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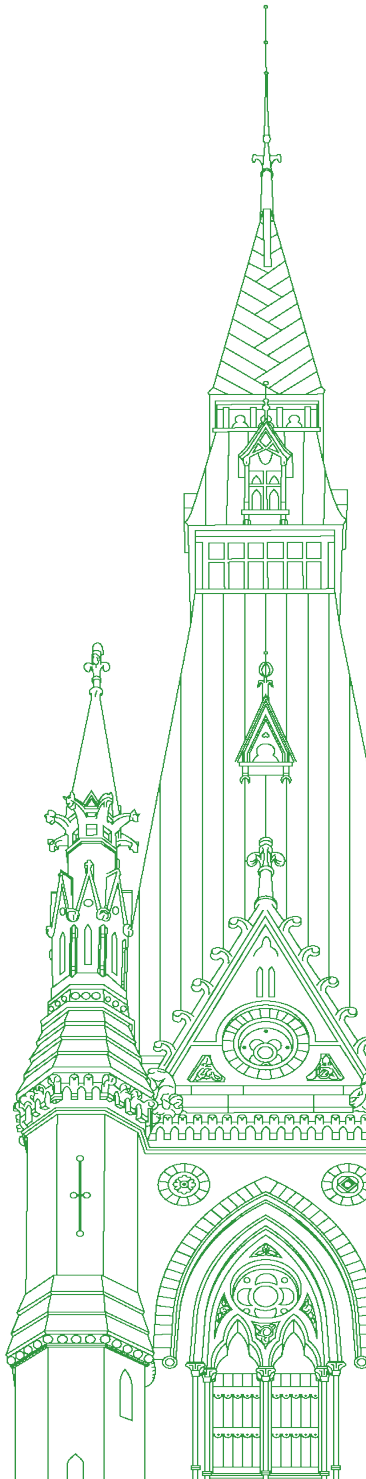

Chair: Mr. Francis Scarpaleggia

Standing Committee on Environment and Sustainable Development

Wednesday, April 21, 2021

● (1535)

[*English*]

The Chair (Mr. Francis Scarpaleggia (Lac-Saint-Louis, Lib.)): I call to order this 26th meeting of the Standing Committee on Environment and Sustainable Development. We are continuing with our study on plastics.

For the benefit of witnesses—because all the members know this already—when you're not speaking, please put your system on mute. When speaking, please speak through the chair. You may speak, of course, in either official language. That's about it.

Members, I would like unanimous consent to end at 5:30 even if the bells start at 5:15. The vote is at 5:45. We don't have far to travel to vote. If that's okay, then we'll end it at 5:30.

Some hon. members: Agreed.

The Chair: We have five witnesses with us today. One, I believe, is in the process of joining. Each witness will have five minutes for opening comments.

I think we'll start with Professor Curran, if that's okay.

Ms. Deborah Curran (Executive Director, Environmental Law Centre, University of Victoria, As an Individual): Thank you, Mr. Chair.

The Environmental Law Centre is an organization that works within the Faculty of Law at the University of Victoria, and has done so for 25 years. We provide over 6,000 hours of pro bono legal services to community groups, indigenous organizations, and citizens each year.

In 2017 we met with three then members of Parliament at their request—the Honourable Gord Johns, Murray Rankin and now Minister Jonathan Wilkinson—to discuss our client's increasing concern with plastics, and specifically the impact of single-use plastics in the ocean, the freshwater environment, and as a largely unregulated waste. As you know, since then the plastics issue has exploded.

As a lawyer I am not here to address the pollution issue for you. You have plenty of evidence in front of you regarding the pervasive and invasive presence of plastics in every part of our food chain, hydrologic cycle, and in our land. Clearly we need to stop unintentionally treating our communities and natural environment as a dumping ground for low value, persistent plastic particles.

We are supportive here at the ELC of many aspects of the proposed integrated management approach to plastic products to prevent waste and pollution, that is, the approach set forth in the federal government's discussion paper. In particular, we agree that banning and/or restricting of harmful single-use plastics is a priority, and support the proposal to establish minimum recycled content for plastics producers. We also support the Government of Canada's commitment to work with provinces and territories to promote extended producer responsibility.

Following on the work completed through the Environmental Law Centre, in particular by my colleague Calvin Sandborn, Q.C., I will address the specific purpose of this committee hearing, a ban on single-use plastic items and designating plastics under the Canadian Environmental Protection Act, 1999. We have produced three reports on this issue more broadly that can be found at elc.uvic.ca. I will include in my written submission to the committee all of the links and direct you specifically to our commentary on regulating single-use plastics.

I have three recommendations to highlight for the committee today. The first one is regulating single-use plastics. Some call it a "ban", but in law we understand it more as "regulating" because, typically, we ban substances or activities and then we create exceptions for them or create conditions under which they can be used. Creating a regulation of a broad range of single-use plastics, what are traditionally single-use plastics, under CEPA makes perfect sense. Everything from adding polypropylene, polystyrene, and hard-to-recycle plastics or particular products to CEPA in schedule 1 and enacting regulations to control the way we interact with them in Canada makes perfect sense. That would certainly reflect a 21st century understanding of environmental law and regulation. When we do that, then we could reduce and/or tax the importation of products that contain these substances and also control the way they're used in manufacturing.

My second recommendation is to establish meaningful recycling standards that would give direction to the plastics industry and anyone who is interacting with plastics about what kinds of plastics are welcome to be produced and always reused in Canada. We want to get away from this approach where whatever the client wants, the client gets in terms of plastic production, and go to a much more streamlined range of plastic production that can be reused over time. These kinds of regulations involve mandating a minimum quantity of post-consumer plastic content in all plastic products from these listed substances, and improve the reusability and recyclability of products made from these materials. There are lots of other ways that this can brought about as well.

My final recommendation is for the Government of Canada to really take a long-term view of this, given that the persistence or legacy of plastics in our environment will now we be with us for thousands of years. A long-term approach would commit to a 21st century view of environmental regulation that includes taking a circular economy approach.

● (1540)

Therefore, any ban or regulation of single-use plastics has to take place within a larger plan for bringing the Canadian economy and how we do environmental regulation up to date. We still use the principle that dilution is the solution to pollution, but our environment can no longer withstand that approach.

The Chair: You have another 10 seconds and then there will be opportunities to answer questions and get points across.

Ms. Deborah Curran: That's fine. Thank you.

The Chair: Thank you, Professor Curran.

We'll go to Dr. Misra for five minutes.

Dr. Manjusri Misra (Professor and Tier 1 Canada Research Chair in Sustainable Biocomposites, University of Guelph, As an Individual): Thank you, Mr. Chair, and to the entire committee for inviting me.

My name is Manju Misra. I am a professor and tier 1 Canada research chair in sustainable biocomposites at the University of Guelph.

I would like to say a special hello to MP Longfield, who has visited our lab, the Bioproducts Discovery and Development Centre, on many occasions and is familiar with our work.

Sustainable materials development for green manufacturing supporting the circular economy is the focus of our centre. Currently, the world produces around 450 million tonnes of plastics per year. That will double to about one billion tonnes per year by 2050. Today, 50% of the plastic produced is for single-use only. This is why I believe that action on single-use plastics destined for landfill is critical. When left in the environment, plastic does not biodegrade, but instead breaks down to smaller parts, including microplastics, and has a devastating impact on ecosystems, which we all know. About 90% of Canada's plastic waste is not recycled or recovered. We need alternative solutions now.

The Ellen MacArthur Foundation's new plastic economy initiative has set actionable targets to reach 100% reusable, recyclable or compostable plastic packaging by 2025. The good news is that leading Canadian companies have joined this initiative through the Canada Plastics Pact. To support these efforts, our research at the University of Guelph focuses on using biodegradable and compostable materials as commercial alternatives to single-use plastics.

