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Chair

Mr. Leon Benoit

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● (1530)

[*English*]

The Chair (Mr. Leon Benoit (Vegreville—Wainwright, CPC)): Good afternoon, everyone.

We're here, as you all know, to continue our study of the renewal of Canada's forest industry. This study was initiated as a follow-up to a study that was presented to Parliament in June of 2008. It was a fairly comprehensive study on the forest industry, and this is to take a look at how the industry is faring now after these years and to see what became of the recommendations from the study of 2008.

We have with us today for the first part of the meeting, which will be from 3:30 until 5:10, four groups of witnesses, and then at 5:10 we'll suspend just for a minute and go to a teleconference with three witnesses from one group from Quebec, but we'll talk about that when we get to it.

Right now we'll start with the witnesses we have here for the first part of the meeting. From Ontario Wood WORKS! we have Marianne Berube, executive director. We have from Kruger Inc., Daniel Archambault, executive vice-president and chief operating officer, industrial products division. We have from the Wood Manufacturing Council, Iain Macdonald, who is the chair, and the managing director of the centre for advanced wood processing at the University of British Columbia. We also have with us by video conference from the University of British Columbia John Innes, professor and dean of the faculty of forestry.

Thank you all very much for being here with us today. We know that it takes valuable time from other duties but it is important to the study. I look forward very much to the information that you will present to the committee and then to the answers to questions here today.

Let's start with the presentations for up to seven minutes in the order presented on the agenda. We'll start with Ms. Berube from Ontario Wood WORKS!

Go ahead, please, with your presentation for up to seven minutes.

Ms. Marianne Berube (Executive Director, Ontario Wood WORKS!): Thank you, and we certainly appreciate this opportunity to present to the standing committee regarding forest renewal.

I'm going to focus on three main points, more in line with strategic innovation: the recent mid-rise opportunity, tall wood buildings, and innovative wood products that result from these. I had put together a presentation. I don't know if any of you have a copy, but I think it was sent to you by email and that is more or less what I'll be following.

Effective January 1, Ontario changed its building codes to allow six-storey wood-frame construction. This is something we have been asking for since 2009 when B.C. passed such a change. When we look at urban densification plans and urban sprawl, there will be fewer single-family homes. This opportunity falls nicely into plans for the GTA and Golden Horseshoe.

From what we see currently happening in B.C., we will have two to three times the construction, so we're expecting in two to three years that roughly 500 of these buildings will be under construction. Ontario Wood WORKS! does a lot of education and promotion, providing technical support to the users out there, and there has been a huge uptake. We do a lot of educational events and anything right now is in huge demand. We've been doing B.C. tours and workshops, and we've published guides. We've also been working with the Ontario municipal associations and the FCM, which strongly supports it.

Changes to the national building codes have recently been announced and will take effect by the end of the year. I know you've heard about mid-rise before, and it's been happening in B.C., but Ontario has 40% of the construction market in Canada, so this is going to be a huge opportunity.

Concurrently, there are also the demonstration tall wood buildings. There's one in Quebec City that was recently announced, and right here in Ottawa, the Windmill Group is proposing a roughly 12-storey office building. As well, there will be a 16-storey or 17-storey residence on the UBC campus.

I'm highlighting both these opportunities because I know you're looking at what kinds of new innovative products will happen. The biggest thing will be systemized construction or panellized wood systems. We've done tours in B.C., and they are still doing some stick-frame building because they already can't keep up with panellized systems. This will be cheaper construction and quicker construction, so there's a huge opportunity for industry to look at these types of systems. They can go up really quickly, as fast as one storey a week.

There is also cross laminated timber, or mass timber when you look at the tall buildings, and we've already seen several in Ontario and across the country. There is the Wayne Gretzky centre, and in Ottawa there is Playvalue. Again, that's an innovative product that we can do a lot with, that can compete. There's laminated strand lumber, manufactured in Kenora, Ontario, right now. Companies are filling in the gaps and looking at different forms of mass timber.

Also we'll be seeing more hybrid technology, wood in different forms, with concrete and steel, in different combinations and buildings. Unfortunately I can't show you the pictures. Actually we do have some awards books. I have a copy for each of you here, right behind me, so please pick one up. A lot of these projects have already happened at the UBC campus and different demonstration buildings. They're showing the advancement and what we can do.

I have one ask for the committee. We've been working for several years with the federal government, trying to look at procurement policy and getting more wood and these types of systems, and we see advancement in technology and code changes. Why can't we get the federal government buildings to be built with wood? We're asking for support in changing that and making that possible.

Thank you.

● (1535)

The Chair: Thank you very much, Ms. Berube.

We now go to Daniel Archambault from Kruger Inc. for a presentation of up to seven minutes.

Go ahead, please, sir.

[*Translation*]

Mr. Daniel Archambault (Executive Vice-President and Chief Operating Officer, Industrial Products Division, Kruger Inc.): Thank you, Mr. Chair.

Hello. I would like to thank the committee for inviting me here to take part in the study of the renewal of Canada's forest industry and to share some thoughts on today's topic, strategic innovation.

Kruger Inc. is a third-generation family business headquartered in Montreal. The company has over 5,000 employees in Canada and the United States, although most of our employees are in Canada.

Ever since it was created in 1904, Kruger Inc. has distinguished itself internationally by reinventing itself over the years and positioning itself as a leader in the industry sectors in which it operates.

The company has built a solid reputation around the world in traditional sectors such as pulp and paper, lumber and wood products, residential and commercial tissue products, as well as containerboard and packaging.

Kruger Inc. is also a major player in renewable energy, recycling and biomaterials. In addition to that, we are also active in the wine and spirits sector, which has nothing to do with the forestry industry.

[*English*]

I'd like to take a few minutes to talk about the importance of R and D, or research and development, for the industry in Canada.

Kruger believes that major investment in research and development to develop new technologies and products is essential, if we are to succeed in transforming the Canadian forest industry. Similar investments are also needed to modernize mills and/or build new facilities that will make use of these emerging technologies at the commercial level.

One example of the benefits of such investments has been the creation of the world's only cellulose filament demonstration plant, located in Trois-Rivières and developed by Kruger in partnership with FPInnovations. The plant, which was dedicated in June 2014, operates on a simple and efficient chemical-free process that involves mechanically peeling the filament from wood fibres.

Cellulose filament is a new material extracted from wood pulp that is revolutionary because of its unique property that it is in fact a powerful strengthening agent. It has major potential for Canada's forest sector because of its wide range of applications in the traditional sector of pulp and paper, but also in all kinds of products outside the pulp and paper world. This is really a game-changing technology. Thanks to the Trois-Rivières plant, Canada is now at the pole position of global competition to develop this technology as well as new applications of cellulose-based materials that will be used in products for everyday life.

As an example, there are all kinds of applications in composite materials and plastics. The characteristic of this product as an additive is to increase strength, so that for a given piece of manufacturing product, you can use less raw material and reduce weight. You get the picture of the impact. It could go into all of the automotive industry and everywhere where weight is an issue.

This project includes a $25-million research and development program to support the industrial scale-up, jointly with industries and/or companies that could benefit from including cellulose filament in their products.

This groundbreaking research and innovation project represents a total investment of $43 million. It's a three-year program. This includes funding from the Government of Canada through the IFIT program. I take the opportunity to thank NRCan, who believed in us from day one, for their support, as well as the financial support from the Government of Quebec, the Government of British Columbia, Kruger, and FPInnovations.

● (1540)

[*Translation*]

I also want to talk about the role of government in the process of the renewal of the forest industry.

We can't stress enough the importance of support for this kind of strategic innovation in the forest industry. Government support for the development and deployment of these technologies is crucial.

Canada must continue to lead the way in developing a reliable, sustainable source of fibres at competitive prices for its industry. In order to achieve that, forestry research is crucial.

One of the biggest challenges we are facing, particularly in today's newsprint industry, is developing R&D projects in a declining market with very limited means. It is therefore important for governments to ensure that we have access to the necessary resources to allow Canada's newsprint industry to make whatever transition it needs to make in order to survive.

As you know, there has been a sharp decline in the demand for newsprint around the world, and competition is fierce in the marketplace, which is why paper mills need to continuously adapt and compete in order to survive. Our industry is committed to doing just that, but it will be impossible for us to do so without government investments and policies that, fortunately, have been contributing to the renewal of the industry for several years now. This kind of support from various levels of government is essential to the sustainable growth of Canada's forest industry and its future viability.

I would like to thank you once again for giving us the opportunity to speak before your committee.

[*English*]

The Chair: Thank you very much, Monsieur Archambault, for your presentation. I'm sure there will be questions for all of you later. We're here today, of course, for our second meeting on innovation in the forest sector.

The next speaker is Iain Macdonald. He is from the Wood Manufacturing Council.

Thank you very much for being here today, Mr. Macdonald. Please go ahead with your presentation. You have up to seven minutes.

Mr. Iain Macdonald (Managing Director, Centre for Advanced Wood Processing, University of British Columbia, and Chair, Wood Manufacturing Council): Thank you very much.

My name is Iain Macdonald. Today I am speaking as chair of the Wood Manufacturing Council. I am also the managing director of the Centre for Advanced Wood Processing at the University of British Columbia.

The Wood Manufacturing Council is the national human resources sector council for the secondary wood products manufacturing industry, with a mandate to plan, develop, and implement human resources strategies that support the long-term growth and competitiveness of the sector. We work with companies, employees, the education system, industry associations, and government to research and respond to the changing needs of the industry as well as to develop strategic plans to address key issues such as shortages of skilled workers and the need for national standards for worker competencies.

