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Chair

Mr. Merv Tweed

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•(1535)

[English]

The Chair (Mr. Merv Tweed (Brandon—Souris, CPC)): Thank you and good afternoon, everyone. Welcome to the Standing Committee on Transport, Infrastructure and Communities, meeting number 20. The orders of the day are high-speed rail in Canada.

Joining us today, from Bombardier, are Mr. George Haynal, Dan Braund, and Paul Larouche. With us from Alstom is Ashley Langford, and from Siemens Canada Ltd., Mario Péroquin.

Welcome.

Mr. Volpe.

Hon. Joseph Volpe (Eglinton—Lawrence, Lib.): Before you thank our guests for coming here, I wonder if I could raise a point of order, if you don't mind. I just have actually two questions. It's for information more than anything else.

First of all, I know we're coming into the companies that have a specific interest, and that's wonderful; I'm looking forward to their presentations. But I'd like to know about VIA Rail. Did they express an interest in coming? Were they asked, and what was their response?

The Chair: I can answer that. VIA was invited. They suggested that the Railway Association of Canada would speak on their behalf.

Hon. Joseph Volpe: But they didn't. Could we re-invite them?

The Chair: We can.

Hon. Joseph Volpe: Because I think they have a perspective we would profit from.

The Chair: They did hear the presentation by the Railway Association and said that it would suffice, but we can ask them again. I'd be happy to.

Mr. Jean.

Mr. Brian Jean (Fort McMurray—Athabasca, CPC): Chair, if I may, I quite frankly concur with Mr. Volpe in relation to VIA Rail, particularly given some of the evidence that we've heard from other individual witnesses. Actually, it's consistent with a proposal that I want to make to the committee at the end of today, which is to include light rail inter-city within this study, because we've got discussion generally about high-speed rail and we're not talking specifically about where we're going to connect them to light rail within cities. So I think it would be appropriate to invite them back, because they are the experts on it, especially in places like Montreal and Toronto, and indeed they could possibly at that stage expand the scope of their evidence to include the very thought of light rail

within cities and downtown cores to relieve congestion, especially in cities such as Vancouver, Montreal, and Toronto.

So I would concur with Mr. Volpe.

The Chair: I will re-invite VIA Rail.

Hon. Joseph Volpe: The second item is.... I'm pleased with the direction we're going here, with people who are taking us on this topic.

[Translation]

I have one more concern in that, according to experts in parliamentary procedure, the committee is obliged to study bills that the House has decided to refer to it. So, do we have a plan in the works to study Bill C-310 soon, or not? Or is the government taking different positions on parliamentary procedure from those that I am told are the correct ones?

[English]

The Chair: I won't speak for the government's position on that, but I can advise the committee that we have witnesses scheduled for Thursday, for the following Tuesday, and the following Thursday. I take direction from the committee, so whatever we choose to do I think would be acceptable to me. I know that the rule in this committee is that we were to entertain, I believe, government bills as they are brought forward, but that's not to say we can't have that discussion.

Mr. Brian Jean: Mr. Chair.

The Chair: I have Monsieur Laframboise and then Mr. Jean.

[Translation]

Mr. Mario Laframboise (Argenteuil—Papineau—Mirabel, BQ): That is fine by me.

[English]

The Chair: Mr. Jean.

Mr. Brian Jean: Merci.

Certainly I want to advise Mr. Volpe and the Liberal caucus that we, as a committee, have given number one priority to government legislation, and of course that has worked out extremely well in terms of our productivity as a committee. But it is our intention to bring forward Bill C-310 for the committee to study, and I would suggest we do so subsequent to this high-speed rail study for at least a couple of meetings before the break for constituency time in the summer. I would suggest that first of all we complete this study, and I would like to expand the study, as I suggested, to include the inter-city light rail.

So that would give us probably two days to hear from at least the airlines in relation to Bill C-310 before the summer break and then we could of course go back to that in the fall if it's at all necessary after we hear from the airlines on some of the economic consequences—as we saw in some of the recent articles—and what the airlines suggest will happen.

So that would be my suggestion.

The Chair: Monsieur Laframboise.

• (1540)

[*Translation*]

Mr. Mario Laframboise: Mr. Chair, I know that the committee decides its own destiny, you are quite right. But we are rolling along nicely with the high speed train and the parliamentary secretary wants to add the issue of light rail. You know the Bloc Québécois' position on investment in rail. Since things are going well, let us try to stay on time so that we can get a high speed train.

I know that we are obliged to study bills, but still, we are on a roll. I hope that we are going to stick to the schedule that you presented, Mr. Chair. For the rest, the bills, the parliamentary secretary has set aside several days for that before the end of the session. I think that should be fine.

[*English*]

The Chair: I have two more people on the list. I'm going to limit it at that. I think we're going to go back to hearing our witnesses, and I'll set another ten minutes aside at the end of this meeting to discuss these outstanding issues. We do have a subcommittee that sets the direction of the committee. If the subcommittee members want me to call that committee, I would be happy to do that to discuss the future business of the committee.

Ms. Chow, do you have comments?

The Chair: I'll see that those comments are brought forward at the subcommittee meeting.

Monsieur Bélanger.

[*Translation*]

Hon. Mauril Bélanger (Ottawa—Vanier, Lib.): Thank you, Mr. Chair.

My colleagues are quite right to feel that government bills generally should have priority. It is not an absolute rule, to my knowledge. However, there is a rule for private members' bills. If I am not mistaken, if a bill is has not been studied and a decision has not been rendered by a committee within 60 days of the bill being referred to it, this is deemed to have been done and the bill goes back to the House without amendment. I am not sure whether it is 60 business days or 60 sitting days. I would have to check. But, given the circumstances, your subcommittee should perhaps develop a strategy to deal with Bill C-310.

[*English*]

The Chair: I will advise the committee that it is 60 sitting days, which would take us to November 23.

I'm going to move to our guests, who have been waiting.

Thank you for your patience. I'm not sure if you have an order as to who would like to start. Is there one group that wants to take the lead?

George, go ahead.

Mr. George Haynal (Vice-President, Government Affairs, Bombardier Inc., Bombardier): Thank you, Mr. Chairman, and thank you, members of the committee, for giving us the opportunity to share in your reflections on high-speed rail.

I'll make a few introductory comments and then look forward to the discussion that no doubt you will wish to have with all of us.

I'm joined here today by two expert colleagues: Paul Larouche, who is a leading member of our strategy group and who was personally involved in the link study we participated in, in 1995, as well as Dan Braund, who is a senior member of our systems group, with his office in Kingston, which has worldwide responsibility for systems planning and execution in the rail system.

[*Translation*]

My introduction will deal with four main topics. First, I will provide a brief overview of Bombardier Transport. Then, I will discuss exactly what a high speed train is. There are different definitions, depending on the situation. Third, I would like to talk about Bombardier's experience with high speed trains around the world. To conclude, I will say a few words about the potential for high speed rail in Canada.

[*English*]

I hope that doesn't take up too much time. I'll try to make it as quick and as pointed as I can.

I'm sure you're all familiar with Bombardier. Most Canadians know us because we are the world's third manufacturer of civil aircraft. What is less known is that Bombardier Transportation is in fact the leading producer of passenger rail solutions in the world, with something approaching 23% of global markets in this field. We have 100,000 vehicles in service today around the world. So we've been in this business for some time and have had considerable success in a very competitive environment, which I'm sure you will hear later on.

We have 50 production and engineering sites around the world, and 21 service centres in 24 countries. As I said, we are present around the world.

In Canada, we have two world-leading centres of excellence—one in La Pocatière, Quebec, and one in Thunder Bay, Ontario—as well as our systems group engineering centre in Kingston, Ontario. The head office of Bombardier Transportation North America, which runs our operations in Canada, the United States, and Mexico—we are present as producers in all three countries—is in Saint-Bruno, Quebec. We have vehicles, on which I don't doubt all of you will have travelled at one time or another, in operation in Vancouver, in the greater Toronto area, in Toronto itself, in Ottawa, and in Montreal. Many of the vehicles that VIA Rail operates were made by Bombardier in Canada.

So that's us, generically.

•(1545)

On the issue of what high-speed rail is, I'm sure that you have done extensive thinking about this. This is a subject that admits to a broad range of definitions. It covers a multitude of options in inter-city rail, ranging from systems that operate at about 150 miles per hour, such as the Acela system now connecting Washington, New York, and Boston, all the way through to the experimental Maglev technology that moves—I'll switch to kilometres, because the numbers are more impressive—at 400 kilometres per hour. This is an experimental technology, and it now presents the extreme range. But then there are ranges of everything in between.

The issue for policy-makers, if I may suggest, is not so much whether you have high-speed rail. It is the much more complicated and complex issue of what kind of high-speed is appropriate in a particular setting, and indeed whether high-speed is appropriate in particular settings. The choices are relative and political, and they boil down to whether a particular corridor's needs justify a certain level of investment in a certain type of rail service.