For the committee's consideration, I would like to highlight three key material segments that should be targeted. These represent over 80% of the single-use plastic waste.

The first is packaging with mixed materials that combine plastic, paper and metals. Examples include single-serve coffee pods, yogourt and ice cream containers, and recyclable packaging with glued-on labels, which are destined for landfill. Our centre facilitated the successful launch of the world's first fully compostable coffee pod with Canadian industry partners Loblaws, Club Coffee, Competitive Green Technologies and Fourmark. It's a classic example of industry-academia collaboration with support from the government. So far, over one billion of these compostable pods have already been used in Canada.

The second segment is multi-layer protective films that recycling facilities cannot separate and therefore don't get recycled. Examples include Tetra Paks, chips and cookie bags. Our centre has developed a compostable solution with extremely high barrier and improved shelf life for food and pharmaceutical packaging.

Third and most importantly are items that are impractical to recycle even though they are mono-materials, like disposable cutlery, straws and takeout containers. Compostable alternatives exist and work is under way at our centre, with some products already in the marketplace, such as straws and stirrers.

Targeting compostable alternatives in these three areas is a real opportunity to position Canada as a global leader in sustainability, which would result in economic prosperity for all Canadians.

Achieving what I have just outlined requires investment to create innovation in the existing manufacturing and packaging industries; re-tooling as needed; infrastructure development for the end-of-life disposal; modernization of industrial composting facilities; and government-led requirements for certifications and labelling. Finally, skilled HQP development, along with consumer education, is essential.

● (1545)

The government, through policy and incentives, can accelerate this much-needed transition to sustainable resource management and a healthier environment.

Thank you for this opportunity on the eve of when we all in the world are observing Earth Day.

Thank you.

[*Translation*]

The Chair: Thank you, Dr. Misra.

The floor is yours, Ms. Boudreault. You have five minutes.

Ms. Laurence Boudreault (General Manager, Bosk Bioproduits Inc.): Good afternoon, dear members of the committee.

My name is Laurence Boudreault, and I am the general manager of Bosk Bioproducts. Thank you for giving me the opportunity to speak.

Bosk Bioproducts' mission is to reduce the global accumulation of plastic waste. We are a Quebec company that has been developing for more than 10 years, thanks to the support of our partners and the government, an ecological alternative to fossil-based plastics that will have significant benefits for Canada.

We are therefore of the opinion that a regulation on single-use plastics will help better regulate the use of plastics, but it is important not to ban innovative ecological materials such as PHAs, or polyhydroxyalacannoates, a natural biopolymer that offers the same properties as conventional plastics, but which is truly compostable.

Under the REGEN trademark, Bosk Bioproducts develops, manufactures and sells bioplastics based on PHAs, bio-based from renewable materials, and compostable. According to recent tests carried out at the National Research Council Canada, or NRC, Bosk Bioplastics meet recognized compostability standards. We offer these bioplastics to manufacturers of finished products to replace petrochemical plastics.

Bosk Bioproducts offers an innovative solution that will, with your support, build a prosperous circular economy. It is important to know that our technology contributes to the circular economy on several levels. On the one hand, our innovative technology makes it possible to recover untapped by-products from the forest industry to transform them into value-added products, and on the other hand, our technology, which makes it possible to produce PHAs, offers a sustainable solution to the end-of-life plastics.

PHAs are a series of biobenign natural materials that have appeared in nature for over three billion years, similar to other natural materials such as wood, other cellulose-based materials, proteins and starch. These are micro-organisms that produce them naturally from sugars, starches, cellulosics and vegetable oils. Biodegradation of PHA materials in all environments—compost, soil, water—is comparable or faster than cellulose, in other words, paper.

PHA-based materials can partially replace any of the traditional fossil polymer families. Depending on the type and grade, PHA materials can be used for a wide variety of applications, including injection molding, extrusion, thermoforming, foam, non-wovens, fibres, 3D printing, paper and fertilizer coating, glues and adhesives.

Thanks to the support of our ecosystem and our government, for more than 10 years, we have been working to develop and market an ecological alternative to fossil fuel-based plastics. Our technology was developed by working with the Institut national de la recherche scientifique in Quebec and the National Research Council of Canada. All of this work was made possible thanks to the financial support of our partners, the Government of Quebec and the Government of Canada.

With the production of REGEN at our new Quebec plant, we are now at the stage of offering our ecological material to current players in the plastics value chain, as an alternative to fossil fuel-based plastics.

Bosk Bioproducts aims to deploy its technology on multiple paper mill sites. For each full-sized plant that would be built on a paper mill site, this means the valorization of thousands of tons of unused material from the paper mills, the creation of about ten high-level jobs, the transformation of a waste management cost into a new profit centre for paper mills, increased profitability of the paper mill and longer useful-life, the production of tens of thousands of tonnes of compostable bioplastics to replace their petrochemical counterparts, in addition to a significant reduction in greenhouse gas.

The Bosk Bioproducts project will not only promote the competitiveness of the Canadian forest sector, but also position Quebec and Canada as a global producer of bioplastics, in line with the foundations of sustainable development and the circular economy.

In short, Bosk Bioproducts works with our ecosystem and the government to offer an ecological solution to fossil fuel-based plastics. There are sustainable solutions to plastics, and we believe it is important not to ban the use of bio-based and compostable biopolymers for the manufacture of single-use products.

Thank you.

● (1550)

The Chair: Thank you, Ms. Boudreault.

We'll continue now with Mr. Burt.

Mr. Burt, you have five minutes.

[*English*]

Mr. Michael Burt (Vice-President and Global Director, Climate and Energy Policy, Dow): Thank you, everyone.

My apologies for being a little bit late. I had some connection issues.

It's a pleasure to be here this afternoon.

My name is Michael Burt, and I'm the vice president and global director of climate and energy policy for Dow Canada.

For more than 75 years, Dow has been proudly innovating in Canada. We develop basic chemicals and polymers used to make a broad range of innovative and technology-based products and solutions in the packaging, industrial infrastructure and consumer care industries.

Dow Canada is headquartered in Calgary, Alberta. We have manufacturing locations in Alberta and Ontario, and distribute products throughout Canada. We are one of the largest resin producers in the world.

There is no question that the world has a plastic waste problem. We recognize that plastic waste must be dealt with, and this is an issue of paramount importance for our company. We do not believe it is appropriate, however, for the federal government to take unilateral action in this regard.

We do not believe that CEPA is the appropriate tool for dealing with post-consumer plastic. The issue of plastic waste is not the plastic itself but the behaviour that allows it to leak into the environment. As a criminal law statute, CEPA is meant to punish actions, not objects.

We are happy to see that the minister has recently proposed changes to CEPA that move away from the inappropriate toxic substances label. We believe the next step is a national framework tackling plastic waste, not a broad category of products.

Parliament, however, must pass these changes as quickly as possible. Unless changes are implemented and passed before the addition of plastic manufactured items to what is currently schedule 1, the inappropriate and incorrect toxic label will create significant confusion in the marketplace as consumers grapple with the distinction between what is in the news and how their food is packaged.

We would urge the government to wait until these legislative changes have been adopted before moving forward with this regulatory proposal on single-use plastics. If the government continues down its current path, it is our view that the stigma associated with the toxic designation will persist. This will significantly impact the perception of plastic in Canada and around the globe. This will negatively impact the investment climate in Canada for the petrochemical sector and is directly at odds with the government's initiative to restart the economy, in which the petrochemical sector plays a critical role.

Separate and apart from the naming issue, it is our view that the broad designation proposed inappropriately applies to all items manufactured from primarily plastic. This ignores the importance of the contribution made by most plastic items to the world. It includes every electronic device society uses today, an endless array of medical and healthcare devices that are used to treat patients and diagnose illness, and the packaging that keeps our food safe and fresh and prevents food waste due to spoilage.

