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Chair: Ms. Valerie Bradford



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• (1550)

[English]

The Chair (Ms. Valerie Bradford (Kitchener South—Hespeler, Lib.)): I call the meeting to order.

Welcome to meeting number 99 of the House of Commons Standing Committee on Science and Research. Today's meeting is taking place in a hybrid format. All witnesses have completed the required connection tests in advance of the meeting.

I'd like to remind all members of the following points.

Please wait until I recognize you before speaking. All comments should be addressed through the chair.

Members, please raise your hand if you wish to speak, whether participating in person or via Zoom. The clerk and I will manage the speaking order as best we can. For those participating by video conference, click on the microphone icon to activate your mic. Please mute yourself when you are not speaking. For interpretation for those on Zoom, you have the choice at the bottom of your screen of floor, English or French.

Thank you all for your co-operation.

Pursuant to Standing Order 108(3)(i) and the motion adopted by the committee on Thursday, May 23, 2024, the committee resumes its study of innovation science and research in recycling plastics.

It's now my pleasure to welcome, from the Canadian Beverage Association, Krista Scaldwell, president, and from the Circular Innovation Council by video conference, Jo-Anne St. Godard, executive director.

Welcome. You will have up to five minutes for your opening remarks, after which we will proceed with rounds of questions.

We'll start with Ms. Scaldwell.

I invite you to make an opening statement of up to five minutes.

Ms. Krista Scaldwell (President, Canadian Beverage Association): Thank you, Chair.

I would like to thank the members of the committee for providing this opportunity to speak about the leadership role the beverage sector is playing in Canada to increase recycling and advance the circular economy.

The Canadian Beverage Association is the national voice for more than 20 businesses, representing 60 brands of non-alcoholic beverages. Our members directly employ more than 20,000 Canadi-

ans, pay more than \$977 million in federal tax revenue and contribute more than \$5 billion to Canada's GDP every year.

In addition to our sector's support for jobs and economic growth across the country, CBA members are leaders in sustainable packaging, design, recycling programs and the use of recycled content in packaging.

Today, we have three key points to address: one, align recycled content standards with the available supply of recycled plastic material; two, increase the supply of recycled material by supporting the development of a national framework for deposit-return and recycling programs for non-alcoholic beverage containers; and three, prevent supply chain disruptions and unintended consequences in the recycling system by excluding aluminum non-clad sheet from the aluminum surtax until additional supply becomes available.

Most CBA members have committed to making their packaging recyclable, reusable or compostable by 2025. CBA members are supplying their beverage products primarily in aluminum cans and plastic bottles, which are recyclable materials collected at a high rate, and they are among the most valuable commodities managed in packaging recycling systems.

CBA members are also taking actions to further improve the packaging they supply by supporting the golden design rules, which require the elimination of plastics and additives that disrupt recycling systems or degrade the value of other recyclables.

CBA members have made recycled content commitments and support the use of recycled content standards, but those standards must align with the available supply of recycled material. To create that supply, Canada requires a national framework of well-designed deposit-return and beverage container recycling systems with measurable, achievable recycling targets to collect, sort and market enough recycled plastic for use as recycled content.

All Canadian provinces except Ontario and Manitoba have a deposit-return system for non-alcoholic beverage containers. Provinces with deposit-return systems, like British Columbia and Alberta, have recovery rates ranging from 77% to 85%, along with high levels of consumer support. Ontario, which relies only on blue box collection, maintains the country's lowest recovery rate for non-alcoholic beverage containers, which is about 50%. Without a deposit-return system in Canada's largest province, beverage producers will have great difficulty obtaining access to the necessary supply of recycled plastic to meet the federal government's proposed recycled content target of 60% by 2030.

We ask the committee and the members of the government to ensure that any federal recycled content standards that increase the demand of recycled plastic align with the available supply of recycled plastic. We further ask the committee and members of the government to support the development of a national framework for deposit-return and recycling programs for non-alcoholic beverage containers to produce the necessary supply of recycled plastic.

Aluminum is one of the most recycled and recyclable materials used in packaging today. Canada's beverage container recycling programs recover more than 80% of aluminum cans. We understand the government's decision to align with the United States on a surtax applied to steel and aluminum products from China, but we ask that you recognize its unintended consequences.

As mentioned, the two primary types of containers for CBA members' beverage products are plastic bottles and aluminum cans. Limiting the import of aluminum used for beverage cans, with little or no time to prepare, will create major supply chain disruptions and could increase plastic usage. To meet demand, beverage companies may have to increase the use of plastic bottles until more aluminum can be sourced in North America. To prevent these supply chain disruptions and unintended consequences, we call on the government to exclude aluminum non-clad sheet from the list of aluminum and steel products from China subject to a 25% surtax until additional supply becomes available.

In summary, our association's requests of the committee are for the support of the following: aligning recycled content standards with the available supply of recycled plastic material; increasing the supply of recycled material by supporting the development of a national framework for deposit-return and recycling programs for non-alcoholic beverage containers; and preventing supply chain disruptions and unintended consequences in the recycling system by excluding aluminum non-clad sheet from the aluminum surtax until additional supply becomes available.

- (1555)

Thank you very much for the opportunity to share our members' perspective today. I'd be happy to answer your questions.

The Chair: Thank you, Ms. Scaldwell.

Ms. St. Godard, you have five minutes for your opening statement.

Ms. Jo-Anne St. Godard (Executive Director, Circular Innovation Council): Good afternoon. Thank you for the opportunity to join today's meeting.

My name is Jo-Anne St. Godard. I'm the executive director of the Circular Innovation Council. We are a leading, independent and not-for-profit organization focusing on accelerating Canada toward a circular economy and away from our current linear take-make-waste-based economy. For those unfamiliar with the concept of the circular economy, it is a model that decouples economic activity from the production and consumption of finite resources.

To offer some context to my comments today, before becoming the CIC, for over 40 years we were the Recycling Council of Ontario. In that capacity, we helped shape many of Canada's waste reduction and recycling policies and programs aimed at shifting markets toward redefining waste to valuable resources and reorganizing systems that allowed discarded materials, including plastics, to become valued feedstocks in the manufacturing of new products. Part of this role required our ability to unite policy-makers, industry interests and other stakeholders. One of our greatest achievements was the launch of Canada's blue box packaging and plastics recycling program created jointly by the private and public sectors. It is currently collecting more than 65% of the plastic packaging from our homes and is now replicated around the world.

With this experience and expertise in mind, and to respond to the committee's pursuit to conduct research to improve plastics recycling in Canada, I offer the following.

Recycling doesn't need more research. Governments and industries alike clearly understand the causation of our current poor recycling rates of plastic discards. It is fundamentally attributed to the economic disparity between the low price and availability of virgin plastics and the negative value and low availability of clean and reliable recycled plastics. For over 50 years, we have been designing and redesigning recycling programs to improve their recycling rates, spending millions on collection, infrastructure, sorting and processing, and matching operational investments with more millions toward consumer education.

If we are honest, we should acknowledge that for decades existing plastic recycling programs have effectively been financed, financially propped up, by the subsidy offered by Canadian municipalities and their respective taxpayers, making it effectively free for industry. Provincial governments are now course correcting, introducing new producer responsibility regulations to transfer these costs to manufacturers, their supply chains and their sellers. The primary objective of this transfer is to require these actors who design and sell plastics into the market to invest in a system that effectively collects and recycles them at end of life. Another objective is that these new costs will incent better design packaging and products for this system.

These relatively new EPR policy interventions are starting to take effect, coalescing in the financial contributions of producers who have taken ownership of the programs becoming intimately familiar with their costs, their limitations and their corresponding opportunity to improve them. It is estimated that Ontario's blue box program alone will cost producers over a billion dollars next year, with a significant portion of that investment dedicated to improving plastic packaging recycling specifically. Similar EPR legislation targeting other plastic products, such as computer equipment, is also expanding. New policies are being contemplated for other plastic products, such as textiles and carpets.

The effects of these new producer funding investments, tied in part to regulated plastic recycling targets, will offer an important market investment toward new plastic recycling processes, including mechanical and chemical, efficient collection and transport infrastructure operations, improved product and packaging design and, of course, expanded public education. As such, I would caution the committee to not proceed with research on plastic recycling at this time but to allow time for these new producer investments to take full effect.

There is, however, an important opportunity for this committee to reinvest and invest in research to better understand the product designs that optimize the amount of post-consumed recycled plastics. As mentioned, the cause of our consistently low recycling rates for plastics is directly attributed to low commodity value caused by a lack of market demand. Designing plastic products and packaging that maximizes the amount of recycled materials, backstopped by policies that require it, will spark much-needed market interest. This market demand will meet the new industry investments being made in recycling operations, which is the perfect recipe for sustained, high-performance and markets-based plastics recycling programs.

Thank you.

• (1600)

The Chair: My goodness, that's right on time. There we go.

Thank you for those opening remarks.

I'll now open the floor to members for questions. Please be sure to indicate to whom your questions are directed.

To start our questioning, we'll have MP Lobb for six minutes.

Mr. Ben Lobb (Huron—Bruce, CPC): Thanks very much.

My first question is for Ms. Scaldwell. It's in regard to some comments made in a previous meeting by a professor from Queen's.

I asked her about the case of, say, a Coca-Cola or beverage company. They have plastic and they have the aluminum cans, and what's the right way to go? I don't want to put words in her mouth, but she basically said that glass is actually the best way to go. It seems to me that it would be pretty energy intensive.

