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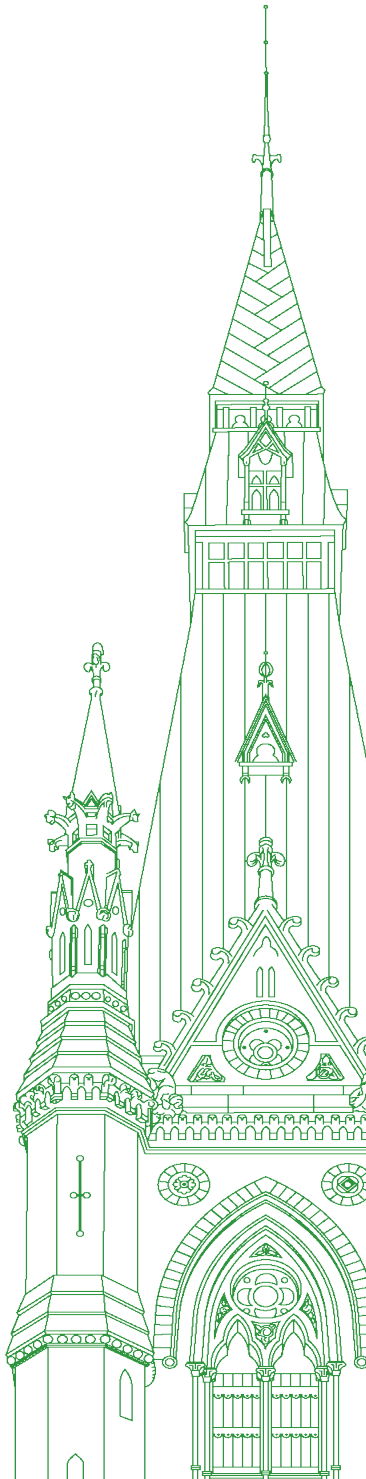

Chair: Mr. James Maloney

# Standing Committee on Natural Resources

**Tuesday, November 3, 2020**

● (1530)

[*English*]

**The Chair (Mr. James Maloney (Etobicoke—Lakeshore, Lib.)):** Welcome, everybody.

Thank you for joining us today for our meeting.

In our first hour we have some familiar faces: the Forest Products Association of Canada. You guys need no introduction and you know how the process works too. Derek Nighbor and Kate Lindsay, thanks very much for joining us today. We really appreciate it. From the Quebec Forest Industry Council, we have Jean-François Samray.

Each group has up to 10 minutes to deliver opening remarks. You can speak in the language of your choice; translation services are available. Without taking up any more time listening to me, I will turn the floor over to you.

Derek and Kate, why don't you start us off since you're first on the agenda?

**Ms. Kate Lindsay (Senior Vice-President, Sustainability and Environmental Partnerships, Forest Products Association of Canada):** Thank you, Mr. Chair.

Good afternoon. Thank you so much for the invitation to be here.

I will be starting, and then Derek will be speaking as well.

Canada's forest products sector is ready to play a key role in driving economic recovery, especially in rural and northern forestry communities, and at the same time bring health and environmental benefits and greater self-sufficiency to Canada and Canadians.

As mentioned, my name is Kate Lindsay. I am FPAC's senior vice-president, and am joined today by my colleague, FPAC's president and CEO, Derek Nighbor.

Let me begin by talking about the fundamentals upon which Canadian forestry is built.

Canada is blessed with a tremendous natural and renewable resource in our forests. We have the second most forested lands in the world, making up 40% of our land base.

Canada's managed forest—the area under active management—is primarily under the purview of provincial governments. Of the lands on which FPAC member companies operate, 94% are on Crown lands and are subject to among the most rigorous governance frameworks in the world.

Canada's forests and our sustainable forest management regimes are dynamic in nature, continuously evolving to respond to the natural, human and societal shifts that require small adjustments, or sometimes more significant adjustments over time.

Forest management planning in Canada happens at the local level and is driven by science and detailed modelling. It considers dozens of values, from wildlife habitat requirements to watershed protection to fire risk mitigation. It receives and reflects input and knowledge from local municipalities, indigenous peoples, regional recreation and outdoors groups, and other area rights holders and stakeholders.

As with any local land development planning, there are often competing values and interests. It is part of our job to work with local communities on solutions that find balance and co-benefits.

Layered on top of provincial rules and local input is another level of accountability and transparency—third party certification.

Just 11% of the world's forests are third party certified; 35% of those certified forests are here in Canada. It's another reason why, in a recent Leger study of nearly 200 global wood, pulp, and paper buying customers, Canada ranked number one in the world. International customers cited quality, reliability, sustainability and good forest management as reasons Canada is their number one choice.

This natural Canadian advantage is a huge opportunity for us as we look at post-pandemic recovery opportunities.

I will now turn it over to Derek Nighbor who will speak to some of the solutions and recommendations.

● (1535)

**Mr. Derek Nighbor (President and Chief Executive Officer, Forest Products Association of Canada):** Thank you, Kate.

Thanks, Mr. Chair and members of the committee.

I want to turn to those opportunities, and some of the areas in which we see forestry workers doing even more for both our economy and the environment. The first we brand under safeguarding the future of our forests. Climate change has emerged as one of the most important transformational challenges, placing unprecedented pressure on our forests' capacity to remain healthy and resilient. We've seen this in worsening pest outbreaks in the east and the west, and in wild land fires. Forests that are actively managed for the long term, together with the wood products harvested from them, are a key tool in the fight to address climate change. Active management will continue to provide those societal benefits, as well as to build more resiliency into Canada's forests for the future.

One of the other areas is bringing more capital investment to Canada. We have worked with FPAC members and non-members in recent months and have identified over 140 shovel-ready capital projects worth over $1.5 billion in value that can sustain and grow jobs across the country, improve our competitiveness and improve our environmental performance. I look forward to talking with you a bit more about those details.

Next is jobs and products for our people. We can sustain and grow family-supporting jobs in communities that desperately need them. By strengthening our sector domestically, we can also ensure that we have a strong supply of lumber and wood products, pulp and paper, wood fibre-based health and hygiene products, and bio-products made right here in Canada so that we can provide for our people. Doing this provides important opportunities for SMEs, including the over 1,400 indigenous-owned forestry businesses that are a critical part of our sector. I think back to earlier in the spring, when President Trump stopped that shipment of 3M medical masks at the border. They contained northern reinforced pulp from Canadian forests. That was a reminder to us about the importance of and the opportunity for greater self-sufficiency in terms of how we manage the resource and we deal with value-added manufacturing here.

The other solution is to grow export markets. We're really well positioned to be a global leader in sustainably sourced, manufactured renewables and in bringing more quality and innovative products to the world. We have a few comments on how you can help get us there.

The first area is greater clarity between federal and provincial governments and more predictable or certain access to the working land base. As Kate said, 94% of the lands upon which our members operate are governed by provincial governments. We need your support to ensure greater coherence and clarity between federal and provincial jurisdictions and certainty around access to that land base. Wood fibre is important to workers, contractors, and forestry communities. Increasing levels of duplication between federal and provincial governments inhibit our ability to attract the much-needed capital.

On market access and market development, we'd like to see a continued focus on completing trade agreements, diversifying and growing export markets, and modernizing building codes to allow for bigger and more resilient carbon-storing wood buildings that will bring benefits to our people.

The final comment I want to make is about selling Canada's good-news story to the world. Our pulp and paper mills have reduced GHG emissions by about 70% since the early 1990s. In its most recent report on the state of Canada's forests, Natural Resources Canada has confirmed that our managed forest is a carbon sink of 14 megatonnes. Canadian forestry has a compelling story that resonates with our global customers. Despite this Canadian advantage, our customers and investors are increasingly being targeted by anti-industry groups and misinformation campaigns to drive business away from Canada. This is putting Canadian jobs at risk in the process. We need our federal and provincial governments to stand with us so we can sustain and grow jobs, keep our northern communities safer from fire, and advance the economic and environmental benefits that Canadian forestry and forest products provide.

I want to thank you for the invitation to be here today. We look forward to getting into a bit of a discussion on these items during the Q and A.

Thanks again.

● (1540)

**The Chair:** That's great. Thanks very much.

Mr. Samray, we go to you now.

**Mr. Jean-François Samray (President and Chief Executive Officer, Quebec Forest Industry Council):** Thanks, Mr. Chair.

Part of my presentation is in French and part is in English.

My name is Jean-François Samray. I am the new CEO of QFIC, the Quebec Forest Industry Council. I am really happy to be with you today.

I am not going into the same details as Derek presented. I will just bring you some images and more details of what it looks like in a province like Quebec.

[*Translation*]

The Quebec Forest Industry Council represents close to 250 members who are active in sawmilling, hardwood, softwood, rotary cutting, pulp and paper, panel manufacturing, and, increasingly, engineered wood, which is used for a new type of construction.

In Quebec, each year, the forest industry provides more than 140,000 well-paid jobs, directly or indirectly. The average annual salary is $66,000. The members of the Forest Industry Council and the jobs they create generate an annual $4.8 billion in taxes paid to the governments of Quebec and Canada.

[*English*]

That is $4.8 billion paid in income taxes from the industry to government.

[*Translation*]

This is based on a turnover of $20 billion. This contribution from the industry as a whole represents 4.7% of Quebec's GDP. Nearly 70% of Quebec municipalities have a very close link with the forest and have jobs that depend on the forest sector. The degree varies according to the region, but it is clear that, in Quebec, in approximately one municipality out of five, when the forest goes, everything goes. On the other hand, when these activities slow down, it is a disaster, and the economic vitality of the community as a whole is put at risk. I am sure that the same is true in most other provinces and regions of Canada.

In Quebec, there are 905,000 square kilometres of forest.

[*English*]

The Quebec forest is more than 900,000 square kilometres—close to a million square acres. Annually we cut, replant and harvest 0.2% of that area.

[*Translation*]

As Derek Nighbor mentioned, forestry practices are very important in Canada, and they are the most regulated. For example, in Quebec, 0.2% of the total area cut is harvested and processed. In other words, it is done in a very sustainable way.

The Quebec forest sector is suffering the consequences of a fifth wood dispute with the United States. This affects not only Quebec, but the entire Canadian forestry sector.