To be clear, a ban will not deal with the fact that our waste management process needs improvement. A ban should be the last step the government takes as it works to deal with an issue, not the first.

Our industry urged the government to build the appropriate regulatory framework to address plastic waste and to include all provinces in those discussions. To date, the government has not followed this advice. It has opted to take an existing tool and incorrectly apply it to the wrong problem. Plastic waste is the problem, not plastic manufactured items.

We are strongly in favour of a new piece of legislation developed with the provinces and all stakeholders that can entrench a life cycle and circular economy approach to removing plastic from the waste stream. A post-consumed plastic is a resource to be captured, not designated as a waste. The same legislation can create the regulatory authority to build a national extended producer responsibility program involving the provinces, and a new act can invest in the technologies to foster chemical depolymerization.

A new act can create the authority for recycled recovery content standards, and provide a statutory authority to invest in the technologies that can repurpose recovered plastic to keep those molecules and valuable resources in the economy.

The appropriate legislative pathway deals with the entire waste management value chain, in contrast to bans that don't get to the root cause of the environmental leakage and diminish the path to a true circular economy. The appropriate legislative pathway will not need to call plastic toxic to achieve these goals.

In conclusion, no one believes that plastic belongs in the natural environment. We support actions to protect the world's oceans. If the government moves forward with its stated pathway to list plastic as a toxic substance, the impact on Canada's petrochemical place in the world will be profound. We believe the government can achieve the same end through a different means and, in doing so, foster investment as opposed to frustrating it.

I would welcome the opportunity to answer questions on this vitally important issue.

● (1555)

[*Translation*]

The Chair: Thank you, Mr. Burt.

Go ahead, Mr. St-Hilaire. You have five minutes.

Mr. William St-Hilaire (Vice-President, Sales Business Development, Tilton): Thank you, Mr. Chair.

Mr. Chair, members of the committee, I thank you for receiving our comments as part of your work on the complex issue of single-use plastics.

I represent Tilton, a company in Quebec City.

For 35 years now, we've been creating plastic packaging that meets the needs and strict requirements of the food, medical and pharmaceutical industries.

Our packaging is used throughout North America. Our clients include Loblaws, Sobeys, Metro, Saputo, Biscuits Leclerc and a number of large, North American pharmaceutical companies.

Since its inception, Tilton has remained at the technological and environmental forefront of the global packaging industry. We cover all stages of the life cycle, from raw materials to raw materials.

This isn't what we call going around in circles, it's called the circular economy.

Long before the concept entered the public debate, we chose to work only with materials of the future: recyclable, 100% recycled and certified compostable.

In fact, the real problem is that we don't have enough recovered and properly sorted plastic to recycle. We have to import waste materials from the United States and Mexico because of a lack of local availability.

We have made major investments in technology, equipment, research and development, all in partnership with international companies to meet the highest standards in terms of quality and environmental protection.

We're one of the few companies capable of upgrading PET deposits to meet food grade standards. In the last five years alone, we've invested over $30 million in our facilities, including $21 million in 2020 alone. Other investments are already under way.

Our manufacturing equipment is powered by 100% renewable energy from hydroelectricity. Our plants are equipped with high-performance energy systems, including heat recovery and natural cooling systems. The water used in this process flows in a closed loop, so this system operates without any natural water input or release into the environment.

Sustainable development and the circular economy are at the heart of Tilton's mission. With so-called “single-use” plastic, we start the process over again. We encourage the committee to look at the situation from this perspective. The problem isn't single-use plastic, it's the single use of plastic that's the problem.

If plastics are banned, what would replace them?

In the sectors we serve, eliminating plastics would lead to major food safety, security, sanitation and food waste issues. That's why we say the real problem is the single use of plastic.

It's our [*Technical difficulty—Editor*] as a society to upgrade it. That's where efforts must be focused. We need to implement effective collection to stop single use, develop partnerships between governments, municipalities and businesses, raise awareness so that we stop throwing these resources in the garbage, and invest so that other companies act like Tilton. Believe us, the demand for recycled packaging is very strong. Customers are aware of it and are asking for more.

Governments must make this transition possible. In Quebec, the government has announced an expansion of the deposit and a restructuring of recycling collection systems. We believe this is a step in the right direction.

Tilton is proving every day that we can reuse this material and create a true circular economy. With your government's support, industry across Canada can accelerate this shift that we have already begun.

Here are five recommendations to support the committee's work.

First, make massive investments in sorting centres to improve their operation and standardize the grading processes according to resin type. In this regard, we feel that implementing automated systems is essential.

Second, phase in a minimum amount of recycled content for all new plastic packaging, be it water bottles or food containers, whether they are manufactured, distributed or imported into Canada. This requirement would create quality and quantity raw material streams to support a plastics reclamation industry.

Third, establish eco-responsibility certification in collaboration with standards associations. This would allow for quick identification of plastic packaging by consumers so that they can sort it properly.

Fourth, mobilize other governments, municipalities and citizens to develop a culture and even pride in recycling.

Fifth, ensure that any measures imposed on Canadian companies, producers, and users also apply to packaging products that are imported.

In conclusion, we are ready to take a leadership role in helping our industry meet new challenges and create a true circular economy. We've been doing this for a long time, and we want to see the entire industry follow suit.

We want to go even higher and even further. In considering these few recommendations, you have the power to give us the means to do so.

Thank you for your attention.

● (1600)

The Chair: Thank you, Mr. St-Hilaire.

We'll now start the first round of questions.

In addition to welcoming Mr. Maguire, I'd like to welcome Ms. May, who is with us today.

We'll start the first round of six minutes per party with Mr. Albas.

[*English*]

Mr. Dan Albas (Central Okanagan—Similkameen—Nicola, CPC): Thank you very much, Mr. Chair. I'd like thank all of the witnesses for coming today, and sharing with us their expertise and views.

I'm going to start by addressing my questions to Mr. Burt from Dow. I asked this of some of your industry colleagues last week.

Could you clarify, will the designation of plastic as a toxic kill jobs, and drive away investment from Canada?

Mr. Michael Burt: We believe it will.

I am also on the executive of the plastics division of the Chemistry Industry Association of Canada, the CIAC. We have numerous individual companies, SMEs, that operate throughout Canada, and the only products that they manufacture are single-use plastic bags and straws.

The first step in designating plastic-manufactured items on schedule 1, and deeming them toxic, is the government's plan to implement a series of bans. A number of the bans the government is looking at putting in place are of products that are only manufactured by these companies. The difficulty is this. We've asked the federal government that if it implements these bans, will it not allow these products to be manufactured, imported or exported? To date, the government has not answered that question. I'm not sure it has developed that concept yet. The reality is that if you're no longer able to manufacture straws, stir sticks or single-use plastic bags in Canada, these companies will go out of business.

The chill on the investment cycle is real. Dow Canada, like many companies in the resin producer chain, continues to look at where we're going to invest our next facilities. Canada is very much at the forefront. We haven't received much investment in the petrochemical sector over the last decade. It's been mainly going to other parts of the world, mainly the U.S.

The difficulty is that we manufacture virgin resin. If Canada is looking at deeming the product we manufacture toxic, we are not sure about the long-term ramifications. If you invest billions of dollars in these facilities and their lifespan is 40 to 50 years, it can be an insurmountable risk to someone looking at investing in Canada.

The reality is that the toxic designation is incorrect. The federal government has indicated that plastic products are not toxic. The mechanism the government is utilizing, by adding it to schedule 1 in CEPA, is known as the toxic substances list. We were pleased that the Environment Minister indicated that the government was going to undertake CEPA reform.

One of the aspects of that is changing the name and structure of schedule 1, looking at potentially doing it in two-parts: items of very high concern and items of less concern. We're unsure where plastic-manufactured items would go on that spectrum, but our ask of the government is that if it's doing a CEPA reform/review, to not add anything to CEPA while that's being undertaken.

