money lost for my constituents. I could go through a more detailed explanation of how my constituents lose money and what that means in terms of lost revenue for the Government of Canada, but as we have important witnesses today, I'll cut my discussion short.

● (0855)

The Chair: I have Mr. Watson and then Mr. Coderre.

Mr. Jeff Watson (Essex, CPC): Thank you, Mr. Chair.

I move to adjourn debate.

The Chair: A motion has been put forward to adjourn debate. Such a motion cannot be amended or debated. The motion that we adjourn debate is on the floor.

Ms. Olivia Chow (Trinity—Spadina, NDP): I have a point of order.

The Chair: It's not debatable, Madam. We have to go right to a vote.

Ms. Olivia Chow: It's a point of order. I'm not debating the motion.

The Chair: Go ahead, Ms. Chow.

Ms. Olivia Chow: Mr. Chair, your previous ruling, as I recall, was that when there is a calling of the question or adjourning of debate.... My understanding of the rules is that a member has unlimited time to speak to a motion, and any motion requires 48 hours' notice.

Can you point out to me the standing order that allows a motion to terminate debate at any time? Terminating debate, as I recall, is against the standing orders.

The reason I put this in front of you, Mr. Chair-—it's not necessarily that I support or don't support this motion, and I'm not going to debate the motion—is that this sets an extremely dangerous precedent.

The Chair: If I may, Madam Chow, I think we are getting into debate. I will read the following concerning motions:

> A member who moves "That the debate be now adjourned" wishes to temporarily suspend debate underway on a motion or study. If the motion is carried, debate on the motion or study ceases and the committee moves on to the next agenda item.

I'm going to call the vote, based on that information.

Ms. Olivia Chow: Just so I'm clear, you just said "temporary", so next Tuesday we could come back.

The Chair: It continues to be on the table.

Ms. Olivia Chow: Oh, sure.

I'd like a recorded vote, please.

The Chair: A recorded vote has been requested.

(Motion negatived: nays 9; yeas 2)

The Chair: We will continue with the motion.

Go ahead, Monsieur Coderre.

[*Translation*]

Hon. Denis Coderre (Bourassa, Lib.): The debates are starting to be as relevant as the season for the Montreal Canadiens, Mr. Chair. Yes, I am a Montreal Canadiens fan. It's painful this year.

We won't play the recovery game. We were all at the same meeting. I was there, as was Larry Smith. We had a meeting with my colleague Francis Scarpaleggia from the Lac-Saint-Louis riding. He has worked on this file for a long time. Larry Smith and all the mayors were there. Isabelle was there too, I believe. It was very clear during that meeting that everyone was in agreement on this issue. The people of Montreal West and the region need this western train. We most certainly support this motion, Mr. Chair.

I think it would be a positive thing for our committee to send out a clear message that it believes in the strategic projects. Given that this project has the support at both the municipal and provincial levels, we need to go forward. I would also like to mention the involvement of former Liberal MP Clifford Lincoln, who is apolitical on this issue and who has been doing an excellent job on this committee. I applaud the motion of my colleague from Vaudreuil-Soulanges, and I support him.

● (0900)

[*English*]

The Chair: Go ahead, Monsieur Poilievre.

Mr. Pierre Poilievre: We have here a motion that does not even include a dollar figure in it. Basically, what we have is a request that a group of politicians vote to spend an unspecified number of dollars on a project that the motion describes in roughly 40 words, without hearing a single witness or being provided with a shred of background information.

By the way, you've indicated to the committee, Mr. Chair, that this body has no power to fund it in the first place.

Regardless of what one thinks—it might be the best project ever, or the worst project ever—all of these facts about the nature of this motion and the place that it's being brought suggest that it is nothing more than a media stunt. It is not designed to produce a result, but rather to produce a headline.

If every member of this committee were to come forward with a popular local project and introduce a motion with regard to it so that he or she can score a quick headline in the local newspapers, there would be absolutely no time to do the committee's real work, such as to listen to the witnesses who are here right now.

We have witnesses who are of an extremely high calibre in the public service and who are being paid by taxpayers to provide information here. They're not able to provide it, because we're debating a motion over which we have no authority and about which we have no specifics.

The reason I wanted to get this on the record now is that this is becoming a pattern with this particular member. He's on a pattern of introducing one of these motions basically every week. If every member of this committee were to introduce a localized motion every single week, we would have no time to discuss any of the pertinent matters over which we actually have some authority.

By the way, I should also point out that the Province of Quebec has not filed an application on this project, according to officials at Infrastructure Canada. He wants a committee that has no power to provide funding to authorize an unspecified amount of money for a project that the proponents have not even applied for—with five minutes of debate, no witnesses, and no background information. That says everything that needs to be said about the real purpose of this motion.

Obviously, we will be voting against it. With that, I'd like to move adjournment on the subject.

The Chair: Are you raising a point of order, Mr. Coderre?

Hon. Denis Coderre: Can we move an adjournment motion on and on, even if we vote against the same thing?

The Chair: The motion to adjourn the debate is inadmissible.

Go ahead, Mr. Coderre.

● (0905)

[*Translation*]

Hon. Denis Coderre: Thank you, Mr. Chair. I refuse to accept the arrogant and condescending attitude of the parliamentary secretary today. At some stage, enough is enough.

It is not just a local project. And since when are local projects not important? A number of mayors are in favour of this project that affects a large region, Quebec's metropolis. I find that very condescending. I too want to get this on the record.

The ministers from Quebec have been working on this issue. The fact that he did not get an application and his minister does not talk to him is another story. One thing is for certain: this is an extremely important issue. It is not a public relations stunt. This is a very important issue for the people in west Montreal, for the greater Montreal area. We all too often hear that we are waiting for the government to get on board before we do. As politicians and representatives of the public, our role is to improve the quality of people's lives.

I am not going to accept that this morning. I can understand the part about funding and all that. But there is no need to be condescending and to dismiss this motion as if it were a piece of junk. It is very important for greater Montreal from both an economic and social vantage point.

When you are the mayor of a municipality, you represent a group of people. Those people came from all over Montreal's West Island, and they spoke to this issue with one voice. Actually, that would complement the train between the downtown core and the Montreal airport.

I would just like my colleague the parliamentary secretary, whom I actually quite like, to take a deep breath and drop his arrogance this morning. His attitude must be related to the fact that it is snowing again.

The issue is important. It is a priority. The hon. member for Vaudreuil-Soulanges can go on the news with that; any method is a good way to raise awareness. But let's not dismiss this quality issue just because of the approach.

I think we should vote, Mr. Chair. I would like a recorded vote on this issue.

The Chair: Ms. Morin, the floor is yours.

Ms. Isabelle Morin (Notre-Dame-de-Grâce—Lachine, NDP): I am personally in favour of my colleague's motion.

The train goes through three towns in my constituency. So I can assure you that this train is not a local project. At our round table with 13 mayors—one mayor was absent—three NDP members, two Liberal members and one Conservative senator were there. I wish local projects could mobilize so many people. Many of us talked about this project, which has a huge impact on the life of West Islanders, especially in Lachine where the train goes over the highway between the West Island and the downtown core. It also goes through the Saint-Pierre interchange and the Turcot interchange, creating a great deal of traffic from Lachine to the West Island.

In order to avoid traffic, motorists pass through my municipality. A great deal of cars go through, and the roads are deteriorating. That will lead to additional expenses for my municipality, because the infrastructure will have to be redone.

I hear the parliamentary secretary talk about the committee's real work in terms of motions. I am sorry, but I think that my job as a member of Parliament is to come forward with important projects that will serve many hundreds of people.

At the moment, the Train de l'Ouest does 18 trips per day, nine going downtown and nine back to the West Island. We are asking for 60 or so departures each way. We want to see numbers. The Quebec government has already announced this project and it is going to invest $400 million in it. That was the request made to the Government of Canada.

I think it is important to consider all the economic, environmental and social benefits of this project. So, in order to guarantee Montreal's economic competitiveness, the Standing Committee on Transport, Infrastructure and Communities asks the Government of Canada to commit to funding the Train de l'Ouest. In any case, when we build a road, we never ask ourselves how much it will cost. If we need a road somewhere, we build it without thinking about the costs. We are talking about public transportation for hundreds and hundreds of people.