I would like to remind the members of the committee that the countervailing duties triggered at the U.S. border are something we monitor very closely. Currently, we've gone over $4 billion, and of that amount, $1 billion is coming from Quebec companies. This is money that cannot be used for modernization, the purchase of new equipment or the deployment of new technologies to make the Quebec and Canadian forest industry even more efficient.

It is important to the forest industry that WTO rules be respected and that an agreement be negotiated. This is important to us, but I think it will also be important to remind our neighbours that even the National Association of Home Builders has written to President Trump. In addition, nearly 98 members of the U.S. Congress have written to him asking that a solution be found, because this situation is hurting the American middle class. We would really like the federal government to find a negotiated solution.

As for climate change, as Mr. Nighbor said, it is the forest that grows and sequesters carbon, but it is also the forest that is used for wood construction. Every cubic metre of wood used in construction will store one tonne of carbon over the long term.

● (1545)

It will be important, when considering programs for inclusion in the next budget statement, to highlight Canada's exemplary role in wood construction, and to support this type of construction. This is important because it would kill two birds with one stone: reduce GHG emissions and stimulate the economy. What's more, it would make us proud. After all, prominent on our flag is a maple leaf that comes from a tree. What better way to show it off than to have a built heritage!

The pulp and paper sector is also fundamental. This sector must adjust and pivot. The current regulatory project to replace single-use disposable plastics will only make sense if we can replace these disposable plastics with cellulose products from the forest. In this regard, the government-funded Investments in Forest Industry Transformation, or IFIT, program is very popular with the industry. I know you've already increased the budget envelope, but for every dollar invested in the industry, there are 10 requested. The IFIT program needs to be reviewed to ensure that it meets processing and GHG reduction needs. This is very important for the industry.

The aluminum dispute has been resolved, now it's time to settle the lumber dispute. This will give us a good idea of where we're headed.

The development of public policies and programs for the use of wood in construction should also be accelerated.

Finally, let me reiterate that the pulp and paper sector is important. This is the sector that uses all the sawdust and residues from the sawmills, from the secondary and tertiary processing. The majority of pulp and paper mills are located in Quebec because of the low cost of electricity and the proximity of the fibre. These mills must be allowed to pivot their packaging products and replace single-use products. The creation of accompanying programs would allow the Government of Canada to stimulate the economy while reducing GHG emissions and lowering pollution.

When we do these things right at home, all international market development programs will have a technology showcase to demonstrate that Canada has the best-managed forests in the world and that we are proud to use wood in our economy and to reduce our GHG emissions. That's why we're offering these solutions to the world.

Thank you for your time. I would be pleased to speak with you.

[*English*]

**The Chair:** Thank you very much, Mr. Samray.

We made up some time there, so first up is Ms. Harder.

**Ms. Rachael Harder (Lethbridge, CPC):** Thank you, sir. I am in the committee room.

**The Chair:** That's why I couldn't see you.

The floor is yours.

**Ms. Rachael Harder:** Thank you so much.

My question goes to Mr. Nighbor. I'm keenly aware of a promise by the Prime Minister to plant two billion trees in 10 years. He made this promise a little bit under pressure from Greta Thunberg last September when he met with her on the campaign trail. To date not a single tree has been planted, as confirmed by numerous sources, including an official, the assistant deputy minister who was here last week. She not only told us that not one single tree had been planted, but also that there is no plan to do so, which was a little bit disheartening for us to hear in terms of how far that has gone.

To reach their goal of planting two billion trees by 2030, some basic math would tell me that the government would now need to plant roughly 1.2 million trees per day, which seems like a lot. You would know better than I do about that. I'm wondering if you can tell me a little bit about what kind of pressure this amount of trees would put on nurseries to grow millions of seedlings in order to get them into the ground within the time frame, which is the remaining nine years, and make good on that promise.

● (1550)

**Mr. Derek Nighbor:** I'll speak to that and, Kate, if there's anything I miss, feel free to come in afterwards.

We offered advice to the government on how to launch a successful tree planting program, and I'd be happy to share that through the chair to the full committee.

Our industry plants five to six hundred million seedlings every year across the country. I'm really proud that this year the plant went ahead without any major outbreaks—and that came with a lot of collaboration with governments, northern mayors and councils and northern indigenous communities. We did such a good job that the tree planters were worried about the northern locals in terms of contracting COVID. A lot of great work was done. We do have a lot of experience in this area.

In the advice we shared with the government, there were a couple of things. Number one, seedlings don't just pop up. We need time to build capacity, and it can take up to four years to build that capacity. Given that we plant on average a thousand trees every minute, once the capacity is there, we have the ability to do that planting. It's the capacity crunch we worry about for a couple of reasons. Number one, you want to get value for taxpayer dollars here, because, if you have a surge and there's not enough capacity, the prices are going to go through the roof for both the federal government and our companies, and that's not great.

The other thing we'd want to do is to make sure that experienced people are doing the planting, those who are planting for resiliency, so that those trees don't die. I really hope that as the government goes forward, we're going to tap into existing resources—provincial governments, indigenous communities and nurseries—that have a lot of expertise. It's really not a time to find some newbie to start doing this stuff, because it is very complicated work, and you want to be planting the right trees in the right places. The nursery capacity, I would say, is a really big challenge.

I'd like to see that you also don't want to have this two-billion surge and then just stop planting. If you want to build that business capacity in that nursery sector, I would love to see a longer-term commitment to continue to do this so that the investments would be worthwhile.

The other thing I'll add, in terms of the planting itself, is that we see a huge opportunity for more urban forests, in more urban communities and rural communities, in addition to planting in areas of our working forest that have been hit by pests and fire. As Jean-François said, we replace what we harvest in Canada. We actually replace more than we harvest, but if you have land that's attacked by pests or is burned by fire, there's a bit of a gap there, because on provincial lands it's incumbent on the provincial governments to replace those trees. If they don't have the budget to do that, you're relying on natural regeneration, and in some scorched areas that natural regeneration might not be happening.

This is also why we asked the federal government to please work with the provinces who know this stuff. Please work with indigenous communities who know this stuff as you determine where in the working forests we can also plant trees beyond those in just the urban and rural parts.

I've taken up some time, but I hope that helps to answer your question.

**Ms. Rachael Harder:** Thank you, Mr. Nighbor.

**The Chair:** You have one minute left.

**Ms. Rachael Harder:** You made an interesting point, though. You said that your company plants five to six million trees per year. If the government is to make good on their promise, they're going to have to plant 1.2 million per day. Is that doable?

**Mr. Derek Nighbor:** I think it depends on when the planting starts. I'm not privy to the exact plans. As I said, we can plant 1,000 a minute if we have the infrastructure and the workers in place. The supply crunch issue you need to watch is the nursery capacity, which can impact your ability to get the seedlings, and also to get them at a good price.

You also have to consider the labour. You know, you need boots on the ground to do this planting. There's a fair bit of planning in terms of the infrastructure required. I'm not a silviculture expert myself; I don't run a nursery. Our companies work with those companies, but I would really encourage the government to work closely with them. That's essential to the advice we provided to the government.

● (1555)

**The Chair:** Thanks, Mr. Nighbor.

Thanks, Ms. Harder. You're right on time.

Up next we have Mr. Weiler for six minutes.

**Mr. Patrick Weiler (West Vancouver—Sunshine Coast—Sea to Sky Country, Lib.):** Thank you, Mr. Chair.

Good afternoon, Ms. Lindsay, Mr. Nighbor and Mr. Samray. I really appreciate your taking time out of your busy schedule to meet with us today.

Of course, COVID has caused all of us to pivot and be quite flexible and adapt to changing circumstances. We're really grateful that you were able to make some time to join our committee on such short notice today.

In my home province of B.C., it's really been a perfect storm that is impacting forestry, as you know, including from COVID-19, the fibre supply and climate change, among others. While there's been a reduction in demand for pulp and paper, we have seen growth in demand for wood as construction projects and home improvements.

The study that we're doing is looking at the economic recovery of the forestry sector. In the first hour we're really going to focus on the state of the industry, and in the second hour, more on innovation.

I really appreciated your comments earlier. You mentioned some of the challenges and opportunities for the forestry sector. I was wondering if you could speak a little bit to what role you see the federal government taking to support value addition within Canada.

**Mr. Derek Nighbor:** Is that for me, Mr. Weiler?

**Mr. Patrick Weiler:** Sure, this first question is for Mr. Nighbor.

**Mr. Derek Nighbor:** Great.

I think there are a number of things. Not far from your home community in Vancouver, we saw a recent move by the Vancouver City Council to move their building codes to 12 storeys. They joined 13 other B.C. municipalities, including Richmond and Surrey, that are working in that space.

We have seen the Horgan government commit to a value-added strategy, which we welcome. I think that's great.

One of the things for us, in working with that, is that in order to ramp up that kind of demand, you need to make sure that the supply is sustainable and also that there is certainty on that land base to support that business growth.

We're quite confident that the sustainability factors are there. Our goal is to keep those forests as forests forever. Provincial governments, including the chief forester in B.C., Diane Nicholls, set that allowable cut every year based on what the forest looks like. That is why we've seen a really difficult time in B.C. coming out of the mountain pine beetle and then the 2017-18 fires that, in some communities.... I know that not far from where Mr. Zimmer lives, you've seen some communities lose 20%, 30%, 40% of their allowable cut. That has meant too many mills chasing too few trees and has led to some of the closures.

I think there is a whole host of issues at the provincial level in B.C. around stumpage costs—and that could extend to Quebec and Ontario and different provinces in terms of that cost to operate. But based on the stuff we can control from a federal level, I think that with the value-added strategy around supporting tall wood, building codes, ongoing innovation—I know that Stéphane Renou of FPInnovations is going to talk a bit about that later on—we do see huge opportunity in the value added.

Government procurement is another area. I know that Minister Murray and Andy Fillmore have been working on some of that. Richard Cannings had a private member's bill as well on that, so I think that government procurement is also an avenue to explore.

**Mr. Patrick Weiler:** Great. Thank you, Mr. Nighbor.

Also in your comments you mentioned looking at some of the opportunities in terms of jobs and products for the people. You mentioned ways that we could strengthen the sector domestically, and also how we could provide innovative products to the world.

Could you comment on what the federal government can do to support marketing wood products around the world, in addition to what it's doing already at this point.