We don't believe plastic-manufactured items, or plastic of any content, belong in CEPA. That's why we've been advocating for a national framework to deal with plastic waste, not the items made of plastic themselves.

● (1605)

Mr. Dan Albas: Mr. Burt, you've mentioned Bill C-28. Obviously, the Liberal members here are likely going to say that Bill C-28 removes the word “toxic” from the regulated schedule; however, the rest of the bill still refers to the substances as toxic, so that doesn't really do anything.

Why is the word “toxic” so harmful to your industry?

Mr. Michael Burt: We believe that it creates a lot of uncertainty in the marketplace. Individuals who have their food packaged at the local grocery store, the electronic devices they utilize every day, these items they use are not toxic. The designation is inappropriate.

The ability to have the toxic designation will basically ricochet throughout the world, we believe, and there will be other jurisdictions that may take up the banner. You're looking at an item, plastic—from the petrochemical sector—that is paramount if Canada is looking to achieve its greenhouse gas emissions targets. Plastic contributes to GHG reduction every day in the lightweighting of vehicles, the products that we utilize and the preservation of food. The reality is that the toxic label is inappropriate; it's incorrect.

We are looking for a national framework to deal with plastic waste, not an item. CEPA is a criminal statute, and it's basically designed to punish and administrate the actions of individuals, not particular products. If you deem a global commodity like plastic as toxic, there are other jurisdictions where investment will take place. Unfortunately, Canada will lose out on one of its main objectives, that of being a leader in the circular economy and tackling GHGs. To reach those levels, plastic needs to be paramount in the program.

Mr. Dan Albas: Thank you very much.

Madame Boudreault from Bosk, it sounds like your products are very innovative. Are you going to be affected adversely by the designation of some of your products? Are your products going to be on the schedule, whether the current schedule or a future schedule as featured in Bill C-28?

[*Translation*]

The Chair: Ms. Boudreault, we're listening.

Ms. Laurence Boudreault: I'm sorry, but I haven't seen that schedule with all the ingredients that have been added. If PHAs, a natural biopollutant, isn't included, we won't be affected because our material is fully biosourced and compostable.

In fact, we want to make sure that our material isn't included on this list because it's a real green, concrete solution that is available today. So we want to make sure that we can continue to offer our alternative to manufacturers, who are the current players in the plastics value chain.

The Chair: Thank you.

We'll now give the floor to Mr. Bittle.

[*English*]

Mr. Chris Bittle (St. Catharines, Lib.): Professor Curran, I am wondering if you could respond to Mr. Burt.

We've heard a few times that these highly sophisticated corporations and consumers will be lost in this designation of “toxic”, that all of the economy will be destroyed, people will throw things out, they won't be able to address things. It will be a catastrophe.

I don't know many of my constituents who have read CEPA, but I am wondering if you could respond to his comments with respect to these highly sophisticated companies not being able to interpret the “toxic” provisions of the Environmental Protection Act?

● (1610)

Ms. Deborah Curran: Mr. Chair, I'd be happy to.

I want to first commend Dow, which is often used as the example of a company that has adapted as we've learned about chemicals over the last 40 years in particular. There are many stories from Dow Chemical about how they were innovators and leaders when they realized one type of waste stream that was coming from their factories was then able to be used for something different. They really are innovators in this area.

It's really important to have a look at the text of CEPA. I'm looking at section 64, which gives the interpretation of “toxic substances”, and I think we can all agree that paragraphs 64(a), 64(b) and 64(c) are exactly what plastics do: They “have or may have an immediate or long-term harmful effect on the environment or its biological diversity;” they “constitute or may constitute a danger to the environment on which life depends;” or they “constitute or may constitute a danger in Canada to human life or health.”

This is relevant for plastics. It is directly applicable, and CEPA, not as a criminal law statute, actually provides a framework for the management of all sorts of substances and activities within federal jurisdiction. As you know, federal jurisdiction is somewhat unique and shared in this area. The regulation of substances really is a tripartite endeavour between the feds, the provinces and municipalities, and in this area of plastic, every single level of government would like to take action in that way.

There's a high degree of consensus between the provinces and the federal government about banning certain types of substances, banning certain types of plastics, for the express purpose of better regulating what can then be produced and come into our environment so we can use it again in a variety of different ways.

It's really important to keep our context of, when we say “ban”, we're meaning regulate for almost the first time. Right now, you can go out and commission almost any kind of plastic that you want, irrespective of whether it can be reused at all, and that's simply no longer acceptable. We need to reuse substances time and again for a variety of different purposes, and one way to achieve that shift in our economy and the way in which we view materials used in Canada is through regulation.

Obviously, there are all sorts of different mechanisms that need to be embedded within a larger, long-term, phased plan around taxation, around incentives, around the work, for example, that Dr. Misra is doing in creating new materials and opportunities. However, creating a framework under the act that is phased and that also sends messages to industry about the way in which we expect plastics to be made so that we can re-use them or that they can be used for other things is very important.

As my final point, there are going to be all sorts of single-use plastics that we won't get rid of, obviously in the health care industry, and in certain food-related contexts. Those will simply carry on and it's up to you as legislators to decide what the boundaries of those are, but there are such very easy starting places with things such as plastic straws and single-use paper bags, where the Canadian public simply no longer accepts those as a useful part of our daily lives.

Thank you.

Mr. Chris Bittle: Thank you so much.

I appreciate that response. It seems to me that some of the largest companies in the world are confounded by this very simply definition and will crumple under the weight of it even though it's very clear.

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

The Chair: You have 45 seconds, including the answer.

Mr. Chris Bittle: Well, I just want to say thank you. Again, with this definition that is fully clear, it's just a bit surprising to hear from major corporations that are highly sophisticated the suggestion that this isn't clear and that this will cripple their business.

Thank you, Professor Curran, and thank you, Mr. Chair.

● (1615)

The Chair: Thank you, Mr. Bittle.

[*Translation*]

Ms. Pauzé, you have the floor for six minutes.

Ms. Monique Pauzé (Repentigny, BQ): Thank you, Mr. Chair.

I'd like to thank our witnesses, of course. I'd love to have them all to myself and be able to ask them all the questions I have.

I'll start with Mr. Burt, vice-president at Dow.

Mr. Burt, you said that your company was active in the field and had a lot of questions about plastics. That said, I want to pick up on a number of things that your president, Mr. Fitterling, recently pointed out in an article in the *Financial Post*. Representatives of many companies in your industry have expressed the same concerns to our committee. I'm going to correct some of the things that have been said by these companies and Mr. Fitterling, if I may.

First, your industry suggested that there wasn't enough scientific evidence, yet there's plenty of scientific evidence about the damage that plastic pollution causes to the environment. No scientist in the world would argue with that. The damage to the environment exists beyond any doubt. In fact, Ms. Curran mentioned it right off the bat.

The federal government also assessed this before proposing to add plastic manufactured items to the list of toxic substances in Schedule 1 of the Canadian Environmental Protection Act. Health Canada has produced 200 pages on this subject. The addition of a toxic substance to this schedule under the act requires the government to manage that substance to reduce any adverse effects it has on the environment or human health.

We know that Canadian environmental law follows the important precautionary principle, which is enshrined in international law. Under the precautionary principle, if we don't have all the scientific evidence, when in doubt, we should refrain. This is what exists in Canadian environmental law.

Also, strategic medical equipment and vehicle components, for example, aren't single-use plastics. They shouldn't be lumped together because doing so would be disinformation.

As for Dow Chemical, you said there was no investment. Dividend returns to shareholders totalled half a billion dollars in the quarter ending December 2020 alone. Total cash and committed liquidity available at the end of the quarter was $14.6 billion. That's an increase of $3.9 billion over the same period last year. So we understand that Dow Chemical's business is doing very well.