I urge the government to listen to us. My colleague the Conservative Senator Larry Smith mentioned this during his campaign to become a member for Lac-Saint-Louis. He said that, if he were elected, the Train de l'Ouest would be a reality. I feel that we should consider what our colleague opposite is saying.

I don't understand why none of the Conservative members seem to want to talk about the project. They have been trying to prevent us from talking about it. I will leave it at that, since we have witnesses to hear from. But I feel that this project is really important for Montreal's West Island. I urge the committee to consider granting this funding. It is an opportunity to create jobs. Some families spend hours in their cars instead of contributing to the economy. So it is important to give this some thought.

I am definitely going to support my colleague's motion.

Thank you.

● (0910)

[*English*]

The Chair: Go ahead, Ms. Chow.

Ms. Olivia Chow: Mr. Chair, I understand the request for this train is very popular, according to Mr. Poilievre and my colleagues here, Monsieur Nicholls and Madame Morin.

If Mr. Poilievre was correct in saying that no application has been received yet from the Quebec government, then I can understand there's a slight hesitancy to saying yes or no to this project, but I think Jamie Nicholls' motion makes a lot of sense. I looked at the various reports on this issue. The public report seems to say that the Quebec government has requested federal government funding. They say that publicly. Perhaps the application hasn't gone in. I have no reason to doubt that fact.

I can understand why debating this issue is a problem right now, so I'll move that the motion be deferred until the Quebec government has submitted an application for infrastructure funding. A deferral of a motion, I am sure, is in order.

At that time I'm sure my colleagues will bring in lots of information and supporting documentation about the economic viability of this project, with lots of details for us, so that Mr. Poilievre can give serious consideration to this train west from Montreal.

The Chair: A motion has been put forward to defer this to a later date. The details are basically in the transcript, so I won't repeat all of that.

Mr. Pierre Poilievre: Can the mover not just do that, without a vote?

The Chair: No. The mover can, but it's a motion on the floor.

(Motion agreed to)

The Chair: Now we'll move on to committee business and welcome our guests.

Joining us today from the Department of Industry are Mitch Davies, associate assistant deputy minister, science and innovation; Gerard Peets, acting director general, marketplace framework policy branch, strategic policy sector; and Mona Frendo, director, policy coordination and regulatory affairs, strategic policy sector.

We have everybody up here.

From the Department of Transport we have Kristine Burr, assistant deputy minister, policy, policy group; Marc Fortin, regional director general, Atlantic region; Jutta Paczulla, director, innovation policy; and Marc Prévost, director; transportation development centre.

You've all been here before. We anticipate your introductory remarks, and then we'll move to the committee for questions.

I don't know whether you've made a decision as to who will start.

Mr. Davies, go ahead, please.

● (0915)

Mr. Mitch Davies (Associate Assistant Deputy Minister, Science and Innovation Sector, Department of Industry): Thank you, Mr. Chair and members of the committee. We're pleased to be here today from Industry Canada to provide information on innovative transportation technologies to the transport committee and to answer your questions.

At the outset I will provide a bit of background in terms of science and technology innovation policy and the Government of Canada's work in this regard. I refer you to the federal science and technology strategy launched in 2007, which provides a multi-year framework of support for science and technology and innovation in Canada.

This strategy reinforces business research and development. Of course commercialization and innovation are vital to maintaining Canada's global competitive advantage and our high standards of living going forward, and we stress the importance of this.

As you know, the Government of Canada and federal policy play an important role in fostering an economic climate that encourages business innovation. Significant programs provide direct and indirect funding incentives to business to support research and development and commercialization.

The conundrum, which has been pointed out by many commentators, most recently was referenced in the budget of 2010. It is that notwithstanding a high level of overall federal support for business innovation as a percentage of our economy, we continue to have an overall flat level of research and development investment on the part of the private sector in the country. This will pose a long-term challenge to our competitiveness if this trend does not change and we don't see improvement.

This led the government to put in place a review panel, chaired by Tom Jenkins, which released its report, “Innovation Canada: A Call to Action”, last fall. I have copies here. It provides a series of general recommendations in the area of innovation on how federal programming instruments, policies, and organizations could be reformed to enhance their support for increased business innovation in the country.

That's it overall, in terms of background. At the moment the government is considering the recommendations of the Jenkins panel in view of future policy development.

In the material we received from the committee, you asked a number of specific questions. We'll try to address them up front and then take questions on them.

You first asked what federal horizontal initiatives exist to facilitate research and development and commercialization of transportation technologies.

On the part of the Industry Canada portfolio, I would point you to three initiatives that provide research and development support to the transportation industry in a direct fashion.

The first is the strategic aerospace and defence initiative. It supports private sector industrial research in pre-competitive development projects in aerospace, defence, and space industries through a repayable contribution. Since the program was launched, over $750 million has been invested in aerospace technology development.

The second is Automotive Partnership Canada, which is a five-year, $145 million initiative. It supports collaborative research and development activities that benefit the Canadian automotive industry through partnerships among industry and academia and the National Research Council. The guiding principle of the program is that projects are to be funded and driven by industry needs and that there be active industrial participation, collaboration, financing, and support for these projects.

The third is the automotive innovation fund, which supports the development and implementation of innovative, fuel-efficient technologies and processes through large-scale research and development projects in the automotive sector. This program was provided with $250 million over five years through to the next fiscal year.

You also received testimony from the National Research Council, I believe, in terms of its own specific programming. I won't repeat that here, but through institutes that they operate and through the industrial research assistance program for small and medium-sized enterprises, there's support that definitely is relevant in terms of innovation in the transportation industry.

I'd also reference the support through granting councils, particularly the Natural Sciences and Engineering Research Council, which provides support in many ways to direct researchers and also, importantly, to research networks.

● (0920)

In this connection, you may have heard of AUTO21, which is a network of centres of excellence. It has been in place for some time. It supports large-scale academically led research in the automotive sector and involves 200 researchers and 200 industry, government, and institutional partners across the country. It's also a program that was launched after the S and T strategy was put in place, the business-led network of centres of excellence.

Through a competitive process, a network was established called the Green Aviation Research and Development Network, GARDN, which received $12.9 million to promote aerospace technologies that have a specific role in reducing emissions, reducing noise, and increasing the efficiency of aerospace technologies.

Over a five-year period the industry portfolio, through a variety of instruments, has invested close to a billion dollars in research and development in support of transportation industry innovation.

I've also referenced a number of other initiatives of a general nature that are important in respect of transportation industry innovation. The first is the collaborative research and development program, which is a program delivered through the Natural Sciences and Engineering Research Council. It provides support for academics to work with industries on specific projects, supplying a 50% grant to the academic to work with the industry partner, with a requirement that it be leveraged with private sector funds to increase collaboration with the academic sector.

The second initiative, a responsibility of the Department of Finance and delivered through Canada Revenue Agency, is the scientific research and experimental development tax credit, which is generally available to all industries. The program provides overall support for innovation. In the last year for which we have information, there was $3.5 billion in support to innovation across all industries.

The last is SADI, delivered by the National Research Council.

You had asked how we measure results, how we determine whether we're making progress. I would point you to policies on evaluation of the Treasury Board, which we follow. These require that all of our programs be evaluated over a five-year period. The three that I mentioned as specific to our department in our portfolio will undergo such evaluations.

For SADI, there's an evaluation that has just recently concluded, and that information will be made public within the month. That will be available to members, if they're interested to see what its findings were.

The Automotive Partnership Canada program is more or less midway through its funding cycle. Many projects are coming together and being launched. Once there's sufficient activity that you can actually undertake an evaluation and have some substance to look at, there will be an evaluation undertaken as to whether the program is fulfilling its objectives.

There will be an evaluation of the automotive innovation fund of Industry Canada undertaken in the near future to determine how it's achieving its objectives.

Lastly, there was a question about how intellectual property is managed through these programs. In general, the orientation of the programs working with commercial partners is to vest the intellectual property with the commercial proponent, so that the party that's going to undertake the commercialization activity has the ownership over the intellectual property that's developed, often with the support of public funds.