Is there a thing you can say on the hierarchy of good and evil that aluminum is the best, plastic is the middle and that with the energy it takes for glass, it's the worst? Do you guys look at any of that? What should the beverage manufacturers be doing?

Ms. Krista Scaldwell: Thank you, Madam Chair. I'd like to respond to the member's question.

I don't have the exact data with me. However, I do know that with the greenhouse gas emissions and the energy to produce the glass, it is far less efficient—in particular, the weight of it and transporting it—thus the choice of plastic and aluminum, which are both highly recyclable and both fairly equivalent in terms of the use of energy. I could look at what may be available to get more exact data for you.

Mr. Ben Lobb: Okay.

In the case of, say, Red Bull and Monster and those companies, when you go to the convenience store, it looks to me like they're doing aluminum cans, but when you look at companies like Coca-Cola and Pepsi and those companies, they have a variety. They have some plastic, and they have some aluminum in different shapes and sizes.

Why do they do that? Why do they have some in plastic and some in aluminum? Why don't they just do them all in aluminum?

Ms. Krista Scaldwell: I don't have an answer for that. I can ask that question and canvass the members and get back to you. Different companies, however, produce in Canada and some produce outside of Canada, so the availability of the packaging would likely be part of that. I will get back to you on the exact answer.

Mr. Ben Lobb: Okay.

If you were going to do a 500-millilitre design, what is the more cost-effective option? Is it a plastic bottle or an aluminum can for 500 millilitres or for a litre—whatever it is?

Ms. Krista Scaldwell: Again, I'll have to get an exact answer.

Sometimes we don't have the cost because it's competitive amongst the members. I would have to get aggregated data and get that back to you.

Mr. Ben Lobb: Okay. I think that is useful when you're looking at these things, maybe at a government level, I guess, in order to say, all right, we have people who come and say this and that, and there are practical reasons why some things are the way they are.

The number, you said, was 84% for recycled aluminum cans. Is that the number?

Ms. Krista Scaldwell: It's 80%.

Mr. Ben Lobb: It's 80%. Is that non-alcoholic beverage cans?

Ms. Krista Scaldwell: That's correct: non-alcoholic.

Mr. Ben Lobb: Do you know what the number is for alcoholic beverages that are in aluminum cans?

Ms. Krista Scaldwell: I do not have that number here.

It would vary similarly for us by province. Ontario has a deposit return for aluminum alcohol containers that we do not have.

Mr. Ben Lobb: I realize that it's provincial, but it might be worthwhile to get that information back to the committee to see whether it is, say, 100% in the alcohol aluminum can and bottle market. If it's 80%, is that delta worth the difference, or what is the right way to go?

Did you provide the numbers province by province for the aluminum can returns?

• (1605)

Ms. Krista Scaldwell: I didn't province by province, but the average is between 77% and 84%.

Mr. Ben Lobb: What is the—

Ms. Krista Scaldwell: Our two highest-performing provinces are Alberta and Saskatchewan for rates of recycling.

Mr. Ben Lobb: I'm sure Mr. Viersen and Mr. Kitchen are thrilled to know that—and Mr. Tochor too. How could I forget?

Are there any other final messages or thoughts from your organization that we should have as a committee on what the right thing to do or the best thing to do is?

Ms. Krista Scaldwell: I think there is an opportunity to harmonize policies across the country so that there is a chance for provinces that are lagging to learn from provinces such as Alberta and Saskatchewan. There's an opportunity to convene a working group of brands that are impacted. There are recycling affiliates by province that look at the rates and the systems. It would be, I think, very beneficial for Canadians. In particular, it makes it more efficient.

Doing it province by province is not efficient for companies. Therefore, this is the opportunity.

Mr. Ben Lobb: My other question isn't about plastics. It's a little off track.

There are cardboard beverage options. I'm not saying this about the soft drink industry but about juices and different ones. A lot of the recycling companies don't accept those as an option, and I'm wondering if they go to a landfill. Some collect them, but I don't think they end up getting recycled.

What happens to them?

Ms. Krista Scaldwell: That would be a question I'd need to ask the recycling affiliates, because I would be speculating otherwise. However, I could put that question out and get a response.

The Chair: Thank you, Mr. Lobb.

Now we will turn to MP Kelloway for six minutes.

Mr. Mike Kelloway (Cape Breton—Canso, Lib.): Thank you, Chair.

Hello, everyone, and thanks to the witnesses for coming in today.

My questions will be for Ms. St. Godard.

I'm particularly interested in the reuse program that aims to eliminate single-use plastic waste on a national basis. I'm wondering if you can describe and unpack more of what that program is.

Do you think you could point out to Canadians when we could expect to see this program active in stores?

Ms. Jo-Anne St. Godard: Thanks for the question.

This is a program we've been working on as an organization in partnership with some leading grocery retailers for the better part of about two years now. I'm pleased to say that we are anticipating a launch in Ottawa. The pilot project will be focused in the city of Ottawa initially, tested and perfected, and then expanded across the country.

What makes this reuse experiment or pilot unique is that it has a collaborative approach. I spoke in my comments about our role as an organization in bringing otherwise competing entities together around a common good and a common interest, and this is exactly what we've done with the reuse project.

We worked with three grocers—Walmart Canada, Metro, and Sobeys and Farm Boy together under the Empire group—to identify a common set of reuse containers they can utilize in-store. They have autonomy in terms of decisions about where in-store they want to use those. In a place-based way, working with the City of Ottawa.... I might say that we were also funded by Environment and Climate Change Canada to run this pilot. With the support of all of these entities, we've worked and identified a catchment area in Ottawa where we'll be deploying these containers at six grocery locations. In fact, we have gone door to door at neighbouring restaurants to see if they want to share in the pilot. At this date, as of today, 11 of them have confirmed.

What we're trying to do is build a critical mass and provide containers as a service as opposed to containers as an asset. Each of the participating entities, be they grocers or restaurants, will share in the container use, the washing and sanitization services, the deployment of the containers and the logistics of moving them about in the system. As I mentioned, the launch date is October 17. I'm very much looking forward to seeing all of you with one of our reuse containers in your hands for lunch.

We'll be running the pilot for 12 months, collecting all of the data—both in terms of costs and environmental and social benefits as well as job creation—testing the existing ecosystem of service providers, and then growing the businesses in Ottawa and diversifying their services by onboarding them into this pilot.

• (1610)

Mr. Mike Kelloway: Excellent. We'll need to have one of those pilots in Cape Breton, where I'm from.

Ms. Jo-Anne St. Godard: I would welcome that.

Mr. Mike Kelloway: As the kids say, we'll talk.

Just a few moments ago, you talked about reaching out to other businesses to get involved. We're talking about change, which can be very complex. It can be hard to get people on side with a new approach or process.

I'm curious about this: When you reached out to businesses, what was your pitch? I find, whether it's government policy on any level or just general change management, people need to understand the why. What was your “why” when you went to them?

Ms. Jo-Anne St. Godard: It was slightly different, depending on who we were talking to.

The pitch was really informed by a year of research to understand where there were barriers. What were these barriers? Were they costs? Were they management? Were they understanding? Were they education? Were they culture? Were they language? There were a variety of different barriers that we identified. We didn't look just to the Canadian context. We looked around the world. We plucked, if you will, the “best in show” attributes of working reuse programs and we combined them.

The pitch, to answer your question directly, was really distilled down to a couple of things.

First, there was a misunderstanding that reusing containers was harder or required more effort, more cost or more management than having single-use. We were able to dispel that myth by bringing real-time, time-bound studies and demonstrating, by working with each restaurant and grocery store independently, that there really wasn't much change. A container is a container. That's one of the myths we've had to dispel.

The second was absolutely cost. Again, unique to our pilot, nowhere is there any geography like Canada, where we're so disaggregated. It's a very large geography. It's very expensive for a grocery store, given it has locations across the country, to create a program by itself. It would have to move these containers between its locations, and it gets quite complicated and quite expensive.

The availability for it to pay a subscription or membership fee to get access to this program made it much more cost-effective. It eliminated its need to purchase single-use containers. Most importantly, it also got to subtract the reuse containers it was able to deploy from its extended producer responsibility fees, because reuse does not attract an EPR cost. When it combined those elements of cost savings, it was a bit of a no-brainer.

Mr. Mike Kelloway: Thank you very much.

The Chair: We'll now turn to MP Blanchette-Joncas, for six minutes, please.

[Translation]

Mr. Maxime Blanchette-Joncas (Rimouski-Neigette—Témiscouata—Les Basques, BQ): Thank you, Madam Chair.

It is a pleasure for me to welcome the witnesses who are joining us today for this important study based on science and research.

Ms. St. Godard, my question may seem simple, but it is very important. Does the management of plastic products have a positive impact on environmental protection and public health?

[English]

Ms. Jo-Anne St. Godard: Can I just repeat the question for context and understanding? I understand the question to be whether it is my opinion that a manufacturer of a plastic product makes a contribution to the social and economic well-being of Canada.

[Translation]

Mr. Maxime Blanchette-Joncas: Exactly.

[English]

Ms. Jo-Anne St. Godard: Of course, if they are manufacturing in a Canadian context, they are probably employing people. I imagine there is a job benefit and a social benefit to doing that.

The reality is that we don't manufacture many plastic anything in Canada. The increasing single-use plastics in the Canadian market do very little for the Canadian economy. Of the 400 billion tonnes of plastics produced globally, we're at less than 6% in terms of what we manufacture here. We have much more opportunity to grow our green economy by improving our ability to innovate around collection and recycling and by designing, with our innovation, more recycled content of plastics in products and packaging.