I'll focus my remarks today on the secondary manufacturing subsector of the forest industry; that is, companies that make value-added products such as furniture, doors, windows, architectural millwork, cabinets, and engineered building components.

Canada's value-added wood products are known for their quality and are exported widely. Total direct employment in the sector in 2013 was approximately 90,000 people, with 41% of those in the wood furniture and 23% in the cabinet subsector. Employment has declined over the past decade, particularly since the U.S. housing crisis, prior to which it had been growing.

Three provinces—Ontario, Quebec, and B.C.—account for a large share of the employment and the output. Much of the industry is located in or close to urban areas. The sector benefits both from new construction and from renovation. It has been impacted significantly, as we said, by the U.S. economic downturn. The overall value of the industry in the value-added sector was $17 billion in 2006, and despite the recession, remained at $17 billion in 2010, even with the loss of approximately half of our export sales. Canadian companies were successful at finding domestic customers to make up for that loss. Employment itself decreased by 20%, but productivity improved.

A major reason for promoting value-added wood products is the opportunity to derive more jobs and GDP from each tree harvested. A study carried out in 2000 found that Canada created just $123 U.S. per cubic metre of wood harvested, compared with $290 for the U.S. and more than $600 for Japan and Germany.

The secondary wood products sector is faced with a number of challenges. Ninety-seven per cent of the industry is made up of small and medium-sized enterprises with fewer than 100 employees. SMEs bring specific challenges, such as a lack of formal management skills, difficulty in accessing capital for investment in technology, poor economies of scale in production, and difficulty in releasing key employees from the production floor for training. The sector tends to be less technology-intensive than is the case for some of our competitors, resulting in productivity and efficiency gaps.

The sector has challenges in finding and retaining employees particularly at the entry level due to competition from the oil, gas, and automotive sectors and perceptions of the industry as offering unattractive career prospects to young people. Some elements of the sector, particularly wooden furniture, have suffered harsh competition from offshore imports, predominantly from China but now shifting to Cambodia and Vietnam. Finally, secondary manufacturers have difficulty obtaining lumber inputs from Canadian mills due to their focus on volume rather than value-based production and distribution.

The Wood Manufacturing Council has attempted to address these challenges in various ways, based on detailed labour market studies and close consultation with manufacturers. We've created a management skills training program designed to equip participants with skills and knowledge to move into management and supervisory roles within the industry. Our aim is also to help entrepreneurs who have established and grown businesses based on their technical knowledge to learn about and implement formal management systems in order to be able to delegate responsibility within their companies and focus on business growth.

Expanding the reach of recruiting and retention efforts to equity groups has been identified as a promising means to address skill shortages. WMC offers the wood employee readiness curriculum, which is a program that provides technical and essential skills training to individuals from equity groups interested in entry-level positions. Recruitment is from first nations, Inuit, Métis, new immigrants, women, and persons with disabilities. We've carried out programs from coast to coast with highly positive employment results. We're currently undertaking an initiative supported by Status of Women Canada to advance women's successful participation in the sector through the piloting of a mentorship system.

Higher education is also playing a significant role in addressing sectoral challenges. UBC's wood products processing bachelor's degree program is North America's largest program specializing in training management-track personnel for the wood products sector, and enrolment is currently at an all-time high. Our graduates are in high demand, and 94% of them find long-term careers within the sector. Average salaries among our alumni are second only to the faculty of medicine.

● (1545)

Our centre works closely with industry on new product development, manufacturing improvement, and technology transfer, and we see tremendous opportunity for a resurgence in the value-added sector in coming years for a number of reasons.

Offshore imports have become far less competitive. Typical wages have increased in China from $65 a month in 2000 to over $500 a month today. Industrial energy costs, previously subsidized, are no longer so. State-owned enterprises are now required to repay public loans, previously not the case as long as they were creating employment. Job creation is no longer the main driver for industrial investment. The 2008 Lacey Act revision in the United States requiring importers to prove that wood used is from legally harvested sources has also raised material and administrative costs for importers and is serving to persuade some of them to focus instead on Chinese and other Asian markets. Finally, concerns over the health aspects of finishes and adhesives used in some imported products continue to be of concern to North American consumers.

We now have a climate in which Canadian value-added wood products can compete for a larger share of the North American market if well-designed, efficiently manufactured, and adeptly marketed. In addition, looking to the construction sector, we see tremendous opportunities for our manufacturers due to recent building code changes, as the previous witness pointed out. Canada has the chance to develop a leadership position in structural engineered building products and systems that can go into structures such as schools, hospitals, industrial and institutional buildings, and tall wood buildings, such as the 16-storey student dorm scheduled to start construction next year at UBC. If we fail to do so, however, more mature players from Europe will be only too happy to service this emerging market.

To help Canadian companies fully exploit these opportunities, we will need to continue to invest in the sector by supporting industrial innovation in product development, manufacturing, and business processes, as well as in human resources and skills development. We suggest that the sector council model, which supported many highly effective human resource councils such as the WMC, be revisited, and we propose that there's a need for an umbrella organization that can provide a unified voice for secondary manufacturers throughout the country.

We must ramp up R and D efforts that are closely aligned to the needs and opportunities of industry, and provide avenues for innovative and energetic Canadian companies to attain and deploy the technology and training to be globally competitive. It's great to see the first to market with a new product or technology finding government support, but to build a globally competitive industry we need many viable producers of each product type. We must encourage and support enhanced partnerships and synergies along the supply chain and encourage primary manufacturers to move up the value chain, leveraging their economies of scale and access to capital to compete against the highly competitive products being produced in Europe and elsewhere.

Thank you for the opportunity to address the committee.

● (1550)

The Chair: Thank you very much, Mr. Macdonald, from the Wood Manufacturing Council.

We go now by video conference to Vancouver, to the University of British Columbia and John Innes, professor and dean of the faculty of forestry.

Go ahead, please, Dean, with your presentation. You have up to seven minutes.

Prof. John Innes (Professor and Dean, Faculty of Forestry, University of British Columbia): Thank you, Chairman. Good afternoon, members of the committee.

lt's a privilege to have been invited to appear before you this afternoon. As dean of Canada's largest faculty of forestry, the renewal of Canada's forest industry is obviously of great interest to me.

You've asked me to speak about the third theme of your committee, namely strategic innovation. Within this area, you have identified a number of subthemes although my main focus today will be on the later themes.

lt's now 30 years since Peter Drucker published his seminal book on innovation and entrepreneurship. I believe that the two go hand in hand, and particularly within the context of economic benefits, they cannot be separated. We can all have good ideas, but unless we understand how to commercialize these ideas successfully, we will fail to benefit from them and our economy will fail to benefit from them.

I will not add to the material that I am sure you have already had from other witnesses on the subjects of improving existing forest products and developing high-value products for future markets. Both of these areas have been studied in detail by the excellent work undertaken by the Forest Products Association of Canada and by FPInnovations.

This is an exciting area of future growth and at UBC we will be addressing this through the introduction of a master of engineering leadership in green bioproducts, subject to approval by the B.C. Ministry of Advanced Education. This program will closely follow the industry value chain, from biomass fundamentals, through biomass processing, to bioproducts and bioenergy. Uniquely, 40% of the content will consist of a leadership platform designed to enhance the business, communication, and soft skills of the program participants. This is one of a suite of new programs designed to provide our current and future forest sector professionals with both business and technical skills.

I am pleased that you are considering the optimum use of wood residues. Canada's forest industry has a strong record of improvements in energy efficiency, often through the burning of residues to provide energy. Other residues have been incorporated into forest products or been utilized by pulp mills.

More recently, there have been rapid developments in the wood pellet industry, sourced primarily from residues. The primary market for these pellets has been Europe, although Asian markets are now growing.

The European market is dependent on politically driven requirements related to energy policy. For example, if the new government in the United Kingdom were to loosen its ties with the European Union, as has been threatened, this could affect Britain's energy policy and subsequently its demand for wood pellets. Even without such considerations, I find it rather ironic that many consider the burning of residues to be an optimal use for biomass, when so much research has demonstrated that there are many other potential products that could be generated.

I believe that Canada's universities have a major role to play in the development of Canada's bioeconomy. This is recognized and the FIBRE networks run by the Natural Sciences and Engineering Research Council are an example of successful cooperation between the Canadian forest industry and universities.

This program, which is coming to an end, has however had some significant shortcomings, the most important being the exclusion of many stakeholders in the development of a holistic innovation system for the forest sector. With one minor exception, the FIBRE networks focused on the innovative use of products, the so-called downstream end of the value chain. This has left a major gap, namely in our understanding of forests and future timber supply. With Canada predicted to have a 25% fall in timber supply due to natural disturbances and regulatory changes in the provinces, the importance of this gap cannot be overstressed.

Coming from one of Canada's eight accredited forestry schools, I have been dismayed at the lack of attention being paid to the supply side of the forest equation. We need healthy and sustainable forests if those forests are to support a vibrant forest industry. ln particular, we need to assure customers buying Canadian forest products that they come from sustainably managed sources.

While the long-term impacts of climate change on Canada's forests remain uncertain, there is already evidence that climate-mediated disturbances, including fires and insect and fungal outbreaks, are affecting timber supply. Most models anticipate that the frequency and severity of these disturbances will increase. We need a better understanding of these processes so that we can better ensure the continued supply of high-quality fibres to the forest products industry. If we fail, then we will jeopardize the competitiveness of Canada's forest industry and the natural wealth associated with our forests.