The technology exists today to meet virtually any high-speed requirement. Indeed, any one of the three companies represented at this table today could supply them all. The decisions about the choice are economic, social, environmental, and political, and the calculations are often relative, not absolute. For instance, rather than comparing the absolute maximum speeds of these modes, compare the time it takes to go from one city centre to another by different modes of transport and how a reduction of those times would attract ridership. Airplanes, after all, fly at about 600 kilometres per hour and upwards. So the comparison is a very difficult one to make when it just comes down to looking at maximum speeds of any form of transport.

I have one last generic word on the choice of transport. Obviously, the choices are relative and the costs can be daunting, but the fact is that not all systems cost the same. Different options have different prices. Much of the time the difference has very little to do with the vehicle being selected. The major costs involved in the various choices have to do with infrastructure, the choice of right of way, the need, or not, for new railbeds, and the cost of electrification, if required. I think that's an important consideration in everybody's decision on these issues. That decision is dictated, in turn, by an assessment of the proper balance between cost, speed, utility, and public benefit.

What is exciting, and certainly what we have all found, I'm sure, is the change that high-speed rail brings to communities and individuals. A good example is the intense integration of the countries and cities of the European Union high-speed rail has brought. For instance, it is common for Londoners to work in Paris, for Parisians to work in Brussels, and for people to commute to each other's cities, not just for daily work but for recreation. This is a notion that would have been unthinkable before the advent of high-speed rail.

The notion that people in Kingston or Ottawa could work in Toronto and Montreal and vice versa, that Red Deer residents could commute to Calgary or Edmonton, and that it would be commonplace for people to travel routinely across the Quebec City—Windsor and Edmonton—Calgary corridors for work, recreation, or

social contact has extremely important social benefits that cannot easily be quantified.

One other issue that I think is important in considering high-speed rail, and undoubtedly it's one you have grappled with, is that this is a costly system, whatever one does. The investment can be less or more intense. There's no absolute cost calculation involved. What is not in doubt is that the investment has to be made by the public sector, just as it has to be with any other major infrastructure investment whose returns are not necessarily commercial but are spread across society and the economy.

The private sector brings much to the success of such an investment. Indeed, it is an indispensable partner. But ultimately, just as with roads, bridges, airports, and air corridors, the vital sinews of the modern economy are a public charge. That being the case, decision-makers will have to make careful calculations on the benefits of such an investment, because the issues involved address a vision of the country that goes beyond the immediate.

•(1550)

So the investments have to be put in the broader long-term context. They also involve issues of equity, and in particular, the calculation of whether public funds put toward this mode of transport or that prejudice another, and if so, whether that prejudice is justified by a considered policy preference—i.e., whether one mode of transport brings superior benefits over the short and long term over another in a particular setting.

This is truly a decision for those entrusted with political responsibility, not for industry or for advocates for any particular point of view. I know that in my own case I have some difficulty commenting on this, given that we make both trains and planes; in fact, we make the world's best regional aircraft. So it's a toughie when you ask one of us about the choices, but it's nice to be able to offer all the alternatives.

As I mentioned, all three companies represented here are leaders in this field, but perhaps I can offer a few words on what Bombardier itself has done. We have participated in virtually all high-speed rail projects in the last 20 years, often working in collaboration with other manufacturers, including those my colleagues here represent.

But we have our own highly successful range of installed technologies that range in speed from 200 kilometres to 300 kilometres an hour. We also have our next generation of Zefiro, a family of trains that represent the latest technological innovations. That is a system that offers speeds up to 360 kilometres an hour. We have trains in operation, including in China, where a 250-kilometre-an-hour system is now in place with the world's fastest sleeping trains involved.

There are two things peculiar about us and our approach to high-speed rail, which are worth noting for future reference. One is that we value the flexibility of application to different needs of customers above all; for instance, being able to provide different forms of propulsion that are interoperable, depending on the demand—diesel, electric—as the case may be.

But something that is even more important to us, and which we stress and in the Canadian context is particularly important, is the synergy between our aerospace and rail technologies. Bombardier aerospace technology has helped us to develop lighter materials, better welding techniques, more stable aerodynamics, more ergonomic designs and interiors, and more sophisticated controls for our high-speed systems. This is a uniquely important asset on which we will focus intensively. And as I said, in the Canadian setting—given that Bombardier Aerospace is so much a part of the Canadian technology scene—this will be an important asset.

Let me conclude with a brief observation, from our perspective, on the potential of high-speed rail in Canada. It's not an exaggeration to say that this country was forged by rail. And even if we have gone much beyond that in what now unites us, it still continues to play an important role in our national life, though a declining one. And perhaps this is the moment when that balance should change.

Passenger rail does provide a critical option for travel between our communities, and those include our great cities, particularly those that control major economic corridors. It's immune to the vagaries of our difficult climate, is secure in the face of threats, and is able to accommodate special needs. And it also connects the hearts of cities.

Not because this is not obvious, but public policy, frankly, has not privileged passenger rail to the measure it might have in the last decades. Investments in public infrastructure have been heavy in other areas compared to the investment in rail. This is not unique to our country. The United States, which is now entering a new phase of policy consideration in this area, has concluded the same thing. This is not a criticism. There are many difficult decisions involved.

But it is worth noting that we are in danger of falling behind. It's not just the countries of Europe that are investing in high-speed rail. I've mentioned China in this context. A number I still find difficult to believe is that by our calculations, China is spending \$80 billion this year in high-speed rail. You didn't hear me wrong. That is the calculation of what they're spending.

But closer to home, of course, the United States is also taking a new look at high-speed rail, and the Obama administration is investing in the very first stages—\$8 billion—in considering high-speed rail transport corridors, ten of them. That \$8 billion will probably do the feasibility studies for those ten corridors, but it indicates the seriousness with which they regard this challenge.

• (1555)

I should note that among those corridors are three that connect Canadian cities to the United States. There's the corridor in the east, which is conceptualized as linking Montreal south; the corridor in the west that would link Vancouver to Seattle; and the corridor from Chicago to Detroit-Windsor that would link central Ontario to the north and south. So if for no other reason, it will be important for our country to consider whether to link our great cities in a similar fashion on a different axis.

Thank you. I very much appreciate your indulgence.

The Chair: Thank you very much.

Monsieur Pélouin.

Mr. Mario Pélouin (Director, Mobility Division, Siemens Canada Limited): Good afternoon, members of the committee, ladies and gentlemen.

[*Translation*]

I am pleased to appear before the committee today to discuss high speed rail in Canada.

I have been in the railway business since the 1980s. I worked at Canadian National, the Transportation Safety Board of Canada, and, finally, at Siemens. I have been interested in rail transportation for a long time, most specifically, in high speed rail.

[*English*]

I have had the opportunity to provide input to various studies, participate in high-speed-rail symposiums, and offer advice on technology, ways of operating, and so on, to large groups of interested parties over several years. All of this has allowed me the privilege of keeping abreast of developments in the fascinating field of developing a high-speed network.

Several companies can speak about high-speed vehicles and the technology that each can develop. My general comment is that several companies can build high-speed trains of excellent quality, boasting a variety of esthetics and particular features, but I don't believe that is what this committee wants to hear about today. I won't try to compare our vehicles to those of other companies. They're all very good and run at very high speeds.

What I would like to state is that from experience, far too many people concentrate on the vehicle technology at the beginning of a high-speed discussion when evaluating the feasibility of such a system, instead of evaluating the basics first.

[*Translation*]

What is needed first, in fact, is a vision or strategy before determining which technologies are appropriate for the project. A technology that is too sophisticated, or not sophisticated enough, can adversely affect the achievement of results and the level of service. If the technology is too sophisticated for the system you want, you are going to spend much too much. If you choose the wrong technology and you want a system with better performance, you are going to have a lot of problems for the life of the project.

The vision must determine whether the goal is to serve the greatest number of urban centres or to carry the greatest number of people possible at a very high speed. Those two goals are not necessarily compatible.

• (1600)

[*English*]

Once the vision is firmed up, the evaluation of various aspects of the project can take place. For example, a decision on medium-speed travel may consider utilizing existing rights-of-way or corridors, as opposed to a truly high-speed system, which would most likely require dedicated rights-of-way with no road-crossing upgrades, for example.

Like the United States, there are some pretty stringent rules that all operating railways have to comply with in Canada under the regulatory regime of Transport Canada, which ensures rail safety for the people of Canada. So far, the maximum operating speed for railway grade crossings is 100 miles per hour. VIA Rail operates at that speed right now. There has been much discussion over several years, but no solution to this issue has been found over the last 20 years or so.

Mixing high-speed train travel at 250 kilometres an hour, let's say, with relatively slow freight trains—in Canada right now their speed is about 100 kilometres an hour—is very complicated. It gets worse as the speed goes up towards 300 to 350 kilometres an hour. The difference in speed, as you can imagine, is very simple. The difference in speed is so great that you need a lot of capacity on your rail network in order to have a high-speed train approaching a slow freight train and allow them to keep operating without delays.

Right now, the fastest subdivision in Canada is the so-called Kingston subdivision between Toronto and Montreal. There are small portions of that track that allow train travel at 100 miles or 160 kilometres an hour. That's the fastest in the country and the best track in the country. It simply would not be sufficient to operate a true high-speed system with the mix of freight trains, which is about 70 freight trains per day right now. There's just not enough capacity to operate one high-speed train on that network.