I think we learned very clearly in the pandemic, when we saw single-use plastic use triple, that having long supply chains can make us quite vulnerable. There is an opportunity for us to look domestically and shorten our supply chains in terms of production. Also, rather than going through all the expense and effort of our citizens collecting and then shipping this raw material to other parts around the world, only to buy products that actually have these recyclables as part of the makeup, we'd be better off trying to find ways of creating and shortening the supply chain and creating an economy of plastics right here.

• (1615)

[Translation]

Mr. Maxime Blanchette-Joncas: That answers my question. That's a very good short answer. I know it's a complex issue, so thank you for that.

Has the organization you represent been consulted by the federal government on the Act to amend the Canadian Environmental Protection Act, 1999, including the legislative amendment on the single-use plastic ban imposed by the federal government in recent years?

[English]

Ms. Jo-Anne St. Godard: We were very actively involved in the development and responded to each of the tools within that policy package. I do personally, actually, sit on the advisory committee to the minister as it relates to the plastic policy.

[Translation]

Mr. Maxime Blanchette-Joncas: Thank you.

I would like you to share your views based on science and research. Some companies are currently taking legal action. Since this is in the public domain, I can name them: Dow Chemical, Imperial Oil and Nova Chemicals, whose representatives came to testify before the committee to present a completely different point of view.

When parliamentarians wonder about the toxicity of plastic, I wonder if they have ever read a scientific study on the subject. Maybe they just don't believe in science. I would like to hear your opinion on that, since you are a scientific expert for the Circular Innovation Council, an environmental group.

[English]

Ms. Jo-Anne St. Godard: I don't think there's any dispute related to plastic discards and plastics pollution leaking into our environment. I know there's a growing body of research that is trying to quantify its effects in terms of not only what it's doing to our environment, but also what it's doing to wildlife and to human health. That body of research is growing. There's really been no dispute, even in the early research, that there are grave negative impacts as it relates to microplastics and other chemical compounds that are part of fossil fuel-based plastics in the system. I think that's undisputable.

Unfortunately, the rate of production of plastics continues to grow, and our rate of recycling is declining. We're headed in the wrong direction. There's no question about that. It's pretty self-evident why some of the chemical companies or other manufacturers might have more interest in trying to support recycling efforts than they would reduction efforts in terms of self-efficacy and self-continuation. We have a long way to go on the recycling side, but we will not recycle our way out of this problem. I think you've heard this at committee several times. No research or science will tell us that. We know this already.

This is going to be a combination of eliminating, reducing, swapping out plastic materials to other alternatives and, of course, expanding recycling.

[Translation]

Mr. Maxime Blanchette-Joncas: Thank you.

I would like to talk about recycling and the circular economy, because we have relevant data from 2016. According to that data, in Canada, only 9% of plastic waste is recycled, 86% ends up in land-

fills, 4% is incinerated and 1% winds up in the environment. I don't think those numbers speak to a circular economy.

[English]

Ms. Jo-Anne St. Godard: Unquestionably, you're quite right. What's not measurable and where we're starting to measure are the microplastics. It's a very difficult thing to quantify. That's a whole other impact that really deserves research and time and money.

The Chair: That's our time.

Now we will turn to MP Ashton for six minutes, please.

• (1620)

Ms. Niki Ashton (Churchill—Keewatinook Aski, NDP): Thank you very much.

My first question is for Ms. St. Godard. If you could speak to us a bit about what you found, which incentive systems work best when it comes to recycling?

Ms. Jo-Anne St. Godard: I think I would agree with my other friendly witness that deposit return systems have proven to be successful. The beer industry is one great example. For almost 100 years, they've been able to recover all of their containers, irrespective of material type, to somewhere between 85% and 95%. It's just really stood the test of time. They have an integrated system where they use reverse logistics to drop off new product and to take back containers.

I might mention that a portion of what they've been able to do so successfully, which has an economic opportunity as well, is to refill. Deposit return places a financial bounty. It creates a value where there might not be any. I spoke of the low value of plastic discards, and that's why we have disparity in the system and why we can't incent recycling. It places a financial bounty or a reward, if you will, on the consumer to do their part, in this case, using the beer example, to take it back when they pick up a new case of beer.

We know that financial incentives are very impactful. We also know that there is some evidence that municipalities have tried other disincentives with mechanisms like clear bags at the end of the curb. It might show, if there's some inspection, if you will, which is very basic, there are too many recyclables in the garbage bag and they give you a little sticker sometimes. It's not a pleasant sticker; it says that you need to try harder. There are disincentives that are placed there as well.

I think, between the two, I would certainly say that we need to really exploit and to take seriously the mechanisms in the market that have worked. There is no question that deposit return is our best result in that regard. I do think that extended producer responsibility is also another incentive, if you will. Making producers pay and internalizing those costs builds incentive and motivation for them to be able to go back and redesign improved packaging and products.

Ms. Niki Ashton: Thank you for sharing that.

I also wanted to ask about your organization's work and perhaps about work that you're aware of when it comes to making recycling realistic in northern and indigenous communities. I am joining you from northern Canada, of course, from my constituency.

Many people in indigenous and northern communities want to recycle and don't have a realistic option to do so. Many, particularly in remote communities, have very small landfills. Due to chronic federal underfunding, dealing with those landfills is anywhere from a headache to full on hazardous.

I'm wondering if you could share how important it is to get a handle on ensuring recycling is available to all Canadians, frankly, including in northern and indigenous communities.

Ms. Jo-Anne St. Godard: Yes. It's such a critical question. Thank you for that.

Personally, I can say that I lived in Churchill, Manitoba, for three years, so I know a bit about living in the north.

I know consumption—

Ms. Niki Ashton: You know a lot.

Ms. Jo-Anne St. Godard: I do know a little bit about that.

I also wrote the waste reduction strategy for the Nishnawbe Aski Nation. I was privileged to work with them in their communities to look at what is possible in the north, which is sort of exciting. Sometimes it's a negative, and it comes with negative serious conversations.

What's interesting and unique about the north is that these are small circular economies of their own. They can take self-care measures and actually take some control in terms of gatekeeping what comes into their community, how it's used in their community and what happens to all of these products at the end of their life. Moreover, they can have a different kind of relationship with the companies and retailers that bring products and packaging into their communities that ultimately could end up as waste materials.

There's no question that they have unique circumstances, but I think there is an opportunity to really leverage those unique circumstances. In NAN, by way of example, we actually looked at reuse as a community. We looked at what's consumed and where there are opportunities to supplant single-use anything with some reuse systems, given that they have this closed ecosystem. We really think that in a circular economy there's tremendous opportunity, not just to make them equal but to actually give them a leadership position and learn from them.

Also, I would say that culturally we have a lot to learn in terms of utilizing everything to its highest value and really doing a gut check in terms of the way we consume individually and what that means collectively to those communities.

There's a lot to learn from first nations communities as well. I think they're going to be a very important part of our transition towards a circular economy in Canada.

• (1625)

Ms. Niki Ashton: That's great.

I'll just take the opportunity to thank Ms. St. Godard. It's not every day that you have a witness who has lived in your riding, especially with a particular experience in Churchill.

I appreciate what you've shared, and I hope the committee will take into consideration perhaps the consulting work you did along

with NAN, given the first nations perspective and how critical it is to this discussion and to any discussion on sustainability.

Thank you.

The Chair: Thank you, Ms. Ashton.

We'll now turn to MP Viersen for five minutes.

Mr. Arnold Viersen (Peace River—Westlock, CPC): Thank you, Madam Chair.

Thank you to the witnesses for being here.

Ms. Scaldwell, do you think Canada has the potential to be a plastics recycling superpower?

Ms. Krista Scaldwell: I think we have a long way to go before I would term us a “superpower”, but I do think that we have an opportunity to do much better than we're currently doing.

There is an opportunity when you look at the use of deposit-return systems, for example, province by province, for getting the products back. The commitment that my fellow witness spoke about was the extended producer responsibility. The producers are very committed to this. They want the materials back. I think there's a huge opportunity.

Things that prevent us from getting there quicker are things like how we do it province by province. It makes data collection very expensive. If you have a different deposit at a border, then you get border fraud. I think that a national framework could help us leap forward.

Mr. Arnold Viersen: Would you recommend that the Government of Canada pursue that kind of goal?

Ms. Krista Scaldwell: Absolutely. I would recommend that the Government of Canada take an opportunity to develop a national framework. It's good for Canadians, and it's good for producers. It's good for the circular economy and, ultimately, the environment.

Mr. Arnold Viersen: You mentioned a couple of things around nationalizing the recycling program and things like that. What would it take for Canada to be the benchmark in terms of plastic recycling? Who are we up against, and what kinds of measures are in that?

Ms. Krista Scaldwell: It's a tough question because it also depends on the retail market in different countries in terms of things like return to retail.

Canada, for example.... I'm told all the time that we're ahead of the U.S. That said, how do we get to be a leader? If we could take an opportunity to collaborate, we have recycling affiliates in each of the provinces. We could take a look at the data, look at what's working in the provinces and help the lagging provinces come along, as well as invest in public education. Right now we confuse Canadians because how you recycle something in Alberta is different from how you recycle something, potentially, in Quebec or in Ontario.

Our opportunity lies in setting up a framework that would help producers and also help the recycling affiliates. We collect data as producers by province. It's super inefficient, very expensive and duplicative. Where's that opportunity? Collect the data nationally. Look at what's working in what region, at what's not working in another region and bring that forward. It's only going to make us better.