● (1555)

We also need to recognize that the political, economic, and social aspects of the forest landscape are changing rapidly. The Tsilhqot'in decision by the Supreme Court of Canada has radically changed how crown lands are viewed, and new models of land governance are emerging. We are getting much better at valuing our forests for all the services they provide, rather than just the timber. For example, economic value can now be attached to carbon in forests, and in many parts of the world, mitigation banking has become a major business opportunity.

Finally, the ways in which Canada's forests are viewed by our urban populations—who make up the majority of voters, I might add—is changing; and the half-hearted attempts to educate this public about the benefits of well-managed forests have had little success to date. There is likely to be increasing pressure to preserve Canada's boreal forests from economic activity, including forestry. The Boreal Birds Need Half campaign, launched on March 16, 2015, arguing for 50% retention of boreal forests is an example of that.

Managing these demands on land use is what we as foresters are trained to do, but strategic innovation in this area remains remarkably limited, given Canada's size and the value of its forest resources. Such innovation is needed urgently. Without it, the continued uncertainty facing forestry companies operating in Canada will ensure that the current flight of capital that we have seen recently to the American southeast will continue.

Thank you for your attention.

The Chair: Thank you very much, Dean Innes from the faculty of forestry of UBC.

We go now to questions and comments from members, starting with a seven-minute round, and we'll start on the government side with Mr. Leef.

You have up to seven minutes.

Mr. Ryan Leef (Yukon, CPC): Thank you, Mr. Chairman.

Thank you to all of you, for your presentations today.

Ms. Berube, you mentioned the construction change in the national building code, the six-storey change. That's obviously going to generate construction growth, as you mentioned. Is that the ceiling or is that just the starting point?

● (1600)

Ms. Marianne Berube: That's a good starting point. It's ever-evolving, and new research and development, new products, and code changes are allowing us to catch up, if I may say it that way. Europe has been doing this for a number of years. We've always been behind what's happening in Europe. Really going to six-storey wood frame construction all started in 2009 when B.C. changed the codes first. That's because it couldn't get the Olympic village built in wood. Yet other jurisdictions even in the States and Europe have allowed it, so getting to six storeys took a lot. There was a lot of research and science behind this.

We're kind of on the radar now. We're getting a lot of comments from competing materials. But we do intend to aim for taller buildings with the next code changes, five years from now, in 2020. That's why there are some demonstration projects happening now to research and test them and prove.... Once you go above six storeys, it's a different way of building, because you can do stick frame and mass timber up to six storeys, but above that, it will have to be newer products such as mass timber. It's going to keep growing.

Mr. Ryan Leef: That's perfect.

Mr. Archambault, is this the kind of R and D you would be involved in, as well, construction above...?

Ms. Marianne Berube: We have strong partners—FPInnovations, National Research Council, the industry itself—that do more on the research and development side. At the Canadian Wood Council and Wood WORKS!, we do more the education, promotion, and getting it out to the marketplace. The Canadian Wood Council also works on the code changes and evolvement.

Mr. Ryan Leef: That's super.

You heard Mr. Innes' comments about the sustainable forest. Do you have any role to play? I think it was an important comment that he made that Canadians need to know that the end product has a sustainable supply and that there is some advocacy or some reasonable support of that. What kind of work do you do to educate Canadians on that, and how confident are you on that?

Ms. Marianne Berube: I started the Wood WORKS! project in Ontario 15 years ago. We've been in existence in B.C. for 16 years, and before that there was no wood advocacy program in Canada getting this out to the market and educating. We reached out to architects, engineers, and municipalities. I live in North Bay, Ontario —in northern Ontario—so it's easy to tackle municipalities that rely on the wood industry to support this, but it was somewhat daunting hitting southern Ontario and the Toronto area.

Canada is a world leader in forest sustainability. We still have 91% of our original forest cover. We're doing a great job, and this is the message. Now we have a huge role to play in climate change. Again, it's all about education and getting this out to people.

Mr. Ryan Leef: I don't have tons of time, but maybe if I could just touch on each one of you starting in this order and ending with Mr. Innes. Could you each just comment on what role the federal government can play if we are to have world-class sustainability? What role can the federal government play in helping to get that message out and to educate the consumer, both domestically and internationally, that Canada's forests are well sustained?

Ms. Marianne Berube: The role, as I mentioned in my presentation, is that we'd like to see the federal government at least consider wood on an equal playing field because of all the new advancements in technology. We have worked on numerous projects with Public Works Canada. Even NRCan had a renovation job done a few years ago, and just to get interior-facing, not structural, wood in it was a huge feat. There's a huge role right there. We're not asking for a wood first...just an equal playing field to be considered in projects fairly.

Mr. Daniel Archambault: In the same way industry and everybody in Canada has promoted sustainability over the years, I think the government has got to promote the use of wood. We are all proud that we have a sustainable harvesting practice from coast to coast, from north to south. If we believe we have a natural resource that is renewable, one thing we can do to promote that is to use wood and show that we believe in the resource.

● (1605)

Mr. Ryan Leef: Definitely. Thank you.

Mr. Iain Macdonald: There are already some good efforts happening, for example, in B.C., where I'm from. There are some real synergies between what Wood WORKS! is doing and what the universities and FPInnovations are doing to get the message out that wood is a sustainable material and there are tremendous opportunities in building. I would say that we need really good R and D support to back up with scientific information these code changes that are being made. There are some perceptions out there that there are some risks around fire and seismic protection and durability against moisture and that kind of thing. These all have to be backed up with scientific evidence. That work is ongoing but it's very important, and we could definitely do more.

Similarly, on the forest sustainability side in terms of helping to mitigate climate change effects, Canada could play a huge role worldwide with its forest cover. But we need to be able to back that up with scientific information.

The Chair: Professor Innes, the same question.

Prof. John Innes: Thank you.

Canada has the highest proportion of certified forests of anywhere in the world so the quality of management that we have I don't think is disputed. We do, however, need to monitor what we're doing and be able to maintain the claims that we are the world leader in sustainability. That requires good information. I believe we do need advocacy on the part of the federal government and the provinces, and it's not just in the field of wood. Everyone knows wood is a beautiful building material. I don't think that's the message we have to emphasize too much. But we do need to inform, particularly, the urban public that we know how to manage our forests well and that the effects of forest management are minor compared with many other natural disturbances. I think the need to promote the use of wood in as many different areas as possible is good, and the possibility of promoting wood through a federal wood first program excites me. I like that idea.

Overall, I think we do need to be very careful to make sure that we can back up any claims we make that we are the best managers of forests anywhere in the world, and that does require a significant amount of investment in monitoring and to a lesser extent, research.

Thank you.

The Chair: Thank you very much.

Go ahead, please, Monsieur Aubin, for up to seven minutes.

[*Translation*]

Mr. Robert Aubin (Trois-Rivières, NDP): Thank you, Mr. Chair. Thank you for this thoughtful gesture and for not cutting my time short.

Thank you to all the witnesses who are here with us today sharing their experiences and their expertise. They are definitely providing us with a clearer picture, which will guide our work and help us achieve two goals: to provide an update on the forest industry since the 2008 study, and to see how the federal government can be the best possible partner in developing this industry.

My first questions are for Mr. Archambault, not because Kruger has a plant in Trois-Rivières—as we know, the company has locations all over—but because I have been following the company's development for quite some time. My grandfather worked there to provide for his family, and I also worked there, as a student. A pilot project on cellulose fibre was launched last December. Research and development is absolutely crucial to success, especially the kind of success that Kruger in Trois-Rivières seems to be experiencing.

R&D projects in forestry do exist. In my region, there are also R&D projects in the aircraft industry, and in many other sectors. Based on discussions I've had with many entrepreneurs in my riding, it seems that there is no consistency in how R&D projects are assessed. Depending on the office one is dealing with, whether in Quebec City or Montreal, there is no consistent criteria.

Has this ever been a problem for Kruger? That would be one way for the federal government to be a better partner in the event of serious problems in that regard. This is what has come out of some of the discussions I've had with entrepreneurs. Have you had that problem?

● (1610)

Mr. Daniel Archambault: We have paper mills in Trois-Rivières and in the Sherbrooke area, in Quebec, as well as in Newfoundland and Labrador. Are you referring to the R&D tax credit?

Mr. Robert Aubin: Yes.

Mr. Daniel Archambault: There are differences in how the regional offices handle the files. We do have to deal with that. Certain projects will be accepted in one geographic region, but not in others.

Mr. Robert Aubin: Have you been able to identify any reasons for that difficulty? Is it simply because the offices have different assessment criteria?

Mr. Daniel Archambault: Our job is to fill out the forms and answer the questions asked by the people who administer these programs. There is no doubt that it would be easier for us if the rules for applying were more consistent all across the country. We do have to deal with that.

Mr. Robert Aubin: I guess that will be part of our job.

I would also like to hear your thoughts on some of the success Kruger has enjoyed. You talked about a new fibre that is being developed and some of its potential applications.

Are the potential applications intended for a secondary processing industry, or are there any applications for a product that consumers could purchase directly on the market?

Mr. Daniel Archambault: Our research and development project on cellulose filament spans three years. We have three objectives. The first is to develop the manufacturing process from the laboratory to a semi-commercial stage. We are starting with a laboratory that produced one tonne per week. We have a demonstration plan that could produce from five to 10 tonnes a day.

The second objective is to develop applications in the traditional sectors, meaning pulp and paper. We have conducted 17 or 18 trials of different products in the plants: printing paper, toilet paper, facial tissue. We will also conduct trials for packaging.