As to the granting council initiatives, depending on which program the support is provided for, often it's a question of university policies that would apply to the researchers in particular. Those policies may have provisions that vest intellectual property with the researchers themselves or with the university. Whether IP is vested with the proponent or the researcher depends on which institution you look at.

There are more commercially oriented programs out of NSERC that vest IP ownership with the proponent directly, such as their small-sized grants called “Engage” and “Interaction”, which try to start the interaction between researchers and private sector parties.

I will turn to my colleague Gerard Peets, who will give you a description of the intellectual property framework that protects innovation in the country. Then I'll turn to my colleagues from Transport Canada.

Merci.

Mr. Gerard Peets (Acting Director General, Marketplace Framework Policy Branch, Strategic Policy Sector, Department of Industry): Thank you.

One of the questions posed in the invitation to attend today was how intellectual property, or IP, is protected in Canada, and how it stacks up to other jurisdictions.

Intellectual property in Canada is primarily set out in four key federal statutes, and they are the Patent Act; the Copyright Act, amendments to which are included in Bill C-11, which is currently being examined by legislative committee; the Trade-marks Act; and the Industrial Design Act.

As a department, Industry Canada has both a policy and an administrative role in support of these frameworks. The department is responsible for providing policy advice to the Minister of Industry on these acts. It also houses the Canadian Intellectual Property Office, which is responsible for the administration and processing of the greater part of intellectual property in Canada.

Of the various pieces of intellectual property legislation, the most pertinent to emerging transportation technology is the Patent Act. The core purpose of the Patent Act is to promote innovation and investment in Canada and foster competition, especially in new areas of technology. It does this by conferring an exclusive right to prevent others from making, using, selling, or importing an invention. This protection is available for any invention that is new, useful, and non-obvious.

Companies make use of patents to secure and protect a market space in which to exploit their inventions. These patents can also be used to gain revenues from licensing and sales, and, increasingly, to attract financing.

You have a chart that shows how our patent regime compares internationally with some of our key trading partners and in particular how we line up against the United States, the European Union, Japan, and Australia. As the chart shows, each of these peer jurisdictions has the same 20-year term of protection for patents. They all allow for the patenting of business methods. They all have some form of "early working" exception to allow others to use a patent prior to its expiry under certain circumstances, and they all allow for expedited reviews before the granting of a patent.

One area where the frameworks differ is that of computer software, which is not, generally speaking, patentable in Canada or the EU.

I would add that there are certainly indications that companies are making use of patents in Canada in some areas of emerging transportation technology. For example, according to data provided by the Canadian Intellectual Property Office, Canada ranks fourth in the world in patent filings in the area of fuel cells, behind Japan, the United States, and Germany.

To sum up, from an intellectual property perspective Canada's regime is competitive internationally and is being used by companies that are engaging in emerging technology development in the transportation sector.

Those are my remarks. I will turn to my colleagues from Transport Canada.

● (0925)

The Chair: Thank you.

Go ahead, Ms. Burr.

Ms. Kristine Burr (Assistant Deputy Minister, Policy, Policy Group, Department of Transport): Thank you very much, Mr. Chair and committee members, for inviting us to appear today.

You've already introduced my colleagues. I would just note that Marc Fortin, who is our director general for the Atlantic region, until three weeks ago was our director general of transportation technology and innovation. He's wearing two hats today.

I will also note Jutta Paczulla and Marc Prévost, who are also very active on the innovation front.

[*Translation*]

I was very pleased to learn that this committee is seeking to study the issue of innovative transportation technologies. This issue warrants a substantive dialogue—one that takes a long-term view of the challenges and opportunities.

In this period of fiscal restraint, we need to, more than ever, focus on achieving efficiencies—for example, how can we "get even wiser" and do more with existing transportation infrastructure and equipment. Applying innovative transportation technologies is part of the solution.

We have prepared a deck that you may find helpful as additional background and context for your further study. We will leave copies with the clerk.

[*English*]

I would like to focus today on the economic and policy context of transportation innovation and share with you Transport Canada's work to promote innovation as part of a competitiveness agenda for Canada's transportation sector.

Let me start with the economic context. At Transport Canada we've been asking ourselves if the transportation sector is well positioned to face new challenges, such as the emergence of integrated supply chains, the rise of the BRIC economies, shifts in demographic composition, increased concerns around safety and security, environmental impacts as a result of economic growth or climate change, energy price volatility, and the current global financial environment.

Canada's future prosperity depends on how effectively we're able to respond to these global pressures. That's why having a modern and competitive transportation system, one that meets the challenges posed but that also takes advantage of opportunities offered by these pressures, is vital.

Innovative approaches are not new to the sector, and we'd like to highlight today one area where Transport Canada has been putting a lot of emphasis over the last decade, which is in promoting intelligent transportation systems, commonly known as ITS.

ITS involves the application of “smart” technologies, such as communications, sensors, computing, and management strategies. When applied to transportation, these technologies offer the opportunity to improve operational efficiency, safety, security and environmental responsibility.

Through federal as well as provincial and municipal programs, the basic foundations of ITS have been implemented across Canada. Most major cities today have traffic management systems and traveller information systems.

There are also a number of cutting-edge ITS applications in use in Canada. ITS is used to track and monitor commercial fleets and driver credentials to enhance the secure and efficient movement of intermodal freight and supply chains, to expedite clearance of cargo at border crossings, and for vessel navigation on the St. Lawrence Seaway.

ITS is used to automatically weigh and classify commercial vehicles at highway speeds along their routes, reducing trip times and the need for long-haul trucks to repeatedly stop at highway inspection stations, and ITS is used today to monitor and report actual road weather conditions to help improve winter driving safety and support winter road maintenance operations. These technologies can even monitor and control the amount of road salt applied on highways.

● (0930)

[*Translation*]

But innovative solutions can take many different forms. Some examples are: innovative governance, notably the privatization and commercialization of transportation infrastructure and services; innovative financing, such as through public-private partnerships; innovative regulations, including management or performance-based regulations that have enabled more proactive risk and inspection techniques for increased safety and security; and innovative partnerships such as the Asia-Pacific Gateway and Corridor that brings together all of the key transportation, labour and logistics providers across our supply chains to help improve performance.

Another example is Transport Canada’s collaboration with the major railways (CN, CP and VIA) through the Rail Research Advisory Board.

This initiative is a direct response to recommendations from the Railway Safety Act review to strengthen both government and industry contributions to technological advancement in rail safety. This work has not only improved joint planning and maximized resources, but has also leveraged the expertise of new partners, including the National Research Council and Canadian universities.

In fact, one of this initiative's objectives is to encourage the development of the next generation of university graduates and researchers and, hopefully attract them to careers in the transportation sector.

[*English*]

Notwithstanding past success and ongoing industry efforts towards continuous improvement, a stronger public and private sector focus is needed on the role innovation will play in getting us to the transportation system of tomorrow.

In the past, productivity in Canada's transportation sector has often outpaced economy-wide gains. However, this positive gap has been declining in recent years, with productivity gains in the sector having either reached a plateau or decreased. At the same time, competitive pressures are mounting. This raises a number of questions: can the Canadian industry do more? Are the various transportation modes keeping pace? If not, what more can be done to encourage a new generation of best and better practices?

Over the course of the last year, Transport Canada has engaged in a series of consultations with shippers, transport operators, industry associations, universities and research institutions, and other levels of government. Our purpose was to identify the barriers to innovation and to determine what our role should be to foster sector innovation.

Our discussions have clearly pointed to the fact that both the degree and the nature of the barriers to innovation are frequently mode-specific and can vary by firm type. However, the findings of this work also highlighted a number of cross-cutting or horizontal themes: there are few formal opportunities for industry and academia to engage; the sector frequently faces difficulty in qualifying for and accessing broader research and technology programs, such as economic development programs at the federal and provincial levels; the sector's focus is often on short-term return on investments, and this focus can be a barrier to R and D and technology deployment.

I would just note that this shouldn't be surprising, because we're talking about a sector in which the modes are incredibly capital intensive. They're focused on investing in the immediate requirements to keep the industry moving, but this tends to have a negative impact on R and D for the future.

A final cross-cutting theme has to do with regulation. A lack of regulatory certainty and the fact that regulations can lag behind business practices and not always keep pace with new technologies can negatively influence private sector innovation.