Another thing would be a national education campaign, but we can only do that if we have national framework where it's the same across the country.

Mr. Arnold Viersen: Thank you.

Ms. St. Godard, I have a similar question for you, I guess.

Would you recommend that Canada pursue something like being a plastics recycler superpower? What would you set for benchmarks for that measure to be granted? Who are we up against in terms of competitive countries?

Ms. Jo-Anne St. Godard: Yes, I think that in some cases we actually are already a superpower. It depends on the material you're speaking about. We lag in plastics. In other materials, we are actually doing quite well: paper, fibre, metals and glass. We actually have some great Canadian case studies and stories to tell, but there is a tremendous opportunity.

If we're going to really focus on plastics, which is the conversation today, to me it's nonsensical that we are spending now billions of dollars creating, using producer money and relying on average Canadians to collect, transport and clean, only to ship this material elsewhere for production into new products. Sometimes it's shipped loose, and other times it comes in the form of pellets. If we're talking about 9% recycling, we're only talking about collection, not actually recycling. There's a difference, so how much we are actually recycling in this province is probably even lower. There's a tremendous opportunity for us to keep the materials domestic and to redirect them to more domestic productions of other products right here as well.

Yes, I do think we could be a superpower.

• (1630)

Mr. Arnold Viersen: You would recommend making sure that our recycling stays here.

Ms. Jo-Anne St. Godard: That would be my preference. I mean, if we were to just measure the carbon in transporting pellets, flakes or loose recycling to southeast Asia, if we actually priced that carbon and quantified that carbon, there is no question that it would incent us to keep materials here.

Mr. Arnold Viersen: Thank you.

The Chair: That's right on time.

We'll now turn to MP Jaczek for five minutes.

Hon. Helena Jaczek (Markham—Stouffville, Lib.): Thank you so much, Madam Chair.

Thank you to both our witnesses. It's good to see points of agreement between both of you.

Ms. Scaldwell, we did have a previous witness here who alluded to European practice and a move towards standardizing beverage containers. Is this something that the Canadian Beverage Association is aware of? Is there any move to have a standardized type of plastic or aluminum container for your products?

Ms. Krista Scaldwell: That's a great question.

The aluminum is standardized. It's the same whether it's whatever brand—I have to be careful not to say the brand. That's already standardized, and it is beneficial. There's similar recycled content by the various brands as well. While they may not be standardized by size, they are standardized by what is in the plastic.

Hon. Helena Jaczek: Thank you for that clarification because that seems to be a fairly obvious thing that would enhance, perhaps, the deposit-return situation as well as recycling.

Ms. St. Godard, we have information from Oceana Canada that, between 2012 and 2019, the amount of plastic waste discarded in Canada rose by 13%, outpacing both economic and population growth—so disproportionately. Now I imagine that your organization has found this quite distressing.

Could you point to specific areas for why you think this is happening, why this out-of-proportion growth is going on?

Ms. Jo-Anne St. Godard: I'd have to look at and start to unpack those numbers to attribute them to a single cause. I would imagine there are probably a number of causes for that. I imagine that, smack dab in the middle of it, might be the pandemic. I can't remember the years you cited.

Hon. Helena Jaczek: It's the pandemic, as a matter of fact, from the information we were given.

Ms. Jo-Anne St. Godard: There was a tremendous uptick in single-use plastic utilization during that period of time for a number of different reasons. In fact, supply chains—in terms of both recycling and production—were shut down, if not slowed. There was stockpiling of materials. It got to a point where there wasn't sufficient room and it wasn't cost-effective to stockpile them anymore, so they were landfilled. There may be some skewing of the numbers as a result of the pandemic, for sure.

I think single-use plastics are replacing some other types of packaging specific to the packaging portion of the plastics faction. I know there is more data that we're collecting from outside the home, that is, away-from-home consumption, on the go or in our parks. Litter is part of that as well.

It's also what's being consumed and eventually discarded in the commercial-institutional sector. Canada doesn't have very good data there. We have extraordinarily accurate data on residential because of producer responsibility and legislation. We have very poor data in the IC and I sector on waste in general and on plastics specifically. We are very much in favour of the registry the federal government is going to create, because it will tighten that data up and make it available to all Canadians, including in industry, so we get a better handle on what our performance is.

The IC and I data is being collected at some provincial levels. I imagine this also had an effect on the data you're speaking about.

• (1635)

Hon. Helena Jaczek: Thank you.

Of course, unless you have data, you don't know what you want to achieve. Obviously, you won't want to measure progress towards improvement.

Ms. St. Godard is clearly talking about the federal plastics registry.

Ms. Scaldwell, could you comment on your industry's feelings about the registry that was announced a few weeks ago, in terms of the potential burden of reporting on a very regular basis? How does your association view that?

Ms. Krista Scaldwell: Thank you. It's a great question.

We support the concept of a national reporting mechanism like the plastics registry. However, as it's currently structured, it imposes a strong regulatory burden, and it's not harmonized with the data collected by the provincial and territorial organizations. It's asking for data not currently available or data under the purview of producers that may be...such as end-of-life fate. One of the issues we face is the cost of trying to figure out that data.

At the end of the day, anything that increases our cost of manufacturing and doing business is an increase in price for consumers. If we could see that data come to a place where it's harmonized with data collection by the provincial and territorial organizations that currently collect the data....

The Chair: That's well over. Thank you.

Now we'll turn to MP Blanchette-Joncas for two and a half minutes.

[*Translation*]

Mr. Maxime Blanchette-Joncas: Thank you, Madam Chair.

Ms. St. Godard, you know that Quebec is different for a number of reasons. The proof is that nearly 35 years ago, the Government of Quebec created Recyc-Québec, an organization that prioritized the circular economy. We are aiming to move away from the current linear and extraction-based economic model.

One could say that his model is held in great esteem by several parties. I think that's true for the party in power, but also for the Conservative Party. I have to say that it seems to suit them well. For our part, we value the principle of extended producer responsibility, whereby the responsibility for managing products at the end of life lies with the companies that put them on the market.

I would like you to tell us what you think about the rest of Canada, since we didn't wait for the federal government to help us with recycling.

[*English*]

Ms. Jo-Anne St. Godard: We work very closely with Recyc-Québec. We're very aligned with and support all of the provincial-based circular economy activities that it's showing and leading there. It's an impressive record. I can't speak for all Canadians, but any public opinion polls that we take, Canadians feel we need to do more. They have absolutely stated that they know industry has a

role to play, including those that are brand holders and sellers, but other producers and manufacturers as well.

We have many good examples that we could leverage from the Quebec situation. Leadership is being shown right across the country. There are provincial governments that are transitioning to full producer responsibility where it used to be cost-shared. There are new provinces that are coming online, namely, Nova Scotia, New Brunswick, Alberta, and an expansion in B.C. Right now, there's a lot of activity as it relates to producer responsibility.

I want to call out the leadership of the municipal sectors. Using their bylaws, some of them have banned the use and purchase of certain products and materials. They have made their suppliers and vendors more responsible through their procurement requirements. They are using their power of buying collectively and individually. Of course, their leadership is through their bylaws. Municipalities have been a tremendous convenor in terms of coalescing and educating their residents as well. There's tremendous leadership, and, really, Quebec is at the helm of that.

The Chair: We'll now turn to MP Ashton for two and a half minutes, please.

• (1640)

Ms. Niki Ashton: Thank you very much. My question is for Ms. St. Godard.

Once more, really focusing on the question of disincentives to plastic recycling, could you talk to us a bit about what disincentives prevent a higher percentage of plastics from being recycled?

Are these disincentives technical? Are they economic? Are they regulatory? Could you share some thoughts on that front?

Ms. Jo-Anne St. Godard: Defining disincentives could be different, depending on the vantage point. With the introduction of producer responsibility, one of its objectives was in fact to disincentivize or incent, depending on which side of the coin you're looking at, producers and manufacturers to look at better designed goods, be it swapping out materials for a better choice or maybe re-fill or reuse. Then sort of, lastly, it was about really understanding the costs of the system. Before there was producer responsibility, industry had no idea how much municipalities and taxpayers were actually spending on blue boxes.

There are opportunities for us to look at costing pollution. A great example of that is charging for plastic bags at the point of sale. I was involved many moons ago, when the provincial Government of Ontario was contemplating banning plastic bags. There was, obviously, a reaction by the retail sector, as we would expect, and the plastic manufacturers of plastic bags. In lieu of banning them from sale, they worked with the province, and us as a convenor in that discussion, to look at other mechanisms.

What they committed to was actually reducing the supply of plastic bags to consumers by half at a certain time frame. They exceeded that time frame, and they exceeded that amount. Many of them actually priced a plastic bag and offered a reusable one, which we now know is really quite successful. In fact, it carved the runway for the federal government, the Government of Canada, to come in and effectively ban them as a single-use item.

Disincentives and pricing pollution can be a very effective tool to incent the kind of behaviour you want and not to incent the behaviour you don't, and that's at every level.

The Chair: That's our time.

That brings us to the end of our first panel.

Thank you to the witnesses, Krista Scaldwell and Jo-Anne St. Godard, for your testimonies and participation in the committee's study of innovation, science and research in recycling plastics. Please see the clerk for any questions. You may also submit additional information through the clerk.

We'll suspend briefly to allow our witnesses to leave, and we'll resume with our second panel.

- (1640) _____ (Pause) _____

- (1650)

The Chair: I call the meeting back to order.

Our in-person witnesses haven't appeared yet. In the interest of time, I think we'll start with our virtual witnesses so that we can get under way.