There are also several considerations to investigate whether we're looking at high-speed or medium-speed rail. For example, most high-speed trains cannot necessarily operate at full speed on the tracks built according to the standards that we have in Canada today. The best track classification in Canada, which includes the method of construction of the track as well as the maintenance frequencies and so on, and the leeway in what you can allow the tracks to do, would not be strict enough to allow a high-speed train to operate at full speed. We would have to define new standards for track construction and maintenance.

Similarly, the system of train control for the train movements would need to be adapted for faster train travel. We should also underline that a true high-speed train system would have to be an electric system, and the electrification of any network is fairly significant. We need to consider that.

The method of construction and maintenance of the track network, the signal system, and the train technology will be greatly affected by the climate in Canada. Be it the Calgary-Edmonton corridor or the Quebec City-Montreal-Toronto-Windsor corridor, we have the privilege or the benefit of experiencing some of the coldest climates in the world for railway operations. In fact, in Canada, we operate the coldest light-rail systems in the world. We are the cold reference for the world.

The roadbeds on which the tracks rest, as well as the steel of the tracks themselves, are greatly affected by the 70-degree Celsius difference between summer weather and winter weather in Canada. Very few high-speed trains have been designed for a cold climate operation. The adaptation of these trains should not be underestimated. No one wants to be stuck on a disabled train in the middle of nowhere on a cold winter night. It's happened to me, as I come from the north, and it's not pleasant.

So there are several hard decisions to be made in order to execute a vision that would be as great a leap forward as the original construction of the first transcontinental railway in Canada, which effectively allowed our great nation to be formed. These decisions, similar to those made to build the Canadian Pacific in the late 1800s, would likely span more than one term in office for any politician. There is an absolute need to be bold and forward-looking in regard to the long-term objectives.

•(1605)

The economic impacts of designing, building, operating, and maintaining a high-speed rail network in Canada will be extraordinary for this country. There are very significant secondary benefits from shifting the paradigm of where people can live and commute from, including attracting and facilitating tourist travel, developing important new technological know-how, and improving the environmental benefits of travel over long distances. We've heard about our neighbours to the south, led by President Obama, announcing such visions and committing large amounts of money for the high-speed project in California.

I believe that Canada, as a pioneer in all matters of railroading ingenuity, can and should move forward with its high-speed rail program, and move from the study phase into the decision-making phase.

[*Translation*]

Thank you for your attention.

[*English*]

I'll take questions later on.

The Chair: Thank you very much.

Mr. Langford.

Mr. Ashley Langford (Vice-President, Alstom Transport): Yes, I'm all set to go.

Does everybody have their handout, with the little pictures? I'm more of a visual person. Sorry, I don't have a big paper to hand to you, but I figure you'll remember most of the details in-between, if you have some visual cues.

First of all, Alstom, as some of you know and some of you don't, has the largest fleet of high-speed trains in the world. We have the land speed record of steel-wheel rail vehicles, at close to 575 kilometres an hour, or almost 360 miles an hour.

Some of the other companies you know better. Bombardier, which people generally think of as primarily a Canadian company, has a rail transportation division that is German; they're based in Berlin. Siemens is also based out of Germany, in Nuremberg. And we're based out of Paris.

The transportation industry is focused out of Europe because somewhere close to 70% of the world market is in Europe. So the technology is driven from a European perspective and the way Europe functions.

In terms of us in Canada, most of our employees are in the Montreal area, somewhere around 1,000 people, I believe. We have two groups: power and transportation. By “transportation”, we mean rail transportation. And within rail transportation, we also have an information systems group, which essentially supports the rail industry. That's a global export business for us. Montreal is the global headquarters for that business, and we do passenger information and security systems globally out of there. We have about 2,500 employees in upstate New York, with the primary focus on the New York City market, because they buy a lot of subway cars and we supply a lot.

So I think that gives you a rough idea of who we are in Canada and North America.

If you turn to the slide that says “Why High Speed Rail?”, I think this really shows the driving force behind why people have chosen high-speed rail. If you look at the two maps I have there, you have a green map, which is just a plain geographic representation of France, and then a red map, which is how the geography has been transformed because of high-speed trains. You could say, “Oh, well, we can do this on airplanes”, but airplanes, really, are too expensive, and frankly they can't provide the medium-distance connections provided by rail. If you want to go within a 400- to 500-kilometre range, you're far better off moving people by train. The speeds from the starting to the end point, door to door, are faster.

Then, if you look at the other advantages, which are on the next slide, it's a question of safety. If you're moving people in the wintertime, do you want to have people moving essentially on dangerous roads, on which there are huge numbers of deaths per year? I don't know the statistics in Canada; perhaps you are more acquainted with them than I am. But when you consider the TGVs in France, no one has ever died on one of these trains. So from a pure safety perspective, this is the safest way to move people.

In terms of the envelope, or how much land you absorb, such as whether you need another Highway 401 to meet the future needs of demand in the Montreal to Toronto corridor, if you put in a rail system, you're going to use half of that footprint; and the greenhouse gas emissions and the carbon usage of high-speed rail are only going to be a fraction.

As Mario pointed out, the only really logical way to go forward with this is to go electric. The reason is that the operating costs of even a diesel-fuelled train relative to an electric train are about four to five times as much. Right now that doesn't seem to be such a big deal, but if Jeff Rubin is right and we see oil prices go back to \$120 to \$140 a barrel, and then move up from there.... It's not going to happen overnight, as we're in a recession, which has given us a bit of a breathing space, but I think within a decade we could be, in real terms, in that range again. If we are, then the demand for transportation will be suppressed because of the fact that it will be costing so much to move people.

● (1610)

I think those are some of the main reasons why the Europeans.... If you look at the next page, you can see the evolution in Europe to 2010. Their whole network has changed and developed from 2001. Essentially, they started off with a few small links between major cities. Then they kept on expanding them. By 2010, which is just

around the corner, they'll have major linkages between almost all European countries.

Even Russia has linkages from Moscow to Helsinki through St. Petersburg. Siemens has one leg of that, from Moscow to St. Petersburg, and we have from St. Petersburg to Helsinki. It just depended on the orders that the government placed.

If you look into the future, that network is being expanded, and expanded again. You have to ask, why is it so attractive over there, even in Russia, and we haven't moved here? I think there are some historical reasons for that.

When we essentially privatized CN, instead of doing what Europeans do—namely, they keep all of the rail infrastructure as part of government property and then give operating licences—we did the opposite. We gave away all the property. Then we gave an operating licence to the passenger service, which means passenger service is dependent completely on CN and CP for access and therefore gets second priority.

In Europe, the first priority is passengers. The second priority is freight. As a result, you see quite a different operational scenario. You see much better technology for signalling and train control throughout the entire system. You also see track that is of much better quality, because it's government property. It's just like the highway system. They don't differentiate between the two.

Those are some of the fundamental reasons why they have a different set-up than we do. I'm not judging the way we do it here versus there, but those are what drove different sets of decisions.

If we want to have high-speed lines, we can operate in mixed traffic with freight, but that will mean either having lower speeds or controlling the quality of the train tracks. You will also have to do more grade separation, and grade separation really becomes the big driving cost.

Some people ask how much it would cost to electrify the whole line. Well, that's really nothing. For vehicles, electrification is small potatoes. The big cost is the land and then the grade separation. It's really a question of constructing bridges so that roads can go over the tracks and people won't be wandering into the right-of-way. These trains move so fast, you don't see them coming. You don't hear them coming. They're just on you. If you're going 300 kilometres an hour, you have no time to stop.

So if you're going to operate on the same corridors as CN between Montreal and Ottawa, you're going to have to dedicate part of that right-of-way just for high-speed trains. Otherwise, you're going to keep bumping into the freight trains or slowing down.

How long does it take to build the system? Well, from the time you make a decision to actually anything happening, it's usually about a year to a year and a half of design activity. After that, construction would take in the range of five to six years at a reasonable time speed. Before that, you actually have to figure out how you're going to tender the contract. You have to acquire the right-of-way. So you're really more or less in a ten-year program to do this.

If you're looking forward and saying we should have a contingency plan in place just in case oil prices double, or in case they triple, then you need to have a lot of these fundamental things done in the meantime. Even if you want to build a highway, you need to make sure that you have that space. It's kind of good to get the corridor defined, acquired, locked down, and then have all the designs in place. It costs very little to do that.

If oil prices never go up and people stop driving cars, then you're okay. If people keep driving cars and our population keeps growing, well, the highways will get jammed up and the death rate will go up. Oil prices look like they will go up as well.

• (1615)

So it makes sense to have some vision and think ahead a little bit. I summed this up with a little bit of Alstom experience. We actually did the Acela program with Bombardier. It was a joint project and it's been very successful; in the northeast corridor, the numbers keep going up. Each year they keep investing more, and I think that's a precursor to the whole transportation strategy of President Obama, where he's defined different quarters in the U.S. George mentioned it briefly. I think the Americans are seeing this as a future vision. And I think it's a vision we should be sharing, not everywhere in Canada but in certain defined corridors where it appears that there is the passenger volume to support it. I think this would be a good thing to do.