The third objective is to develop applications other than those related to pulp and paper. This cycle will be much longer, since we will have to develop partnerships with all kinds of companies. For example, for some components used in the manufacturing of automobiles, there is an advantage to using cellulose fibres to reduce the volume of material required but that has the same resistance.

We have signed eight research partnerships with different universities and conglomerates—universities, businesses and research centres—in the composite material, polymer and adhesive sectors. We hope that this will lead to applications in processing companies. FPInnovations has also undertaken similar initiatives.

Mr. Robert Aubin: Thank you very much.

I have a question for Ms. Berube.

In your speech you said that you wanted the federal government to promote wood or wood frame construction.

Is that because the private sector or the residential sector is still not on side with wood construction?

● (1615)

[*English*]

Ms. Marianne Berube: You are correct. The residential sector does use wood as 90% to 95% of our homes are built of wood, but as I mentioned, when you're looking at urban densification, especially in the Toronto area or southern Ontario, you're not going to see as many single family homes. There's going to be a cap on it.

Urban planning in the GTA, Golden Horseshoe, and across Canada, you have to go up. Right now no one's building six to eight storeys, the concrete industry has to go higher to make it economically feasible. Even in Ottawa there's a restriction on height, so a huge market segment is not being tapped right now in six to eight storeys. That's why it's so important that we get these codes passed to allow for wood construction because we will be losing market share from single family residential homes.

[*Translation*]

Mr. Robert Aubin: Thank you.

The Chair: Thank you, Mr. Aubin.

Mr. Robert Aubin: Thank you, Mr. Chair.

[*English*]

The Chair: Mr. Regan, you have up to seven minutes. Go ahead, please.

[*Translation*]

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

I thank all of the witnesses for being here today.

Mr. Archambault, Kruger had to close down one-third of a paper mill as a result of increased costs and lack of demand, from what I understand.

Would it be possible to use the unused space in such a mill to develop new products, and if so, how could the government contribute to that?

Mr. Daniel Archambault: At Kruger, we have shut down nearly 45% of our facilities since 2010, including machines at all of our plants: two in Newfoundland and Labrador, five in Trois-Rivières, two in Wayagamack, in Cap-de-la-Madeleine, and one at our plant in Bromptonville last November. In the first quarter of 2015, global demand for newsprint dropped nearly 10% compared to 2014. It's clear that the market is declining. Under the circumstances we have two priorities: lower our costs to stay alive, of course, and try to find new opportunities for our plants. We are doing this through research and development projects, such as those on cellulose filaments. Obviously this is a longer process that doesn't get up and running in three years.

Some product development groups are trying to find new products that we can manufacture with our paper machines. We are also considering transforming plants to manufacture completely different products in growing markets, while still remaining in the pulp and paper field. Right now there are two growing markets in Canada and the world: tissue and packaging products, cardboard, and others.

You asked how the government could help. That was what I talked about in my speech earlier. Since the market is currently declining and this has a negative impact on our finances, we are limited in what we can finance. I think that the federal and provincial governments should continue to support the industry through research and development, not just for technology and new products, but also for the retrofit of our plants.

It's all well and good to develop a technology, but if bringing it to market requires an investment of $50 million, $100 million or $150 million, the pulp and paper industry will not have the necessary financial resources. We need to find a way to support the industry so that it can finance these projects.

Hon. Geoff Regan: I'd imagine this would have to be done without violating international trade regulations.

Mr. Daniel Archambault: There are certainly regulations. I think there are some creative ways of doing things that comply with international regulations. As we know, this is being done elsewhere.

Hon. Geoff Regan: Thank you.

[*English*]

Mr. Innes, we heard last week from witnesses that it's very difficult to produce competitive products from cellulose filament and crystals. There are a few things that are happening but it's awfully hard to get much going in terms of the amount of fibre that's available for that.

You seem to think that's a real possibility, so what is the key? If you're advocating strongly that we go in this direction, what's the secret to opening up markets, producing products that the market will buy, and using up more of that material?

● (1620)

Prof. John Innes: I'm not really in a very good position to answer that. I think that actually the vice-president of Kruger might know the answer to that better than I do. My knowledge of these products is that they do not require large volumes of material, but the key is commercialization and finding a buyer who is going to use those materials in large quantities in a relatively short time period. That has been the challenge.

This is right at the edge of my area of expertise and I would not want to mislead the committee.

Hon. Geoff Regan: Fine. I have a different question for you then, which is in your area, because you did mention the importance of monitoring what's going on. In your view, has the government issued appropriate indicators and measurements to ensure the success of this sector?

Prof. John Innes: The Canadian Forest Service is responsible for large-scale monitoring. Then the provinces kick in for the finer detail. Very few provinces have taken advantage of the rapid developments that have occurred in remote sensing, which would enable us to get a much better idea of the resource that we have.

There are private companies that are deploying cameras and videos in space. There is also a huge surge in the use of drones by companies to get better information. We also have lidar, a radar-based technique that is enabling us to get three-dimensional images of the forest. We're making very rapid progress in that area, with some companies already adopting it even though the provinces have not.

I think there is a lot of potential here for the federal government, but probably more importantly, for the provinces to update their inventories and get a better idea of the state of the forest resource. At the federal level, I think we issue reports that are informative. The difficulty is that they are for the whole of the country. Canada's a very large country, and what is applicable in Ontario is not necessarily applicable in British Columbia.

Hon. Geoff Regan: I understand that you also study what influences the capacity of first nations to implement sustainable forestry and what the barriers are. Are any of the barriers from government?

Prof. John Innes: I think first nations currently have a great number of difficulties, some of which are historical, from government, some of which are related to their self-government.

There are remarkable opportunities, in my view, for first nations to take control of their territories and manage them effectively. That's something that we have been involved in helping a number of first nations with. We are providing economic advice as to how to develop their forest resources in a way that not only ensures a supply of timber and, therefore, revenue for those first nations, but also respects the values that they're so concerned about protecting.

The Chair: Thank you, Mr. Regan.

Now we go to the five-minute rounds, starting with Mr. Anderson.

Welcome back to our committee, Mr. Anderson. You were a long-time member. You were probably here when the first forestry study was carried out, although I'm not certain of that.

He's followed by Ms. Crockatt and Mr. Caron.

Go ahead, please, Mr. Anderson, for up to five minutes.

Mr. David Anderson (Cypress Hills—Grasslands, CPC): Thank you, Mr. Chair.

I was here, I think you were, and I'm wondering if Mr. Regan was at the same time. I think we may be the only ones who were here at the time. Anyway, it's good to be be back, even for a short time.

Mr. Archambault, I just wanted to ask you, when you talk about help moving into newer technology, are you talking about a program that would be one-time help, or are you talking about sustained, long-term subsidization of your industry and companies in order to make sure that you can make that transition? Those are two different things.

Mr. Daniel Archambault: Kruger is not looking for subsidies to run our business, but in the industry in Canada I think we have a fantastic pool of talent among research centres, like FPInnovations, all the universities, and other schools in Canada.

If the government can support all of these institutions to work on projects that can benefit the industry and give the industry some areas of solution to retool itself, to reinvent itself, I think that is the role of governments. Then industry will take the ideas, which we did with the CF. We put in our share and government put in its share, and now we have a three-year program and hopefully it's going to lead to something. But then at one point we're going to have to find a way to finance the next step, which would be to go commercial.

● (1625)

Mr. David Anderson: Thank you.

Mr. Macdonald, you said that Canadians have typically focused on volume over high-quality and high-value products—in the traditional products, anyway—and those of us who do some woodworking know that's true. Do you see that as kind of where we've settled, and do you see that happening as we develop new technologies, that we're going to be the people who are focused on volume rather than those high-value products?

Second, you talked about the highly competitive products from Europe, and I'm wondering if you could comment on where they have set themselves. Are they trying to cover both of those things, or are theirs more the high-value products, if you don't mind talking about that?

Mr. Iain Macdonald: Yes. In regard to volume over value, I think it's easier to focus on the commodity products. That's been the traditional case with many parts of Canada's industry, certainly in B. C. My recommendation was that we should do all we can to encourage those companies that have traditionally produced volume-based products to move up the value chain. They have better access to capital. They have better management systems and are in a position to move into the kinds of products that would enable us to take advantage of the changes in the building codes, for example, to build cross laminated timber, base structures, and glued laminated structures.

There is a Natural Resources Canada program called IFIT, which is investments in forest industry transformation. It's a great program, but it only provides grants to the first company on board with a new technology in Canada. My comment was that, to have a really competitive sector, we need to have five, six, or 10 producers of cross laminated timber, instead of which we have two at the moment. We need to thicken the supply chain.

I think Europe is a more densely populated region and has much harsher competition. They've had other factors such as higher energy costs, which has spurred them on to focus on innovating in energy efficient housing and those kinds of things. They're earlier to the game than we are, and we're finding that you can land product from Europe 40% cheaper than buying the comparable products in Canada, even with shipping factored in.

We need to find mechanisms to be able to help not just the first company to market with a new product in Canada but the second, third, and fourth.

Mr. David Anderson: Thank you.

Ms. Berube, I'd like you to tell us a little about your Wood WORKS! awards. You have a great book here and I'm looking through it. It has some fantastic projects in it. I'd like you to speculate a little about what you think you'll be giving awards for 10 years from now—and maybe the others want to talk about that too. Where is the industry going, and what will be the cutting-edge technology in construction 10 years from now?

The Chair: Do all of that in 30 seconds, please.

Ms. Marianne Berube: In 30 seconds...?

We started the awards program in Ontario 15 years ago, and now it's across Canada and even in the States. We were releasing a progression of the projects that have come in. It's mainly glulam, your regular projects in community centres, hospitals, etc. We've seen quite an advancement.