**Mr. Derek Nighbor:** You should keep supporting organizations like Canada Wood and Quebec's equivalent wood promotion business. There are a lot of federal-provincial industry dollars going into some of those private-public partnerships to help grow markets. I think we have an opportunity to do more in that. I think the work that Canada Wood and we do on the lumber side is fairly advanced and working really well. I'd want to maintain that momentum. Let's continue.

As one of our CEOs says, “China is the new China”. There continues to be a lot of opportunity in Asia for us. I think our exports to the U.S. now are about $22 to $23 billion, and into Asia they're almost $9 billion, so that's progress from a number of years ago.

I would challenge the government—and we'd love to work with you on this—in finding other ways to grow markets for some of these new emerging materials and products in the biospace. In other words, is there anything more we can do on the pulp and paper side to brighten their business prospects?

● (1600)

**The Chair:** You have one minute, Mr. Weiler.

**Mr. Patrick Weiler:** Thank you.

I just want to touch on a question that one of my colleagues mentioned about the plan to plant three billion trees.

Mr. Nighbor, you mentioned the government's support for reforestation this year. I was just hoping you could talk a little bit more about what that's meant for the ability this year to still carry out the tree planting work that needed to be done.

**Mr. Derek Nighbor:** There was a $30-million COVID-related program that was launched to support contractors. That's being funnelled through the provinces, and we appreciate the federal support there.

I'd say there are mixed reviews now on how that money is flowing through at the ground level. I would also say that $30 million is not quite enough. If you think of all of these people going up where Bob Zimmer lives and you can't put six in a truck or in a van and you can't put 20 in a tent.... So there were a lot of contingencies and a lot of additional expenses.

But listen, we appreciated the support and the most important thing is that we got the plant done and everybody stayed healthy.

**The Chair:** Great. Thanks very much, Mr. Nighbor.

Mr. Weiler, I appreciate that. You were right on time.

Mr. Simard, over to you for six minutes.

[*Translation*]

**Mr. Mario Simard (Jonquière, BQ):** Thank you, Mr. Chair.

Thank you Mr. Samray, Mr. Nighbor and Ms. Lindsay.

You all mentioned the extraordinary potential of the forest to fight climate change. The forest is a carbon sink, and I think this has been demonstrated.

Mr. Samray, what do you think about the possibility of the government setting specific targets to reduce the carbon footprint? If federal government procurement contracts included a carbon footprint criterion, as they do a lowest bidder criterion, then two birds could be killed with one stone—promoting the development of the forest industry while fighting climate change.

Have you ever thought about this type of measure?

**Mr. Jean-François Samray:** Thank you for your question.

When you adopt such a criterion, you must be able to quantify it. We are currently developing a tool called a Gestimat calculator. It allows architects and engineers to estimate the amount of greenhouse gases that can be avoided by using wood as a building material. The calculator has been approved by industry and government. Final adjustments are being made and this tool will be available.

In terms of evaluation criteria, just as one can take energy efficiency into account when selecting electrical appliances, one can choose criteria for the carbon footprint of building materials. This would obviously have a stimulating effect on the forest economy, but also on the Canadian economy. There are forests in many communities, and local economies are interconnected, circular.

At the same time, the industry has designed engineered wood that meets the need for prestressed and factory-assembled products, making construction easier and faster. These things are now available. The more they are available, the more the federal government highlights them in its technology showcase, and the easier it will be to sell them internationally because the Canadian government will demonstrate that they are strong, durable, climate change-friendly buildings available to the rest of the world.

● (1605)

**Mr. Mario Simard:** Thank you.

You also mentioned the softwood lumber dispute with the United States. You gave some figures and talked about $1 billion for Quebec and $4 billion for all of Canada.

I've been talking to the people at Resolute Forest Products and others who are at $200 million right now. What seemed to be a problem for them was access to cash. To access current federal government programs, you almost have to be technically bankrupt, which is not the case for the entire forest industry, of course.

Do you think there is work to be done to ensure better access to liquidities? During the last softwood lumber dispute in 2006, the forest industry had to leave $1 billion on the table.

**Mr. Jean-François Samray:** It should be noted that the industry has benefited from very good market prices over the last few months, but, over a 10-year cycle, that is not always the case. Companies will therefore need cash to continue their operations and meet their obligations in the coming months.

If the government created a program to allow them to obtain bank letters of guarantee, it could help them to bear the additional costs and overcome this cash shortfall. You'd have to look at it under the World Trade Organization agreements, the WTO, because you have to know how you do it, but I think this is a great opportunity to support the industry.

The WTO ruling demonstrated beyond a doubt that Canada's forest management practices are consistent with international trade rules. So, pending a decision negotiated and agreed upon by the parties, I think it would be very positive to have such government support.

[*English*]

**The Chair:** You have 20 seconds, Mr. Simard.

[*Translation*]

**Mr. Mario Simard:** There is another issue that is quite essential, and that is the transition of the pulp and paper industry.

This transition involves upgrading some plants, and the costs are rather high. If there were a federal government funding strategy for the transformation of the pulp and paper sector, do you think that would help?

Do you have a suggestion for an initiative that could be put in place by the federal government to support this transition in the pulp and paper sector?

**Mr. Jean-François Samray:** I think my colleague talked about it...

[*English*]

**The Chair:** You might have to get back to that in a subsequent question. Unfortunately, we'll have to move on Mr. Cannings.

**Mr. Jean-François Samray:** Okay, sorry.

**Mr. Richard Cannings (South Okanagan—West Kootenay, NDP):** Thank you, Mr. Chair, and thank you to the witnesses for being here today.

I'll pick up on something that Mr. Simard was talking about and what Mr. Nighbor mentioned. Mr. Nighbor mentioned my private member's bill on government procurement and using a lens of climate action, cutting down greenhouse gas emissions when letting government contracts for building. I'm happy to say that the bill is in the Senate now and hopefully will start its way back to the House and have enough time to get there.

I'm just wondering if I could ask Mr. Nighbor if he has any sense of how government procurement has been with the construction of large wood buildings. I ask because when the Conservatives killed my bill in the Senate in the last Parliament, I heard from various government members in the House that I should not worry, that procurement was happening, that what I was proposing in my bill was becoming practice in the government. I'm just wondering if that's really the case. Has it been noticeable? What is the state of that?

**Mr. Derek Nighbor:** It hasn't been noticeable on the federal procurement side. We have more mature procurement policies in B.C. and in Quebec that we see working. Maybe to give you some sense of the impact, I went back and looked at the UBC Brock Commons 18-storey wood building. It went up in 70 days, four months faster than if it had been a traditionally built building. In its construction, carbon pollution was down 25% to 45%.

There definitely are fewer big trucks on site at construction. It's a faster time to construct. NRCan has done a recent study on value-added wood and engineered wood and anticipates that there is an opportunity to move that production level in Canada from $4.4 billion a year to $6.4 billion a year by 2030. We're seeing companies like Nordic in Quebec, and a new Element5 in St. Thomas, Ontario, and Structurlam in your home community of Penticton. I think there's an opportunity to do more there.

Government procurement can help, but outside of the provincial governments, we haven't seen any noticeable procurement shifts that we'd say are making a difference.

● (1610)

**Mr. Richard Cannings:** In terms of mass timber construction, then, you mentioned Structurlam in my hometown of Penticton. Kalesnikoff in the Kootenays has built a huge, modern plant to do just that. You mentioned a few others. Is there a real trend to create more mass timber facilities in Canada?

Perhaps you can move on from that, and perhaps Mr. Samray can jump in as well, about how that might help us in our domestic market, as well as in the international markets. Building a domestic market might help in cases where we've lost some of the international market, especially in the U.S.

**Mr. Derek Nighbor:** Maybe I'll defer to JF on that. I've had a lot of air time here, so he can talk about the Quebec experience.

**Mr. Jean-François Samray:** I think it is something that is quite clear. Now it can be done; the know-how is there. The industry knows how to do these things, as Derek mentioned. Of course, it goes faster than when you use concrete. On top of that, when you use engineered wood, you are using wood with more value added. We could also export these products down to the U.S. and not face some extra tax burden, because these are value-added products. Therefore, there is really an opportunity to create jobs, reduce GHGs, and at the same time create an expertise that is hardly taxable on the other side of the border.

So yes, it can be done. The way government can help is to really use its purchasing power as a showcase and to make people proud of what it is. We see more and more schools and municipal pools and stadiums being built, and we don't see any painting on these walls the way it is on the ones made out of concrete. The youth are really proud of these buildings. The community gathers around these buildings because they create a sense of community.

It's good for the environment, it's good for the community, it's good for value-added products and it's really strong on what Canada does best, strengthening engineering and introducing that with new wood products. It's a winning combination.

**The Chair:** You have about 40 seconds, Mr. Cannings.

**Mr. Richard Cannings:** Okay.

Just quickly, the other focus of this study is how the forests can help us meet our climate change targets. You mentioned the narrative that forests are a carbon sink. The fact is, they haven't been a carbon sink for the last 20 years. How can the forest industry help the forests help us reach those targets? The forest sector can do what other sectors do, but you are the ones managing our trees. How can we help the forests reach those targets?

**Mr. Derek Nighbor:** Kate?

**The Chair:** Be really, really quick, please.

**Ms. Kate Lindsay:** Okay.

We can share more of our brief, but FPAC, building on the work of scientists at NRCan, has built an additional 30-megatonne contribution of CO2 removals that we can make. That's through sustainable forest management and lots of different innovation within the managed forest—the utilization of wood by creating demand for some of those value-added products so they're not burned in slash piles; and then really some of the transformational changes through the supply chain and the benefits of using wood as displacing other fossil fuel-derived products. There is a full spectrum there.

● (1615)

**The Chair:** Thank you.

We'll move to the second round of five minutes each.

We'll start with Mr. McLean.

**Mr. Greg McLean (Calgary Centre, CPC):** I showed up today in person so that I could ask questions. I hope you take note of that.

**The Chair:** Duly noted.

**Mr. Greg McLean:** My first question is regarding trade. Obviously, this is a sector in which we do very well in Canada. I noted in the comments made that trade and trade agreements will be an important part of our industry growth, going forward.

In that respect, Mr. Nighbor, can you please comment on how the clean fuel standard will affect your competitive position with our trade partners?