Through this work Transport Canada has also identified its role as one of knowledge broker and facilitator in terms of both helping to address barriers and to identify opportunities. To this end we've identified four areas where we could strategically focus our efforts in future.

The first is encouraging greater uptake of advanced technologies that enable our operators to integrate and optimize the transportation system. This includes focusing on the efficiency and security of supply chains in border crossings as well as looking at ways to use technology to address congestion problems at ports. It also includes developing a policy vision for the next generation of ITS technologies, particularly as they relate to wireless communications and connectivity.

The second is to target modest research and knowledge investments in strategic areas that address unique Canadian requirements or challenges. Examples include research on what we call cold climate transportation, adaptation to climate change impacts, and longer-term research in support of Transport Canada's safety and security objectives.

The third area is promoting information flows and a deeper sector-specific understanding of innovation performance through data, analysis, and measurement.

Last is to ensure that our policies and regulations do not pose barriers to innovation and thus meet the future needs of the transportation system and its users.

In conclusion, innovation and the application of new technologies are key to improving transportation competitiveness, driving the next generation of sector productivity gains, and addressing system challenges. A study on the part of the committee would greatly contribute to the department's and the sector's work to promote innovation in helping to build a transportation system that meets Canada's 21st century needs.

Thank you for your attention.

We are open to your questions.

● (0935)

The Chair: Thank you.

Go ahead, Mr. Nicholls.

Mr. Jamie Nicholls: Thank you, Mr. Chair.

Thank you for coming today. I'm sorry you had to put up with our family squabble this morning.

From my past life as an urban planning student, I find the information you've presented this morning fascinating. I'm always excited about the possibilities of sensor technology combined with crowdsourcing in changing the way we do land use planning and the way that we move around our urban and rural areas. There's great potential for this.

My question is more specifically about the government's procurement of Canadian innovation or the idea of homegrown innovation.

The expert panel, the Jenkins panel, was mentioned. It led a review of federal support for R and D and submitted this report to the government in October 2011. In its recommendations, it stated that the federal government spends billions of dollars every year in procurement of technologies and facilities, but that Canada ranks low internationally when it comes to using that purchasing power to encourage Canadian innovation. It seems to me to be common sense that the government should encourage homegrown innovation as part of its own procurement process, so I'm wondering if you can give us a sense of how Canadian innovation is or isn't a main criterion in the procurement of new technologies and facilities in your departments.

● (0940)

Mr. Mitch Davies: I can start, Chair.

Thank you for the question.

In terms of the recommendation you referred to from the Jenkins report, the call to the government was to consider how it could elevate and integrate innovation more witin the procurement practices of all departments. I think consideration of that recommendation is under way. I would leave it to colleagues at Public Works and Government Services to respond and perhaps provide more specific information to the committee if you had an interest in the subject. I can speak only generally to it.

I think the area is important. It's a question of balancing and assessing the variety of requirements one has to consider when making a purchasing decision for any department under current policies. We have to balance being competitive in cost when buying the goods and services required for the Government of Canada at a price that's defensible to the taxpayer. That's a primary consideration.

A very important second one is the requirements we have under trade agreements regarding how we will undertake to procure goods and services. The third consideration is other mandates, such as support for sustainable development, support for aboriginal business, and so forth. There are a variety of requirements, so procurement requires us to balance a number of policy objectives.

I think the debate, rightly, is about whether innovation is an objective that should be more enshrined or encoded in government policy. Then the question would be how to put that into practice and balance the risk around it. You don't want to give licence, obviously, to government managers to take huge bets and risks with taxpayers' money on things that are not well vetted, or when it's not understood what those risks might be, when essentially most procurement is driven by just buying a good or service that's required as an input to some process in a department. I don't want to complicate things, but part of our job is to do that.

That's more or less the debate around it. Of course, it's up to the Minister of Public Works and Government Services and the President of the Treasury Board to articulate if there are changes in policy in this area in response to Jenkins. We'll await that determination.

Mr. Jamie Nicholls: Thank you for that answer.

Could you give us maybe recommendations for how the government could do a better job of encouraging Canadian innovation? For example, should there be a Canadian content requirement in procurement? Should each department have its own review of how best to encourage Canadian innovation? Should there be a minister for innovation, as was recommended by the government's own expert panel, the Jenkins panel, in October?

Mr. Mitch Davies: Sorry to appear to be elusive, but I think I'd be more comfortable if advice or information on that were provided to the committee by the responsible officials in the area of procurement policy. It's best for me not to tread into their territory lest I get myself in some trouble.

Further, I think that if we were to provide advice, we would usually do this sort of thing with ministers considered in the debate, obviously, and government would make a decision as to what policies it might amend or change over time.

There are areas, though, where specific procurements are undertaken in terms of Canadian economic objectives or other objectives. I would point to the shipbuilding procurement under way, which was announced a number of months ago. It's a very significant project in economic terms, as well as in terms of Canadian expertise, innovation, and the development of the requirement to produce ships for the government's purpose. It's been directed in a fashion that's specific to industrial development.

There are cases where that's undertaken, but it's not the general rule.

● (0945)

Mr. Jamie Nicholls: I'd like you to expand on page 24 of your innovative transportation technologies document. The title is "ITS Contributions to Public Policy—Societal Benefits". The third bullet point mentions transportation for livable, accessible communities. Could you expand upon how ITS helps things like active transit and land use planning and how it allows communities to choose alternative modes of transportation?

Ms. Kristine Burr: Mr. Chair, ITS is an integrative bundle of technologies, if you will. One of the really exciting things it permits is integration of information from many different sources.

Some of the applications that are actually bearing fruit right now are allowing us, through our gateway initiatives—particularly the Asia-Pacific gateway initiative—to integrate the transportation management systems of a number of the metropolitan and urban governments of the Lower Mainland of B.C. Over time, we will be working with the province and TransLink, the transportation entity that offers transportation services to commuters and others in B.C., so that a growing number of municipal governments will all integrate their transportation information systems.

There is already a traveller information system there, so individual travellers will be able to check—either through their cellphones, eventually, or through web-based technologies—whether a bus is coming or whether they should choose between one option or another. It will also facilitate the flow of trucks from Port Metro Vancouver through the Lower Mainland, hopefully reducing congestion and increasing mobility for both cars and freight operations.

Mr. Jamie Nicholls: Thank you.

The Chair: Go ahead, Monsieur Coderre.

[*Translation*]

Hon. Denis Coderre: Thank you, Mr. Chair.

Thank you very much for joining us. I have to tell you—and I am talking through the chair—that I am very pleased and happy to have you here. I hope that we will be able to invite you again. Actually, once we meet with the other witnesses from the private sector and universities, it will be important for you to come back. Your responsibilities are not limited to research and development. You talked at great length about regulations, smart regulations in particular. What you are doing and what you are telling us is really important.

Thank you for the document. It is extremely well done. I am somewhat familiar with the government machinery and I am able to recognize your professionalism and transparency in dealing with this issue.

I have two questions: one is for the representatives from the Department of Industry and the other is for the representatives from the Department of Transport.

In terms of the Department of Industry, I am very interested in the government's procurement policy. You talked about aerospace in particular and one major aspect is the commercialization of innovation, which will actually affect your average Joe and Josephine. It could be in terms of defence purchases, for example.

Since we no longer produce aircraft and we take care of maintenance, we have to think about the intellectual property of software or equipment. If we want to reclaim it later to be able to play a role in the industry, it is important to look at that. That is why I have always said that intellectual property is key to innovation.

I would like to talk about ITAR, those American regulations that pertain to Canada when it comes to military equipment. If we buy a plane from Lockheed Martin, for example, and if we want to take care of the maintenance for that equipment, we have to consider civilian licenses. Industry Canada will have a say in that.

Do you think ITAR or the arms regulations can create problems for us? One of the major problems Bell Helicopter has experienced is that the American government has a list of 25 countries, and people from those 25 countries cannot be near military equipment in Canada. We can often lose the contract because of that.