But as we move forward to the next generation, mid-rise, tall buildings, mass timber, all these new projects, and as we keep innovating, this is what will be.... The whole point of the awards is to encourage. Architects like to be recognized, and engineers, and universities and colleges, and the leaders who are doing this, so it's worked really well.

The Chair: Thank you.

Thank you, Mr. Anderson.

Now, Ms. Crockatt, you have up to five minutes. Go ahead, please.

Ms. Joan Crockatt (Calgary Centre, CPC): Thank you very much.

Thank you to all of our panellists who are here today. This has been a fascinating study I think for all of us.

This cellulose wood product, or engineered wood, seems like a product that's almost too good to be true. It's green, it's cheaper, it's stronger, it's lighter, and you can build panels to put up buildings at a storey a week. What is the challenge? What is holding us back?

I'd first like to ask Marianne Berube, please, and then Mr. Archambault, if you could address what is the challenge holding us back, or are we full steam ahead now?

● (1630)

Ms. Marianne Berube: With the cellulose products, is that what you're talking about?

Ms. Joan Crockatt: Yes.

Ms. Marianne Berube: I'm more involved on the structural side, so I really can't answer that well.

Ms. Joan Crockatt: Mr. Archambault, I'll ask you that question.

Mr. Daniel Archambault: I'd say that we are in a sense full steam ahead because we have invested $43 million in an R and D facility focused only on that. The challenge will be to take the development we do with that R and D facility, put it at a commercial level, and sustain the development because after three years our funding will be over.

In some applications, most of the applications outside of the traditional sector, you're talking about a commercialization cycle of more than five to seven years rather than three years. We're going to have to find a way to continue to do the research and then do an alliance with potential users that will want to invest and do the development so they can use it in their end product and we can keep the technology. Then we grow the use and realize the full potential of the material.

Ms. Joan Crockatt: Okay. It was nice to hear the praise for the government programs, that NRCan believed in you from the beginning, and that you still feel—after going through what is normally the hardest part of going into a new area—you're getting that kind of support. It's nice to hear that.

Over the long term, do you feel this is a really sustainable development you've seen? When will it be economic, in your view?

Mr. Daniel Archambault: We believe our goal when we started the project was to be able to finance ourselves within five years. We hope to have one or two commercial applications before the year end, and we'll have one application outside of the pulp and paper world within the next two years. That's our goal. Then the ball will start rolling.

Ms. Joan Crockatt: I wonder if you could address one of the few comments I've seen about the industry from people asking, “Is wood not susceptible to fire?” Is there any advantage of the engineered wood products of cellulose fibres with regard to their flammability?

Mr. Daniel Archambault: No. The CF is a flammable material because it's made of wood fibres. I think in regard to tall buildings, Madam Berube or Mr. Macdonald is better placed than me to answer that.

Ms. Joan Crockatt: Would one of you like to take that?

Ms. Marianne Berube: Before the building codes were changed to six storeys there was much research done by FPInnovations, NRC, and a whole consortium. These buildings—there are tougher things in place—must have sprinklers, firewalls, and all kinds of safety precautions.

Wood is a flammable material, but if it's mitigated by buildings with sprinklers and done properly these will be safe buildings that are safer than a lot of currently existing three and four storeys that don't have that in place.

Ms. Joan Crockatt: I wonder if someone—and I throw this open to any of the four of you who want to take it on—could explain to us, for the layman, exactly what the nanotechnology looks like, so they can understand what a piece of engineered wood looks like, and why we've suddenly been able to transform this industry by taking what could have been scrap wood and transforming it into this new high-tech product. What does that look like?

Mr. Iain Macdonald: I think if I can—

The Chair: Go ahead, please, Mr. Macdonald.

Mr. Iain Macdonald: We're dealing with two separate things. The mass timber that would be used in tall wood buildings, for example, is not a particularly technological product. It's taking two-by-fours and laying them this way, putting some glue on them, then taking two-by-fours and pressing it all together. It ends up with a material that can substitute for concrete very effectively, but not very technological. It requires some expensive machinery, but the process itself is quite simple.

Ms. Joan Crockatt: It's kind of like plywood, just turning it various ways.

Mr. Iain Macdonald: Like massive plywood, exactly, yes, and the advantage that you would have in terms of fire would be that this layer is now thick, and if you think about putting a huge log on a fire versus some kindling, the huge log won't catch, but the kindling does. It's the same comparing a two-by-four stick frame to this mass timber. In terms of the NCC, I know nothing about that, so I'm going to pass it over to my colleague here.

● (1635)

Mr. Daniel Archambault: NCC and cellulose filaments start from wood fibre and develop into a product that has unique properties but that is to be used outside of the traditional use of what we use for wood products. NCC and cellulosic filaments are mainly a strengthening agent. NCC has other characteristics in terms of change of rheology and things when you mix it with different products. So you take basically a wood-based raw material, and it's almost more a chemical than a wood product, but it's green and it's sustainable. That's the key element, and it has unique properties.

[*Translation*]

The Chair: Thank you.

[*English*]

Thank you, Ms. Crockatt.

We go now to M. Caron, followed by Ms. Block, and then Ms. Duncan.

Go ahead, Monsieur Caron.

[*Translation*]

Mr. Guy Caron (Rimouski-Neigette—Témiscouata—Les Basques, NDP): Thank you, Mr. Chair.

Thank you very much to all of you for testifying.

Ms. Berube, I'll start with you. I really like the architectural possibilities that wood construction offers. It also provides a lot more flexibility than the more limited means we had before, for example with concrete.

However, I'd like you to talk about how competitive wood construction is with the more traditional methods, like concrete, for example. In light of the current price of wood—softwood lumber in particular—I think that wood construction has a competitive advantage.

Is that true?

[*English*]

Ms. Marianne Berube: It depends on the type of building. You cannot equate all buildings equally in pricing, but if it's designed properly from the beginning, wood should be competitive, if not cost saving. It's like any building if it's designed right for performance. Some large buildings, you get into.... We've done a lot on schools, in getting more wood in schools, but when you get to the larger institutions, you can't compete. You know, there's a place for concrete and there's a place where wood can be done. In the six-storey, actually, that's one real competitive edge where, once the developers get going, build, and adapt to the new technology.... In B. C. they're showing 15% to 20% in cost savings, so that brings in affordable housing and developers are really looking at it. It gives alternatives.

[*Translation*]

Mr. Guy Caron: However, with the recovery of the market, it's possible that as a result of the increase in demand, for softwood lumber in particular, the production costs, the construction costs will increase. Does this potential increase worry you? When do you think the industry will hit the critical point?

[*English*]

Ms. Marianne Berube: Part of our whole initiative and even what we do at Wood WORKS! is trying to get more domestic use of wood. It's because we have relied on the U.S. for so long, and 80% to 85% of our wood goes south of the border. Look at the softwood lumber disputes, competition, and the ups and downs the industry has had over the years.

No, we're not that worried about that because we're trying to displace, actually have the wood industry rely more on Canadian markets and use more wood here. So, no, I don't think there's that much of a concern about that.

[*Translation*]

Mr. Guy Caron: Earlier we heard about concerns regarding the use of wood, a flammable material. In past years, we heard from fire prevention officials who were concerned about the health hazards. You touched on that a little.

However, where are we with research and development? I know that the wood is treated, for example, with fire resistant products that can slow the appearance of flames in the case of a fire. Is there additional research to find new ways to improve this protection against fires and to reassure fire prevention services or the general public about the use of wood in construction?

[*English*]

Ms. Marianne Berube: There's always ongoing R and D, and some companies are coming out with flame-resistant products.

We have one fire chief, Len Garis, in B.C. I'm not sure if everyone's heard of him. He's done a lot of research with the University of the Fraser Valley, looking at the past 1,000 fires. If it's properly sprinkled, and as I mentioned, all the precautions are put in place, there are no deaths and people aren't hurt. That's the key to mitigating fires.

Actually, once the buildings are in place and built, they're safe. It's during construction where the problem is. We have a key focus on getting more ways to mitigate when we're working with the insurance industry. The Province of Ontario right now is putting guidelines in place for fire safety on construction sites. The way to handle it is to prevent it versus dealing with the fires after.

● (1640)

[*Translation*]

Mr. Guy Caron: Thank you.

I have a question for Mr. Innes.

I want to make sure I understand what you said, Mr. Innes. When you spoke about the economic benefit the industry could draw from carbon, were you alluding to the carbon tax, carbon pricing or the fact that wood-based materials, which are effectively a form of carbon sequestration, can benefit the industry?

In debates on climate change we have heard a lot about carbon sinks and about the fact that the forestry industry could benefit from some credits or provisions regarding carbon pricing.

Could you clarify and, if applicable, tell us what are the current economic benefits?

[*English*]

Prof. John Innes: The forest industry in British Columbia has already benefited from carbon credits. There were carbon sales made by the Pacific Carbon Trust before it was closed down, which was an arm of the British Columbian government.

When we look globally we've seen a huge increase in the number of carbon schemes. There are carbon schemes now in Quebec, in British Columbia, I believe, also in Ontario, and then down the west coast of the U.S.A. Increasingly we are finding that when a manager of a forest is looking at the overall income that they can get for that forest, then carbon is becoming a significant factor in determining whether or not to harvest in a particular area.

Clearly the value of the wood is going to be higher in most cases than the value of the carbon, but then there are also a number of other benefits that would come from preserving that forest for carbon benefits so we would have, for example, water or biodiversity or recreation, a range of different values. I think what we're finding more is that it is in community-managed forests where those types of values are being looked at.