I've just added onto the back a little bit of information about the Helsinki to St. Petersburg corridor so you could get a sense of what would be involved if we did have high-speed trains. This kind of reflects a similar kind of situation. I think St. Petersburg and Helsinki are actually smaller cities than Toronto and Montreal, so if they can justify doing it there, then I think there's justification for Canada as well.

That's it.

The Chair: Thank you very much.

Mr. Volpe.

Hon. Joseph Volpe: Thank you, Mr. Chairman.

Thank you very much, gentlemen, for coming and sharing your perception with us.

I've talked to you or to some of the representatives of your company, so my questions will probably seem redundant for some of you.

I was struck by your approach to whether this is something that should be done or whether we should continue talking about doing it. I thought you had said there, Mr. Langford—I'm sorry, I think it was you, or was that you, Mr. Pélouquin?—that what you should do is

just simply go to the decision phase, not the study phase, because there have already been something like 14 or 17 studies; I can't remember what the number is any more. Are we at a point where we can actually legitimately say we are at a decision phase because the studies have been done?

Mr. Mario Pélouquin: I believe so, because you can repeat studies, as has been done in Canada for high-speed passenger travel, and depending on who the consultants are or the mix of people doing the studies, you will find different results every time. At the end of the day, we know that people want efficient rail travel, and they will take the train if it's comfortable, accessible, and convenient. So if they can travel between major centres faster than they do today and the reliability is also increased—if we can bring the on-time performance from some 50% to 60% up to 95% to 98%—you'll find very much that new systems are being built all over the world every day, and these trains are full all the time. If you don't reserve a few weeks to a few months ahead of time, you just can't get on the train.

Hon. Joseph Volpe: That having been said, does that mean that they are actually viable financially, or is there still a public participation with coverage of the operating costs?

• (1620)

Mr. Mario Pélouquin: I believe my colleagues from Bombardier were right earlier when they said that to build any such infrastructure project public funds have to be dispersed, because the costs of the engineering and construction are very high and could not be recovered under regular methods of operating for companies like ours.

Hon. Joseph Volpe: In the short term?

Mr. Mario Pélouquin: In the short term or medium term. It would take quite a long time.

Hon. Joseph Volpe: The operating costs.

Mr. Mario Pélouquin: The operating costs, when you compare those with the fares for those trains, could be self-sustainable.

Hon. Joseph Volpe: We can divide the concept into three parts—the civil engineering, the rolling stock, and the operation. The first two are infrastructure and would stay with whoever does the financing. That's why Mr. Haynal says you have to have government involved. The trains could always be full if you don't charge much to get on them. Is part of the feasibility study an effort to define the amortization costs to be recovered for all the parts and the ongoing maintenance, or is it just associated with rolling stock and ongoing maintenance?

Mr. George Haynal: There have been so many studies that it's hard to answer your question. I think each study will have a different focus.

Maybe Paul could talk a little bit about our experience with the Lynx study, which took place 14 years ago.

Mr. Paul Larouche (Director, Marketing and Product Planning, Bombardier Transportation, Bombardier): That dates me. I worked on that personally, but—

Hon. Joseph Volpe: Did you have a beard then?

A voice: Not a grey one.

Mr. Paul Larouche: During the Lynx study, we updated the ridership studies that had been conducted by what was then called the tripartite study, which had been conducted by the federal, Quebec, and Ontario governments. We got some very knowledgeable people to come in from SYSTRA, from the SNCF, the consulting arm of the French national railroads.

I was amazed to see how important a ridership study is to the actual design of the system. They have models where you can be tweaking the trip time. If you reduce the trip time, you increase the ridership. If you increase the fare, you reduce the ridership. You push that into a financial model, and through various iterations you can learn the optimum trip time and service level that you need to be offering to have an economically viable system. This ridership study is essential. It's an iterative process that allows you to design the type of system you're looking for.

Hon. Joseph Volpe: If I continue to travel at 100 to 150, it's not likely that I'm going to increase ridership.

Mr. Paul Larouche: Correct, because you have competing modes that will give you a shorter trip time. Even with the price of automobile fuel going up, you're not necessarily going to increase ridership. If you go to higher speeds, you shorten your trip times. It's not absolute speed that's essential. People are always focusing on the top speed of a technology, but what's important is the actual trip time to get from point A to point B. That's what drives ridership.

Hon. Joseph Volpe: It would trigger a change in passenger mode.

Mr. Paul Larouche: It will create a mode shift, yes.

Hon. Joseph Volpe: Mr. Langford, you mentioned something about transforming the transportation systems in Europe. When you can commute from Paris to Marseille or from Paris to London, what happens to the regional air service in the area?

•(1625)

Mr. Ashley Langford: The impact on regional air service is negative. If you look at Europe, most people move in 200- to 400-kilometre movements. They move by train. They don't move by air. Compared to here, I would anticipate a drop in demand for air passenger traffic between Montreal and Ottawa or Montreal and Toronto. It just makes sense. It's a reality. However, what you do see is an inducement to additional transportation demand. What happens then is that people who live in Kingston and who would say it's too far to drive into Toronto every day can now be on a train. That becomes a commuter shed. So they can move to Toronto or Montreal and then move back and forth. So you see a lot more movement.

It also means that it stimulates the regional economies of those smaller centres, because now people can treat them as a bedroom community. Instead of saying they'll live in Pickering and then go into Toronto, they can live in Kingston and go into Toronto, or live in Kingston and go to Ottawa every day. As long as the fare structure is comparable to the amount for driving a car by yourself every day, then it becomes much more attractive. If you go to Europe, you see this kind of regionalized train service, and you don't see that many short-haul aircraft movements. They still exist for people that are really in a rush, but generally they don't exist any more.

The Chair: Thank you.

Monsieur Laframboise.

[*Translation*]

Mr. Mario Laframboise: Thank you, Mr. Chair.

Thank you for being here. We are fortunate in being able to welcome the world leaders in rail transportation. I need your experience. I am going to ask all three groups for an answer.

Mr. Haynal, you mentioned equity between modes of transport. We have been given studies from 1995 and technology has doubtless evolved since then. You said that trains are lighter now and you talked about the status of rail transportation. Before the economic crisis, freight transportation was growing significantly. So we will probably need a dedicated network for passenger transportation.

Given the population increase in the Quebec City—Montreal, Montreal—Windsor and Calgary—Edmonton corridors, and, considering what is happening elsewhere in the world, do we have the capacity to sustain a network like that with so little will shown by governments?

Mr. George Haynal: Thank you for your question, Mr. Laframboise. My colleagues will probably make some comments too.

Certainly, this mode of transport is a success. The great urban transportation corridors are heavily populated and passenger demand has increased. One mode of transport has not replaced another; a social change has clearly taken place.

In my view, rail transportation between some metropolitan centres in Canada offers great possibilities. It would be possible to move towards the same kind of transformation as has taken place in Europe. In the United States, a lot of effort has been made in this area, and we can do the same here. Fifty per cent of passengers travelling between Washington and New York now use the Acela system, which is a huge increase in demand. This is not simply replacing the demand for air transportation, it is a significant increase in the demand for rail transportation, as Mr. Langford pointed out. And there was no need for major state investment.

Let me show you a diagram showing United States investment in the three modes of transport between 1949 and 2006. The portion in yellow is air transportation, the portion in blue is road transportation and the portion in green is rail transportation. You can see that the last one is almost non-existent. I want to stress that the demand is there. All that is needed is to invest for success.

•(1630)

Mr. Mario Laframboise: Mr. Péroquin.

Mr. Mario Péroquin: I can echo Bombardier's comments; it is well known around the world that, when the state decides to build a new high speed train, the public accepts it immediately, if it had not been demanded already. Ridership is always greater than the studies predicted. In Canada, we often talk about strategic corridors such as Calgary—Edmonton and Quebec City—Windsor. I think a high speed train in those two corridors would be viable.

Mr. Mario Laframboise: You seem to be afraid about the effect of temperature on the technology.

Mr. Mario Pélouquin: We are not afraid, but we cannot overlook it as a factor. My experience in rail transportation tells me that it is often overlooked. That causes a number of problems when a new rail system begins to operate. It happens a lot. Temperatures below 20° are not considered really cold in Canada, but with steel, that is the point at which problems begin to occur. Any company's technologies, cars, trains, can be adapted to handle temperature. That is not necessarily what causes the most problems. It is mostly the other technologies that support the system.

Mr. Mario Laframboise: Mr. Langford.

[English]

Mr. Ashley Langford: I would echo many of the comments of my competitors, my friendly competitors. I think there were a couple of questions.

On the cold temperature question, all three companies can deal with cold temperatures. We have our Helsinki-St. Petersburg project with the Pendolinos, which are tilting trains. We're meeting the challenge for the Russians. Siemens is doing the same thing and I'm sure Bombardier has that same capability.

In terms of going back to the fundamental question about what kind of investment it would take, I'm not really sure. I'm not sure what the mandate of the current study is and whether or not it's to look at a ridership coverage that would have to carry the capital costs.

Generally when I look at governments, capital costs in land and infrastructure are costed or carried on the books as assets, so it doesn't really make intuitive sense to me that you would say that these fixed asset costs are something we have to recover out of the project. I don't see them doing this in highways. I see highways as transportation infrastructure in the same sense that I say passenger rail is, so then you're looking at only the marginal cost, which is the vehicles, the electrification, and perhaps the stations.