I'm finally going to ask you some questions. Your company produces polypropylene in a variety of forms for a host of applications. So let's talk about polypropylene, whose production alone covers a significant amount of single-use products. Your production is therefore definitely upstream of the plastics industry, since it produces this polypropylene. This resin can only be recycled into fibres. My question is very simple. I want you to give me a yes or no answer, which will allow me to ask my other questions.

Do you intend to gradually distance yourself from the production of this virgin resin?

[*English*]

Mr. Michael Burt: No.

[*Translation*]

Ms. Monique Pauzé: You don't want to move away from it. I think you certainly have all the chemists and engineers to manage. The expertise of the Dow Chemical employees would be a major asset to help advance the circular economy, which we talked about earlier.

Are you not thinking of developing an innovative product or technology to ensure safe reuse of your products?

[*English*]

Mr. Michael Burt: I'd like to answer a few of the questions you posed to me.

Actually, Dow does not make polypropylene. We're the world's largest manufacturer of polyethylene, so most of our products do not go into single-use plastic. We do sell a lot into the food-wrap business, but we do not sell into the single-use plastic bags, straws, stir sticks or six-pack ring holders. Most of our products go into durable goods. We sell a lot into the automotive and electronic industries. The bans that the federal government is looking at imposing would impact Dow to a very small extent.

We are very proud of our financial performance. You don't get to be a company that survives for over a century by doing the wrong thing. We are one of the top diversity-inclusion companies. We are an innovator. We solve the world's problems.

You highlighted a very important point. You talked about the impact of plastic waste on the environment. Plastic waste is detrimental and needs to be addressed. We wholeheartedly agree. Plastic waste is critical. It is detrimental to the environment. That's why we are confused as to why the federal government wants to tackle plastic products when, really, it should be tackling plastic waste. The reality is that the world doesn't have a plastic problem, but it definitely has a plastic-waste problem. That's where we would like to see the federal government do most of its investment in products and solutions going forward.

The reality is that, from an investment standpoint, Dow Canada is a profitable company. I'm a Canadian, born and raised. I'm always advocating for investment by my company in the country that I love. One of the mechanisms by which we do that is by making sure that the jurisdiction we operate and want to invest in basically has the correct legislation in place to deal with the products that we're looking at manufacturing. We are innovators.

● (1620)

The Chair: Excellent.

Mr. Bachrach, you have six minutes, please.

Mr. Taylor Bachrach (Skeena—Bulkley Valley, NDP): Thank you very much, Mr. Chair.

Thank you to all of our witnesses.

It's especially good to see Professor Curran with us, given the pivotal role that the Environmental Law Centre has played in the impetus behind the topic we're talking about today. She mentioned the meeting with former MP Murray Rankin, Member of Parliament Gord Johns and MP Wilkinson, who's now our environment minister.

Professor Curran, I wonder if you could start by just talking about the proposed ban on single-use plastic and where it fits in the larger effort to combat plastic pollution.

Ms. Deborah Curran: I sort of draw the analogy with water regulation, and you might all feel like letting your minds wander when I say that, but I deal a lot with water. We virtually do not manage water in Canada, except in a few areas. We have very little conception of who is using water in what quantities and then, ultimately, what that means for the level of pollution in those water bodies. The Great Lakes are excepted, to a certain extent, at a macro scale, but throughout communities across Canada, we haven't even begun to scratch the surface of understanding the way in which we use that fundamental resource.

I would say the exact same thing about plastics. Plastics as products and as something that has helped our economy evolve in an efficient way are virtually uncontrolled in the sense of us as citizens and you as parliamentarians asking the question of what we expect or will tolerate from an industry in terms of our long-term view of how we want to use our natural resources, and then what comes out the other end in terms of plastics.

A plastic bag ban or a single-use plastic ban—which is a form of regulation that needs to be quite nuanced and that leads to more nuanced regulation—is really the absolute minimum bar for having some sense of recreating or shifting the industry into something that allows for a much more intensive use of that input as a natural resource. We always use the analogy that it's low-hanging fruit. It's the first step. It's a really very low bar to have for entering into that conversation about how we want to retool our regulation and our economy for the circular economy.

Mr. Taylor Bachrach: Thank you for that answer.

We've heard many arguments from Mr. Burt on behalf of the plastics industry. It made me think about all of the products that Canada has banned because they've been problematic over the past decades. Listening to his arguments on behalf of his industry, I wonder if you could speak to the parallels. Are these common arguments that we hear from producers of substances and products as part of the conversation about whether they should be more strictly regulated by our government?

● (1625)

Ms. Deborah Curran: Another gross analogy would be the forest industry. Forty years ago, particularly in British Columbia, forestry was what drove that province and it certainly massively contributed to our education and public health care systems. There were very few regulations on how forestry could occur.

However, as we began to understand the impact of forestry on fishery stocks and on the long-term sustainability of communities as a result of the way in which different areas were allowed to be cut over a certain amount of time, then of course we brought in regulations at a provincial scale for doing forestry in a certain way that takes a much more long-term view.

We now have in B.C. a world-leading set of agreements between the seven nations in the central coast and the provincial government called the Great Bear Rainforest agreements. We could point to Haida-Gwaii as well and the federal government's involvement in marine management there. The Great Bear Rainforest agreements take explicitly within provincial law—in the orders under the provincial forestry legislation—a 250-year time frame that respects indigenous values in certain ways and looks at sustainable forestry and sets an annual allowable cut over a 10-year period. This is done done with the forest industry at the table negotiations over a 10-year period and taking a 250 year time perspective. If we would like to evolve to a circular economy, then we need to take a much longer term perspective and have a phased approach to the implementation of regulation and allow for that adaptation.

I'm hope I'm not naive enough to think that Canadians will simply stop using throwaway or single-use products, because I do think there is an element of convenience that we all like. However, this is a first foray into better shaping the way that industry operates in Canada. It's quite clear that the environment cannot simply be used as a dumping ground for activities or products that industry deems acceptable. There is a public interest function between the creation of a product and the disposal of it that the federal and the provincial governments fulfill.

The Chair: Understood. Thank you very much.

Ms. Deborah Curran: Thank you.

The Chair: We'll go to our five-minute round now starting with Ms. McLeod.

Mrs. Cathy McLeod (Kamloops—Thompson—Cariboo, CPC): Thank you. I think we've had a really robust conversation.

I want to sum it up a little bit before I ask my question. I think we're hearing that everyone—and we've had other meetings on this as well—agrees that plastic waste and improper disposal is an issue. I think we can pretty well agree that there are times when feasible alternatives can be used and that we're learning more and more. There are new products, as we heard from Madame Boudreault, being developed and that will be very appropriate.

We also have heard that right now, and for the foreseeable future, plastic will at times be the only solution, and we've heard that recycling and a circular economy are important. The volume issue that was raised by Mr. St-Hilaire was interesting, because if we diminish our use to a degree, we might impact our ability to have that circular economy.

Where I'm hearing a disagreement is around the labelling of “toxic”, and we can maybe talk about my other points later. Mr. Bittle talked about it being a simple definition. I did note Professor Curran's explanation of the definition, but I can tell you what the public think. When the public hears something labelled as toxic, all of a sudden when that plastic IV bottle goes up or my meat is wrapped in plastic, the definition is no longer simple. It is a perception among the public of significant harm that would be caused to them by virtue of that label. I would say that there might be a few people on the environment committee, and others, who understand what the definition is, but the general public have an understanding of toxic as a certain thing and it will create fear. I think it is a justified comment.

Mr. Burt, first of all, does that reflect your thinking about the labelling, or am I off base there?

● (1630)

Mr. Michael Burt: No, that's exactly the position we've been advocating for. You're correct. We understand the definition; we've read the statute and we know what the legal implications are. The reality is that it's a source of confusion in the marketplace. Everyday plastic is ubiquitous in the environment and in the world right now, because it has so many varied uses. When you start labelling something as toxic.... As soon as the federal government released Canada Gazette, part I, and indicated that it was going to add plastic manufactured items to schedule 1, the toxic substances list, immediately other geographies around the world picked up on that, and there were news reports that Canada was about to deem all plastics toxic.