In terms of a federal scheme, Canada, I think, is some way away from a full scheme across the whole of the country, unlike a few other jurisdictions. But sooner or later I believe we will be moving in that direction. I can't predict what's going to happen, obviously—that's for the Parliament to decide—but I'm sure we will be moving in that direction because that's where the rest of the world is going.

The Chair: Thank you, Mr. Innes.

Merci, Monsieur Caron.

We go now to Ms. Block for up to five minutes. Go ahead, please.

Mrs. Kelly Block (Saskatoon—Rosetown—Biggar, CPC): Thank you very much, Mr. Chair.

I join my colleagues in welcoming you here. We are nearing the end of this study, one which we embarked upon a number of weeks ago to confirm what we understand has been the renewal and the transformation of the forest industry.

My first question is going to be for you, Mr. Macdonald. When an industry experiences the kind of transformation and renewal that the forest industry has, I can only imagine that the same has to happen in regard to the workforce and the skill set that is going to be needed in terms of the new technology and the innovation that is being developed. I know there is potentially, or perhaps some different jobs available now in the industry than there were, and I do understand that a significant amount of funding for the council has been through the Government of Canada's sector council program.

I'm wondering if you could tell us a little bit about some of the steps that have been taken to address the need for setting national standards for worker competencies. Could you perhaps speak to the change in the forest industry in terms of the skill set that is needed?

● (1645)

Mr. Iain Macdonald: Certainly. When the Wood Manufacturing Council came into existence—I believe it was in 2003—we did a sector study. Every five years thereafter we've done a major labour market study to look at the changes that have taken place. We are also in the process of updating some national occupational standards for the industry.

Given the changes that are coming to the industry through the tall wood buildings and the increase of structural wood use in non-residential construction, I think we'll be seeing an evolution of the roles in the industry. We already have pre-manufactured housing and panellized homes. We may see a job emerge that's some kind of hybrid between an architectural technologist and an assembler, for example.

Those are things that are being confirmed and investigated on an ongoing basis through these labour market studies, through the occupational standards updating, and also through some of the pre-employment training programs that we are rolling out in different provinces.

Mrs. Kelly Block: Thank you.

Dr. Innes, I have a question for you. I recognize that as dean of the UBC faculty of forestry, you are encouraging greater international involvement of the faculty and working to entrench your position as one of the leading faculties of forestry in the world. Good on you for doing that.

I also understand that UBC and Natural Resources Canada have several science projects together, including some funded through Genome Canada, and that there is staff housed at the university in association with the UBC forest economics and policy analysis research unit. I'm wondering if you could tell us a little bit about that.

Prof. John Innes: That last item you mentioned is, I'm afraid, a bit out of date. That particular unit has been disbanded, but we do have a number of staff from Environment Canada and Natural Resources Canada. There were more before. There are fewer now. That's not because of a breakdown of the relationship. It was a reconsolidating of the office space within the federal government.

That relationship has been very valuable to us, and it has enabled scientists from the federal government to benefit from the interaction with large numbers of students, particularly graduate students. They are able to build much larger teams than they would have been able to build in federal research institutes. They are able to access very bright young people whom they might not previously have had access to. We've been very pleased with the way that has worked.

I should say that we are working together with the Canadian Forest Service, FPInnovations, and the provincial government to find ways that we might combine our expertise in the future to better access international funding, which previously none of us individually could have applied for. This is an area that is developing quite rapidly. We're not there yet. I actually met with someone from Western Economic Diversification Canada last night, and talked to him about what we were planning. This is something new and it will certainly take us in the international direction.

I believe Canada has a really good story to tell internationally, that we are leaders in the field of forest management, forest science, and forest products, and that we could make major contributions to other countries that are struggling. We know of many countries that have problems with governance, for example, corruption in the forest sector, illegal logging, and deforestation. I think we could help those countries do a lot better than they are currently, and in so doing, make the world a better place for all of us.

The Chair: Thank you, Mr. Innes, and thank you, Ms. Block.

We go now to Ms. Duncan for up to five minutes. Go ahead, please.

Ms. Linda Duncan (Edmonton—Strathcona, NDP): Thank you, Mr. Chair.

Thank you to a very interesting panel for giving us your time.

My first question is to Mr. Archambault. Kudos to you for innovating with the use of wood. I'm wondering if you could give us some guidance, because of course, when we do the committee reviews we're interested in making recommendations to the government on next steps they could take to support the forestry sector and products.

We have the Energy Star on appliances, yet we don't in any way trigger people to buy only those. I wonder if you'd give us any suggestions on measures the federal government could take to trigger the shift over to the kinds of packaging products you're making, as opposed to plastic.

● (1650)

Mr. Daniel Archambault: Of course, at Kruger we are in packaging. We operate a liner board mill in Montreal as well as two packaging plants: one in Ville LaSalle and one in Brampton, Ontario. We make all kinds of cardboard boxes. In our plant in Brampton, Ontario, we have something like 20 trucks a day of pizza boxes leaving the plant to go all over eastern North America. It's quite impressive.

I think sustainability is what we need to promote. We talk about wood products and we talk about packaging. They're all products that are made from a sustainable resource.

Ms. Linda Duncan: Are you using recycled materials?

Mr. Daniel Archambault: Yes, our liner board, all of our packaging is 100% recycled.

Ms. Linda Duncan: That's fantastic.

Mr. Daniel Archambault: We also have a fairly large use of recycled fibre in our tissue products, but we don't use recycled product in our publication paper grades anymore. We shut our plant down last November, mainly for economic reasons.

Ms. Linda Duncan: I would like to encourage you and all the panel members, if you think of other specifics or recommendations for our committee coming out of this, to submit those to us as well.

Ms. Berube, my colleague raised the issue about firefighters. I have been approached by the firefighters in my jurisdiction, who are deeply concerned about the shift. They're telling me that they have in fact not been consulted to the degree they would like to be. For example, they think that at least the shafts of the elevators should be cement. They're very worried about toxic fires with this cross laminated wood.

I wonder if you could tell us to what extent the firefighters have been included in these discussions about the shift to building bigger buildings with wood.

Ms. Marianne Berube: You're not from Ontario.

Ms. Linda Duncan: I'm from Alberta.

Ms. Marianne Berube: Alberta, okay. In Ontario they have been extensively consulted, and the Ontario building code changes actually did mandate concrete stairwells. That was the push-back from the firefighters association.

Having said that, there has been extensive research done on building stairwells in mass timber and products that will be safe. B. C. has mandated it; the national building codes haven't.

A lot of this is education. We are targeting the firefighters' groups, because this is all new. It's just like the case with building officials. We've made a lot of progress with building officials, because they can roadblock a lot of these projects. But the firefighters need, and some groups are very willing and are starting, to listen and work with us.

But again, it's something new. They need to understand. Anybody facing change is going to be worried about it. In some cases, some of the firefighters are also using it to lobby for more equipment and new fire equipment. So there's always....

Ms. Linda Duncan: We love our firefighters.

Ms. Marianne Berube: Yes.

Ms. Linda Duncan: I have two other quick questions with the time I have left.

Dr. Innes, I was very interested in your presentation about the first nations. Are you from British Columbia?

Prof. John Innes: Yes.

Ms. Linda Duncan: In your province, the vast majority of first nation claims have not been settled, so I guess I'm querying.... It's a nice theory that the first nations should be involved in the forest management of their lands, but first of all they have to be granted control over those lands. My understanding also is that there are conditions, such as that they need a land management agreement.

Do you know whether those kinds of discussions are ongoing within the forestry sector, as a push for quicker settlement of those claims?

Prof. John Innes: Yes, they are. Very often there are interim measures agreed to during the treaty process whereby control of the land is given to the first nations, so they get the management rights. It's like a limited tenure—it is a tenure.

We've also seen quite a number of first nations taking on non-renewable forest licences in British Columbia and becoming involved even in areas outside their own territories—companies doing extremely successful work, often on other first nations' territories but also on crown lands that are not under an immediate claim. As you probably know, all land in British Columbia is under some sort of claim, and quite a lot of it is under more than one claim. There is some dispute over the land.

● (1655)

The Chair: Thank you.

Thank you, Ms. Duncan.

We go now to Ms. Perkins for up to five minutes. Go ahead, please.

Mrs. Pat Perkins (Whitby—Oshawa, CPC): Thank you very much, Mr. Chairman.

I think the first question I'll ask is of Iain Macdonald.

You made the statement, with respect to HR and skills, that you very much required to have a properly trained workforce and that you're finding deficiencies in that area moving forward. What do you see the government's role being in this? Is this something you're asking us to consider assisting with, or is there something under way? Would you like to explain what that comment meant?

Mr. Iain Macdonald: Sure. Thank you.

I think the role is to continue to fund the labour market studies, which have been very beneficial for understanding, as Ms. Block said, the transitions in the industry and responding to them. We have had very positive results with pre-employment training for disadvantaged groups and equity groups, as I mentioned. A major issue for companies is finding skilled employees and entry-level workers.

In terms of other roles, I think there's a potential for greater coordination between the various post-secondary institutions and industry in Canada so that there is some kind of laddering system for people to progress from high school education through various kinds of post-secondary training, and then possibly continue it through professional programs as they continue to work.

The fluid nature of technology and today's markets is such that it's no longer enough to have a four-year degree to serve you for your career. You're going to need at various times to take upgrading in your training. We're trying to do that in some ways through e-learning, for example, and blended learning, which combines e-learning with face-to-face training for shorter periods. But those kinds of programs are difficult to make sustainable, sometimes.