**Mr. Derek Nighbor:** I'll start, and Kate can add to it if I miss anything.

I think right now it's a bit early to tell, as there is still a lot of detail to be worked out. Our most initial focus, to go back to my original point, has been to avoid unnecessary duplication. We're an industry that's very comfortable with laws and regulation, let me tell you that. We're very heavily regulated. I think especially in an economic downturn, where the tolerance and the patience for that...is when you start seeing duplication that's driving no human health or environmental benefit.

One of the pieces we're working on in the clean fuel standard right now is related to buffer zones. There is currently a requirement that if your biomass is to be included—I can't remember if the buffer's 25 metres—there is a buffer zone around bodies of water that the federal standard, in draft, has specified. Well, every body of water is different. This goes back to local planning and local science. To make a judgment call that 25 metres or 30 metres needs to be the buffer for every body of water across Canada is ridiculous. We've been working with CCC officials and they've been open to that conversation, but those are the kinds of things....

The clean fuel standard can drive a lot of benefit on the bioeconomy side for a number of our pulp mills, getting into that biofuel space, but the regulations need to be drafted in a way that we're not tripping over existing provincial requirements.

**Mr. Greg McLean:** Thanks, Mr. Nighbor.

I'm sure you have seen that the current legislation or the current regulation that's coming forward does have duplications, so we're hoping for a different outcome.

At this point in time, are you suggesting that your industry will have some exemptions from the CFS as they're being presented at this time?

**Mr. Derek Nighbor:** I'm not going to prejudge what their decision is going to be. We've been feeding into the process. We've been talking to the ADM responsible and Minister Wilkinson's office to try to work toward a solution. That's going to bring good benefit for our sector and that bioforest economy.

**Mr. Greg McLean:** Thank you.

Let's talk about GHG emissions here if we can, which are also very important to this equation. I noticed that the bulk of the energy consumed by the pulp and paper industry is actually sourced, so it actually is, you could say, wood residue that powers the pulp and paper industry. Can you explain what the GHG emissions are on self-sourced, as in wood fibre, vis-à-vis what we look at with coal, which is a high- GHG emission industry?

**Mr. Derek Nighbor:** Kate, can you speak to that?

**Ms. Kate Lindsay:** Derek mentioned in his opening remarks that pulp and paper mills have reduced their greenhouse gas emissions by 66% since 1990 and that has been done largely through a transition away from coal and more and more away from fossil fuels as well.

Pulp and paper companies have taken the initiative to do green transformation and to build what's called cogeneration components in their facilities, so they are using the wood waste that's provided through the sawmilling process. That wood waste is used in a large-scale boiler to create electricity that runs the pulp and paper mill.

In many instances in Canada the facilities are now creating excess green electricity, which is going back into the public electricity grid. Currently we estimate that the amount of green electricity would power the city of Calgary, so it's quite significant.

I would say there are instances, just based on where facilities are located, in which there may be fewer options for transitioning away from fossil fuels but it's still very much the intention of the forest sector to provide low-carbon solutions and to have full utilization of that wood product so that there is zero waste.

Then the carbon is being sequestered—

**Mr. Greg McLean:** Thank you, Ms. Lindsay. I need to interrupt here.

● (1620)

**The Chair:** Mr. McLean, you have 15 seconds.

**Mr. Greg McLean:** I need a scientific explanation on how wood residue has less soot and less of a carbon footprint than hydrocarbons do. Can you provide that, please?

**Ms. Kate Lindsay:** I will do my best to get you some information in writing from a life-cycle analysis, which would compare the two. It might be best to provide that to you in writing.

**The Chair:** Thanks very much.

Mr. Lefebvre.

**Mr. Paul Lefebvre (Sudbury, Lib.):** Thank you, Mr. Chair.

[*Translation*]

Hello, everyone.

[*English*]

Derek, it's a pleasure to see you again.

[*Translation*]

Mr. Samray, I am delighted to meet you.

My riding is Sudbury, but I am originally from Kapuskasing. My father and grandfather worked at the pulp and paper mill in Spruce Falls. So I found your comments really interesting.

In your statement, you talked about the difference between the percentage of trees harvested...

[*English*]

**The Chair:** Could I interrupt you for a second? There is a problem with the translation. I am hearing you and the translator at the same time and it's very tough to follow.

[*Translation*]

**Mr. Paul Lefebvre:** Mr. Clerk, is it better this way or do we still hear the translation at the same time?

**The Clerk of the Committee (Mr. Marc-Olivier Girard):** Mr. Lefebvre, could you please make sure that you have selected French under the language option at the bottom of your screen in Zoom?

That should fix the problem.

**Mr. Paul Lefebvre:** Okay.

Mr. Samray, in your statement you said that 0.2% of forest trees are harvested in Quebec, even though the timber harvest allocation could take this to 1%. Is this correct?

If so, can you quickly explain why this is so?

**Mr. Jean-François Samray:** In fact, 0.2% of 905,000 square kilometres is harvested and the reason is quite simple. One-third of the forest is accessible to industry for reasons of proximity, and the remaining two-thirds are preserved for environmental reasons, for the protection of waterways, as Mr. Nighbor explained, or for relations with first nations. The forest accessible to industry represents one third of the total area in Quebec. We are not exploiting all of the forest potential because there are rules that stipulate that a maximum amount of resources can be cut or harvested in one year and that we cannot exceed it.

In some places, stands of hardwood forests are mixed with softwoods. Sometimes no harvesting is done because the pulp and paper sector is satisfied with chips and there have been several closures.

To answer your question, I would say that I think it's essential to transition the pulp and paper, fibre, cellulose and the new green chemistry sector, so that we can maximize processing all the available trees and harvest them in a sustainable way. This will contribute to the creation of products to combat the use of single-use plastics.

There is work to be done and I think programs should be developed to do this.

**Mr. Paul Lefebvre:** That's a very good point, which I wanted to address.

Is an initiative such as the Investments in Forest Industry Transformation, or IFIT, sufficient?

Forest products involve bioeconomy, biomass, bioplastics and biofuel. So there is a lot of potential. Basically, our study aims to determine whether the economic potential of the forest industry should be maximized. I think the answer is no.

What program could be improved, or even created, so that the transition you're talking about could take place?

**Mr. Jean-François Samray:** The IFIT program is already very popular. As I said, for every dollar allocated, 10 are requested for projects. For the most part, these are perfectly eligible and acceptable. Therefore, more investment should be made in this program. I think the forest industry is fundamental to the Canadian economy. It deserves better support and a better transition.

Remember the number I mentioned earlier and think about it. To get back to back to the $4.8 billion, every cubic metre cut represents $155 paid to governments in taxes. One-third of that goes to the federal government and two-thirds goes to the provincial government. The more we use wood, the more money goes into the federal government's coffers, and may I remind you that this is done in a sustainable way.

We are talking here about programs that would allow the transformation. On the biofuels side, things can also be done, for example using biomass to replace several fuels for heating. The goal must be to increase value added, which means investing more in innovation and in the federal government's strategic purchasing programs. The federal government can provide an opportunity for start-up companies to get their first contract with the federal government, and to prove that they can meet this challenge. This approach is very popular in Scandinavian countries. I think Canada would benefit from enhancing these types of programs.

● (1625)

**Mr. Paul Lefebvre:** Thank you.

[*English*]

Mr. Chair, how much time do I have left?

**The Chair:** I gave you a little extra time to make up for the time we lost, but I think we're at the end here.

We have just under five minutes left in this segment. Mr. Simard and Mr. Cannings each have two and a half minutes.

Mr. Simard, why don't you go first?

[*Translation*]

**Mr. Mario Simard:** Thank you, Mr. Chair.

I would like to return to the IFIT program. For the next three years, we're talking about $82.9 million. Just for comparison, which may seem petty, I would point out that for one project, Coastal GasLink, $500 million has been allocated. So, $82 million on one side and $500 million on the other. That gives a pretty clear idea of the inequity that I think exists between these two natural resource sectors of oil and gas and the forestry industry.

I won't ask you to react to that, Mr. Samray.

Earlier, one of my colleagues talked about fossil fuel targets. We're asking for 5% on gasoline and 2% on diesel and heating oil. Knowing that Canada is probably the country with the highest biomass resource per person, do you think that 2% and 5% on clean fuels is enough? Shouldn't we have much more ambitious targets?

**Mr. Jean-François Samray:** The good thing about the targets is that we can reach them as quickly as possible, review how we got there and then look at how we can change the targets.

The forestry sector uses a fair amount of fossil fuels for harvesting. Consumers were eligible for a federal government program that provided $4,000 for the purchase of hybrid vehicles to replace 1,800 litres of gasoline for 10 years. If we had this type of program for the forest industry to purchase new hybrid equipment—which is being developed—and to do research and development on hydrogen and other equipment to reduce carbon emissions and improve the carbon neutrality of the sector, it would be worthwhile.

Projects have been funded for consumers. On the industry side, it would be the right time to do this. It would be fitting to provide the same thing that the mining industry received, which is help with obtaining equipment that produces fewer greenhouse gases. For the forest industry, this would be an asset.

**Mr. Mario Simard:** Could you respond quickly to—

[*English*]

**The Chair:** Thank you, Mr. Simard.

Unfortunately, that's all the time you have.

Mr. Cannings, you are last but not least.

**Mr. Richard Cannings:** Thank you.

I'll ask this of Mr. Nighbor again.

He mentioned sustainable forestry and certified products. I think these are increasingly important, especially when I think of the value-added situation we're looking at with engineered wood, mass timber. Sometimes very big projects come up. For instance, one came to Structurlam, when Microsoft was rebuilding its campus. They demanded that 100% of that engineered wood be from sustainable, certified forests. They basically had to buy every stick of certified wood available in British Columbia at the time to meet that order.

Is there a trend in those certifications? What percentage of the wood products we're producing would meet that certification?

● (1630)

**Mr. Derek Nighbor:** All of FPAC's members are third party certified, either through sustainable forestry initiatives, a forest stewardship council, or the Canadian Standards Association. The certification piece is really important, both on pulp and paper products and on lumber products. I would say that some markets, such as North America and Europe, might have it as a requirement or be more fixated on it than maybe some parts of Asia. I think there's always an evolution there in terms of understanding.

The other thing we're hearing a lot about in the customer and investment community are the UN sustainable development goals and ESG factors. Certification is certainly a strong playing card for Canada, and it continues to be that way. We're even looking more broadly at getting bigger questions from a number of our customers and their investors, to talk about things like “What is your carbon story?” and “What is your plan to support species at risk?” Although certification touches on that, we are seeing more demands across multiple industries—including forestry—for more transparency, more information and more specifics. In addition to certification, I think it's important for us and for governments to continue to work with customers and investors on that.