On the stations, look at Union Station. How long has that lasted? It needs a facelift, by the way, but it's been around for a little while.

So for those costs, if you look at SNCF or Deutsche Bahn in Germany, they operate as profit-making entities and they reinvest their profits each year in expanding the rail network and upgrading it. I think that is the situation we could be in if we go forward with a high-speed rail line.

[Translation]

Mr. Mario Laframboise: Have your companies entered into partnerships with governments? As you know, partnerships between the public and the private sector are in fashion.

Mr. George Haynal: Partnerships are clearly essential. The state sets the direction and provides the funds required and the private sector provides the technology and looks after carrying out the project. It is always a partnership. The form of the partnership varies with the situation. There has never been a completely private project in this line of work, to my knowledge.

• (1635)

Mr. Mario Pélouquin: It is true that public-private partnerships, P3s, are very popular; at least, they were popular before the economic crisis. But a lot of banks are more careful about who they lend money to now. But, yes, large companies like ours are involved in P3 projects all around the world, because, these days, that is the way in which we have to work.

The Chair: Thank you.

[English]

Mr. Ashley Langford: I agree with what the other two companies have said. In essence, you can apportion risks between the private sector and the government in a way that you transfer the risks to the party that can carry them the best, so acquisition of land has to be within the realm of government. For the construction of the system, the design of the system, and the equipment supplied, those risks can be allocated to the private sector more efficiently. Those are things that can be handled by the private sector better, and then in terms of ridership risk, generally that's carried by the government, at least initially, much as for a highway project. You get a lot more, as a government, if you establish what the base line is of the ridership and then you sell that operational value to an operating company than if you try to do that when you haven't proven any ridership at all.

If you look at this kind of model, you can break it into the fundamental project itself, structuring that. Then you allocate a project for actual construction and design to the private sector. Then for operational, you can have an operating contract. You can have three major pieces to it.

The Chair: Ms. Chow.

Ms. Olivia Chow: I just came back from Beijing, Shanghai, and Tokyo, where the high-speed train system is phenomenal. Even four or five years ago, when I was in Hong Kong, my girlfriend was driving me to the airport and as we were driving on the highway I saw this high-speed train going to the airport from downtown, and I asked why I was on the road. I should have been on that train.

In Canada, we are so far behind it is phenomenal. Asian and European countries see rail transportation as the fastest-growing mode. We're just behind.

I'm from Toronto. Every holiday weekend I see a lot of reports about the carnage on the roads from accidents. I often wonder if there were a high-speed train how many of those drivers coming back from cottages or visiting would be taking trains and then perhaps a friend could drive them or they could leave the car near the cottage or something like that, and how much safer that would be. What kinds of reductions would we have in the traffic jams and the congestion on the highway? What kind of convenience and improved mobility would we have if there were a high-speed train from Quebec City to Windsor, including from Toronto to Ottawa? I go back and forth every week.

I do have a very specific question. I see that transport involves greenhouse gas emissions. In terms of percentage of greenhouse gas emissions in this country, about one-third of it comes from transportation. The rest is from industry. Of that, about 77% is generated by drivers, by road. The rest is made up of 9% by air, 6% by marine, and 4% by rail. Has anyone done a study to show that maximum ridership—assuming it is not too expensive to travel in this corridor, assuming it is very affordable, assuming that the federal government sees the light and has the vision to build high-speed rail, and does it soon and forgets about the 17 studies that have been done in the past and just goes ahead because we know it is good for Canada and good for the environment...? How many passengers are we looking at in terms of greenhouse gas emissions reduction? What are we looking at? If we are to meet some of the greenhouse gas reduction quotas that we are supposed to meet, surely this would be good for the environment, good for people's pocketbooks, and good for our safety. Do those of you who are experts have some of those figures?

• (1640)

Mr. Ashley Langford: There's a bigger question here in terms of moving people by GO Transit or in AMT out of diesel-driven passenger trains and into electric trains.

Ms. Olivia Chow: Electric trains, yes.

Mr. Ashley Langford: Because there you have a huge number more of passenger movements or train movements every day, and if you can move those into electric trains, then you're taking far more commuters off the road. You could probably take maybe 15% of cars users out of their cars and put them in trains.

Ms. Olivia Chow: Fifteen percent?

Mr. Ashley Langford: Yes.

Ms. Olivia Chow: Is that the general industry standard?

Mr. Ashley Langford: No, that's just a rough estimate. I've been looking at the GO Transit stuff for a while. You look at the whole direction that Metrolinx is looking at in terms of more ridership on passenger trains. How do you achieve that? You have to have more frequency. You have to electrify in order to have that frequency.

Ms. Olivia Chow: That's the argument for Metrolinx to go to the Pearson-Union Station link. We won't go there to that discussion, whether it should be diesel or electric.

Mr. Ashley Langford: Maybe Paul has an answer now.

Ms. Olivia Chow: I realize with rail, we can talk about that too, but if we're talking about the corridor, rather than just the Pearson link... By the way, that has been discussed for about 25 years. I remember moving motions of every kind to say let's build it, let's build it. The same thing happened with the corridor discussion.

We have some figures coming forward?

Mr. Paul Larouche: When we updated the tripartite study back in 1998, we were talking about starting the first year of operation carrying 11 million passengers a year, and reaching 16.4 million passengers by the twentieth year, which was expected to be 2028.

I'm also looking for the corresponding greenhouse gas reductions. We had done a certain calculation of that: 41% of the ridership was being diverted from automobiles, according to that study.

The importance of updating these studies also becomes evident. There are so many things that have happened since 1998. It takes an awful lot longer to get through an airport. Fuel costs have gone to levels that we never expected. There are a great many factors that make the case for high-speed rail even stronger, but you need to update the numbers to be able to design a system properly.

Ms. Olivia Chow: One thing that hasn't changed a lot is that in Canada probably 70% or 80% of our spending is still on roads, not on public transit or rail, etc. So that's the wrong direction to go, as far as I'm concerned.

That's an old study from 1998, so there really isn't any new study that would give an estimate that if we are taking 41% of the people from automobiles, and we are looking at 16.4 million, what would be the greenhouse gas reduction per tonnage, that kind of thing? We wouldn't know that until the study is finished.

Mr. Paul Larouche: Yes, you're doing a study right now.

Ms. Olivia Chow: No, I realize that. I congratulate you. It's a good thing that we're doing another study, but in the meantime—

Mr. Paul Larouche: Updating a study.

Ms. Olivia Chow: Updating a study.

Mr. Mario Pélouquin: That's a very important question for anyone. You have to make a lot of assumptions as to the ridership, but also as to how you're going to generate the electricity needed to move those trains. If it's all green electricity from solar or wind power, you're going to have a zero greenhouse gas net result.

The City of Calgary is running all of its trains on wind power, so they have a truly zero emission light-rail transit system. In Ontario, we still burn fossil fuels to generate some of the electricity, so if that continues there will never be a zero-emission type system.

These numbers are difficult to come by for anyone, because either we have to make a lot of assumptions, or somebody has to give the parameters as to what we need to take into consideration to make the calculation.

I'll give you a little example. We talk about greenhouse gas emissions for different modes of transport, and 8% was for rail, I believe is the number—

• (1645)

Ms. Olivia Chow: Four percent.

Mr. Mario Pélouquin: Or 4%.

One freight train, a CN freight train today that operates with two or maybe three locomotives, carries the same amount of cargo as roughly 200 tractor trailers. That's why you see a number so low as 4%, because if you took one of those trains out that travels from Halifax to Vancouver, you would have to run 200 trucks for the same distance. That's the benefit of rail: because you have steel on steel, you have almost no friction other than wind, and you increase your efficiencies dramatically.

The Chair: Mr. Del Mastro.

Mr. Dean Del Mastro (Peterborough, CPC): My thanks to our witnesses. It's wonderful to see all of you again.

Mr. Langford, you'll be happy to know that those upgrades, that facelift at Union Station was part of the public transit capital trust announced in 2008.

Mr. Haynal, you have to be very happy with the investments that have been made over the last couple of budgets—more than \$1 billion into VIA Rail for VIA Fast and refurbishment of equipment, which I believe your company is carrying out for VIA Rail. Then, to encourage new purchase, there are the capital cost allowance improvements that we've made with respect to locomotives in Canada. I think we've made a lot of progress on rail in the last couple of years, and I'm proud of the government's record.

I want to go to the Lynx study, which I've read through several times. I think you're on the right path there. There are a couple of things I wanted to mention. First of all, the reason that I think this hasn't happened yet is the staggering up-front costs. I think that's the problem. Governments look at how much money is going to have to be put out initially, and it's scary. It's a lot of money. It's sad that 2009 was going to be the inaugural year of the Lynx train, based on its plan. I think we have to find a way to get the cost down.

I've heard the word “electrification” come up a couple of times. I think that electrification is a wonderful thing. They're looking at electrification on the Lakeshore West line for GO Transit. It's very expensive. What was the additional cost for electrification? If we're looking at a medium-speed train, which is geographically suited to service between Toronto and Montreal, why would we need to electrify? Isn't it about a third of the cost of building the train?