Mr. Peets could perhaps answer this question. Just in terms of intellectual property, should we reassess the situation and have an agreement, although there are already ad hoc negotiations with the U.S. government and the Secretary of State? Should we not have a more specific agreement? Taking over the equipment is sometimes seen as an obstacle to productivity.

● (0950)

[*English*]

Mr. Mitch Davies: That's quite a question.

Hon. Denis Coderre: I know. I've been working all night.

Mr. Mitch Davies: We don't have a direct role in the policy of ITAR or that particular domain and policy you're interested in. I can only deal with this from an anecdotal point of view in terms of projects that are in the research and development area, particularly in support of training.

I was in Manitoba a couple of months ago and visited a joint facility between Red River College and Standard Aero. There's an issue of ensuring that anyone who enters the facility is recorded, and access to the actual manufacturing equipment is restricted. It was fairly seamless in how they had provided for that to meet ITAR requirements.

You have to take a specific question about a specific industry and address it to the experts. We'd be pleased, if you have something that's been raised with you, to take it back to officials in the department to get you a specific answer. Canadian industry, with a long history of being a supplier to aerospace defence industries and working as part of a value chain with American and other companies, is quite comfortable and familiar with doing that, so we work on navigating through this.

[*Translation*]

Hon. Denis Coderre: Mr. Chair, the intellectual property issue is very important. We have to make sure that the recommendations for the study on innovation allow us to deal with the issue through Industry Canada. All too often, it is perceived as protectionism, which has a direct impact on our own sovereignty. Actually, we are too often subject to regulations that come from somewhere else, especially Washington. I feel that our role in terms of innovation and intellectual property is to find an approach that will enable us to remove any contentious issues. My question is along those lines, and if you have answers, please forward them to me through the chair so that we can all benefit from them.

Ms. Burr, I would imagine that infrastructure is often the poor cousin of transportation. You have talked about an integrated freight system. What I really like about your approach is that you are putting the finger on the problem in order to fix it. Overwhelmingly, we do not devote sufficient resources to innovation. There is a small problem with research and development. Do you think we are doing enough in terms of infrastructure? We are often stuck in a failing system because we have not really taken care of it and because we have only made large one-time investments. That also has implications for transport. We are talking about basic infrastructure. In terms of research and development, do you think infrastructure should be dealt with on an equal footing as part of an innovative technology strategy?

Ms. Kristine Burr: There is research currently being done on the maintenance of infrastructure. I know that a few excellent centres doing university research have the expertise to deal with cement and transport equipment.

On our end, departmental officials started a thorough study on the impact of climate change on infrastructure, especially in the north of the country. We are currently developing a network of university researchers who are working on that topic, since we know that it should be a priority.

● (0955)

[*English*]

The Chair: Thank you.

Mr. Poilievre is next.

Mr. Pierre Poilievre: Thank you.

Thank you for an excellent presentation. This is excellent information.

The amount of money we're spending on innovation and research as a government is $5 billion. Is anybody aware of what portion of that is dedicated particularly to innovation and research in the field of transportation technologies?

Ms. Kristine Burr: One of the challenges of getting a good handle on this is that it's dispersed across a number of government departments. You had witnesses from Natural Resources Canada yesterday, and I understand you're going to be meeting with several other departments. At the same time, as I mentioned earlier, the private sector itself is doing research in some areas.

Mr. Pierre Poilievre: Right. I'm just trying to understand it in terms of public expenditure.

Would it be possible for Transport to just go to the various programs and find out what portion each of them is spending on transportation-related technology? For the purposes of this study, it would be valuable for us to know what we're spending. Because the study's on transportation technology, it would be valuable to know how much the Government of Canada spends on transportation innovation and technology. Is it possible to talk about that?

Ms. Kristine Burr: Yes, we'll certainly pull some statistics for you.

Mr. Pierre Poilievre: Great.

Mr. Davies, the deck from industry lists some of the programs that the government has in place for innovation R and D on transportation and lists the strategic aerospace and defence initiative, Automotive Partnership Canada, etc. Is it possible for your department to produce for us a list of tangible achievements that these programs have generated? By “achievements”, I mean what technologies are actually in use today because of the program in question.

In that same table, could we have an explanation of how the program actually led to that technology? It's not an achievement for us to spend public money. That's not an achievement; the achievement is producing a result. If we as a committee are going to evaluate what the programs do, we need to know what results they get.

Would that be possible?

Mr. Mitch Davies: It could be done. It's a question of reflecting a continuity of programming. I'll just say, for example, the largest of the programs is SADI. This is a continuity of programming that reaches back to the program prior to Technology Partnerships Canada. Prior to that was the defence industry productivity program. Over the history of that program and support—for example, to aerospace in particular—the question would be what technologies, developed by the companies that have been supported, are now in products that have had market or commercial success and are producing revenues or jobs in Canada.

The question would be, how far back can we go? In the case of SADI, because it's a newer initiative, all of the projects that we've supported under SADI are now in the research and development phase. We will track, once they move to commercial phase one, whether they're repaying us. This would be an indicator of success: the company has revenues and they're repaying the government for the funding provided.

Second, we will track the success of the technology as it's inserted into their products downstream, so in order to provide some attribution of commercial success, we'd have to actually go back beyond the current program.

● (1000)

Mr. Pierre Poilievre: That's fine.

Mr. Mitch Davies: The other two are newer initiatives, so we don't have the track record. It's exactly the same sort of undertaking for us to determine.

Mr. Pierre Poilievre: Could you go back, though, to their predecessor programs and as precisely as possible give us a cause-and-effect presentation of what technologies would not exist but for the program in question, with a specific explanation of the causation?

Mr. Mitch Davies: The only caveat I have to put on it is that you can't test the counter-factual way—that is, if you didn't do this, what would have happened otherwise? I have no way to test it. You can certainly look to the companies and the stream of technology to see where it was inserted into a product and to see how those products have turned out in terms of whether they're a commercial success, but you can't test what would have happened otherwise.

I just offer that as a challenge. It's not an obfuscation; it's more or less an issue in this area of programming generally. The overall theory here is that if you don't provide some incentive to the highly risky speculative activity that is the early stage of R and D effort, you would get less of it than is socially desirable; therefore, there is support and incentive in different forms on the part of the public.

Mr. Pierre Poilievre: Yes.

Mr. Mitch Davies: Then the question is this: do you have the right instruments? Did you spend more or less than you ought to get the result? It's hard to test, and I'm just offering that as a qualification.

Mr. Pierre Poilievre: I appreciate that it's difficult. It's like saying, "I take vitamin C pills and I'm still alive, so vitamin C pills must have saved my life, but I don't know what would have happened if I hadn't taken the vitamin C." I appreciate the challenge in my question, but to whatever extent you can provide that information, I would really appreciate it, and I think it would be useful to the committee.

The question of procurement that my colleagues have raised is an important one. Over the course of the last 200 years, government has played a very limited role in the advance of transportation technology. Most of the innovations have come from the private sector.

The one exception to that really is mass procurement, mostly for military uses, of transportation technology. In those instances, though, the government was actually buying something that it needed to use. It was not buying airplanes, for example, to promote more innovation in aerospace; it was buying flying machines that it could employ in a war. The purpose of the procurement was not to support industry, but rather to serve a need that the government at that time had.

To what extent do you think procurement policy should be based on subsidizing innovation versus providing the government with a good or service that it actually needs?

The Chair: Please be very brief.

Mr. Mitch Davies: It's a complicated question.

The long-standing policy approach in terms of the Government of Canada, as you referenced rightly, is that the industrial and regional benefits program is an offset to what other countries might undertake. More direct procurement to support domestic industry has been the way Canada has gone about industrial development while at the same time buying things it needs.

Then you would look at whether we have a benefit in providing more flexibility about what industries are developed on the part of the prime contractors by support to those industries for work that they must place in Canada because they've sold us something. Dollar for dollar they have a place of work with Canadian industry, but they don't necessarily have to build the thing that we have bought from them.

You can see it in terms of the areas where we have a competitive advantage. In aircraft components, for example, we have built specialized expertise in landing gear, which now allows us to compete for and win contracts for not just landing gear that goes on Canadian planes but for contracts from prime regional equipment manufacturers from around the world. In large measure, that expertise has been built up through the support from the industrial and regional benefits. It has placed contracts with Canadian firms by prime suppliers.