Mrs. Pat Perkins: Thank you very much.

I'm in a limited timeframe, being at the end, so I'd like to get a couple of other questions in.

Ms. Berube, with respect to the comments you've been making with the question you have been given on firefighters, I've been on this now since the beginning of this study, asking the questions about firefighters.

I've been, until very recently, in a municipality for 17 years. Firefighters are of a different opinion from the industry. Recently, in having discussions with the firefighters I find they are much more concerned about the lack of testing, with the toxins, the laminates, the glues, all of those sorts of things. They are not convinced that there has been enough study done about what might be composing that large...what were you calling it when you put them all together? I suppose it's laminating all the wood together by glue, or some such thing.

The firefighters have been of the opinion that the flashpoint in fires is faster with new product. As we're getting away from natural product and into homes now with laminate floors, with nylon carpets, with whatever the products are—the new and innovative stuff—their flashpoints are quicker and the toxins are higher. They are very concerned about that. They are concerned that people are subjected to fire quicker and to toxins quicker, and that they will be too on the job.

What's the process for you to get the approvals to introduce the products and the change in construction? I heard you say that the firefighting industry was involved, but is it the fire marshal? Is it fire chiefs? Do we know who's involved?

Ms. Marianne Berube: I'm not quite.... Is what you're saying, "involved in educating the firefighters" or is it the research part of it?

Mrs. Pat Perkins: It's to change the building code to allow products to be used. Who's involved in that from the firefighting industry?

Ms. Marianne Berube: Oh, from the firefighting industry.

A lot of new products are tested with NRC and go through rigorous.... They literally burn these products and they have to have one- or two-hour fire resistance before they are approved. There is quite rigorous testing.

I think a lot of the problems with the firefighters started with the I-joists in homes; that's a smaller, stick frame built component. But as we move into mass timber and then these larger structures, they just char, as Iain mentioned, and they are safe.

Chief Len Garis in B.C. has done a lot of studies on how products are evolving and the precautions put in place. It has been amped up. I know there are even new glue products, too. The industry is working on this.

● (1700)

Mrs. Pat Perkins: You can appreciate what we're hearing from firefighters. We like to say it's the firefighters' association or it's the chiefs of the fire departments. Who is sitting at the table when these decisions are being made? I'd love to have that answer, if you ever can find out.

Thank you.

Ms. Marianne Berube: I'm not sure if the fire chiefs are. You're talking about at testing and so on. No, they probably aren't, but there's the education piece. There's a definite link missing as products are approved.

The Chair: Thank you, Mrs. Perkins.

We go now, finally, to Ms. Duncan, who'll be the final questioner for this group of witnesses.

Go ahead, please, Ms. Duncan, for up to five minutes.

Ms. Linda Duncan: Thanks.

I wonder if I could just follow up on the questions that my colleague just asked. I just remember the issue that the firefighters raised with me. I'm not saying this to be negative about wood. I know we're starting to build arenas now again with beautiful wood, which we used to do. But in the move to the bigger buildings, with wood instead of metal, what they're concerned about, as I understand it is the frame, with the ones that go up and down. With the wood construction they're going to be closer together, so if a firefighter is stuck in a building, he can't get out because they're so close together. I'm just sharing that. Those are the kinds of concerns they are raising with a number of us, and that should be looked at.

I wanted to follow up with Dr. Innes and Mr. Macdonald about your call for intensified engagement of the federal government in monitoring. Historically, the federal government used to be a lot more engaged in forests and forestry. I'm just wondering what specific recommendations you might make about that. I know there are drone companies in my own riding and they would like to be engaged in that. I hear lots of concerns in my jurisdiction, which is Alberta, not with the forest industry but with the oil and gas sector because we're losing so much potential wood product by the clearance for seismic and for oil sands and just conventional oil and gas. I'm wondering whether that's a factor that is being looked at in the monitoring as well. It may be particular to my province because it may be that we're losing, but I know in northern British Columbia now there's a lot of gas activity.

I wonder if you could just give us a little bit more detail about what you might recommend for a role of the federal government in the increased state of the forests so that it could support both the sustainability of the forest and the wood industry—and anybody else could also add to that.

Mr. Iain Macdonald: I'm going to defer to Dr. Innes on that one.

Ms. Linda Duncan: Okay.

Prof. John Innes: Thank you, Iain.

I think the primary concern that you're referring to is called cumulative impacts. That is where we're seeing a lot of different types of development and they're all regulated independently, and the result is that no one has really a clear overview of the land base and what's going on on the land base. Foresters can have a really nice plan and they will put areas aside for reserves, and then an oil and gas company comes in and puts a survey line right through the middle of it, and then puts a road in, then a pipeline, and then the forestry company suddenly finds it has access to timber that was previously uneconomic, so we get these effects multiplying.

What I think the federal government could do is undertake research or sponsor research that would enable us to really analyze cumulative impacts more effectively in different jurisdictions. That's something that could be done by the CFS or it could be done through the Natural Sciences and Engineering Research Council. I was actually involved in a study like that in northeast B.C. about 10 years ago, sponsored by NSERC, but it was a pilot study and it wasn't taken any further. I know many first nations would be very interested in that. I know many government agencies would be very interested.

I think, then, if we find good methods to do this, they need to be built into environmental assessment exercises so it's built into the review system that's done at both the provincial and the federal levels so that we can actually determine what the future impacts are likely to be. When we talk about maybe opening up a new area for a mine or for forestry activities, what's likely to happen and what other values on that land are going to be affected in the future by opening up that development?

It's a big area of research. It's very complicated. We don't actually have good answers yet, so I think the federal government could really help us understand those types of things better.

● (1705)

Ms. Linda Duncan: Terrific.

Am I done?

The Chair: You have a half-minute.

Ms. Linda Duncan: That's okay, I'll just let it go.

The Chair: Okay.

Thank you very much to all the witnesses for coming today. It was very interesting input and it'll be very helpful to us in our report.

Thank you, too, from Ontario Wood WORKS!, Ms. Berube; from Kruger Incorporated, Monsieur Archambault; from the Wood Manufacturing Council, Mr. Macdonald; and from the University of British Columbia, Dean Innes.

We'll suspend the committee just for a couple of minutes, and then come back with our witnesses from our next group.

● (Pause)

●

The Chair: Good afternoon, again, committee members.

We have with us our last group of witnesses. They are from the Témiscouata forest-wood-materials network. There are three witnesses from that organization: Guylaine Sirois, Roger Robitaille, and Caroline Roy.

Thank you all for being with us by teleconference. Thank you very much for being here.

As you see, we have photos of them, so we can see and hear whom we are talking to. We will go ahead with the presentation. We have just a little over 20 minutes left. I understand that Ms. Sirois will give the presentation.

Go ahead. Then we will go to questions and comments. Thank you very much, again, for being with us.

● (1710)

[*Translation*]

Ms. Guylaine Sirois (President, Réseau Forêt-Bois-Matériaux de Témiscouata): Good afternoon Chair and Vice-Chairs. I want to say a special hello to our member of Parliament, Guy Caron.

Members of the committee, my name is Guylaine Sirois and I am the chair of the Réseau Forêt-Bois-Matériaux de Témiscouata. I am also the elected warden of the Regional County Municipality of Témiscouata. With me are Roger Robitaille, the executive director, and Caroline Roy, the advisor for innovation and business development.

First, I would like to thank you for the opportunity to present our vision and our expectations for strategic innovation in the forest industry. We would also like to thank the Government of Canada for its support for our forest industry, our communities and our research centres in recent years. Without its help, we could not have achieved the same product diversification and value-added production results in such a short time.

Since 2008, our forest industry has taken the initiative and moved from producing commodities to producing high value-added products. This transition has improved its productivity, diversified its markets and maximized the value of its products. The industry has also become more nimble. As for the environment, our industry has generally been a good corporate citizen, further reducing its pollution emissions and investing in sustainable energy.

Our industry began producing new wood products such as cross laminated timber and three-dimensional poplar panelling. New reproduction methods such as somatic embryogenesis now enable us to produce trees that grow faster and have the desired physical properties. Optimizing harvesting processes has helped reduce the cost of wood. Growing poplars is revolutionizing the supply side of an entire sector of our industry. Our region is beginning to use biochemistry, as shown by the conversion of a pulp and paper mill into a biorefinery.

Research programs on forest extractives are also underway, with the goal of opening up a new sector in the forest industry. All this has been accomplished in part thanks to the support of the Canadian government and research centres such as FPInnovations, the Centre de recherche industriel du Québec and technology transfer centres such as SEREX in Quebec's Matapedia Valley.

Nevertheless, much remains to be done for our forest industry to complete its transition into the new green economy. That is why the forest industry and socioeconomic organizations in the Regional County Municipality of Témiscouata established the Réseau in 2012. The Réseau supports innovation, product diversification and export-oriented commercialization in the local wood processing industry.

The first point we want to talk about is forestry innovation. Improving our knowledge of forests, producing trees with the desired characteristics, optimizing forest management techniques and identifying better operating strategies to reduce costs and make the most of the value chain will require much more research and development. The research program in the Lower St. Lawrence on ways of improving harvesting practices in the first commercial thinning of a plantation is a good example of cooperation between governments, universities and forestry companies. Both private and public forests need a helping hand.

With respect to innovation in processing, optimizing processes, modernizing equipment, producing next-generation wood construction materials and developing commercial biochemistry applications will require major investments in research, development, technology transfer and the acquisition of original and innovative technologies. Small and medium-sized businesses, because of their limited working capital, are often in particular need of support.