Welcome back. For those participating by video conference, click on the microphone icon to activate your mic. Please mute yourself when you're not speaking. For interpretation for those on Zoom, you have the choice at the bottom of your screen of floor, English or French.

It's now my pleasure to welcome, by video conference from Coalia, Éric Leclair, plastic engineering director. Also appearing by video conference, we have Michelle Saunders, vice-president of sustainability, from Food, Health & Consumer Products of Canada.

Up to five minutes will be given for opening remarks, after which we'll proceed with rounds of questions.

We'll begin with Mr. Leclair. I invite you to make an opening statement for up to five minutes.

[*Translation*]

Mr. Éric Leclair (Plastic Engineering Director, COALIA): Good afternoon, everyone.

My name is Éric Leclair, and I am the director of plastic processing at Coalia.

Coalia is a college centre for technology transfer in Quebec, and the only centre specializing in plastics. We are a technology access centre and the only one working in the plastic manufacturing sector in all of Canada. Coalia is a non-profit organization, located at the Cégep de Thetford, in Quebec, and has about 35 employees.

We are active in a variety of sectors, and plastics recycling is an important activity for our organization. We do work for the entire supply chain, whether it be municipal sorting centres, recyclers, users, process managers who mould new parts, or industries that generate plastic waste.

We find the best ways to recycle polymers. We have a wide range of recycling transformation tools. We have good labs specialized in identifying characteristics. We also collaborate with various universities, as well as other organizations such as Recyc-Québec and Éco Entreprises Québec. At the Canadian level, we conduct activities with the Circular Plastics Taskforce.

Having said that, I have no idea why I was called here today.

[*English*]

The Chair: That's the end of your opening statement. Okay. Thank you.

We will now turn to Michelle Saunders, vice-president of sustainability, for her opening statement of five minutes.

Ms. Michelle Saunders (Vice-President, Sustainability, Food, Health & Consumer Products of Canada): Thank you very much, Chair and members of the committee. I appreciate the opportunity to speak today on the critical issue of plastics recycling.

Food, Health & Consumer Products of Canada, or FHCP, is the leading national trade association representing manufacturers of food, beverages, consumer goods and health products. Members are Canadian-owned and international companies of all sizes, manufacturing both company-owned, branded products and private label or store brand products. Together, they produce the vast majority of packaged goods sold in every aisle of Canada's grocery stores and pharmacies.

Sustainability is a key priority for FHCP, and our efforts on plastics, plastics recycling and extended producer responsibility, or EPR, impact all of our members.

In 2019, FHCP endorsed the Ellen MacArthur Foundation's vision for a new plastics economy. This focuses on eliminating plastic pollution through better product design and innovation; collecting and recycling, reusing or composting the plastics in the market; and reducing the reliance on virgin, petroleum-based plastic resins to reduce greenhouse gas emissions.

Our work with plastics recycling is threefold.

First, FHCP supports our members in packaging innovations. Our members are largely transitioning their packaging portfolios to align with the golden design rules for plastic packaging, which are a set of common principles to improve design for recyclability.

Second, FHCP and our members are actively engaged in discussions with the federal government on matters related to plastics. Each of the policies considered by Environment and Climate Change Canada—be they the federal plastics registry or policies like recycled content mandates for certain product categories and labelling requirements for recyclability and compostability—directly links to provincially mandated EPR.

Third, FHCP directly engages with provincial governments, regulatory bodies and producer organizations, like Circular Materials and Éco Entreprises Québec, to ensure that provincial policy will result in the development and implementation of effective and efficient recycling programs.

EPR has been in effect in various forms in Canada since 2004, expanding across the country and transitioning all programs to full EPR. This means that industry is assuming the full responsibility for the financing and delivery of province-wide curbside recycling programs. By 2027, 97% of Canadians will live in a jurisdiction with full EPR.

Over the past 20 years, Canadian producers have contributed more than \$6.3 billion. In 2024, producer costs across Canada exceeded \$1 billion.

We support EPR as the only way to achieve scale and ensure appropriate outcomes for materials, but the rapid pace of massive cost escalation is unsustainable. We need governments, including the federal government, to make strategic capital investments in recycling capacity and new technologies.

Research commissioned by the federal government indicates a \$6.5-billion technology gap to achieve a circular economy. This cannot be borne by producers alone. Plastic is a resource. We must ensure that it is collected and does not enter the environment, but not all plastics are the same. Mechanical recycling is a good solution to process rigid plastics, but we have extremely limited outcomes in Canada with flexible plastics and need strategic investments to ensure that we have sufficient and appropriate processing capacity and end markets for this material. We need targets that are ambitious but achievable and reflect the material that is in the market.

Lastly, we need engagement throughout the federal government, including Environment and Climate Change Canada, Health Canada, Agriculture and Agri-Food Canada, Innovation, Science and Economic Development and the Canada Infrastructure Bank. We must work together to scale and accelerate a circular economy for plastics as a priority for the government, for industry and for the environment.

Thank you.

• (1655)

The Chair: Thank you very much.

It's now my pleasure to welcome our final two witnesses. From BioLabMate Composite Inc., we have Dr. Sarika Kumari, chief ex-

ecutive officer and co-founder, and Sanjay Dubey, chief technology officer and co-founder.

Welcome to our committee. You can make an opening statement between the two of you of up to five minutes.

Dr. Sarika Kumari (Chief Executive Officer and Co-Founder, BioLabMate Composite Inc.): Thank you.

Good evening, honourable members of the committee. I am Sarika Kumari, CEO of BioLabMate. It is an honour to speak with you today on the subject of innovation, science and research in recycling plastics, with a particular emphasis on the critical issue of plastic waste generated in research labs and medical facilities.

Globally, we generate approximately 300 million tonnes of plastic waste annually, with a significant portion attributed to the medical and research sector. The COVID-19 pandemic has intensified this challenge, increasing reliance on PPE, testing kits and other disposable plastic items. Research labs alone contribute around 5.5 million tonnes of plastic waste each year, a number equivalent to the total plastic waste output of some small countries.

Single-use plastic in research labs remains a significant but frequently overlooked problem. For instance, a single lab can produce around 44,600 pieces of single-use plastic monthly, depending on the size of the lab, costing in Canadian dollars between \$14,000 and \$18,000 and weighing up to 60 kilograms or 80 kilograms. When you scale across entire university and research institutes, the magnitude of the problem becomes clear.

At BioLabMate we conducted extensive market research, engaging with over 100 potential customers in research and health care settings. Through this process, we identified bioplastics as a viable and sustainable solution. Our focus is on utilizing locally available renewable resources, specifically seaweed, to create bioplastic that can replace traditional single-use plastic items seamlessly.

While recycling has long been promoted as a solution to plastic waste, it is not enough to address the scale of the issue. Recycling is often hindered by several challenges—for example, contamination. Plastics mixed with food and other waste are difficult to recycle effectively. There are infrastructure gaps. Canada's recycling infrastructure is insufficient for the handling of all recyclable materials. There's also downcycling. Plastics often degrade in quality after recycling, making them unsuitable for reuse in precision environments like research labs.

To address the challenges, we recommend stricter regulations on what types of plastics can be recycled, investment in advanced recycling technologies, and public education, particularly in the research lab, to improve recycling practices and reduce contamination.

At BioLabMate we view bioplastics as a crucial part of the solution to plastic waste in research labs. Unlike conventional plastics derived from fossil fuels, bioplastics are made from such renewable resources as seaweed. These bioplastics are designed to be biodegradable or compostable, significantly reducing their environmental impact. Our seaweed-based bioplastics are ideal for replacing single-use items in labs, such as tips, plates and tubes, thereby cutting both waste and carbon emissions.

Seaweed as the primary material for our bioplastics offers a host of benefits. For example, on environmental impact, seaweed is a rapidly renewable resource that absorbs CO₂, helping to mitigate climate change. It grows without fresh water, fertilizers or pesticides, making it a sustainable alternative to land-based crops. In terms of the economic opportunity, seaweed farming provides a new source of revenue for coastal communities, especially in Atlantic Canada, offering job creation and economic diversification.

Despite the potential of bioplastics, there are hurdles to overcome. For example, there's the cost. Currently, bioplastics are more expensive than traditional plastics, but we anticipate that costs will decrease with growing demand and increased production. In terms of infrastructure, the limited number of industrial composting facilities in Canada hinders the proper degradation of these bioplastics. There's also R and D support. Continued research is essential to improve the performance and cost-effectiveness of bioplastics.

We urge the government to provide grants and subsidies for companies like BioLabMate that are developing sustainable alternatives; mandate the use of bioplastics in high-risk sectors, particularly health care and research; support research and development to accelerate bioplastics adoption; and expand composting infrastructure to ensure that bioplastics are processed correctly.

Recycling alone cannot solve Canada's plastic waste crisis. A combined approach of improved recycling practices and the adoption of bioplastics is essential. BioLabMate's seaweed-based bioplastics offer a sustainable and scalable alternative, particularly for the research and medical sectors. With government support, Canada can lead the transition to a circular economy, significantly reducing both plastic waste and its environmental impact.

Thank you for your time. I look forward to your questions.

● (1700)

The Chair: Thank you, witnesses, for your opening remarks.

We'll now open the floor to questions. I would ask the members to please be sure to indicate to whom their questions are directed.

We'll start the questioning with MP Viersen for six minutes.

Mr. Arnold Viersen: Thank you, Madam Chair.

Thank you to our witnesses. My first questions are for the BioLabMate Composite folks.