Mr. Paul Larouche: It's a significant part of the cost. One of the reasons you want to electrify is to get the performance that will give you the good trip times and attract the ridership. Any technology that's not electrified ends up being significantly heavier. There's more weight involved. Weight is the enemy of speed. A heavy vehicle can't go quite as fast.

It gets a little bit more complicated than that. Weight combined with speed contributes to track damage, which raises the operating costs of your system. The combination of these factors has a snowball effect on economic feasibility.

Mr. Dean Del Mastro: What was the top speed of the JetTrain that Bombardier worked on?

Mr. Paul Larouche: It was 240 kilometres per hour.

Mr. Dean Del Mastro: So it's essentially the speed of the Acela train that's operating.

Mr. Paul Larouche: Yes.

Mr. Dean Del Mastro: A number of people have told me that based on the geography of Ontario, 260 kilometres per hour might be the top-end speed that you could manage with current technology. So it's not far off.

Mr. Pélouquin, I agree that you can't mix high-speed or medium-speed with freight. The VIA Fast that we're working on for the Lakeshore line requires a lot of work to run at 160 kilometres per hour. So what we're really talking about is a dedicated line. I know that the Lynx study took into account going through Kingston. A

stop at Kingston adds time, because it adds 85 kilometres. I think you need a train that operates between Toronto, Ottawa, and Montreal. If we look at building a dedicated line between Toronto, Ottawa, and Montreal, excluding the land costs, what are we looking at for infrastructure? Has anybody quantified that?

• (1650)

Mr. Mario Pélouquin: That would be a very difficult number to come up with. First, the alignment would have to be decided on. If it's all at-grade—no bridges, no tunnels, no grade crossings—you might have a fairly low number. But we all know that's not realistic in the rural areas of Ontario today.

Mr. Dean Del Mastro: Well, for the most part, I'd submit, your costs are for getting you in and out of the major centres. For example, if you look at Toronto, you're going to have to take a serious look at whether or not it's viable to go into Union Station. You might have to look at going somewhere closer to Summerhill.

By the way, you mentioned the words “comfortable, accessible, and convenient”. There's one more word we have to work in, which is “integrated”. Earlier, the parliamentary secretary mentioned inner city rail and inner city transit in general. This all has to work together if we're going to build the ridership numbers.

So the major costs are actually going to be in the major centres in trying to get it integrated, make it work, and frankly, get it through the built-up industry, housing, and so forth that's there. Is there any kind of per kilometre cost that we could look at? I've never seen anything like that for high-speed rail.

Mr. Mario Pélouquin: I'll make two comments. One is the point that was made twice already about integration. It's a comment that I've heard from some of our head offices—we have several offices—and it is that they find it odd that Canada doesn't have an integrated transportation policy for the whole country. There are different groups that are responsible for different levels of transit or transportation in Canada, but there's not one policy for the whole country, and I think that's why we don't have integrated systems.

We have intercity trains coming into certain areas, but they're not connected to anything to get out of the station. Somebody asked me the other day if, when you go to Montreal by train, it is easy to get out of that station, and if there is a major bus terminal right there so that you can get on any bus to go anywhere in the city. I said no, that you get on the subway and you make your best efforts to go to where you want to go. It's similar in Toronto and so on.

About the infrastructure costs, there aren't many numbers out there for Canadian railway infrastructure construction. The rule of thumb for CN and CP, the two major railways, is that basically when you have the land and you're building the best classification of track system under the standards we have today, for single track, you'd be looking at, let's say, \$1.5 million per mile.

Mr. Dean Del Mastro: Per mile?

Mr. Mario Pélouquin: Per mile. They use miles still. They got the exemption when we went to kilometres.

Mr. Dean Del Mastro: Would that be continuous welded rail?

Mr. Mario Pélouquin: This is continuous welded rail, but don't forget that it's under the best class system that we have today in Canada, which is not sufficient for what is virtually high-speed rail, and with no electrification and no signals. If you look at the other side of the spectrum, Holland just built a high-speed rail network to link to Belgium. They had an environmentally sensitive and beautiful field in Holland and decided they wanted to go underground. You can imagine the challenges in going underground when you're already one metre below sea level.

Mr. Dean Del Mastro: You can talk to the City of Boston about projects underground.

Mr. Mario Pélouquin: These are cost drivers that nobody can even guess at until somebody has an idea of where the line would be built.

Mr. Dean Del Mastro: Okay. I do have a recommendation for that at some point—

The Chair: I have to stop you there.

Mr. Dean Del Mastro: Thank you.

The Chair: Mr. Wilfert.

Hon. Bryon Wilfert (Richmond Hill, Lib.): Thank you, Mr. Chairman.

This country was built, of course, around a railway. It is the only country, I think, with a mythology around a railway, if you're familiar with Gordon Lightfoot's great *Canadian Railroad Trilogy*. That's rather unique.

The first public-private partnership in Canada, of course, was the CPR. I looked at the comments made back in 1998 that the private sector could not go it alone. This may have been done, Mr. Chairman—I'm not on this committee—but I'd be curious about the witnesses' comments with regard to a policy framework.

We keep saying we've fallen behind. We know the economic advantages and we know the environmental advantages, etc. If you were constructing a policy framework to present to government, what key elements in terms of the objectives you're looking for would help in this endeavour? What outcomes are we looking for? What are the key instruments to achieve those objectives?

• (1655)

Mr. Mario Pélouquin: I'll take the first crack at this.

I think it would have to be a long-term vision and policy that would span more than one politician's term in office, to be blunt about it, because it just can't be accomplished in that timeframe. Ashley referred to an average of ten years from idea to build, and that's a pretty reasonable assumption.

So it would have to be a long-term vision, but it has to be supported by a continued long-term financing policy that is sustainable, and not by a budget every year that may or may not support it and can be changed from time to time. It has to be something that's basically in concrete for the next 20 years, and every year a significant amount of money has to be put towards building this network. It will not happen overnight. It will be done over several phases. It's a difficult policy to put together and also to get passed by all the people who need to participate.

Hon. Bryon Wilfert: We call that political will.

Mr. Mario Pélouquin: Right.

Mr. Ashley Langford: Maybe I'll add some more thoughts on that.

So you've come up with the long-term vision. You say the long-term vision is to create an integrated rail transportation network, high-speed, that will run in major corridors and then will be extended as demand can be justified. That also means you have to look at it in terms of a strategic transportation infrastructure perspective, the same as you do with marine, highways, and airports. So it has to be put on the same footing as those major building blocks at the federal level.

You can't be thinking it's just trains, so we won't worry about that; it's like a little operating company, VIA. You really have to say no, this is on the same basis as our national highway program, so it should have the same level of intensity, same level of funding on an annual basis. If you look at what you're spending on highways and compare that to what you're spending on rail, there's absolutely no comparison.

The other thing is that you have a P3 approach on capital programs right now, on major infrastructure. There's no reason why you can't do that in this area as well. It fits very well. The risks to you as the project owner are very large if you try to micro-manage all the little pieces, while if you can capture that risk in a large contract and you pass that off to somebody else.... Look at OPG and how much they're spending on this bloody tunnel. They have a construction program, but they didn't transfer that geo-technical risk to the private sector. I'm not saying we all want that geo-technical risk. That's not actually our field. That's for the contractors, the civil guys.

I think you have to think in those terms—how it fits into the broader federal transportation structure—and then build from there. This also fits into what the other overlapping elements are in this. There is environmental and safety, and really those are big things. There are greenhouse gas emissions. I don't see any money for greenhouse gas emissions from the Ministry of the Environment focused on trains. There's nothing.

Is there an incentive even for CN and VIA Rail to move away from diesel to electric? I don't see anything in that area, even for them to study this in a serious way. Yet they're still going to have the same issues.

Regarding the standards we use here, we look at the Americans and say this FRA is everything. In fact, FRA is very interesting and it meets the needs of the Americans, but the rest of the world follows the European standards. European standards, if anything, have higher levels of safety because they take a different approach. Instead of saying everything is based on the physical limitations of vehicles when they have collisions, they say it's about how we can reduce risks, how we structure it so there aren't collisions. They take a more risk-management approach. You have to look at risk management from a rail safety perspective.

• (1700)

The Chair: Thank you.

Monsieur Laframboise.

[Translation]

Mr. Mario Laframboise: Thank you, Mr. Chair.

My question goes to Mr. Larouche.

You mentioned the importance of updating the Lynx Project study. In fact, the governments of Quebec and Ontario have commissioned a study, and the feds are going to contribute too.

Is updating everything that has happened since 1998 going to meet your needs, to answer your questions? Have you had the chance to familiarize yourself with the invitation to tender to see if it is going to achieve the desired result?

Mr. Paul Larouche: Thank you, Mr. Laframboise.

To my knowledge, an update of the tripartite study from 1992-1993 is planned, but not a review of the Lynx Project.

Mr. Mario Laframboise: And it would be important for you to...

Mr. Paul Larouche: Before coming here today, I had the pleasure of re-reading the many volumes of the study. I can tell you that they contain a lot of very good material, even though it of course needs to be updated. I think that the study would be useful.