**Mr. Richard Cannings:** Thank you.

I'll leave it there.

**The Chair:** Perfect.

Thank you, Mr. Cannings.

Mr. Samray, thank you very much for joining us today.

Unfortunately, we're out of time in this hour, so we have to move on.

Derek Nighbor is sticking around, I believe.

**Mr. Jean-François Samray:** It's been my pleasure.

Feel free to contact us if you have further questions.

Thank you.

**The Chair:** Thank you for your contribution, Mr. Samray.

**Mr. Derek Nighbor:** Thank you.

**The Chair:** We'll suspend for a minute, and then come back on with the next panel.

● (1630)

_____(Pause)_____

● (1635)

**The Chair:** Let's jump right back in.

Welcome to our new witnesses.

Mr. Nighbor and Ms. Lindsay, maybe you can fill us in on what's new since the last time you were at the committee.

We have Mr. Renou and Ms. Mathie from FPInnovations. Thank you both for joining us today. We also have Mr. Dallain from SEREX.

Mr. Nighbor and Ms. Lindsay, I'm assuming that you won't be making another presentation. That said, both FPInnovations and SEREX have up to 10 minutes for opening remarks. Then we'll open the floor to questions.

Why don't we start with Mr. Renou.

**Mr. Stéphane Renou (President and Chief Executive Officer, FPInnovations):** Thank you, Mr. Chair. We are glad to be here today in front of you. We're here to talk to you about the relaunch of the forestry industry.

For us, it's really about scaling up. It's about moving faster, accelerating the transformation of the industry towards the bioeconomy. That's what we're going to talk about today. I think you all received a document from us. I will move to slide 2 if that's the case.

Can you confirm, Mr. Chair, that you received the document?

**The Chair:** I personally don't recall seeing it. When did you send it?

Mr. Clerk, do we have that document translated? Maybe that's the problem.

**Mr. Stéphane Renou:** We sent it in both languages.

**The Clerk:** Yes, I think I sent it prior to the meeting.

**The Chair:** I don't have a copy of it.

**The Clerk:** Let me look into it, and I can send it electronically if need be. I will resend it, thank you.

**Mr. Stéphane Renou:** That's okay. We can still go forward. I will talk first.

[*Translation*]

Good afternoon, everyone.

If there are any questions in French, I'll gladly answer them.

[*English*]

I'll do the piece in English and then we can move on from there.

First, what is FPInnovations? FPInnovations is a private, not-for-profit organization. It's an applied research centre, so we don't do fundamental research. We are focusing on research that makes things happen in the sawmill directly, for real.

Our key mission is to help the forest industry be more competitive, and also to help it transform, to evolve. That's critical in the situation we are in now. The pandemic, the situation with COVID, has created a place in which we actually have shaken up the markets a bit and shaken up the industry, so it's all about relaunching and pulling forward more quickly so we can take our place in the bioeconomy.

What is that? What is the bioeconomy? To put it simply, it's creating an economy based on biology. For us, in the forest industry, it's about how we use trees, how we use the forest to create a more active economy.

How do we use a sustainable forest? We harvest trees and then we use them to build more with wood. We use fibre from the forest and put it in a multitude of products. So we can create products that help to capture carbon. We can create new products that actually reduce the load of carbon across the economy and we can create products that are biodegradable or that can be recycled more easily.

All that's a great concept, but if you really get down to it, what is it to have a bioeconomy? In the end, practically speaking, it means that, at a certain point in time, you should be able to look around you and see more things built of wood. You should also see—if you're in Prince George, Saguenay, La Tuque or Thunder Bay—biorefineries, bioproduct plants that transform chips of wood, the residue of wood, into bioproducts, the precursor chemistries that will create the new bioplastic. Concretely, that's what success in a bioeconomy means. It's not just a concept; it's creating those mills.

In Canada, we're actually at a tipping point right now. Other countries have moved more quickly than we have. In Europe you can now see biorefineries, complete plants, being built in the Nordic countries. In Germany and even in Brazil there have been some announcements recently.

In Canada we need to accelerate. We need to go faster. We need to create the context in which we can do that at scale. Scale is important. That's what we need to do.

But what's great about the bioeconomy? What is great about the forest industry? Something fundamental that we all need to remember constantly is that the forest industry does three things for all of us when we grow it. Of course it creates more economic impact for the regions; it creates more economic impact per se, and it also helps climate change. It's actually one of the rare sectors that help three things at the same time: the economy, regional growth and the carbon economy. It does all three at the same time, so anytime we grow, we can do this.

We actually put in the federal pre-budget consultations two asks. We tried to make them as clear and crisp as possible. Those are the missing pieces to accelerate the bioeconomy, to accelerate the scale-up of the bioeconomy

The first recommendation was to provide funding in the order of $10 million per year for five years to demonstrate and accelerate those scale-up elements and to help reduce the risk of scaling up. If you want to construct a large biorefinery tomorrow, it won't take an investment of $10 million; it could take as much as half a billion dollars, so we need to help the industry de-risk that path as quickly as possible so we can help their decision-making process.

We also need to really understand where to go. The bioeconomy needs multiple products that come out of the trees in multiple elements that we can form; we need to enter multiple supply chains. From the same wood, I'll have product that goes into asphalt, product that goes into plastic, and product that goes into insulation in construction. These are all different molecules going into all different markets that need to open at the same time, so reducing risk is important. That's the first recommendation.

● (1640)

The second one is to create a public procurement policy. We can pull on those markets, we can prime them, we can start them, and that starts with a public procurement policy.

Select the right market to enter, create the public policy and de-risk the industry capital investment with the right technical activity. That's what we need to accelerate. Is that possible? Is that real, or am I just talking in big terms? I will give you an example that we lived through this summer when we started a project to create masks to respond to the pandemic. We took the challenge with the help of NRCan to ask if it was possible to create a biodegradable mask tomorrow to produce at large scale.

Taking up the challenge, within three months we did a demonstration that this could be industrialized and put on a tissue machine in the order of weeks now, from the work we've done. Why or how could we do that? We could do that because we had the facility to scale up rapidly. I could pass from my chemistry lab, and in the afternoon I was on the pilot machine and I was running the pilot machine, and if it runs on the pilot machine, I can then go into a mill, and within one week I can produce millions of filtration media per day. That's what we need to do, more of those industrially focused activities in R and D to accelerate the scale up of products.

If we do that, then we can dream of the bioeconomy. We can dream of those plants being created in Prince George, in Quesnel, in Thunder Bay and in La Tuque. We can think about the future for an industry that is not under the stress of a rapidly transforming economy.

With this, Mr. Chair, I complete my presentation.

**The Chair:** That's great, thanks very much.

It's been pointed out to me that I said the witnesses had up to 10 minutes. That's an example of old habits dying hard. It's actually five minutes, which we agreed to earlier. My apologies, but in the circumstances, Mr. Dallain, I'll give you more than five minutes, which I did for the others.

Please proceed.

[*Translation*]

**Mr. Patrick Dallain (General Manager, SEREX):** Thank you, Mr. Chair.

In five minutes, I can provide a short introduction. I already set a time of five minutes. I'll try not to go too far over those five minutes to leave more time for questions.

Let me first tell you about our organization.

[*English*]

**The Chair:** Thanks for bailing me out.

[*Translation*]

**Mr. Patrick Dallain:** At SEREX, we conduct applied research at the college level. We're part of a network of 59 college technology transfer centres affiliated with various colleges and CEGEPs in Quebec. We're affiliated with the Cégep de Rimouski. Our laboratories are located in Amqui, in the Matapedia Valley, which is a highly forested area. Like all college technology transfer centres, we provide applied research, technical assistance and training services. Our specialties are wood processing and sustainable construction. We also have additional expertise in chemistry and biomass energy. We're a small centre compared to FPInnovations. We have 18 full-time employees, wood science researchers—engineers, chemists, technicians. Our team includes CEGEP teachers from different disciplines, such as architecture and engineering, who contribute to our research projects. We also hire students. Over the past year, 11 college and university interns have worked with us.

In the past year, our turnover amounted to just over $2 million. This enabled us to carry out over 80 applied research, technical assistance and training projects for 67 clients. We work extensively with SMEs throughout Quebec.

I said that we're part of the Synchronex network. Since 2019, we've been recognized as a technology access centre by the Natural Sciences and Engineering Research Council of Canada, or NSERC. We're part of the Tech-Access Canada network, which includes 60 college-level technology access centres across Canada.

Our two associations, Synchronex and Tech-Access Canada, have partnered with Polytechnics Canada and Colleges and Institutes Canada, which are major players in college research in Canada. Recently, they proposed a strategy to the government for investing in the applied research strength of colleges and institutes across Canada to support Canada's social and economic research and development. I won't go into the details of this request. However, it involves $165 million, divided into two parts and distributed among all the different colleges.

We're also part of a group of eight centres within Synchronex. These centres provide services in several fields related to forestry resources, such as forestry, furniture, pulp and paper, sawmilling and panels. Other research centres also work in forestry research, and we collaborate with these centres on a regular basis. This group of forestry resources consists of 250 experts, including 50 teachers. Each year, with private and public investments of $18 million, we work with over 400 clients on innovation projects. We also help train about 60 college students. Last year, we provided over 11,000 hours of internships. These are hours of student participation in projects.

I'll quickly propose a few measures to support the forestry sector's role in the fight against climate change. I heard that, in the other part of the meeting, you spoke about increasing forest management, reforestation, and so on, in order to store more carbon in the forest. This would be a good thing. I also heard that you spoke about the transition from pulp and paper mills to the production of bioproducts as a substitute for plastics.

● (1645)

While drawing from SEREX's expertise in the construction field, for example, we must encourage biosourced construction, low-carbon construction, not only on a structural level, but also when it comes to insulation and other bioproducts that can be incorporated into construction.

We must also work on developing added value in the sawmill sector, to avoid producing only first-level products and constantly encountering issues with the tariffs imposed by the Americans. We must maximize the use of the forest biomass as a source of bioproducts and renewable energy.

I'll be happy to provide more details when you ask questions.

Thank you for your attention.

● (1650)

[*English*]

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

Mr. Patzer, you are first up, for six minutes.