The third point has to do with innovation in forest biomass. The use of forest biomass as a fossil-fuel substitute for heating purposes has increased significantly in recent years.

However, conversion is expensive and the return on investment long. Eight years is fairly normal when burning wood chips or biomass pellets for heat. We believe the federal government should offer financial support to households and forestry sectors such as sugar maple growing that are engaged in these activities.

The use of other forms of forest biomass, such as biofuels, as an energy source will require a great deal more research and development.

● (1715)

The fourth point is on innovation in commercialization and exports.

Experience has taught us that research and development and commercialization are inextricably linked. By linking products with markets, the design and development of a new product moves more quickly, efficiently and cheaply. This integration leads to the creation and production of innovative and distinctive products.

Our companies cannot flourish in the local market alone. Local demand is quickly met, and the outcome is what we see today. Plants are not operating at capacity, and products enter the market more slowly. Exports remain the only solution, but small and medium-sized businesses often need to join forces to begin exporting.

These businesses make up most of the industry in our region, and they are particularly poorly equipped to deal with the export environment.

Even large corporations often face major delays between designing and distributing a product owing to non-tariff barriers and regulations imposed by the target country. We hope the federal government will continue to support our industry and the businesses that want to enter export markets.

The fifth point is on the spruce budworm epidemic.

The North Shore and eastern part of Quebec are currently suffering from an infestation of spruce budworm. This epidemic is expected to spread to the rest of Quebec, the Maritimes and, possibly, Ontario. The medium- and long-term damage to the economies of the affected communities and the forest industry cannot be underestimated.

We believe it is important for the federal government to play a more active role in combatting this epidemic and assisting the businesses and communities affected by it.

Finally, I would like to talk about the raison d'etre of the Réseau Forêt-Bois-Matériaux de Témiscouata. It is a non-profit organization established in 2012 by the forest industry and socio-economic organizations in the RCM of Témiscouata to support the development of that industry through innovation, new product development and market diversification.

Most of the area's forestry stakeholders are now members of the Réseau. The organization is headquartered in the town of Témiscouata-sur-le-Lac and governed by a 12-person board of directors. The Réseau engages in networking, collaborative work, knowledge transfer and research. To that end, it relies on the services of universities, research centres and technology transfer centres, as well as private consultants.

We are prepared to answer your questions.

The Chair: Thank you, Ms. Sirois.

[*English*]

We go now to Mr. Leef, followed by Mr. Caron, and then Mr. Regan. I'm going to have to keep you tight on the time, so with questions and comments probably four minutes each.

Mr. Ryan Leef: Thank you, Mr. Chair.

Thank you very much for your testimony. In respect to the spruce budworm, you mentioned the federal government could be involved in helping to combat the epidemic in that respect. I'm just wondering —

[*Translation*]

Ms. Guylaine Sirois: A few years ago, when the epidemic reached its peak, both governments agreed to work on this problem. We would like to see efforts to combat this epidemic to continue to grow.

[*English*]

Mr. Ryan Leef: Perfect.

Is there another opportunity as well with the forest resources that have been affected by the spruce budworm? I'm thinking of the pulp and paper biomass, anything like that.

[*Translation*]

Ms. Guylaine Sirois: I will give the floor to Mr. Robitaille. He is our expert on the matter.

Mr. Roger Robitaille (Director General, Réseau Forêt-Bois-Matériaux de Témiscouata): Hello. My name is Roger Robitaille.

Pellet production projects to help us reclaim the biomass are currently at an advanced stage of review. Pellets are a way of using this primary resource that the pulp and paper industry cannot use.

In the meantime, these projects will help create jobs and keep people employed.

● (1720)

[*English*]

Mr. Ryan Leef: *Merci.*

It would seem that utilization is good so that we don't have the continued and dead standing forest where the spruce budworm can continue to go. At the same time we find some sort of economic opportunity for those communities in respect to biomass. If the federal government were involved with the provincial government in combatting it specifically, what efforts would you recommended or take? Would it be a fire smart program, or would it be some other sort of biochemical solution to this?

[*Translation*]

Mr. Roger Robitaille: As far as forest protection is concerned, there is an existing organic spray program that helps slow the progression of the epidemic and gives us enough time to harvest those stands.

As far as federal government intervention is concerned, it would be great if it participated in the recovery, either by providing aid for the recovery of merchantable timber that can be sent to plants that are able to mill them, or by providing inventory support—because this will generate massive inventory—and infrastructure support for the new industries.

Lastly, this could be an opportunity to diversify the economy of the affected communities given that the spruce budworm epidemic is recurring. Spruce budworm is detected in our regions every 40 or 50 years. We should convert this into an opportunity to diversify the economy of many of the municipalities that very much depend on the forestry and wood processing. That would be a great way for the government to get involved and it would be greatly appreciated.

[*English*]

The Chair: Thank you, Mr. Leef.

We now go to Monsieur Caron, for about four minutes.

[*Translation*]

Mr. Guy Caron: Thank you, Mr. Chair.

Thank you, Ms. Sirois, Mr. Robitaille, and Ms. Roy. I am very pleased that you are here this afternoon.

Obviously, we cannot underestimate the importance of the forest for Témiscouata where 87% of the area is covered by forest.

During your presentation, you mentioned that businesses in Témiscouata cannot develop in a local context alone. A number of issues might influence their capacity to export and penetrate other markets. You indicated that SMEs in the region were especially ill-equipped for managing this environment.

Could you spend a bit of time elaborating on the tools the SMEs would need in order to thrive?

Ms. Guylaine Sirois: Various programs could be put in place to deal with that.

You're talking about tools. Do you mean equipment or programs?

Mr. Guy Caron: Both. I want to know what the SMEs need to be able to manage this environment if they want to diversify and if we want to help them export their expertise and their products.

Mr. Roger Robitaille: At this stage, we need help training sales staff, but we also need funding to develop distribution networks and niche markets, and to conduct in-depth business analyses. Naturally, there are agencies in Témiscouata such as the CFDC. These agencies are also able to help us, but they need a bit more money in order to be able to support us.

One approach we have taken so far is to consolidate the smaller businesses. We are currently trying to develop a system for what we call the finishing touches of the building, by consolidating three businesses. We are at the preliminary stage and we need a tremendous amount of support, not just financial but also in terms of expertise to help us distribute the finished product.

● (1725)

Mr. Guy Caron: Thank you very much.

I don't have very much time. I would like to shift gears and talk about the elimination or abolishment of the forestry job creation program.

According to the Témiscouata forestry co-operative, this is going to lead to nearly $700,000 in losses and result in 30 experienced employees being laid off. I know that this decision was made by the Government of Quebec, but—correct me if I'm wrong—this program was originally funded jointly by the federal government and the Government of Quebec, and the federal government quietly backed out.

What can the federal government do to help with investing in and supporting the development work that needs to be done in private forests in order for Témiscouata to be able to optimize its strength in the forestry?

Mr. Roger Robitaille: The private forest development assistance program—and the same goes for public forests—began in 1972. It therefore has 40 years of experience. The turnaround time for the forest in our region is about 60 years. There are still about 20 or so years before the first cycle is complete.

The current challenges have to do with staff training and new technologies for the development and harvesting work. In fact, we are committed to using optimized and mechanized technology that helps us manage the forest not as an entity, but by single-tree selection. That way, we are kind of adopting the approach that has been used in Europe for a number of years now.

What we need now to make the transition is time. We have to make the transition in a way that is respectful to the employees and we have to train new staff. In the very short term, we need funding to finance the work. Single-tree harvesting is far more expensive than clear-cutting or overcutting. We are working on sustainable development, on optimizing the forest. Even though our local industry is already making an effort and a significant financial contribution, we still need the Canadian government to contribute financially, a bit like it used to in the past with what was called the eastern plan, which lasted about 12 years, I believe. There is expertise related to the work, training and carrying out the work.

I would also like to add that there used to be a forestry model in the area that unfortunately no longer exists. At the time, it was funded by the Canadian government. It literally served as a foundation, a research centre on the ground, for distributing expertise and knowledge on the ground.

The Chair: Thank you.

Thank you, Mr. Caron.

[*English*]

Finally, we have Mr. Regan, for about four minutes.

[*Translation*]

Hon. Geoff Regan: Thank you very much, Mr. Chair.

I also want to thank the witnesses.

Can you speak to how the industry has become more flexible in light of the challenges it has faced in recent years?

Mr. Roger Robitaille: As far as pulp and paper are concerned, we have the first plant here that is converting to a biorefinery. That plant used to depend on just one product, cardboard packaging. Not long from now, the plant will have two major products: the conventional product and chemical products, sugars. They will be used in different chemical applications.

Over the years, this business has also been incorporated in primary timber processing plants. In an effort to reduce cost and become more competitive, timber has been incorporated into pulp and paper processing in order to optimize the use of the fibre. I am still talking about the pull and push method.

All that is then carried over to the forest, where harvesting and preparing the trees are done according to the needs of the plants they supply. Everything is done with a view to meeting client needs.

Currently, we can say without hesitation that more than half of the primary resource harvested and headed to the sawmill in our area undergoes secondary processing. The resource is therefore given added value under different forms before the product hits the market.

The same goes for pulp and paper, thanks to the arrival of biorefining.

● (1730)

Hon. Geoff Regan: Thank you very much.

The Chair: Thank you.

[*English*]

The bells are going for votes.

I want to thank you very much for being with us as witnesses today. Thank you very much for your presentations, which we have copies of here. The information you've given us will be very helpful in our report.

Thank you to all members of the committee as well for your input today.

The meeting is adjourned.