You mentioned that seaweed bioplastic is more expensive than traditional plastic. How much more expensive is it? What are we looking at?

Dr. Sarika Kumari: This is our product, and we are doing a patent on it. We don't know exactly how much it would cost if we compare it to the fossil fuel plastic. However, it's not that costly. The polymer has two grades. One is when you work with the research lab grade, and one is when it makes it to the commercial base. Seaweed biopellets are near to the same as you would count research-grade pellets.

Mr. Arnold Viersen: We learned at the last meeting that people use the term “bioplastic” in two ways: One meaning it's biodegradable, and one meaning that it's sourced from a plant, basically.

Dr. Sarika Kumari: Yes, bioplastic is.... It's very common now, saying “bioplastic, bioplastic”. However, bioplastic is not bioplastic until it is biodegradable and biocompostable, like it's home compostable. We at BioLabMate are making the biopellets that are home compostable. It should be compostable. It should not need any industrial set-up to compost it in a big area.

● (1705)

Mr. Arnold Viersen: That would break it down similar to a seaweed residue.

Dr. Sarika Kumari: Yes. As we know, people have used seaweed in their backyards to grow their plants. Yes, it's going to go in the soil, and it's actually going to go as a fertilizer in the soil.

Mr. Arnold Viersen: Okay. That's the goal.

Dr. Sarika Kumari: That's the goal.

Mr. Arnold Viersen: How would an aggressive pursuit of recycled plastic maybe hamper your...? If we pursue recycled plastic versus bioplastic, what would the impact be on that?

Dr. Sarika Kumari: I feel that recycling is one option, but it is not the very best option. Any which way, what we are doing is, again, grinding those plastics, and it's going to stay in there. As bio-plastic, we are making it, and it's going to the end use. Then, it's just going into nature again. It's not going to hamper—

Mr. Arnold Viersen: Thank you.

This is for the Food, Health & Consumer Products of Canada. We talked with the previous witnesses about the standardization of containers and the reuse of containers. I know, just in my own life, that the 20-litre water jugs, for example, are major plastic items that the private sector has totally developed a reuse circular economy for. I also noticed that where I come from, in the honey capital of Canada, no matter which honey farm I go to, it seems that the honey ends up in the exact same container, just with a different name on it.

What kind of work is being done with that, and how will that impact, say, the recycle versus reuse and the standardization of these products?

Ms. Michelle Saunders: Thank you for that question.

I think the standardization of packaging for a broad spectrum of products is a pretty hefty ask. I think, within product categories, certainly we are seeing efforts to standardize certain product packaging. However, producers need the opportunity to define and to determine the best material that suits their particular product, whether it is food product, beverage, consumer goods or a medical device or health product. They need to make sure that their consumer can afford it and will accept it.

There are a lot of considerations that go into the packaging decisions. We hear the conversation on standardization. I would just tell you that we are working with a common set of principles to improve recyclability by design.

Mr. Arnold Viersen: You mentioned the Infrastructure Bank. Do you have any examples of the Canada Infrastructure Bank actually lending any money in the pursuit of recycled plastic or reused plastic?

Ms. Michelle Saunders: I have no examples.

Mr. Arnold Viersen: Okay. We heard that as well earlier.

Do you have any indication as to why the Infrastructure Bank isn't being used in the pursuit of recycled plastics or alternative plastic?

Ms. Michelle Saunders: I'm not sure why. All I can say is that we support the Infrastructure Bank's prioritizing recycling infrastructure across Canada as part of their green jobs investment. It seems to us that it would fall within that strategic priority. I can't speak to why that hasn't happened.

Mr. Arnold Viersen: Thank you.

Going back to the Infrastructure Bank, if the model isn't working, would you have a suggestion for something else? These programs have nice names and goals, but if they're not doing the thing....

Do you have any alternative, common-sense plans on how we can make these things work?

Ms. Michelle Saunders: Sure.

What we've seen across the country—whether it's with provincial EPR or federal plastics policies—is governments implementing or proposing regulations, and then lifting their hands. What we need are governments that remain engaged and make strategic investments that enable and accelerate scalable solutions to recycling plastics, encouraging recycled content where it's appropriate and safe to do so.

We believe there is opportunity within Environment and Climate Change Canada, Innovation, Science and Economic Development, and the Canada Infrastructure Bank to make sizable strategic investments, rather than piecemeal—

The Chair: Thank you. That's over now, so maybe someone else will get to that.

Now we will turn to MP Longfield for six minutes.

● (1710)

Mr. Lloyd Longfield (Guelph, Lib.): Thank you, Chair.

Thank you, witnesses.

I want to continue along the line of questioning that Mr. Viersen was just going down with Ms. Saunders.

If we look at provincial and federal responsibilities in this area, the Canadian Council of Ministers of the Environment has come up with a strategy for zero plastic waste for Canada. They have 10 items in that strategy. The eighth item in the strategy has to do with science and research, which is where this committee picks up the thread. It says, “decision makers require robust evidence” and data in order to make the proper decisions, and that the research can happen “on a number of fronts, to improve understanding of where macro- and micro-plastic [waste] comes from, how it enters the environment and, the impacts it has on people and the environment.”

I'm wondering, from your perspective, in terms of research.... A previous witness today said that we've researched this thing more than it needs to be. It seems to me there's still research needed around where plastic is entering the waste streams, how much plastic waste is being generated, and how plastic waste is being reused and entering other applications as an input to other industries.

Could you comment on where the industry is at in terms of monitoring plastic waste and the opportunities? It isn't waste. It's plastic resource. How do we use a resource that isn't fit for purpose in one application but may be in others?

Ms. Michelle Saunders: Thank you very much for that thoughtful question.

We fundamentally agree that plastic is a resource. It is both a material and an economic resource to be recovered. It should never enter the environment.

We work with all of the provincial governments across the country and the federal government on data collection. Our members are constantly reporting on the materials coming into the system that they are supplying, either through import or domestic manufacturing. That's at the provincial level.

We also work with producer responsibility organizations, which then report on the outcomes. That's an eventuality. We don't have that nuance in the system yet.

We're working with the federal government on the federal plastics registry. The aim of that initiative is to help harmonize the data among the EPR programs and understand the flow. We fundamentally support good data to make all informed decisions. We have some concerns and have made some recommendations to the government. Producers are pretty stretched in their ability. The volume and granularity of data being asked of them is pretty tough for anyone other than the largest companies, but we certainly support good data.

Mr. Lloyd Longfield: Picking up on that, data is expensive, but so is waste—particularly plastic. It's expensive to create. I know of one business in Guelph that I was working with that had tons of plastic waste coming off their line. There was another customer in Guelph looking to make speakers for outdoor use. The two of them just needed to get introduced to each other. They shared moulds and some science, and they came up with a solution where, instead of hauling plastic waste away, the other company in Guelph was able to use that instead of buying virgin plastic. It was actually able to reduce their costs. Both of them reduced costs.

An investment in data could help massively in terms of material cost. Is that not an opportunity?

Ms. Michelle Saunders: It is an opportunity. There's a cost in data. There's a cost in waste. You're absolutely right.

I think what's fundamental to me from your example is the need for collaboration and knowing who's in your community and who's looking for the same common ends. We work with our members to try to build those collaborative opportunities.

I appreciate the example.

Mr. Lloyd Longfield: Probably federal and provincial harmonization would help that. Thank you.

Mr. Leclair, you're in a beautiful part of Canada: Thetford Mines. I've been through there many times, back when there was an active asbestos mine there. Now I'm looking at the incredible job you're doing to improve the environmental impact of plastics. There's a story there.

I see from reading your website that you're looking at bioresins as an opportunity, and you're developing new types of bioresin. Could you speak to that a bit, please?

[*Translation*]

Mr. Éric Leclair: We're not just doing this work in-house or on our own; we're always doing it for the good of the company involved. We have about five or six clients who are trying to develop new biopolymers. We support them and help them develop formulations that can lead to commercially viable applications.

• (1715)

[*English*]

Mr. Lloyd Longfield: Maybe you could come to Guelph. We do have a bioplastics centre here that's also developing bioresins and maybe your researchers could benefit from making those connections.

Mr. Éric Leclair: Yes, absolutely.

Mr. Lloyd Longfield: That's good. Thank you.

Really, you're bringing in the next generation of plastics engineers, who will be thinking along the lines of sustainability. I think that really is good for Quebec, and it's good for Canada. Thank you for that.

Mr. Éric Leclair: You're welcome.

Mr. Lloyd Longfield: Thank you, Chair.

The Chair: Thank you.

We'll now turn to MP Blanchette-Joncas for six minutes, please.

[*Translation*]

Mr. Maxime Blanchette-Joncas: Thank you, Madam Chair.

I would like to welcome the witnesses who are with us for this second hour.

Mr. Leclair, you spoke earlier about Coalia's role in the college centre for technology transfer network. I would like you to tell us about your groundbreaking work and innovative practices, particularly in terms of plastic recycling, which we could use to better protect the environment in the future.

Mr. Éric Leclair: There are a number of avenues, and we intervene at various levels. From the outset, eco-design makes it possible to manufacture products in a more environmentally responsible manner, and we intervene at that stage. We help companies develop products made largely from recycled materials. I also sit on standardization committees that aim to impose minimum content levels of recycled material in the manufacturing of certain products.

In addition, we are really working to add value to the plastic materials already in use that come from sorting centres or industrial waste. We find the best ways to maximize the value of these materials so that they can be reused as an important resource.

Mr. Maxime Blanchette-Joncas: Thank you.