**Mr. Jeremy Patzer (Cypress Hills—Grasslands, CPC):** Thank you very much, Mr. Chair. I appreciate that.

I want to thank everybody for sharing today. I'm going to start with Mr. Nighbor.

As somebody who grew up in an agricultural riding with a farm background, I see a lot of similarities between the two sectors and some shared issues. In terms of further developing your industry, especially with a clear focus on technological innovations, I'm curious to know how the lack of rural and remote access to broadband or cell services affects these efforts.

**Mr. Derek Nighbor:** It's significant, and we do have a lot in common with our friends in agriculture. One of the big differences is the significant public land base upon which we are operating, which means different regulatory frameworks and whatnot, but when you think about where we are operating and the kind of stewardship work we're doing and how important that is to families and rural communities, we're in lockstep.

I don't know if Stéphane might want to talk a little bit about some of the Forestry 4.0 work that FPInnovations is doing, but broadband access is really critical to us not only for doing day-to-day work in some of these more rural and remote communities but also for advancing drone technology and accelerating some of the innovation in forestry.

Stéphane, I don't mean to put you on the spot, but is there anything there you want to share? That is a huge barrier and a huge opportunity for our sector.

**Mr. Stéphane Renou:** If I may, Mr. Chair, I would like to add a little bit here.

It is a shared challenge. It is a shared opportunity as well. I agree that it is for mining and for everything up north where broadband is a bit more scarce.

It's also about developing communications solutions, so we're working on other communications solutions that could involve broadband or something different. We need to transfer data. We need to transfer enough data so that we can optimize operations and automate machinery. We can dream of someday having everything automated up north, a certain part of a mining field or a forestry field, but basic access to data so people can optimize operations is something we need today.

Increasing bandwidth and getting to broadband is something we need to strive toward, but getting collaboration in all of these sectors is probably the key to accessing that.

We live on roads every day. We construct roads with the mining sector. We construct roads with the military to optimize the north. Keeping that up is extremely important.

I don't know if that covers what you wanted me to cover.

**Mr. Jeremy Patzer:** I'm sure it does.

Both of you might want to take a turn answering this too. You mentioned mining, whether that's oil and gas or in other sectors. They are building out broadband and access to data at the same time they are building these operations. Is that happening in forestry as well? Is there a way to build that infrastructure out at the same time?

**Mr. Stéphane Renou:** It's all a matter of planning. The difference is that in planning roads we have a history of doing it over the long term and we keep doing it. Technology has evolved rapidly and the need for technology in forestry in terms of broadband has surged, I would say, over the last few years. We can dream now about what we can do with broadband that we were not dreaming about 10 years ago. There are synergies. There's an accelerated need for it. It's also a way, which is extremely important, of getting jobs of higher quality around forestry as well.

Think about this. If someone can operate machinery with all of those screens around them, with all the intelligence and the robotics that enable them to be in the field and to control five machines at the same time, that's a much cooler job for our young kids up north than just roughing it alone with their diesel machine. That's where we're going.

It's the same thing the mining industry has done with transfers in some sections of the world. We need to get there because we don't have enough people and we need to attract the young.

**Mr. Jeremy Patzer:** Exactly.

Mr. Nighbor, in your opening remarks you mentioned that you are concerned about a misinformation campaign to prevent Canadian forestry from thriving. I'm sure you're aware that this issue is not unique to forestry but that it is shared across the natural resource sector.

Do you have any specific examples you would like to share here with this committee?

**Mr. Derek Nighbor:** Yes.

Today, the election day in the U.S., when we are talking about polarization and emotion, I don't need to talk to a group of MPs about fake news and frustration with messages being distorted. I don't want to be here whining about this, but it is frustrating when you do have such a strong story to tell and there are groups, many of them outside of Canada, trying to influence Canadian land-based decisions and local community decisions.

The one I would highlight would be the Natural Resource Defense Council built out of the U.S., which is working with some Canadian surrogates to try to lobby companies like Procter & Gamble and others to stop sourcing from Canada. It's spreading misinformation.

Once again, I go back to our public land, the work we do with provincial and federal governments, and the data that the Canadian Forest Service has when it comes to carbon information, and how robust our forests are according to the reports that NRCan issues on the state of Canada's forests every year. We're the only country in the world that I'm aware of that does a formal, comprehensive, full report on the state of our forests. We have an active Canadian Council of Forest Ministers at the provincial and territorial level, which has a lot of information. We're going to stand up for ourselves and our workers, but given the public land piece of this as well, we believe there's more that governments, federally and provincially, can do to speak truth to some of this silliness.

● (1655)

**The Chair:** Thank you.

**Mr. Jeremy Patzer:** Thank you very much.

I think that's the end of my time.

Thank you. I appreciate it.

**The Chair:** Thank you, Mr. Patzer.

You were right on time. I appreciate that.

Mr. Sidhu, you're next.

**Mr. Maninder Sidhu (Brampton East, Lib.):** Thank you, Mr. Chair.

Thank you, everyone, for providing valuable insights into the industry.

Mr. Renou, you spoke briefly about biodegradable masks. On that, I want to take the opportunity to thank you for the work that you're doing in researching and developing PPE, particularly around developing face masks made from wood fibre that are expected to be biodegradable through the mask pack project.

This is the type of innovation we need, and it showcases how all types of industries are coming together to protect Canadians during this pandemic.

Can you update us on the efforts in this area and share any lessons learned so far?

**Mr. Stéphane Renou:** Yes, absolutely.

In terms of progress we have made to this point, we have found the recipe to make the filtration layer. We, like every Canadian research institution, are struggling with the actual tests and certification, as there is a lot of variation that creates a lot of discussion. But that's all good. That's scientists arguing with one another about this being better than that, but we have solutions out there for the filtration media. Now we're working on the other layers. We have five solutions in the works, and I'm expecting results within the next few weeks, by Christmas, so that I will be able to say that I can make a fully biodegradable mask with those three layers on a tissue or paper machine; that's the key.

From there, here's a lesson learned. A tissue machine could produce anywhere between one million and ten million masks per day. To do that we would need to displace what the tissue machine is doing. The incentive for the companies needs to be there. The collaboration between all the members of the supply chain needs to be there. It's getting the team together into a highly competitive market especially in the tissue world. If there's one place in pulp and paper where all of the companies are competing, it's the tissue market, on which a lot of them depend. We need to get them to respond to a procurement need. The solution will be there if we need it. Now it's a matter of getting all of our ducks in a row to make it happen, across procurement, Health Canada, technical solutions organizations, and pulp and paper companies. It's getting the Canadian solution all together and really focusing on the fact that we need this now.

**Mr. Maninder Sidhu:** Thank you for that, Mr. Renou. We look forward to seeing that product, especially when we're seeing all of our garbage cans filling up with all of these disposable masks.

Next, can you speak more to the importance of NRCan's transformative technologies program? What types of technological advancements does funding like this enable?

**Mr. Stéphane Renou:** Absolutely. If you look at the different sources of funding that my organization or the industry bet on in terms of transforming the industry, the TT program, the transformative technologies program, is the bedrock of everything. That's where we explore each technology that can transform the industry and bring it from a low-technology level to a higher-technology level.

From there we can start to make those alliances, those demonstration projects, those next-step projects. That's why we can look at everything from forestry 4.0, which we just talked about, namely broadband, to the industrialization of construction to bioproducts ranging from bioplastic lignin in asphalt to carbon fibre from wood. Every possible stream of bioproduct is explored under the TT program. It's the bedrock. It's from that money, from that effort, that we start everything. From there we can do the rest.

● (1700)

**Mr. Maninder Sidhu:** Thank you for that.

You touched briefly on the priorities of FPInnovations. Looking forward, what opportunities do you see for areas in the bioeconomy? Where would you recommend the government focus its efforts?

**Mr. Stéphane Renou:** I think there are two things that are really important in making it real at some point. I'm a scientist. I love science. I can do science every day. But making the bioeconomy real is about taking one, two, or three things and really focusing on pushing them through commercialization and scale-up. If I look at bioplastics, there's been literature and scientists have been working on bioplastics for 40 years. We do wonderful things in the labs. What is real and what is not? Pick a few battles and carry them through so that we can prime this bioeconomy.

I think that's the most important thing, going forward. I'm looking at bioplastics. I'm looking at what we call “regenerated” fibre. What we do in the labs now is that we take wood fibre—it's beautiful, of course, but the shapes and forms are difficult to work with—and we dissolve it. Then we reconstruct fibre from it. We can add biochemistry into it and do everything from diapers to carbon fibres to high-strength materials to composite. You recreate, basically, all the bioproducts you can do with the classical petroleum chemistry.

**Mr. Maninder Sidhu:** Thank you for that.

Mr. Chair, how much time do I have left?

**The Chair:** You have 30 seconds.

**Mr. Maninder Sidhu:** Okay. I have one last question for FPAC Canada.

Ms. Lindsay or Mr. Nighbor, we've seen the importance of paper and pulp products in the use of PPE, sanitary wipes, hospital gowns and many other necessary products. Mr. Renou talked about biodegradable masks. Can you share more about what work the forest product firms are doing on the PPE front, other than on biodegradable masks?

**The Chair:** Be super quick.

**Mr. Derek Nighbor:** I can think of the Harmac mill on the west coast, which is making pulp for medical gowns. I think the biggest thing is that we're exporting a lot of uniquely Canadian premium reinforced pulp that's going out of the country and coming back in as PPE. I think there's an opportunity to do more on the value-add side, leveraging our natural resources here at home.

**The Chair:** Great. Thank you.

Mr. Simard, over to you.

[*Translation*]

**Mr. Mario Simard:** Thank you, Mr. Chair.

Mr. Renou, you provided a fine example of biorefineries.

The forest industry often focuses on commodities. It's good to capture carbon, but we can go much further. The Europeans did this by choosing to build biorefineries.

How would Canada benefit from entering the race to produce bioproducts by building biorefineries?

[*English*]

**The Chair:** Anyone is free to answer.

[*Translation*]

**Mr. Stéphane Renou:** The benefit would simply be to rank higher in the value chain. If we don't move higher, our pulp or fibre will remain in demand in all the markets, since our forest is exceptional given its life cycles. Our forest's carbon value is phenomenal because this value is very renewable. Everyone wants to use our fibre for its life cycle value. However, if we can process the fibre higher up in the value chain, then we can tap into more markets. Through a simple transformation involving a few steps, we'll move up the value chain and even attract investment here.