Mr. Mario Laframboise: There is an aspect of ridership and all that. I always think of the example of Spain, where they ventured a little further in looking at future potential. They got exceptional results from their development. Perhaps we have to be a little daring. Looking at the customers is important for you.

Mr. Paul Larouche: Yes, that is the fundamental point on which the design of any system must be based. But I do not claim that the Lynx Consortium went as far as our Spanish friends did with their study. It was simply an update of the tripartite study in which several companies came together to see how they could create such a system. They looked at a number of details, such as schedules, organizational and operational structures, and so on. It would be useful to update that study.

Mr. Mario Laframboise: When all is said and done, the objective is to entice customers...

Mr. Paul Larouche: We have to be able to bring together the levels of service; for example, the frequency of trains, the length of trips, the operating costs and the ticket prices, in order to achieve a balance and to create an economically viable project.

Mr. Mario Laframboise: The Spanish went a little further in studying the potential.

Mr. Paul Larouche: They have had very good results.

Mr. Mario Laframboise: The Americans have looked at Montreal, among other things in the east... In Canada, we do not seem to have considered the potential in the United States, if there is any.

Mr. Paul Larouche: I mentioned that the situation has evolved since the Lynx Project or the tripartite study. There has been an evolution in the States. The viability of the project can only be enhanced by having some strategic interconnection points with the American network.

Mr. Mario Laframboise: Exactly. Developing a network is based on studies. My impression is that, around the world, market analyses are done before objectives are set, and I understand that perfectly.

But you have to have solid objectives in order to get the desired results.

Of the conclusions in the 1995 study, the most important seems to be not to affect airline competitors adversely, and such. That is what jumped out at me. As I understand it, increasing traffic and using a transportation system absolutely does not affect other systems adversely.

• (1705)

Mr. Paul Larouche: There have been other examples of high speed rail projects in the United States. In Texas, for example, air carriers managed to find a technicality in the method of financing and they scuttled the project. Some years later, there was the FOX project in Florida. Our team found a way to partner with air carriers. The train from Miami airport could take passengers from the airport to other destinations that the air carriers were perhaps less interested in. We took the longer view and teamed up with air carriers rather than making enemies out of them.

[English]

The Chair: Ms. Brown.

Ms. Lois Brown (Newmarket—Aurora, CPC): Thank you, Mr. Chair.

I just wanted to make a comment about the aspect of political will in this. We had some discussion about this before. We looked at the last study that was available to us. It was done in 1995. There appeared to be no political will at the time to participate. I'm very glad we are having this discussion now.

I wanted to turn the discussion just a wee bit. My riding is in York region. Newmarket—Aurora is at the very north end of the GTA, so it's probably not an area where high-speed rail is going to hit for a long time. However, I was very pleased not long ago to receive the *Canadian Transit Forum* and to see in it the Toronto transit light rail plan. It is really an integrated program they're looking at doing, and I'm very pleased to see in the plan that they plan to move up into York region to provide services up there.

I know we've talked about new corridors. York region is an area that has just now passed the one million population mark. It is going to be a thriving area in southern Ontario.

Has any discussion been done from your perspective on whether or not a high-speed rail corridor could actually service all of Toronto but come into York region?

Mr. Mario Pélouquin: There's always a conflict between having a truly high-speed rail system and the number of stops that you want to build into the line. When anybody talks about building high-speed rail, of course, all the municipalities that are on the alignment or close to the alignment would like a stop in their municipality. I've seen projects that go from a straight line between two cities to a very curvy line that is not high-speed at all, because everybody wants to have a stop in their city.

I think the alternative to that, if you really want a high-speed network, is to have an integrated policy where you can have inter-city commuter rail that is medium-speed or low-speed. We see that all over the world in other places, where you have a hub and spoke system that brings people to the high-speed stations quickly, so they don't have to transfer a few times and so on.

If you have your high-speed network that makes only a few stops and it's complemented by a medium-speed system that brings people from the centres where they actually commute to and from, to link to the high-speed network, and then at the end of those spokes you have your local transit systems that complement that also, you will then have a fully integrated system and you can go from anywhere along the line to the high-speed network to the final destination.

Ms. Lois Brown: I guess that's really what I'm asking.

Since we know we cannot use the corridors that are already in existence going into Union Station at the south end of Toronto, would it make more sense at this point, where land is a little bit more available through York region, through Durham region, to make York region the high-speed rail end—or start, depending on your perspective—integrate it with a program like the light-rail plan into Toronto, and make that the hub from which everything moves? I think we're talking, for the most part, about high-speed rail right now between Toronto and Montreal—and Ottawa is in there as well. We're looking at that as the first corridor, I would think, if this project were to be considered. Since York region is very accessible to Toronto, is there a possibility that we could look at this kind of program instead of only considering Toronto?

Have any of you had any discussion with Toronto on the viability of that?

• (1710)

Mr. Mario Pélouquin: I haven't had any discussions on that point, but anything—

Ms. Lois Brown: You must have an idea where the best corridor.... You must have some recommendations on that.

Mr. Mario Pélouquin: I've been asked this question a few times in the past. The answer is difficult, because the best corridor will depend on the vision—referring to my opening comments—what the long-term vision is for the overall system, based on whether or not you want to service the maximum number of centres or you want to carry people from point A to point B in as fast as possible a timeframe. What you will do in between those points or at the end points will change your decision greatly.

For example, York region is a fine idea, but I'm sure Mayor Miller would have a different idea.

Ms. Lois Brown: I'll advocate for York region.

Thank you, Mr. Chair.

The Chair: Thank you very much.

Monsieur Bélanger. Welcome back.

Hon. Mauril Bélanger: I'll simply reminisce, if I may, on my first question. I'll be on the periphery, if you will, as I'm peripheral to the committee right now.

Are there any systems in the world that currently operate with safety management systems, basically auto-regulated in terms of safety?

Mr. Ashley Langford: Are you talking about fully automated driving systems?

Hon. Mauril Bélanger: No. Do you know what I'm talking about when I say safety management systems?

Mr. Mario Pélouquin: Yes. The only one I know of is in the U.K., because the government of the U.K. about ten years ago decided that the only way to operate railways in the U.K. was with safety management systems. Canada piggybacked on that in the early 2000 years—

Hon. Mauril Bélanger: High-speed rail?

Mr. Mario Pélouquin: No, no, just operating railways.

Hon. Mauril Bélanger: I'm talking about high-speed rail.

Mr. Mario Pélouquin: For high-speed rail, I don't know of any country that uses that system to ensure safety.

Hon. Mauril Bélanger: That will be useful later on when I try to prove a point.

Is there any research being conducted in Canada on high-speed rail, and if so, who's doing it?

Mr. Mario Pélouquin: I personally don't know of anything.

Hon. Mauril Bélanger: What about your companies? Are any of your companies doing any research into high-speed rail?

Mr. Mario Pélouquin: For high-speed rail in Canada? Not Siemens.

Hon. Mauril Bélanger: How about Bombardier?

Mr. George Haynal: We had done work on the jet train several years ago, and we were working with Queen's University as well.

[*Translation*]

Hon. Mauril Bélanger: Gentlemen, do you know whether there is currently one company in Canada, public or private, that is doing research into high speed trains?

Mr. Mario Pélouquin: A group has recently been brought together to conduct a study. I think four or five companies make up the group. That is the only group doing a study.

Hon. Mauril Bélanger: Who is doing research anywhere in the world? I am talking about basic research that tries to improve the parts of the system.

Mr. Mario Pélouquin: That really depends on the question you are asking. For example, if you are talking about research to improve electricity transmission technology for locomotives and signals, each company does its own research.

Hon. Mauril Bélanger: Okay, I understand that. Let me ask the question a little more directly, Mr. Chair.

Is anyone, anywhere, doing research to find a source of energy other than electricity, like hydrogen fuel cells, for example?

Mr. Mario Pélouquin: Not for high speed trains, to my knowledge.

Hon. Mauril Bélanger: Mr. Haynal, I think you said that there is no 100% private sector high speed train in the world. I accept that.

If we turn the question around, are there high speed trains that are solely in the public sector?

• (1715)

Mr. George Haynal: Do you mean trains built by the state, with no participation from private companies?

Hon. Mauril Bélanger: Yes. I mean systems built and operated by the state.

Mr. Mario Pélouquin: There are several.

Hon. Mauril Bélanger: I am going to turn to our researchers to find out which systems were built and are operated by the state.

[English]

Are there any systems operating currently in the world where the airlines are partners?

Mr. Dan Braund (Director, Business Development and Sales, Bombardier Transportation, Bombardier): There are at least two instances that we know of. This is a fairly recent development.

Hon. Mauril Bélanger: Which ones are those?

Mr. Dan Braund: There is Lufthansa in Germany with Deutsche Bahn. In France, I believe the SNCF and Air France have these deals.

Hon. Mauril Bélanger: Thank you.

When we go to high-speed rail in Canada, I would be curious as to why we couldn't consider even, at least coast to coast, first of all... I'm surprised that none of the companies that would eventually be participating in either supplying the trains or managing them down the road are engaged in any research.