In the field of research, basic or applied, the crux of the matter is money. Here at the Standing Committee on Science and Research, we have heard from a number of witnesses. I have spoken many times with representatives, including people from Synchronex and the network of college centres for technology transfer, the CCTTs, who always talked about the difficulty in obtaining funding from the federal government.

The unique features of CCTTs are not necessarily recognized. Actually, there are currently 59 of them in Quebec. I am proud to be able to tell everyone that the first ever CCTT is located in my region, the Lower St. Lawrence. As we know, Quebecers have a creative and innovative side, but money is needed to carry out projects.

One of the requests made several times by CCTT and Synchrotron representatives was that the Natural Sciences and Engineering Research Council of Canada provide CCTTs with funding in excess of \$100,000. In the rest of Canada, it provides \$350,000 to technology access centres, which you mentioned in your presentation.

It's as if because of the amount of innovation coming from CCTTs in Quebec, the council feels justified in limiting funding to \$100,000. Have you ever been the target of this injustice that the CCTTs in Quebec are currently experiencing?

Mr. Éric Leclair: I am not in a position to answer your question because Coalia is both a technology access centre for Canada and a college centre for technology transfer, or CCTT, for Quebec. This means we have access to funding from the Natural Sciences and Engineering Research Council of Canada.

In addition, like other CCTTs, we apply to funding programs for research projects. There is no doubt that money is the name of the game, and obtaining funding to carry out research projects is becoming increasingly difficult. In spite of everything, Coalia does quite well; we have a good success rate when we apply for funding. More money would obviously be welcome.

That said, Coalia also has a mining stream which offers a lot more money and scope for projects than the plastics stream.

• (1720)

Mr. Maxime Blanchette-Joncas: Thank you.

Based on your expertise and experience, and the various projects you have undertaken and are currently undertaking at Coalia, what can you tell the committee about innovations in single-use plastics recycling? Do you think the government should implement measures to counter plastic pollution, which is not only harmful to the environment, but also to human health?

Mr. Éric Leclair: I think that things are on the right track in terms of producer responsibility regulations. Moreover, a change is currently under way in Quebec with Éco Entreprises Québec. I welcome the fact that we can increase the quality of materials coming out of sorting facilities. This will set off a chain reaction. If better-quality materials come out of the sorting facilities, the recycling companies can do their job more effectively and efficiently. We'll gain access to recycled materials, cut production costs and use these materials for new applications.

In addition, technology is the key. Our role is to identify the most efficient and cost-effective technologies.

Mr. Maxime Blanchette-Joncas: Thank you.

You spoke earlier about innovation involving polymers. Could you share with the committee some of your work in this area, or your partnerships with private companies?

Mr. Éric Leclair: We don't provide a wide range of services in this area, so I'm not sure how to answer your question.

There are many fine examples in Quebec. Soleno, a company that manufactures pipes, drains and culverts, has worked with us to incorporate as much recycled material as possible into its products. The goal is to produce high-quality products that meet lifespan standards of 75 or 100 years.

We've also worked with sorting facilities to optimize their processes in order to produce higher quality products—

[English]

The Chair: That's well over our time, but perhaps another questioner will pursue that line of questioning. It was interesting.

Now we will turn to MP Ashton for six minutes.

Ms. Niki Ashton: Thank you very much.

My first question is for Ms. Saunders, from Food, Health & Consumer Products of Canada.

We have heard a fair bit about the extended producer responsibility, which is a policy approach whereby producers' responsibility for a product is extended to the post-consumer stage. What are the benefits of EPR, and how is EPR being implemented in Canada?

Ms. Michelle Saunders: Thanks. I'm always happy to talk about EPR. It is what keeps our members awake at night.

It is a policy tool whereby industry across the board assumes responsibility for funding and delivering recycling programs that we call "blue box" in most provinces. We work with provincial governments and producer responsibility organizations.

It really is a way for producers to have control of the system to make sure that we're designing systems and materials that go together and can be collected. We have greater insight when industry is leading EPR versus the old, historical municipal programs that really didn't allow for scale.

One of the things we need to be exploring with EPR is producers having access to their materials once they've been collected, because we have to be recouping for recycled content. We can't just be purchasing on an open market. The demand is significant. We're also very mindful of EPR being introduced in the United States. That will really impact the cost of recycled resins in Canada.

We fully support EPR. We think there are a lot of refinements, but we're really looking to work with provincial governments to better align some of the regulatory provisions in their EPR programs.

[Translation]

Ms. Niki Ashton: Okay.

Mr. Leclair, can you talk about the challenges surrounding the quality and purpose of plastics recycled over and over again? Where do things stand, and how can we find solutions or ways to address these challenges?

• (1725)

Mr. Éric Leclair: Again, the technology and the methods used to recycle materials help to minimize degradation during the transformation or recycling process. We can take action in terms of both the process and the materials. We can use additives to protect the materials and prevent degradation and oxidation, or compatibilizers to minimize the impact of contaminants. There are a number of ways to make high-quality recycled products.

Ms. Niki Ashton: Do you have any suggestions for our committee?

Mr. Éric Leclair: We could improve the method for recovering materials. We need to sort out materials, because many polymer families are incompatible with each other. We have no choice but to separate these materials, either at the source or through efficient technological processes. Some Canadian and Quebec companies have developed highly efficient technologies for separating plastics.

[English]

Ms. Niki Ashton: Okay.

I also have a question for BioLabMate.

Could they share more background on the differences between the kinds of plastics that we've heard of, the biodegradable and the compostable, as well as the bioplastics? Could they share some feedback on that front?

Dr. Sarika Kumari: You asked what the kinds of differences are between the plastics and bioplastics that we are seeing here. We usually say that plastics are all fossil fuel-based, like petroleum-based polypropylene and HDPE. What we say about bioplastics...even when people say PLA—polylactic acid—is, yes, a bioplastic, but it takes 20 years to degrade in the soil or it needs industrial composting.

When we say that it is a bioplastic, it should decompose in the soil in a month or three, or it should not require any extras in the industrial set-up to compost it. If it requires an extra composting facility, that means we are putting another burden on the province or maybe the country. If it is home compostable, that is best way—to say that it is a bioplastic that can be home compostable and you can compost them any which way you want. You don't need to recycle them. You don't need to take them to another facility to recycle or compost them.

Ms. Niki Ashton: Thank you.

I'm not sure if you have perhaps more feedback for our committee on how important it is for the public to be made aware of those differences.

Dr. Sarika Kumari: Yes, definitely.

At BioLabMate, we are mostly talking about the research labs' and the medical facilities' plastic. We need to educate people in that

sector particularly, because we don't even know the data on how much plastic has been used in a particular research lab or in a medical facility. We don't even have that data generated—

The Chair: That's your time. Thank you.

We'll now start the second round of questioning for five minutes with MP Kitchen, please.

Mr. Robert Kitchen (Souris—Moose Mountain, CPC): Thank you, Madam Chair.

I appreciate everyone being here today and also your presentations. It's quite helpful that we've heard over the last couple of weeks a lot of very similar information from everybody, especially when we talk. We've learned a lot about bioplastics and where we go between virgin plastic and bioplastic and the steps we need to take.

I find it interesting that the great Paul Harvey once said that self-government does not work without self-discipline. In my previous life, I was the registrar for a profession, and I used to say to my professionals that without self-discipline and self-regulation we're doomed to be falling into the hands of government, and that's a big concern.

You're an industry that wants to regulate itself and should be able to self-sustain as well. We've heard oftentimes throughout these meetings from many people who are coming here and saying, "We want government money." My question, I guess, to start off with you, Ms. Kumari, is this: What does the profession, the industry, need to do to self-sustain?

• (1730)

Dr. Sarika Kumari: One thing, right now, that we see.... It's educating people. When we use single-use plastic outside of the research lab or medical facility, we're educated. However, when we use it in the research lab or medical facility, we are not educated enough. Should we recycle it? Should we just throw it in the garbage? Should we think about bioplastic? What should we do next? We follow our experiments, and then throw it in the garbage. Then it goes where it needs to go. It's either incinerated or in the garbage. We don't know where it's going.

Mr. Robert Kitchen: Thank you.

That leads into my next question.

A lot of what you talked about regarding issues with bioplastics.... We talk about medicine and health care. The average Canadian listening today hears about plastics and goes, "Okay, well, they're going to bioplastics." However, the reality is that it's not doable. Look at things like syringes, IV lines, intubation tubes, catheters, masks and gloves. They all contain a PFA—polyfluoroalkyl—which is part of virgin plastics.

If, all of a sudden, this government bans PFAS, it's going to have a huge impact. If we go to a bioplastic and get water on it.... We heard from witnesses just last week. The moment it gets water on it, it becomes compostable, all of a sudden. How do you use that in an IV line you're running a fluid through? How do you do that via a syringe or an intubation tube?

I'd like to get your comments on that, if I could.

Mr. Sanjay Dubey (Chief Technology Officer and Co-Founder, BioLabMate Composite Inc.): The first thing we should understand is that we need data. Bioplastics have not been especially used in the research lab or medical facility. We do not have good data.

Sarika and I talked to different labs. We stood around talking to lab managers, seeking data on what kind of plastic they're using, where they are using it and whether they're using it with lifelines—for example, human biocells and such things, which cannot be recycled. Is it just used for experimentation and thrown into the garbage, or can it also be recycled and used?

The thing is that the data is not there, exactly. It's difficult for us to make any judgment on that part. If we have the data, we can come out and say, "Okay, we can replace this kind of plastic." Sarika and I always say that a biolab should never target replacing everything in the medical sector. However, there are some high quantities that can be replaced with other practices.