More broadly speaking, the main plastic buyers will be major chemical companies such as BASF, Dow and so on. These companies will be the end buyers. They can process our fibre at their facilities. We can also encourage them to process our fibre in our areas.

That's the biggest economic benefit.

● (1705)

**Mr. Mario Simard:** What government action would be required to establish this type of industry? The transformation of the pulp and paper sector costs companies a fortune, and they don't necessarily have the required capital. What steps could the federal government take to make these biorefineries a reality?

**Mr. Stéphane Renou:** The most important step, as we proposed today for the budget consultations, is to help the industry by funding activities that will enable it to scale up.

This raises the issue of how to reduce the risks associated with capital investments. As I said earlier, I could conduct a small-scale laboratory experiment in a test tube and it will always work. However, the challenge is to conduct the experiment on a large scale. What are the major risks of scaling up? I must do it to find out.

Before starting a chain on their end to see whether it works, the major chemical companies in this world, such as BASF, Michelin, Dow or DuPont, won't ask me for two grams of a substance for analysis purposes. They'll ask for tonnes. We did this in Thunder Bay when we created the organic TMP process. This process creates a tonne of lignin, sugar and sugar streams with different compositions.

This gives us the opportunity to deal with the major companies in this world and to start technical discussions with them. We show them what we can do with the fibre and how much is needed in order to have a technical discussion at the manufacturing level. We must invest in scaling up so that we can deal with the major players in the sector.

**Mr. Mario Simard:** Mr. Dallain, I went to visit you this summer. I was surprised to see how much you can do with biomass.

Can you tell the committee about concrete cases of bioproducts or bioenergy that you've managed to produce at SEREX?

**Mr. Patrick Dallain:** I can provide a few examples of projects that we're currently working on.

We use resinous species to extract bark, which can then be used as raw material to manufacture adhesives to make wood panels, for example. A wood panel contains about 10% adhesive material, which comes from oil. This adhesive can be replaced by an adhesive made from bark. The result is an even more biosourced wood panel. We said earlier that biosourced products should be encouraged.

We also managed to produce insulating foams using the tannins from the bark. We have a project under way with four different companies to make biocidal products, which are used to disinfect surfaces by eliminating bacteria or as preservatives in cosmetic products. These biocidal agents are completely biosourced. They come from the forest biomass. This is just one example. I don't know whether I have the time to give other examples, which concern energy.

[*English*]

**The Chair:** Thank you very much, Mr. Simard. You were right on time.

Mr. Cannings, we'll go over to you.

**Mr. Richard Cannings:** Again, thank you to the witnesses.

I'll start off with you, Mr. Renou. You mentioned the biorefineries that European countries are building. You suggested that we could be looking at building these types of biorefineries across Canada in small rural towns that have been hit with reductions in the forest industry. In British Columbia, as people have mentioned, we have any number of examples of that.

I guess my question is twofold. How much fibre do these biorefineries need? Is this something that we could fit into the forest sector as it is now and not impinge on it? Or would it be something that would replace, say, a sawmill that is making two-by-fours now and uses less fibre so that it could fit into the scenario where, in British Columbia especially, we're going to be in a fibre crunch for the coming decades? Is this something where we could provide more jobs for less fibre? I think that's one of the big challenges we have facing the forest industry, at least here in British Columbia.

● (1710)

**Mr. Stéphane Renou:** Absolutely, the case of British Columbia is challenging with regard to the access to fibre and all the natural calamities that didn't help with the amount of fibre that is available.

It's interesting to look today at British Columbia and the efforts of Canfor, which has dabbled a bit with some partners around biofuels and is making some progress there. There is a potential for adding to any paper mill or sawmill you see a unit that creates bioproducts. On the pulp and paper side, the advantage is that you will use a lot of installation in terms of effluent management, in terms of chemical plants in general, especially if it's a kraft mill. You can do a lot of the unit operation using the current equipment. The investment must be worth it in terms of keeping that plant up to date in all its dimensions, but you can add too. There's a value.

In terms of a sawmill, when you think about the different residues, you can also have processes that can be added to a sawmill to create a certain type of bioproduct. That's exactly what we need to think about: adding to those mills an extra step. That said, to get there we need to de-risk. We need to help the pulp and paper industry and the wood industry get into that new wave of bioreactors, of enzymes and bacteria that you need to play with to create those bioproducts, because that's a path that is a bit new for all the industries. That's part of the challenge.

In terms of creating new jobs, yes, it has this potential. It creates new types of jobs. It's actually interesting. I was thinking about Alberta the other day after having some discussions with folks in Alberta. There are so many skills in the petrochem industry that I want to go and grab today to come and help me on the bio side. All those process engineers, all those people who are used to developing large-scale mills and operations, chemistry, reactors, they can be used also in the bioeconomy. It's about making that transformation. It's about making that step, if I have answered your question.

**Mr. Richard Cannings:** I guess it has at least partially, but it twigged another question that I wasn't thinking of asking, and now I will.

You mentioned the petrochemical industry and the oil and gas industry. In Fruitvale, here in my riding, there's a company building a new plant to take in forest waste products and create renewable natural gas. This is a big plant they're building. It's not some add-on. It happens to be on an old brownfield site from an old sawmill that went out of business years ago, but they have plans to build this one and perhaps several more.

Is that something that FPInnovations gets into, this production of fuels like renewable natural gas from forest waste products? Again, we've heard of.... Right now, the interior of B.C. is very smoky because all the slash is being burned, as you know, with more carbon than all the cars in British Columbia put together. This is a way to create a cleaner fuel. Is this something that you have been hearing of and are promoting?

**Mr. Stéphane Renou:** Absolutely. We're involved in all of the RNG projects we can be. We have a team in B.C., in Vancouver, actually, working on this. As well, we have one in eastern Canada, more on the liquid fuel side, with the La Tuque team. There is a lot to do there.

To go back to your first question, I now realize that I didn't answer the question about volume, about how much fibre. If we get to bioproducts that have a higher value, then the ratio of value and jobs to the amount of fibre will change. That's the key. If I have fibre today at $900 a tonne and I make a value-added product at a higher price, then I create more value around it. Then it's technically more difficult, so I do create more jobs around it too. So there is a path there that we need to think about.

There are some things the forest industry won't do. The forest industry cannot replace all the jet fuel. There's too much volume. The forest industry also cannot tackle, at the other extreme, all the small niche bioproducts because there's not enough volume to justify the capex. The trick is to find the right applications to fit well with the volumes of fibre that we have and the value. I'm also thinking more about the promoters of bioplastics and higher-value bioplastics, if we're talking about PHBs or PHVs, a series of plastics whose costs are much higher than those of polypropylene or normal plastic. Those have added value.

● (1715)

**The Chair:** Thanks very much. I'm going to have to stop you there. My apologies for interrupting.

**Mr. Stéphane Renou:** Thank you.

**The Chair:** Thanks, Mr. Cannings.

Ms. Harder, we go to you now for five minutes.

**Ms. Rachael Harder:** I'll give that to Bob Zimmer, please.

**The Chair:** Sure.

Bob.

**Mr. Bob Zimmer (Prince George—Peace River—Northern Rockies, CPC):** Thank you, Chair.

I want to thank all of the panellists for testifying today.

Derek, I want to follow along with what my colleague Rachel Harder was asking about, and that's the two billion trees question. Could you elaborate a little bit for us? I just want to confirm this: you said that your organization is planting right now five to six million seedlings per year in Canada. Is that accurate?

**Mr. Derek Nighbor:** No. I'm not sure if I made the mistake or if it came back from Ms. Harder, but it's 500 million to 600 million. It's closer to 600 million annually. It's been as low as a little over 500 million annually.

**Mr. Bob Zimmer:** So that's quite a bit. With the math there, it would have taken many of our lifetimes to get even close to the two billion, but even that set of numbers is quite ambitious, to say the least.

I did a bit of a calculation. Two billion trees, you said, is approximately 1,000 trees per minute. Is that what you said?

**Mr. Derek Nighbor:** Yes, that's at our 500,000 to 600,000 number. It comes out to about 1,000 per minute if you run the calculation.

**Mr. Bob Zimmer:** So just based on your calculation, I have 1,000 per minute, so that's about 60,000 per hour for eight hours a day. It works out to about 480,000 trees per day.

That said, it would take 4,166 days to plant that number of trees. We all know that you can't plant trees in the north 365 days of the year. The planting season is about 120 days per year. I think that's accurate, about four months a year. Is that accurate, Derek—four to five months?

**Mr. Derek Nighbor:** That's right. It would vary from province to province.

**Mr. Bob Zimmer:** Sure. So based on those numbers, just to plant the two billion trees, we're looking at 34 years to plant the two billion trees and this government currently has no plan to even start. I'll just say this and then I'll ask you another question, Derek.

I think it highlights—and we've seen this with the softwood lumber agreement—that there's no plan to really tackle that issue. There's no plan to plant the two billion trees. There's no plan to help our forest industry. There's no plan to help our mills. There's no plan to help our loggers, and there's no plan to help our forestry workers. I think it signals a sad reality, and I hope that changes.

I'm just going to move on to the next question, Derek, for you again. I hate to keep picking on you, but you're the guy to whom we've asked many questions before. I guess you know a lot about this stuff.

You talked about the forest sink and you said 14 megatonnes. I just want you to elaborate on that a little bit, because I think what's often not highlighted and what we were referring to a little bit earlier is what a great job the forestry industry is already doing to sequester carbon by just growing trees and using biomass to heat mills and to make energy with. Can you just explain the 14 megatonnes?

**Mr. Derek Nighbor:** Actually, with your and the chair's permission, I'd like Kate, who is our in-house carbon forestry expert, to get that.

**Mr. Bob Zimmer:** Sure.

**Ms. Kate Lindsay:** Thanks, Mr. Zimmer, for the question.

This is available in "The State of Canada's Forests" report that NRCan produces. There is quite a team of carbon modellers at the Canadian Forest Service. This is in line with the international science that we really need the managed forests to sequester the most carbon moving forward.

The area that's under management is sequestering more carbon than the unmanaged forest, so this 14 megatonnes comes out of the carbon budget model. That's based on the area where we have monitoring set up across Canada and a whole bunch of inputs around growth and yield and the species and what those are capable of storing.