The question you asked is also one that the Jenkins group undertook a specific study on at the request of the Minister of Public Works and Government Services. It was on military procurement in particular, and whether Canada should adopt a more strategic approach with respect to supporting homegrown industrial innovation around what it's buying for military purposes. Again, that's a question that I think would be best referenced to the Department of Public Works and Government Services in terms of how they've undertaken a review of that recommendation that the Jenkins panel provided them.

● (1005)

The Chair: I have to stop you there.

Mr. Toet is next.

Mr. Lawrence Toet (Elmwood—Transcona, CPC): Thank you, Mr. Chair.

Thank you for a wonderful presentation this morning. There is a lot of insightful information here that's going to be very helpful to us.

One of the things I wanted to talk about this morning was IP protection and patent protection. In the Industry Canada deck that you've provided us with, you talk about IP protection. In the end, essentially you say that when there's financial support given to a private sector individual or company, the IP remains with them.

What are we doing to support them to make sure that IP protection is being adequately placed by them so that they are protecting themselves from outside interests infringing on their IP? It's great that we're investing a lot of finances into these companies and helping them to build this, but how are we working closely with them to make sure they are protecting that IP?

Mr. Mitch Davies: Maybe I'll provide a specific answer in terms of the programs.

The ones I'm most familiar with are in the strategic aerospace and defence initiative. There are clauses in our agreement that provide that they maintain protection for the IP they've developed through support that has been provided to the company and also that it be retained in Canada. There is also a clause in respect of the subsequent use of that IP to manufacture products that are derived from that intellectual property, so there is actually quite a strong regime ensuring that there are benefits to Canada in providing the research and development support.

More generally, how people can defend their intellectual property rights is, I think, a question for my colleague in terms of the legal protections and the overall regime.

Mr. Gerard Peets: Generally speaking, IP is a private right, and it's up to the rights holders to enforce it. That said, there have been a lot of people who have pointed out, to take the SME example, that they could use help in understanding how to navigate the system. The Canadian Intellectual Property Office does play a role in helping people understand how to use the IP system, how to get a good patent, and how to defend it, but it is the responsibility of the patent holder in general terms.

Mr. Lawrence Toet: Yes, and I understand that it is a responsibility, but I guess what I'm trying to get to is whether there is a quantitative follow-up to make sure that actually has been done —that it's not just that we've given them the tools, but that we actually make sure it has been done, and done in an appropriate manner. Is there a reporting back from them at the conclusion?

Mr. Mitch Davies: Well, I would simply reference the clients that I would be most familiar with through SADI. In all cases they're quite sophisticated in respect of the protection of the IP they've developed. Often at a later point in a project, or even when they're in the repayment phase, we undertake negotiations with them in terms of how they might wish to change arrangements around that IP, so I do see a lot of awareness of this aspect.

Gerard has mentioned that for the SMEs, it's more a matter of getting the awareness up. I know that the Canadian Intellectual Property Office is undertaking to increase its level of outreach overall, particularly for SMEs, to make them more aware of intellectual property rights and their importance and to make it easier for them, so that they can claim properly and have legal standing for the rights they should have to what they've developed.

Within the program there's quite a high level of sophistication with the clients, particularly in SADI. These are global enterprises and they're very sophisticated, and I'm quite confident that this is the last thing I have to concern myself with in respect of dealing with them. Rather, our conversations are more about how their commercialization process is undertaken in terms of prospects for repayment to the crown and matters of that kind. However, I think that's where CIPO's work in outreach with SMEs is quite critical.

● (1010)

The Chair: I have to interrupt there.

Ms. Chow is next.

Ms. Olivia Chow: Page 20 of your report, Ms. Burr, talks about the positive train control systems. It says:

> Positive Train Control (PTC) systems will integrate ICT, train positioning systems and connectivity between locomotives, signals, switches and operation centres to control train movements with safety, security, precision, and efficiency. This will significantly reduce the probability of train collisions, casualties, damage to equipment and over speed accidents

I notice that the positive train control technology has been on a U. S. wish list since 1990, then in 1994, and again in 1997. They were pushing the rail companies to adopt this technology voluntarily, and of course the train companies didn't want to. Then they had a horrific train crash that killed 25 people in 2008. Since then, Congress has made it mandatory and has given the companies until 2015 to put the system in place.

It is costly. In about 15 minutes we will learn from the Transportation Safety Board on the costs of the crash, but whatever the cost may be, we don't know whether positive train control would or would not have assisted.

When there is a technology that you know of from your policy shop, and you know that it helps and you've seen other countries using this technology, how does the policy get translated into a submission, perhaps to the transport minister or the deputy, that would then turn it into a regulation so that something like the positive train control would become a reality?

Do you also look at the cost? If we say positive train control should be mandatory and it we know it will take five to 10 years to phase it in, do you estimate how much would it cost VIA and all the other smaller train companies? Do you do the cost analysis also?

Ms. Kristine Burr: In this area it would probably be worthwhile for the committee to invite our colleagues on the safety side of the department to give you better precision, but certainly in the development of regulations, there is a benefit-cost analysis process that is part of every regulatory process. While safety is paramount and is our number one priority at Transport Canada, the impact of safety measures, or any regulatory measures, on economic efficiency is all looked at as regulations are developed.

In the case of positive train control, we know it's applied in metro systems in many parts of the world. The system that has been mandated by the U.S. Senate is to focus on integrating positive train control on primarily freight rail lines in the U.S. where passenger rail or commuter rail is also operational. I think there's some discussion as to whether it's cost-effective beyond those tracks to mandate the requirement for positive train control on parts of the rail system where there is no passenger traffic currently. I think they're looking at that right now.

My understanding is that it's a fairly complex technical challenge to integrate positive train control into a system in which you have freight operations and passenger operations. The applications we know of around the world are probably more fixed on passenger-only metro services. What we certainly understand is that it's a very complicated question technically, and that's probably one of the reasons we've seen such a lag in the adoption of positive train control in freight operations.

We have people from our rail safety directorate sitting on committees in the United States and participating in the oversight of the development of these technologies. We have an integrated North American freight system, so our major carriers are going to be affected by the Senate ruling and the application in the United States. We will clearly have to look at it in Canada as well.

● (1015)

Ms. Olivia Chow: Would something...?

The Chair: I'm sorry, but we're out of time. I have to go to Mr. Holder.

Mr. Ed Holder (London West, CPC): Thank you, Chair.

I'd like to thank all our guests for attending today.

I'm going to let you do more of the talking than me, which might feel rare.

I'd like to start with Ms. Burr.

Right out of the gate, you spoke in terms of the competitiveness challenge, and what struck me is that it says Canada's productivity is lower than that of our major competitors, particularly the United States. You go on to show with a couple of your charts that annual percentage labour productivity in the Canadian business sector over the last 60 years has steadily been declining, and compared to the United States, our productivity level is something like three-quarters of what it is in the United States.

Should we be concerned?

Ms. Kristine Burr: Well, we're concerned.

Mr. Ed Holder: Should we be? I'm glad you are, but should we be?

Ms. Kristine Burr: I think so. There's considerable debate in Canada about the fact that we continue to lag behind our U.S. counterparts, and in the transportation system we saw in the 1990s that the transportation sector was one of the major contributors to Canada's overall productivity improvement. Since then this has levelled off, so from a transportation perspective it is one of the reasons we are putting a lot of emphasis on how we can be more innovative going forward. I would certainly recommend that you continue to focus on this as a part of your study.

Mr. Ed Holder: It's rather interesting. In my other life in committees I sit on the international trade committee, and we have had probably the most proactive approach to opening up markets around the world since Canada became a country. For a trading nation, I think that just makes a lot of sense, but if we don't get the productivity piece down, how are we helping the Canadian worker and Canadian businesses to succeed?

I look at some of the various factors you have stated here. I know you have small domestic market as one of your points, but it strikes me that it might be less of an issue with the opening up of markets around the world.

You talk about skills mismatch and insufficient competitive pressure. I'm not sure I know exactly what that means. Could you elaborate? When you say “skills mismatch”, just help us understand that a little bit more, please.