We have to know what data is out there, and we always—

Mr. Robert Kitchen: Thank you.

Mr. Leclair, further to that conversation, you mentioned you have labs and have been working with industry and universities. I'm wondering whether you have ever sat in a situation where the university has asked you things along those lines, when they're talking about medical plastics, etc.

[*Translation*]

Mr. Éric Leclair: We haven't done many projects in the medical field. We've done some projects in industrial sectors, including projects where we had to find replacement materials that didn't contain perfluoroalkyl and polyfluoroalkyl substances. However, these replacement materials weren't biopolymers.

[*English*]

Mr. Robert Kitchen: Okay. Thank you.

I think I'm running out of time.

Quickly, to the other witness, you mentioned in your report the nine golden rules that are out there. I'm wondering if you can comment about who set this up, and whether you could even provide in writing, to the committee, the nine golden rules and what organizations were involved in that.

Ms. Michelle Saunders: We'd certainly be happy to provide that in writing as a follow-up to this presentation.

The nine golden design rules were established by the Consumer Goods Forum, which is a global organization representing grocery manufacturers and retailers. They are adopted across Canada by—

• (1735)

The Chair: Could you please submit that? We're quite over now.

Ms. Michelle Saunders: Certainly, we will.

Thank you.

The Chair: Thank you.

Now we will turn to MP Diab for five minutes.

Ms. Lena Metlege Diab (Halifax West, Lib.): Thank you very much, Madam Chair.

Welcome to our witnesses.

As an Atlantic Canadian on the panel, I'm going to turn, first of all, to the doctors from Newfoundland. Welcome to our committee.

I read your mandate. It says, "We are on a mission to eradicate the single use of plastic from research labs and medical facilities!" That is the concentration of what you were talking about, particularly in Newfoundland and the Atlantic provinces. I believe that's what I read.

Dr. Dubey, you were talking about not having enough data. How do we get you data, or how do you get data? How does that happen? Who else do you work with, whether it's in Atlantic Canada or anywhere else, in the research you're doing?

Mr. Sanjay Dubey: With the Atlantic provinces, I think we can start with the university, Memorial University. I did a Ph.D., and I'm still doing my Ph.D. there. What I found when we reached out to the sustainability department was that it didn't have those data.

We asked if it had any information on the amount of plastic. Did it have any classification of those things? It didn't, so we decided that having partnerships with the sustainability departments in the universities can be really helpful. Where they can play, maybe, a third party, they can help us with making a strategy by which they can reduce plastic the reduce-recycle way. They can also look for alternative ways, like BioLabMate is doing.

Ms. Lena Metlege Diab: Do you see a world where we can be less reliant on single-use plastic?

Mr. Sanjay Dubey: Yes, of course. Being young and being entrepreneurs, you know, we are talking to different people around the world. BioLabMate has been recently selected for one of the top accelerator programs for seaweed in Portugal, where we're going to see 20 different start-ups.

We say that there is a highlight and people are working. You see Europe, where the people are investing heavily in the bioplastic sector. You see Asia, where Japan, especially, generates the highest quantity of a biopolymer. They are also moving forward with something that is more than a plastic, you know. They want to resolve this issue from the root. I think the EPR is good, but the thing with bioplastic is that you are just closing the tap.

Ms. Lena Metlege Diab: On your website, you mention the potential for ocean-based, ocean-derived products as opposed to single-use products. How do the east coast or the Atlantic provinces factor in this innovation?

Mr. Sanjay Dubey: For making any bioplastic, you need to pin down any particular feedstock. You can make bioplastic from corn, starch, potatoes, whatever. When we were in the Atlantic region, we found that the seaweed also can be used for extracting biopolymers, but there are multiple purposes for seaweed. It was very advantageous for us because, first, the material made from the seaweed can be bio-based and biodegradable. Second, you do not require any cultivation. You don't need an agricultural farm. It can grow in the marine environment. Third, the best part about seaweed is that it's easy to cultivate and harvest, and fourth, the Atlantic regions have an abundant quantity of good-quality seaweed.

We thought that, okay, the feedstock issue has been resolved. Whenever you are building a bioplastic manufacturing plant, the highest risk is on your feedstock. If you can resolve that, it can welcome the investment for research and development. It can be scalable technology, you know.

Ms. Lena Metlege Diab: What can the federal government do to assist, or is it another level of government? Is it enterprise? Is it education, universities, colleges?

Mr. Sanjay Dubey: I think over the last two or three years when we started working with bioplastic, especially with the seaweed, we started seeing new things are coming, like the new accelerator program from the Ocean Supercluster and all those things. They started coming and supporting us. As well, there are provinces like Nova Scotia that are heavily building on those. Newfoundland started seeing the importance of seaweed as a secondary source of revenue for the fishermen, as well as using it for multiple purposes, including bioplastic.

We expect that the federal government can help with the understanding of these regulations on seaweed growing because whenever you are dealing with bioplastic, you require feedstock in a high quantity. There are strict environmental rules, but the growing of the seaweed has no harm on the environment.

There has to be some research done, so, of course, you need some money for the research. I just talked about the European partners, and we see those people, their universities and their governments heavily investing in the enhancement of bioplastic capacity at the university level.

• (1740)

Ms. Lena Metlege Diab: Thank you very much. I appreciate it.

I'm sorry I didn't get to the other witnesses.

Thank you, Madam Chair.

The Chair: Thank you.

We'll now turn to MP Blanchette-Joncas for two and a half minutes, please.

[Translation]

Mr. Maxime Blanchette-Joncas: Thank you, Madam Chair.

Ms. Kumari and Mr. Dubey, you said that we need more data. I want to understand exactly what data we need.

In the first hour of the meeting, the Circular Innovation Council said that we didn't need to conduct any more research. We already have an overview of the situation and we know what to do. I can

understand innovation. However, when it comes to recycling, we already know what to do. We just don't do it.

Can you elaborate on this topic?

[English]

Mr. Sanjay Dubey: We need data in terms of how the plastic is used in the research lab and the medical facility. That's what I talked about. I remember when we gave a proposal to our university with regard to what we needed. The data was for the type of plastic they used, what types of experiments they performed, what kinds of life-sciences plastics they used for that particular part, the quantification, and where the inventory is. You know, inventory has to be matched to the disposal, where it is going. The plastic has to be matched.

This is something that can be questioned, and these types of things can help us to understand the proper quantification. If you have the proper quantification, you can say, "Okay, for this particular area, for research and medical facilities, this kind of plastic can be recycled. This can be the alternative." This can be another source or way we can improve sustainability.

[Translation]

Mr. Maxime Blanchette-Joncas: Data requires research. Do you feel that the federal government is currently making priority and substantial investments in research and innovation, particularly in plastics recycling?

You can simply answer yes or no. I don't need a scientific study.

[English]

Mr. Sanjay Dubey: Can you ask your question again?

[Translation]

Mr. Maxime Blanchette-Joncas: Do you need additional funding to carry out research and then to provide data on plastics recycling?

[English]

Mr. Sanjay Dubey: Absolutely. There's no question. With that, we can hire interns and we can make them work. We can have people and experts that we can talk to, because we don't have the knowledge for everything. We need people from different backgrounds to understand how we can make mitigations in our plans.

The Chair: That's our time.

For our final questioner, it'll be MP Ashton for two and a half minutes.

Ms. Niki Ashton: Thank you very much.

My question is again for Ms. Saunders from Food, Health & Consumer Products.

We know that this past spring the government announced the creation of a plastics registry. We're wondering how this registry will impact producers and what data the registry should prioritize.

Ms. Michelle Saunders: Thanks very much.

We are actively engaged in discussions with Environment and Climate Change Canada on the establishment of the plastics registry. We fully support good data. This will be a really heavy lift for producers that, in fact, don't have a lot of the data that is requested.

Our recommendation to Environment and Climate Change Canada is to more closely and precisely align with definitions and terms in provincial EPR programs so that producers fully understand their obligations.

Really, our priority would be to focus on consumer-facing packaging, which is already captured under provincial EPR programs. That would be our priority as a start.

Ms. Niki Ashton: Thank you for that.

In the time that I have remaining, which is probably about a minute, I'm wondering if you have any final thoughts that you'd like to share with our committee as we reflect on what kinds of recommendations we can bring forward.

Ms. Michelle Saunders: If that's for me, I would love to take that 30 seconds. Thank you very much.

Good data is absolutely mandatory for good decisions. We need that. We need research in plastics recycling and we need data.

Industry needs support. There have been tremendous external realities. The closure of China as an export market for us in 2018 and

COVID in 2020 caused massive disruptions, both for the consumer packaged goods sector as well as the waste management sector.

What we're seeing now is cost and a lack of investment over time because we've had other priorities, like keeping businesses running and keeping our employees and families healthy. We need investments because we are faced with inflationary pressure, and we do not have the infrastructure in place today to meet our regulatory obligations or the goals of government. We're really looking for a lot of support and continued collaboration.

Thanks very much for that.

● (1745)

The Chair: That is our time.

I want to thank our witnesses, Dr. Kumari, Mr. Dubey, Mr. Leclair and Ms. Saunders, for their testimonies and participation in the committee's study of innovation, science and research in recycling plastics.

If you have any additional information that you wish to submit, you may do so in written form through the clerk.

Our next committee meeting will be on Thursday, October 3. That will be our final session on the recycling of plastics.

Is it the will of the committee to adjourn?

The meeting is adjourned.

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