The fact that they're looking at plastic manufactured items, not specific polymers or the actions associated with them.... It's a broad category of everything that's manufactured with plastic that will be on the toxic substances list.

Mrs. Cathy McLeod: I know that sometimes well-meaning changes are made with implications and ramifications, and I'll use a small substance as as example. The CFIA all of a sudden determined that a small substance—I won't get into the technical details—of a product were.... They changed the level of that substance that was allowed in a product within Canada, and all of a sudden it started to impact.... I have a company in Kamloops that's called Absorbent Products. It created an anti-caking agent for cattle feed, and now all of a sudden, because of that designation and that very tiny change by CFIA, the owner can't export his product any longer to the United States.

If we are looking at potential implications, do we have any concerns in this area? Certainly this product was deemed in the United States an appropriate additive for cattle, and all of a sudden a business with 30 or 40 jobs was been shut down because of a very minute change at Health Canada or CFIA.

Are there any concerns or worries about ramifications down the road?

Mr. Michael Burt: Yes. The reality is that we don't know where the legislation will take us. There are criteria associated with toxic products and their free movement across the border. We have the new USMCA agreement between Canada, the United States and Mexico. Toxic products are heavily regulated under international trade. If you deem a product toxic, there are certain criteria that you have to adhere to.

As I alluded to earlier, the federal government has not indicated whether, if they ban these items, they are also banning the manufacture of them. Are they also banning the export and importation of them? That's the slippery slope that has many individuals and corporations in the entire petrochemical value chain very concerned.

The other issue is that we have six items right now—and it's not actually six items.... The last bullet point of the six items the federal government is proposing to ban covers a broad spectrum of food takeaway containers made of hard-to-recycle plastic.

The Chair: We will have to move on now to Mr. Baker, for five minutes, please.

Mr. Yvan Baker (Etobicoke Centre, Lib.): Thanks, Chair.

Thanks to all our witnesses for being here today. Unfortunately I can't ask all of you questions, though I, like Madame Pauzé, would appreciate the opportunity to do so.

I'm going to direct my questions to Professor Curran to begin with.

Professor, in your response to one of my colleagues, you said that the ban on single-use plastics is a “low bar”. I think that's the language you used. Can you explain why you say it's a low bar?

Ms. Deborah Curran: The reason it's a low bar is they are arguably the most visibly polluting types of plastics that we have, and they are not necessary for the day-to day carrying on of society. I'm thinking specifically of plastic straws and single-use plastic bags, for example. There are always exceptions in the health care field or for other reasons. With all types of new regulation where we're considering changing things for the first time, it's pretty rare that we impose an outright ban on everything. Typically, we do pilots, we do test cases or we start with a particular realm of a substance or an activity. We then regulate it, and then people's behaviour starts to change. The perfect example for that is our blue box recycling program across Canada.

In the Capital Regional District where I live, about 10 ago—we've had it for many more years than that—the district, which owns the Hartland landfill, decided it was going to be too expensive to find another landfill within 50 years. That was the projected life of the landfill right here in one of the most expensive housing markets in Canada. If we were to find a new landfill, we would have to truck our waste up and over a set of mountains and then carry on up the island and pollute another community.

In short, what the CRD decided to do was to decrease our waste by 50%, and it progressively instituted additional regulations for what was banned from the landfill. Suddenly we're taking a lot more types of plastic in our blue boxes. We can no longer put yard waste or food waste in our garbage cans, and within five years, they met their targets to reduce waste by 50%. That's exactly the same analogy for this slow but incremental regulation of plastics. We shift behaviour over a period of time and allow that change to occur.

● (1635)

Mr. Yvan Baker: If a ban of single-use plastics is a low bar, what would be the next step in raising the bar after that?

Ms. Deborah Curran: There are lots of other great recommendations, again moving towards a more fulsome view of the circular economy, which then provides opportunities for businesses that are in this industry.

One would be to require a minimum amount of recycled material in all types of plastics that are produced, but in order to do that, as another witness said, you have to have the input. Those inputs have to be the kinds of plastics that are reusable. That's why you need the first step of regulating or directing what kind of plastic is brought into Canada and manufactured here. Then, when you go to reuse it and have a requirement for recycled content for certain kinds of products, you have that input. That is starting on the cycle of the circular economy in Canada.

Mr. Yvan Baker: Thank you very much.

Chair, how much time do I have?

The Chair: You have about 25 seconds, the Q and A together.

Mr. Yvan Baker: In 25 seconds, Professor Curran, you called advanced single-use plastics an easy starting point. Why is it easy?

Ms. Deborah Curran: It's easy because it's very visible. In my view, there's a broad consensus, both at the government level and the citizen level, that something needs to be done.

The Chair: Perfect.

Mr. Yvan Baker: Thanks, Chair.

The Chair: Thank you.

[*Translation*]

Ms. Pauzé, the floor is yours.

Ms. Monique Pauzé: Thank you, Mr. Chair.

Let me turn to you, Ms. Boudreault. First, I would like to congratulate you on your company's achievements.

Since I only have two and a half minutes to ask questions and my time is limited, if you cannot answer my questions, I will ask you to send us your answers in writing.

My question is threefold.

On average, how long does it take for your products to break down? Will the resource you are using, biomass, be sufficiently abundant to ensure significant production? Are you continuing to develop and research other resources to add to your production processes, which are very appealing?

Ms. Laurence Boudreault: To answer the first question, I would say that it all depends on the application of the finished product that is manufactured. During the tests, we used finished products that were three millimetres thick. So they were quite strong. Anything thinner will degrade faster. During the tests, we found that the three-millimetre product decomposed in six months under industrial composting conditions. We can also make changes separately to our bioplastic formulations depending on how we develop them. For each application, we have a specific formulation.

Remind me what the second part of your question was about.

● (1640)

Ms. Monique Pauzé: It was about biomass. Is the resource you use sufficiently abundant?

Ms. Laurence Boudreault: Let me give you an example of a paper mill site. We are building plants on paper mill sites, because our raw material is the by-products that are not used in paper mill operations. A standard size plant will produce up to 20,000 tonnes per year of compostable bioplastic for each plant built on a paper mill site.

For the third part of your question, yes, we are still developing our technology, because it is possible to produce PHA from all kinds of industrial by-products. This is the niche we are developing; we use different by-products from all kinds of industries, such as the food industry. We can use a lot of carbon sources, and we're still developing that. If we want to be a major player, we need to be able to process different types of by-products.

The Chair: Thank you very much.

Ms. Monique Pauzé: Do I have any time left for Mr. St-Hilaire, Mr. Chair?

The Chair: No, but we will come back to you in a few moments.

[*English*]

Mr. Bachrach, we'll go to you for two and a half minutes, please.

Mr. Taylor Bachrach: Thank you, Mr. Chair.

Professor Curran, the products that are on the list and proposed for a ban represent a fraction of 1% of the total plastic waste in our society.

Is this proposal going far enough given the scale of the problem we're facing?

Ms. Deborah Curran: Thank you for the question.

You know, I appreciate that with the federal government there's a lot of movement right now on CEPA, a lot of attention towards CEPA. The reality is that it is not hopelessly, but significantly, out of date.

It was enacted. There were a number of substances put on the list. There has been a lot of conversation in the public sphere about how that list has not been updated; how, in Europe, a lot of very different things are happening around substances of concern and giving direction to industry about what is acceptable to be used in countries.