Ms. Kristine Burr: One of the really interesting things of the last decade is that the application of computers and microchips to all modes of transportation means that even the cab of truck is not anything like the cab of a truck 20 or 30 years ago, yet our workforce in the transportation sector is one of the oldest demographically.

There's going to be a major changeover in the next few years. If you are inviting people from the various modes to come and speak to this committee, you will hear that a major concern of almost all the modes is the aging workforce and the need to attract new workers into the business over the next few years.

At the moment what we have are long-serving employees who sometimes feel threatened by technological change rather than embracing it. When industry talks to us, they tell us of the challenge of recruiting a new generation into the business, because in other sectors of the economy you don't work the hours you work in transportation. They are odd hours, long hours, often on weekends, and 24/7 is now the norm in a number of parts of the sector. Transportation jobs are not as attractive to the younger generation, perhaps, as jobs in other parts of the economy.

● (1020)

Mr. Ed Holder: Would you think our workforce is sufficiently flexible to be able to accommodate that kind of innovation to improve productivity, which I understand from what you say is critical? Do you think our workforce is sufficiently flexible?

Ms. Kristine Burr: That's probably a question better answered by some of the individual business players in the transportation sector.

One of the other challenges we hear—and this is particularly arising in western Canada right now—is that it's hard to keep people in the transportation sector when the energy industry is so attractive and offers longer periods of time off, longer holidays, and better pay. There are challenges around the attractiveness of the industry, so flexibility.... It may be that it's from a rational point of view that people are choosing other sectors for what, at the individual level, are good reasons.

At the same time, the transportation sector offers some very interesting work, and it's much less likely to be labour-intensive. There are new technologies that make the jobs more interesting, so hopefully they'll attract new people.

The Chair: Thank you.

Go ahead, Mr. Sullivan.

Mr. Mike Sullivan (York South—Weston, NDP): Thank you, Mr. Chair, and thank you to our guests. It has been very enlightening.

The very first key finding in the document the transport department has provided is that the transportation sector lacks coordinated strategies to promote innovation. There is a "need for better information sharing, improved coordination of investments, and greater public and private leadership".

I think we agree on this side of the table that strategies need to be better coordinated better. In fact, our last study was supposed to be about a national public transit strategy to encourage exactly what you're talking about—improved coordination of investments, greater public and private leadership—but unfortunately, at the end, it was turned into a national public transit study rather than a strategy.

Can you comment on what you would see as an example of a strategy the federal government could initiate and lead in both the transportation sector generally and in public transit specifically?

Ms. Kristine Burr: Public transit is generally a domain that resides within the provincial and municipal government levels. Through the consultation exercise that the Minister of Transport launched recently regarding a new generation of infrastructure programming, we're hoping to get input as to what the priorities and views of many of our partners will be going forward. I suspect that what emerges from that consultation process will form the framework for a future strategy for infrastructure more broadly, which would encompass transit.

Mr. Mike Sullivan: My colleague talked about positive train control, but I want to talk more generally about FRA compliance for public transit vehicles.

To an extent Canada just rubber-stamps what the U.S. says. The U.S. is now engaged in a lessening or a relaxing of those FRA compliance rules in California. That would lead to the possibility that investment in Canada could resurrect the creation of public transit vehicles that are non-compliant with the FRA regulations used all over Europe but not here, in part because we don't have positive train control and in part because we have these strangling regulations.

Are we looking at the same kind of thing here?

Ms. Kristine Burr: I'm really not in a position to give you a useful answer on that. I don't handle safety and security policy, but we'd be happy to go back and speak to our colleagues in rail safety and provide a response to the clerk, if that would be helpful.

● (1025)

Mr. Mike Sullivan: Thank you. That would be helpful.

On the investment side and on intellectual property, we understand that there were a number of worldwide patents, most of them developed in Canada, that EMD took when it left and went to the U. S. Some of those patents, I'm certain, were probably funded in part by government R and D money. Is there something we should be paying attention to here when we help create...?

For example, one of the things they were working on more recently was non-urea tier 4 diesel vehicles. None of their competitors have a leg up on that issue yet. They seemed to have, but they're gone, and we now have the spectre of the U.S. investment banks lending money to a Canadian company to buy vehicles built in the U.S. The world has gone mad here. What is it we should be doing to protect our investment in R and D?

Ms. Kristine Burr: This may be an issue that bears further study as a result of the recommendations in the Jenkins report and more broadly.

I'm not in a position to speak to the specific case you mention, but we'd be happy to look into it and provide further information.

Mr. Mitch Davies: I'll just add that it's an interesting challenge. The automatic response might end up making it worse. When you offer intellectual property protection, it's the company that holds it, and it's their private right. They would build an investment plan around that because they have certainty over what they own.

The question then is what kind of overall environment you have for them to grow in, and whether they can grow to scale in the country. I think Jenkins also addressed this in terms of Canada having a fairly strong performance as a start-up nation, with many SMEs that are using excellent technology. The question is whether they have the capital to get started and then to get to a size where they can actually compete and win in world markets, and do it from here.

It was picked up on by the panel because Canada has built an enviable S and T system. Our higher education sector is world class with respect to the type of talent and the kind of brain power we can bring to bear. The question is whether we want those folks to stay in academia. The answer is that there will never be enough spaces and that you need them in the economy. Then the question is whether we hire those people into the economy and pay them at a level that would be available in other countries. The evidence is no.

It's a matter of business innovation and how we can incent businesses to grow knowledge-intensive, high-technology, globally oriented, export-oriented businesses in this country. The Jenkins panel recommendations cover a number of dimensions of policy where the government can do some things in terms of the overall competitive environment, but it also covers specific policies in the federal domain that could provide an overall better climate.

The question is whether you respond with something that would be narrower, and then perhaps end up getting more of the bad outcome that you're trying to avoid, rather than providing an overall framework that allows the growth to occur in Canada. We obviously have to respect the fact that we are a trading nation, so we won't see the gains we have from trade if we're closed off.

The Chair: Thank you.

Mr. Watson is next.

Mr. Jeff Watson: Thank you, Mr. Chair.

Thank you to our witnesses for appearing.

Early in the presentation, I think it was you, Mr. Peets, who said that Canada ranked fourth in the world in the number of patents in fuel cells. I am wondering how many categories with respect to patents you track, relative to transportation technologies, and how does Canada rank in those against the rest of the world?

If you don't have that information, you can provide it to the clerk.

Mr. Gerard Peets: I would be happy to follow up with the Canadian Intellectual Property Office to look into that to see how much I can get.

Mr. Jeff Watson: I'd like an opinion from the witnesses. I'm not sure which witness would like to answer this, but with respect to fostering innovation, who has the best IP framework globally? Does Canada, or is it someone else? Is there a better jurisdiction we should be aiming for? One of the things the committee may want to concern itself with is whether we need to make changes in that particular regime.

● (1030)

Mr. Gerard Peets: One of our messages is that Canada's patent regime is competitive internationally.

The decisions that are facing companies when they're bringing products to market involve what market they are trying to access, and they will use the patent framework of that market. Definitely, you see in the categories that we have identified that Canada's patent regime is on par with those of its trading partners. Most of these areas are covered by international agreements such as the TRIPs, and there's a level of standardization there.

Mr. Jeff Watson: Somebody just said not long ago that Canada has a strong position as a start-up nation—I think that was you, Mr. Davies—and that the challenge is getting the capital to grow. Is the problem that banks are risk averse with respect to helping companies grow?

Mr. Mitch Davies: Actually, it's a question of the asset class. If we're talking about technology and knowledge, the type of lending that a bank would undertake, based on some fixed assets and protection around those, is not where the gap is. Banks are involved with the SME sector to a great extent in terms of providing working capital and support for industries where there are assets.

The question in technology financing is that it's more venture financing, meaning the ability to evaluate the business plan in an area of completely new breakthrough products and innovation. The sophistication to make those decisions is not generally available in all the banks. It's something that's built up where you have a strong cluster of industry. You see it in Silicon Valley and in Boston, where they have a strong, deep specialization in technology and innovation and in the disruptive markets, and they can make those kinds of bets.