Mr. Ashley Langford: What kind of research are you talking about?

Hon. Mauril Bélanger: I'm talking about any kind of research that would allow us to innovate, perhaps.

Mr. Ashley Langford: In Europe, where the bulk of the market is—

Hon. Mauril Bélanger: I'm not in the business; you are.

Mr. Ashley Langford: —that's where all the research is.

Hon. Mauril Bélanger: So why is it there only, and not here?

Mr. George Haynal: That's where the money is.

Mr. Mario Pélouquin: I can comment also that given the number of studies that were done in Canada and the fairly low progress, I believe that probably none of the companies would see this as a high-potential project for which in the past they would have invested significant amounts of money to push for research for something that would not happen.

Hon. Mauril Bélanger: Do you see the perspective changing now?

Mr. Mario Pélouquin: I do not today, no.

Mr. Ashley Langford: Let's sort of separate two things here—the overall cost of the project versus the cost of the trains. The trains are really the small part of the package. The trains represent, I would say, maybe 10% of the cost of a project. The big cost is land acquisition and construction, and building all the bridges to separate

the road traffic. Just that aspect is going to be 65% of the cost of the project, maybe more.

Hon. Mauril Bélanger: Don't forget the operational side too.

Mr. Ashley Langford: The operational side, relatively speaking, is going on each year, but that's a function of tens of millions, as opposed to billions. So if you're talking billions for constructing the system and for the land acquisition, which essentially is an asset—you're just exchanging a cash asset for a physical asset, which is retained by the crown—it's not really costing the crown anything. You retain the assets. The part that depreciates is the rolling stock and the stuff that's above the ground. That's really a small piece of the overall pot. And if you're saying Montreal to Toronto for the original study, how many trains do they need? For 12 trains it's going to be something like 10% of the project as a ballpark figure.

The Chair: We'll go to Mr. Jean.

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

Thank you, Mr. Bélanger, for leading a great set of questions.

I'm wondering if there have been any Canadian proposals, plans, or studies in relation to an integrated network of high-speed rural rail and low-speed urban rail, or some other form of transit, such as bus stations, on a provincial, federal, or municipal scale. That's a big question. I know that it's been done in Europe quite a bit. Of course, as we've heard, money is the issue in Europe, but also in Europe is the issue of there being 16 to 30 persons per square mile, compared to just over 1.1 here. We have the lowest density of population in the world. Obviously, money is not the only issue.

Have there been studies done in Canada in relation to integrating a network, either private or public?

• (1720)

Mr. Ashley Langford: I think there's been a study in Alberta—I haven't seen it—looking at how they're going to integrate the rail stations in Calgary and Edmonton into the downtown cores so that they can move people from the light-rail systems onto the trains. I think there's a study going on now by Dessau and Marshall Macklin Monaghan looking at the same issue for the Toronto, Montreal, Windsor, Quebec corridor.

Mr. Brian Jean: Are those studies readily available through any of your corporations?

I notice that Mr. Haynal might have a comment in relation to that.

Mr. George Haynal: I'm sorry, I missed your question. I was told to turn my mike off.

Mr. Brian Jean: Actually, we heard everything you were talking about, sir.

Mr. George Haynal: There is total transparency.

Mr. Brian Jean: We like that as a government, so that's good news.

I was wondering if any of your companies have access to data on how to integrate a network of high-speed rail with moving people through communities. The question I'm asking, in essence, is whether it can be somewhat helpful.

I've never really been in much of a lineup between Toronto and Ottawa. I'm from Fort McMurray, Alberta, and I've never really been in a lineup between Edmonton and Calgary. But I've been in a lineup for four hours in downtown Edmonton, and I've been in a lineup in downtown Toronto for four hours as well. I noticed that when Mr. Del Mastro mentioned this earlier, three or four of you gentlemen were nodding your heads in agreement that we need to look at an integrated network.

Now we have five heads nodding. That's good news.

How can you help this committee with that particular part of the study? And how should we go beyond looking just at high-speed rail and look at an integrated network itself? How can you help us with that? That's my question.

Mr. Dan Braund: First, we all have a wide range of products that cover the range of rail transportation needs for an integrated network. We're ready to help you whenever you need help. If there's information you need, or if you want us to participate in studies, we're obviously here to do that.

I think you were talking about higher-speed regional trains. One plan that's been recently approved is the regional transportation plan in the greater Toronto–Hamilton area. It included in it a number of what I would call higher-speed—I think they call them express rail—trains. These go in the neighbourhood of 160 kilometres per hour. They had a number of these lines in their plan. I think that's probably a good place to start. They have a regional transportation plan with some of those regional trains. By including that in a high-speed train study, you're then starting to get the kind of integrated planning we've been talking about.

Mr. Brian Jean: Are there any other places you gentlemen would direct our analysts to look in relation to moving forward with an integrated network?

Mr. Mario Pélouquin: I can think of one very good example, just off the top of my head. There's a very small city in middle Germany called Nuremberg. It's a small city of under one million people. They have a subway system, a light-rail system, a bus system, and a high-speed rail system all going through the city. People don't use their cars, basically. They can go anywhere. This is for under one million people.

If they could travel and talk to some people who made those decisions in places like that, it would go a long way in explaining how these integrated policies came together.

Mr. Brian Jean: Are there any other opportunities that you see in Canada specifically that we could utilize, like proprietary reports that you could refer us to that have been done in Canada where some municipalities have moved forward with integrated networks?

We have a lot of expertise here, and you tell us that you're prepared to move forward with whatever help you can provide, but the reality is it's a very expensive process to do up these reports, and to pull a wish list out of the air on a situation as large as Canada is not an easy thing to do. I would put the challenge back to you, gentlemen, and your companies, to bring forward a proposal to the governments of whatever nature in order to make this not just profitable....

I understand, Mr. Langford, what you're saying, but we have provincial, federal, and municipal governments all working together trying to deal with this issue of transportation. It's very difficult, I understand, from your perspective to do so, but it's also very difficult to get all three levels of government working together.

• (1725)

Mr. Ashley Langford: The reality of it is for every 20 projects that any of our companies hear about, maybe one actually turns into a real project. A large part of what we do is talking to governments, different levels of government, and really trying to filter out which ones have the strong political will behind them, because that's the main determinant of whether a project goes forward or not, how much political decision-making has occurred and how much force there is to really put money behind it, fund the project and make it happen. Generally, there's a whole industry that does planning studies, Marshall Macklin Monaghan, IBI Group, Delcan, Hatchmont MacDonald. You can go to any one of these companies and they'll have dozens of studies for integrated transportation systems. That's their business.

Our business is much more limited. We'll come in, we'll join forces with the construction company, and we'll build something. We'll provide the rolling stock, the electrification. Generally, we're not even the operators. There's a whole industry that are operators and they do operations. They'll run the systems for you. We'll do maintenance. Generally, that's something we're very good at, because it's our equipment. But there are limitations to what we can do, as manufacturers.

The Chair: Okay, very briefly, Mr. Haynal.

Mr. George Haynal: We'll help you, sure. The Advanced Systems Group in Kingston does a lot of thinking about these issues. It has a global mandate. So it has some global experience. If we can be helpful to you, we'd be delighted to do it. I know it's easy to urge political will, especially when you know you're not the one who is going to have to exercise it. If we can help you with that, we're delighted to do it.

The Chair: Thank you very much.

I'm just going to take a one-minute break while we excuse our witnesses. I know there are a couple of issues that members very briefly want to present.

Thank you very much. We appreciate your time and your input.

One minute and then we'll get right back.

• _____ (Pause) _____
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The Chair: If I may, I would just call for the attention of the committee again.

Ms. Chow, you had something you wanted to table today?

Ms. Olivia Chow: Mr. Chair, thank you for your indulgence.

I'm just placing a notice of motion. I know it requires some kind of introduction and certain hours. The motion is that the Standing Committee on Transport, Infrastructure and Communities calls on the Government of Canada to release the results of six years' worth of studies on child car seat safety by Transport Canada.

I saw the CBC report last night, and I was thinking I'm going to be a grandmother soon, early June, and I was imagining my granddaughter sitting in one of these. There was one shot where they were whipsawing, and I thought I certainly hope that Canadians get to know which car seats are not up to par.

So I'll leave it in your good hands, Mr. Chair. I guess the committee will probably be dealing with it when the timing is right, and I certainly hope the minister releases those studies.

• (1730)

The Chair: Thank you. There will be a 48-hour notice, which you've given us today. So we will put it on.

Ms. Olivia Chow: Thank you.

The Chair: Mr. Jean.

Mr. Brian Jean: I want to make it clear that the minister has indeed made comments today in the newspaper that those results will be made public. Safety is paramount, and of course the safety of

children as well, so he has instructed his officials to make those results public.

That's just a move ahead of the parade.

Ms. Olivia Chow: So the motion may not be necessary. Thank you for that information. It's good to know.

The Chair: Is there anything else?

On Thursday we have Transport 2000, the Airlines Council of Canada, and the Bus Association, along with the Teamsters and the City of London. Next Tuesday's full. I will probably talk to the subcommittee members in the next few days to organize a brief meeting to finish the agenda for the summer.

Thank you.

The meeting is adjourned.

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