Then, I think, where the evolution is going, which is fantastic, is the carbon sequestered in the harvested wood products, particularly in those long-lived products like the mass timber we were just talking about, so that's calculated in there as well. It's really about maximizing that carbon sequestration potential using forest management into the future.

● (1720)

**Mr. Derek Nighbor:** Mr. Zimmer, with your permission, can I just add to that quickly?

**Mr. Bob Zimmer:** Sure.

**Mr. Derek Nighbor:** As the government embarks on its conservation agenda—and conservation is very important—we often find ourselves in the middle of a debate. Active forest management, sustainable forest management in Canada, is about conservation. About half of our managed forest is under some kind of a conservation measure.

There's no doubt, as the government pursues that ambitious conservation agenda, that there are some groups out there that want to use that as an opportunity or an excuse to just lock down land, to get industry, whether it's mining or oil and gas or forestry, off the landscape. Our counter to that is that our forestry workers are that first line of defence in detecting pest infestations. We are the first line of defence when forest fires are breaking out. It's our workers who are digging trenches and firebreaks and working with local enforcement.

I challenge some of those people who want to get us off the land base, because if you imagine us off the land base, that carbon alternative, that alternative to addressing fire and pest risks in a changing climate, is a very real one. In my Australian—

**The Chair:** Mr. Nighbor, I'm going to have to stop you there.

Thanks, Mr. Zimmer.

Mr. Weiler, you're up, for five minutes.

**Mr. Patrick Weiler:** Thank you, Mr. Chair.

I want to ask a question of all three witnesses. I really appreciate the time that everybody has spent to detail some of the respective requests that are in for pre-budget right now, especially on how dedicating financial resources could spur innovation, whether that's shovel-ready projects, research or demonstration projects.

I was hoping to take a bit of a different tack with my first question and just mention that policies such as the clean fuel standard, which require emissions intensity reductions in refineries, at the same time create opportunities and more sustainable energy products. Our plan to ban single-use plastics creates opportunities in the development of biodegradable, recyclable or reusable alternatives.

On this line of thinking, I was hoping that you could speak a bit to the role you see regulations playing in encouraging innovation in the forestry sector and in the bioeconomy. This is a question for each of the three witnesses, please.

**Mr. Derek Nighbor:** You go ahead, Stéphane.

**Mr. Stéphane Renou:** Derek will probably say a bit of the same thing that I will.

Regulation has an extremely important role. Policy, I will say, is fundamental moving forward. When you're trying to change the equilibrium in the economy to move from one type to the other to introduce more products, to introduce biofuels, etc., you will need that accelerator in terms of policy to get us there. That's fundamental. Now, on when and which one and how, etc., there is a lot of debate, but it's needed to make a move.

Derek, I'll give you the ball.

**Mr. Derek Nighbor:** I'll go back to my comment about provincial and federal policy and regulatory coherence here.

In the development of the clean fuel standard—and as I said, it's still under development and debate and discussion—when we saw this land use biodiversity requirement come out, the B.C. government, which has a very ambitious bioeconomy agenda, was among the first to stand up and say: "Whoa, whoa, whoa. We have a plan here in B.C. We're managing the land base, and you're doing something that's getting in the way or overlapping."

So we've received and welcome that CCC information, and there has been good discussion to go from there, but I think that when it comes to forestry, given that provincial responsibility and that really detailed regulation on biodiversity and land management that we're facing, we would just ask that the feds be mindful of that and work with your counterparts at the provincial level.

● (1725)

[*Translation*]

**Mr. Patrick Dallain:** I'd like to answer the same question.

**Mr. Patrick Weiler:** Yes, go ahead.

**Mr. Patrick Dallain:** I believe that we must have the courage to increase our requirements. We spoke earlier about the percentages of renewable fuel: 2% for diesel—

[*English*]

**The Chair:** I'm sorry to interrupt.

The interpretation isn't working.

[*Translation*]

**Mr. Patrick Dallain:** —and 5% for gasoline. In other countries, these percentages are much more ambitious.

[*English*]

Maybe I can answer in English.

**The Chair:** It's fine now.

They had to catch up.

[*Translation*]

**Mr. Patrick Dallain:** We must be more proactive. We need two things to encourage biofuels. The government must set minimum thresholds, which we must actively try to reach, and we must support the market.

For example, on the north shore, in Quebec, a company produces pyrolytic oil. The company is Æ Côte-Nord Canada Bioenergy, and it has ties to Arbec Forest Products. Its plant was built with considerable assistance from the federal government under the investments in forest industry transformation program, or IFIT. The company currently can't sell its products to the United States because the political situation doesn't make this possible. Canada has no market for these oils, even though it's a renewable fuel.

The United States has a program that allows consumers to purchase renewable fuels for the same price as fuels on the market. The difference is covered by oil companies. When the price of oil drops, the subsidy increases. This is called the renewable fuel standard program, or RFS. We need this type of program here. We can't use the excuse that the price of oil is low and that renewable fuels aren't on the market. We can't wait for the price to go up. We must set a price accordingly to encourage manufacturers.

[*English*]

**The Chair:** Thank you, Mr. Weiler.

Mr. Simard, you have two and a half minutes, followed by Mr. Cannings for two and a half minutes. Then we're done.

[*Translation*]

**Mr. Mario Simard:** I have a quick question.

Mr. Renou, I liked when you said that, in this race to produce bioproducts, there could also be a place for provinces such as Alberta. Traditionally, when we talk about forestry sector jobs, these jobs are mostly in Quebec, where we find 31% of them, in British Columbia and in Ontario.

Given this bioproducts stream, do you believe that Canada could see major economic development that would both combat climate change and diversify jobs in Alberta so that we don't focus solely on the oil and gas sectors?

**Mr. Stéphane Renou:** Absolutely.

As I said earlier, we need chemical engineers and organic chemists in several areas of expertise that currently exist in the oil sector. Talent must be transferred from the oil industry to the bioeconomy. For some jobs, this will be more difficult. However, these two sectors must fit together. I'll go even further and include the chemical industry.

In Sarnia, Ontario, for example, there are many people on the chemical industry side, and the forest industry is becoming entrenched in the chemical industry. The transformation is there. It involves bringing the forest industry into new streams and transferring people from one sector to another to achieve all our goals together.

**Mr. Mario Simard:** Mr. Dallain, you were about to give examples of work accomplished at SEREX using biosourced products. You spoke about the possibility of making glues for the construction industry. I don't know whether you have any other examples of this nature. However, when I visited you, I saw chipboard panels, for which there were no buyers.

In your opinion, shouldn't we work on marketing innovative secondary and tertiary wood processing products?

● (1730)

**Mr. Patrick Dallain:** Yes, of course. This would reduce the risks associated with marketing these new products. It would be good to have some help with market acceptance.

For example, in Europe there's a great deal of wood fibre insulation. Here in North America, this hasn't happened yet. We know that the need will be there and that we're able to produce it. However, this requires major investments in plants, which involves a certain amount of market risk. That's why I think that I have—

[*English*]

**The Chair:** Thank you, Mr. Dallain.

[*Translation*]

**Mr. Patrick Dallain:** Okay.

[*English*]

**The Chair:** Mr. Cannings, you are up.

**Mr. Richard Cannings:** Thank you.

I'll close by asking Mr. Nighbor another question. Getting back to trade, I think you mentioned in your initial statement that things were looking up or that we're okay with our trade situation with China, and you mentioned in passing that you were hoping that the government could help us perhaps increase our trade with other Asian countries. I assume you meant countries like India and other growing economies.

I'm just wondering what you think the prospects there are and what the government can do specifically about some of these value-added products like engineered wood. Is there a real opportunity for Canada to take its expertise and use it to increase our trade prospects in Asia?

**Mr. Derek Nighbor:** That's a good question, and given where we're at with global protectionism, I never rest easy about how trade is going anywhere. There is always going to be risk there.

As that middle class and that rural part of China continue to grow, we do see opportunity for more value-added products. When it comes to value-added exports to Asia, Japan tends to be a country that looks for that high quality and high value. If my colleagues from Canada Wood were here, they would talk about growing market opportunities in China, just based on the middle class growing and on those rural economies having more opportunity, and, definitely, in Japan.

My advice to government is to keep doing what you're doing. There has been tremendous commitment through previous governments to support Canada Wood within those export strategies, with great open communication. We have offices over there. Anyway, keep doing what you're doing.

**Mr. Richard Cannings:** Do I have time for—

**The Chair:** You have 30 seconds.

**Mr. Richard Cannings:** Okay.

Perhaps for you and Mr. Renou, where is the National Building Code at and how can we help with that?

**Mr. Stéphane Renou:** We are working hard on the National Building Code to get all of those performance elements of the code in everywhere. We need continuous help from the government to support our removing all of the roadblocks for wood to penetrate the construction industry, by pushing those performance-based codes as we go along.

We are progressing, but it's going to be a task that keeps going on and on for all time.

To make sure we use the right material at the right place is all we ask, and wood is the right material at multiple places.

**Mr. Richard Cannings:** Thank you—

**Mr. Bob Zimmer:** Mr. Chair, on a point of order, I just want to flag for you that we seem not to be getting the documents in a timely fashion before the meeting. Maybe there were translation issues around that, but I just got the documents a little while ago. If we could see to it that we could get a bit more time with those documents, it would be appreciated. I know many of us didn't receive them before the meeting.

I'd appreciate that.

Thank you, Chair.

**The Chair:** That's a valid point. As I mentioned earlier, I didn't get them either, but keep in mind that this meeting was put together on very short notice and that some of the witnesses didn't receive an invitation until Friday afternoon or early this week. I think this is going to be an anomaly, but going forward I'll ensure that it is a priority.

Thanks for bringing it up.

**Mr. Bob Zimmer:** Thank you, Chair.

**The Chair:** That was a good segue.

Thank you to the witnesses. We do appreciate that you were invited here on short notice and are grateful for the fact you were able to accept the invitation and provide us with such valuable information while you were here. We thank you. These are the early stages of this study, so you got us going on the right foot.

As for our next meeting, I think everybody is aware that we don't have a date yet. The details of the schedule are still being worked out. As soon as I find out, I will let people know, and then we can plan accordingly.

In the meantime, everybody, enjoy the rest of the evening, the rest of the week and next week. I think there are people who are going to be rushing off to their TVs as soon as we hang up here.

All right. Thanks, everybody.