Does the proposal, then, for a very tiny amount of plastics to be put on the list go far enough? I'm always interested in seeing a solid start and then [*Technical difficulty—Editor*], as long as the federal government and you are comfortable that this start then allows a way to actually achieve the plan you've set out for yourselves. Then it's a test or it starts out in a very small way. The federal government could go a lot further, but given industry concerns and the amount of attention to this, it's a bit challenging for you, because CEPA is receiving attention separate from what this committee is looking into. How those two initiatives around plastics themselves go forward will need to be coordinated as well with the amendments to CEPA.

In my view, it doesn't go far enough. I will put that statement. In the view of the Environmental Law Centre, it doesn't go far enough, but starting is very important. There's a certain inertia to starting.

The Chair: Mr. Bachrach, you have basically five seconds left. I'll add it to your next round.

Mr. Taylor Bachrach: Thank you.

The Chair: Mr. Redekopp, we'll go to you for five minutes, please.

Mr. Brad Redekopp (Saskatoon West, CPC): Thanks to everybody for being here today.

I'll pick up on that a little. Some of the items that are being banned relate to food packaging. If we move forward with further bans, we're going to get more into food packaging, because that's where a lot of the plastic waste comes from. Of course, food packaging is regulated under the safe food for Canadians regulations, as a result of the listeria and E. coli outbreaks, so a lot of work went into that.

Back in March, I asked officials at this committee whether they've consulted with Health Canada, the Canadian Food Inspection Agency and Agriculture Canada about banning plastics in the food industry. They kind of said yes, but it was a bit of a hesitant answer.

Mr. Burt, maybe I'll start with you.

It took CFIA and Health Canada six years to implement the safe food for Canadians regulations, because it took a long time for the food industry to adapt. Do you believe the food industry can adapt in time for the bans that are coming on January 1, and then some of the further bans that are likely to happen?

● (1645)

Mr. Michael Burt: It's a tough question to answer if you don't know how R and D develops. We continually get pressed as a corporation to develop new polymers to help food preservation.

One of the important aspects that we want to highlight in banning plastics, which we don't see as a viable path forward, is basically that the world is going to add two billion people in population by 2050. That requires 30% more water, 40% more energy and 50% more food production. One of the largest landfill items is food waste, so plastic manufactured items like food wrap go a long way to preserving food and keeping it on the shelves, helping to feed Canadians and individuals around the world.

The reality is that there is constant innovation. Dow and all of the other resin producers in the world are challenged every day to come up with new items that have higher recycling content, more recyclability aspects to them and different performance.

The difficulty, as I alluded to earlier, is that most people do not believe these six bans go far enough. Our concern is that as this list continues to expand, it will basically push products that are very useful to society out of the marketplace. The reality is that we really want to focus on the circular economy aspect. We think that the federal government should be putting most of its effort into developing financial measurements, infrastructures and national frameworks that really promote the circular economy.

Some of the best examples we have in Canada are basically the deposits that we have for pop bottles and water bottles. It's very difficult to find these bottles anywhere in the environment where these deposits are in operation. We would like to see some sort of mechanism for extended producer responsibility that would actually make post-consumed plastic not waste, but a resource. If we're going to go into a circular economy aspect, plastic is basically the feedstock for it.

The reality is that we have to keep these products in the environment, but we need to tackle the waste issue.

Mr. Brad Redekopp: Thanks.

One thing we haven't talked about at all today—and maybe that's not surprising—is cost.

Ms. Boudreault and Mr. St-Hilaire, how do your products compare cost-wise to their alternatives?

Maybe we can go to Ms. Boudreault first.

[*Translation*]

Ms. Laurence Boudreault: Our material is more expensive than conventional plastics, but it depends on the type of resin because there is a wide variety on the market.

Our products are generally three to four times more expensive than conventional petrochemical plastics. However, the cost portion for the raw material, the plastic, has little impact on the cost of the finished product. The difference reaches perhaps 5%. It depends on the application, but the impact is not significant.

[*English*]

Mr. Brad Redekopp: Mr. St-Hilaire.

Mr. William St-Hilaire: Thank you for your question.

Definitely there is a difference in price between recyclable items and compostable items. Compostables are usually higher in price. That's always been the case. It's not to say.... Both have their reason to be. At Tilton we offer both. We offer post-consumer recycled content items as well as compostables, and both are sold.

I think they can both live under the same roof. Depending on the application and the client, I think they both can find a good use. In both cases, though, one thing I will mention is that we need to find a solution for end of life, both in the compostable world and the recyclable world.

The Chair: Thanks.

Ms. Saks, you have five minutes.

Ms. Ya'ara Saks (York Centre, Lib.): Thank you, Mr. Chair and thank you to all of our witnesses who joined us today. This conversation is really teaching me a lot about all of the things we need to think about.

One thing that keeps coming to mind is the fact that change is hard. It's not an easy part of human nature. You know the ban on single-use plastics is really a first step for both consumers and producers to make those changes that we need.

Dr. Curran, I'd like to direct my first question to you. I'd like you to expand on your comments on the use of CEPA schedule 1 for listing plastic waste and why you say this is the appropriate venue for regulation.

I'll be specific with a reference here. CEPA schedule 1 also includes carbon dioxide as toxic, and carbon dioxide is used in food production. There doesn't seem to be an exodus of carbonated beverages in the industry in Canada or elsewhere in the world. People also don't avoid fire extinguishers that use of CO2, even though that's listed as toxic. There's also ammonia, which is dissolved in water and is used as a window cleaner in Windex. None of these products have stopped being used although they are listed, and that's because they are used in a specific way in our daily lives and the government regulates them appropriately.

We talked about the low bar in this first step. I would like you to go a little bit further into CEPA on schedule 1 for this.

● (1650)

Ms. Deborah Curran: Through the chair, I also want to point out that lead is on the schedule, and right now my son has a job pouring lead weights for a small local fishing company. Very clearly, what we're trying to do is to establish a baseline, a very low bar, of how we actually look at the impact of these listed substances on the environment. I've ready read you the definition, and it's all about environmental impact. There's virtual consensus that it has an impact that is unacceptable.

By virtue of being able to list, the federal government triggers its mechanism for creating a Canada-wide response to something that is largely within its jurisdiction, in the marine sphere and more broadly, saying, “Look, in Canada, we will not import certain things,” or, “We'll only import them in certain ways if we can then use them otherwise.”

All you're doing is triggering your jurisdiction essentially to say that this is of national concern and that we need to establish a baseline for how we're going to behave as an industry in the kinds of things that we can produce.

Ms. Ya'ara Saks: That's great.

I'm going to shift direction a little bit here now. We talked about a circular economy and also about EPR. I'd also like to talk about the burden on the end-user in all of these things. As long as we keep producing these products, the end-user will use them and, eventually, whether it's for a short period of time or a long period of time, they will dispose of them.

We really need to talk about this as a barrier, because 37.5 million Canadians are not going to change overnight. Even now, many dirty recycled items go into our blue bins and don't wind up where they're supposed to because they haven't been cleaned properly, they haven't been disposed of properly and are constantly filling our landfills.

Dr. Misra, you started to talk about this evolution in bioproducts that we can use. I'm sure my colleague, Mr. Longfield, will have much more to say about this when he gets a chance to chat with you.

I'd like to open the conversation on this. Are we so far away from making these shifts for industry that seem to be of tremendous concern? Are the costs of doing this astronomical, or should we be really working hand-in-hand with our end-users and industry right now in this first step with the single-use plastic ban?

Dr. Manjusri Misra: Exactly. I will say that we have to act together because, as part of a new circular economy, we have to rethink and redesign the products when we are working with new materials. These new materials or green materials or products are not going to be replacing something. This will stand alone as an innovation or innovative material. Therefore, we have to work together as a whole group—industry and universities together. In the industry, there are a lot of partners, including consumers and individuals.

Everybody has to be responsible for entering into and taking part in the innovation, and then taking the fruits of innovation, which, right now, are not truly cost competitive. If you consider the whole scenario, of course our product is cost competitive, which we kind of designed that way, but not everything is. We have to make one cultural shift.