The question in Canada is how to build a corollary to that to support the bright people who come out of our institutions and want to start up businesses and see them grow in this country. A recommendation in the Jenkins panel that's under consideration, among other approaches, is whether support should be provided to incent more private sector money to come into this space to build expertise. Rather than have government make the choices, the idea would be to pull more private sector money in and build the critical mass in terms of a very specific area of financing.

It's not like bank lending. It's not asset-backed lending. It's lending against a future growth plan and looking for, ultimately, exit through an IPO into public markets.

Mr. Jeff Watson: With regard to Automotive Partnership Canada, what was it designed to do that's different from AUTO21? Why was the decision not to simply expand the scope of AUTO21 to accommodate what APC does?

Obviously AUTO21 is a national centre of excellence, so I'm interested in why this decision was made. How does APC differ, and why couldn't that be done by AUTO21?

Mr. Mitch Davies: Automotive Partnership Canada is actually to bring the federal funding bodies together around a particular industry and to drive their funding support to meet industry needs.

Actually, the innovation here is around the kind of challenge that was mentioned in the presentation from Transport, around making the programs accessible. Essentially, Automotive Partnership Canada brings the programming together to a common table so that you actually review and adjudicate the projects together. You don't have a duplicative process whereby you'd apply to NSERC for one thing and to the Canada Foundation for Innovation for your infrastructure support, or you'd be working with the National Research Council on their in-house strategic collaborative research and development. They brought it together so that you actually can work up proposals with industry directly, who then pull resources from those agencies. They have their own funding programs.

In other words, we didn't create a new program. What we created was an integrated framework to deal with the specific industry. In particular, in auto, where we have strong export performance, we have a significant industry. It's very important economically, but it's small-scale R and D. The question is should we—

The Chair: I have to interrupt there.

● (1035)

Mr. Jeff Watson: I'm still looking for an answer on how AUTO21 can't do what APC does, but....

The Chair: I'm sorry, but your time is up.

Go ahead, Ms. Morin.

[*Translation*]

Ms. Isabelle Morin: Thank you, Mr. Chair.

Mr. Davies, you talked a lot about airport noise in your presentation. You also mentioned that you were involved in reducing the noise.

Since the Montréal-Trudeau international airport is in my riding, I receive many complaints from my constituents about airport noise. Could you tell me what your role is in developing this technology and what steps you can take to further reduce the noise in the future?

[*English*]

Mr. Mitch Davies: I'll give two examples. Through the strategic aerospace and defence initiative, we support Pratt and Whitney Canada, in particular in the development of the technology that will be inserted into its engine families. Each engine iteration is seeking improvements in terms of the cost to run it, efficiency, and use of fuel. It's looking for increased performance in terms of light-weighting to reduce fuel load and cost for operating the aircraft. The third, of course, is to improve performance to meet standards around the world. In Montreal, as it is in any major city where airports are located, communities are seeking to have quieter airspace and to improve.

In terms of developing the next generation family of engines, for example for small aircraft, Pratt and Whitney Canada would be supported through the strategic aerospace and defence initiative. I also mentioned the business-led networks of centres of excellence, known as GARDN, which is specifically focused on green technologies as they relate to aircraft. One aspect of their research would also be on noise reduction. When an aircraft or engine manufacturer is working on its next generations of engines, they will make specific targets in terms of decibel level and decreasing the overall noise produced by their engines. There's a direct link between the R and D support and the product that ultimately results in improved performance in terms of noise.

[*Translation*]

Ms. Isabelle Morin: Are there currently many regulations on airport noise? We know that Canadian airports are supposed to be closed between 11 p.m. and 7 a.m. so as to reduce the noise at night, which has a significant effect on people's health. But airports have the right to allow planes to take off earlier or to land later. So we are sort of letting the guideline to the discretion of airport authorities.

Should we establish regulations to reduce the engine noise at night? If not, is there research currently being done on this issue? For the time being, the noise level in my constituency is still too high. Could you tell me what do you plan to do to solve this problem so that I can tell my constituents that the Government of Canada cares about their health and is working on the issue?

[*English*]

Ms. Kristine Burr: The regulation of airport noise falls under the Aeronautics Act. It's a federal issue. At the same time, airports are expected to be sensitive to the concerns of the adjoining communities.

One thing I would mention, however, is that depending on where the airport is located within Canada—I'm thinking of Montreal, Toronto, and Vancouver in particular—we are seeing more and more planes arriving or leaving in the middle of the night because they are coming from or going to China or elsewhere in Asia. The business traveller particularly wants to be able to arrive for the next working day in Asia, so the issue of aircraft noise and airport noise is going to continue to be a challenging one.

At the same time, as was noted just now by my colleague from the industry department, with every generation of plane and engine that is developed, one of the considerations is noise abatement and making the engine and plane quieter. Technological changes are evolving, and at the same time, business activity is increasing. There is not going to be a simple answer to your question. There will be the pressure for more planes and more growth. Of course, for local residents it will be a sensitive issue from time to time.

● (1040)

The Chair: Thank you.

Mr. Richards is next.

Mr. Blake Richards (Wild Rose, CPC): Thank you, Mr. Chair.

I appreciate you all being here today. It's looks like we've saved the best for the last, by the clock here.

I have some questions for our folks from Transport. I notice that in talking about your strategic approach to innovation, you had four key points that you wanted to focus on. One was encouraging greater awareness of the advanced technologies. Another was looking at modest research and knowledge investments. The third point was promoting better information flows. Your fourth point is the one I want to home in on a bit here. It piqued my interest for sure. It is looking at ways to ensure that policies and regulations do not pose barriers to innovation.

A key part of our government's focus in our economic agenda has been looking at ways we can reduce red tape and government regulation. We had our red tape reduction commission, led by Maxime Bernier, to look at ways to reduce government red tape. We're looking at things like the one-for-one rule, meaning that every new regulation would require an old one to be eliminated so that we're never increasing the regulatory burden.

Government can help in other ways, but when it comes to encouraging private sector innovation, I think government can often help the most by getting out of the way and allowing businesses to do what they do best, which is create productivity, innovation, and jobs for Canadians.

I am interested in hearing a little more about that specific part of your agenda on ensuring that policies and regulations do not pose barriers to innovation. I'd like to hear from you a little more about the plans in that regard. Maybe you could give us examples of some of the things you're looking at in the red tape reduction area to remove regulatory burden.

Can you give us some specific examples of initiatives or things you're looking at in that regard?

Ms. Kristine Burr: At a high level, I would say we're very interested in looking at ways that technology applications can make the overall regulation of a particular mode more efficient, whether it's the marine mode or the rail mode.

On the regulatory cooperation now under way as a result of the Prime Minister's announcement with the President on the Beyond the Border initiative, we are having active discussions with the Americans in a number of areas to see how we can harmonize our regulatory oversight.

We have one specific application there that involves intelligent transportation systems, as I was mentioning. We're going to mutually apply technologies at the border to measure border wait times, and we'll make sure we harmonize with the U.S. so that there's a single process. It will ease the review and inspection of goods as they cross the border, and the wait times should be improved.

I'd like to ask Monsieur Fortin to give you a specific example of how we're working with the rail industry to find ways to use innovative measures to improve regulation.

The Chair: I'm sorry, but I have to interrupt here because of time. I'll ask you to submit it to the clerk to be distributed among committee members.

Mr. Marc Fortin (Regional Director General, Atlantic Region, Department of Transport): Sure.

The Chair: Time is of the essence right now.

Mr. Poilievre is next, on a point of order.

Mr. Pierre Poilievre: I know I'm next in the speaking order, which you will not be able to permit, but I'd like to make an information request.

In this document, Innovative Transportation Technologies, you have a tremendous list of very detailed and practical transportation innovations. Can you produce for us a table for each one indicating their status? Is it a work in progress? Has it already been implemented, and if so, for how long? Who was the innovator company, university, etc., and what government program was involved in helping to bring it about, if any? Of course, it's perfectly acceptable to say there was none.

That will give us an idea of what programs are actually delivering results and which of these innovations just come organically from the marketplace.

Thank you very much.

● (1045)

The Chair: Thank you.

Thank you to our guests today.

On advice for the committee, Tuesday we have Encana and the Canadian Propane Assocation. Notices will be sent out.

Thank you very much.

The meeting is adjourned.

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