● (1655)

The Chair: Okay. Thank you.

Dr. Manjusri Misra: Unless we do the cultural shift, we can never go to innovation.

The Chair: Thank you.

Dr. Misra, can you maybe raise your microphone bar just a little bit?

Okay, I think that will be better.

Dr. Manjusri Misra: Thank you very much.

The Chair: Okay.

We'll go to our third round now, starting with Mr. Albas, for five minutes, please.

Mr. Dan Albas: Great. Thank you, Mr. Chair.

When we were debating Bill C-204, MP Longfield pleaded that the industry was saying that the bill was going in the wrong direction, yet on this issue, they seem disinterested in what industry has to say, so our committee has been getting many letters from plastic producers on this. He said, “There are letters upon letters, and they all say the same thing: This legislation is dangerous for their businesses, will not help us recycle”.

I'll go again to Mr. Burt.

Do you agree with the many of the letters that we're getting here and that the government has made up its mind and is not listening despite your knowing your business?

Mr. Michael Burt: That's what we believe. We've been working with the federal and provincial governments for years now on this plastics file. It appears that most of our comments have fallen on deaf ears. The real concern for us is obviously twofold: the plastic designation as toxic and the bans.

Earlier comments or testimony highlighted the fact that there are many items on schedule 1, but very few of them are banned. Plastic manufactured items are being put on schedule 1, in our opinion, for the whole purpose of banning some items, and our concern is that this list will continue to expand. That's what got most of the industry in Canada that's in the plastic value chain space very uncomfortable, because we're unsure what is going to be banned and placed on the list next.

Mr. Dan Albas: That's very interesting because I used a direct quote from MP Longfield from a debate on Bill C-204.

I don't have much time, Mr. Burt, but what do you say to Liberal members who were so strident about listening to your industry then, and are ignoring you and many of the other businesses you've mentioned today?

Mr. Michael Burt: We in the chemical industry have been very adamant about working with the federal and provincial governments. We think a national strategy to tackle plastic waste is paramount and are willing to put dollars and investments into making sure that a strategy would move forward with advanced recycling technologies. We are willing to sign on, and are advocates for, extended producer responsibility. Basically, what we want to do is to make sure these facilities get up and running. We want to make sure that plastic waste is collected, and we actually want to stop it from being a waste. We want it to be a resource for the circular economy and the advanced recycling facilities, going forward.

We have members in our national association, CIAC, that represent the entire value chain, from recyclers, brand owners and converters all the way to the resin producers; and we're all on the same page. We're concerned about the bans. These will have a negative impact on the economy and on investment, and there's a better path forward.

Mr. Dan Albas: Professor Curran, one topic has not been addressed yet. We've heard a lot from the disability community that certain products, specifically plastic straws, are a necessity for their community. I know many will say, “Oh, well, this is just as good as plastic”, when we talk about other alternatives. When I talk to disability groups and people with disabilities, they tell me it is not as good.

Should we ignore their lived experiences and remove something that increases accessibility?

Ms. Deborah Curran: No, we should not remove what is mandated by Health Canada, and also in partnership with people with different abilities. Therefore, I've maintained from the beginning that there will be lots of exceptions.

Mr. Dan Albas: Should there be exceptions specifically for disabilities, because we don't have any indication from the government that there's going to be a clear exemption for things like plastic straws? People with MS in my riding—I'm from the Okanagan—have told me they that cannot suck through the recycled paper straws.

Ms. Deborah Curran: As the broad strategy gets put down into either plastic-specific or sector-specific...with much more detailed outcomes, then all of those exemptions will need to be spelled out. As another honourable member has said, that needs to be done in partnership with Health Canada and other parts of the federal government.

Mr. Dan Albas: Mr. Chair, I know my time is limited here, but I just want to say the following. Being from British Columbia and representing an area that uses wood products, I will quickly say that the picture of the government coming came in and telling the forestry industry how to do its job.... Yes, obviously there were real problems in the 1990s, but the problem is that the industry itself knew what practices and which bad actors needed to be reined in. I would just simply suggest that this government needs to start thinking of people and industry, not for them, like this.

● (1700)

The Chair: Thank you.

Mr. Longfield.

Mr. Lloyd Longfield (Guelph, Lib.): Thank you, Mr. Chair, and thank you to the witnesses, and to the clerk for putting together such a great panel for us to get alternative opinions on the study that we're doing.

It wouldn't surprise you that I have some questions for Dr. Misra, but also for Mr. St-Hilaire. I see your testimonies as very complementary.

Dr. Misra, you mentioned in your comments the Canada Plastics Pact. I've just googled them, and I see that it's a global pact on plastics. Could you maybe talk about the importance of being able to transfer plastics across international borders for the purpose of recycling, and the work that pact is doing?

Dr. Manjusri Misra: Right now, because there are so many variations of plastic waste generated in different parts of the country and different parts of the world, it is very important how we label the material, because in the past we were sending everything to the Far East and they were absorbing all of our waste, but that is not possible anymore. How we label our materials now, as per our designations, will also affect how we will interact with the international borders and how we can move the materials across borders.

Mr. Lloyd Longfield: Thank you.

I know that you know Dr. Mohanty quite well, and the recycling work that's going on for plastics use in the automotive industry. Some of the bioplastics have better strength properties, and they can use 25% less product in their headlight mouldings, let's say, for Ford. Therefore there are cost reductions, material reductions and improved performance with bioplastics.

Dr. Manjusri Misra: Exactly. Thank you very much for that.

Actually, you can use the traditional plastic, which is the post-consumer or post-industrial recycled plastic, like that headlamp or housing made up of polypropylene, with some waste feedstock—waste coffee cups, other industry waste like DDG or soy meal, and anything you can think about. When you covert it to carbon, you can use that biocarbon as your replacement of the carbon black used for automotives.

Mr. Lloyd Longfield: Thank you.

Madam Boudreault, you can probably understand that; I can see you nodding and smiling. That's an important part of your development of product as well. We need regulations to help with the development of solutions going forward, like the bioplastic straws that are being developed at the University of Guelph, as an example.

I wish I could speak more with you, Dr. Misra, being a Canada research chair. I'm so fortunate to have you in our community so that we can have longer conversations.

Mr. St-Hilaire, is the Canada Plastics Pact something that your company participates in? You said you had trouble sourcing product.

Mr. William St-Hilaire: Currently, we have trouble sourcing materials that have been used and washed so that we can produce post-consumer recycled content. That's what we have trouble accessing currently. I think we have to invest massively in sorting centres in order to create what we call the circular economy.

Honestly, my message here today is really that we need to invest in sorting facilities. We need to invest in taking that raw material, shredding it, washing it, and being able to make new packages with it or make whatever item it is. We need to close the loop here. That's what we need to do.

Mr. Lloyd Longfield: I was quoted earlier, but I was actually quoting some businesses in British Columbia and Alberta saying that we're going down the wrong path if we're limiting the transmission of plastics across borders. We need to develop those recycling centres. We need the quantity and quality of product to do that.

Is there any development through the strategic innovation fund that you're aware of, or is that an opportunity?

● (1705)

Mr. William St-Hilaire: That is an opportunity, that's for sure. I think Canada has everything in order to succeed with a circular economy. We have everything. We have—

Mr. Lloyd Longfield: And now we have budget 2021. That's in the budget, so we'll have to get going on it.

Thank you very much for your testimony.

Mr. William St-Hilaire: Thank you, Mr. Longfield.

The Chair: Thank you very much.

[*Translation*]

Ms. Pauzé, it's your turn.

Ms. Monique Pauzé: Mr. Chair, do I have two and a half minutes?

The Chair: Yes. You have more time, but it's about two and a half minutes.

Ms. Monique Pauzé: Okay.

I will ask my question quickly.

Mr. St-Hilaire, thank you for joining us.

You said that three of the four food products that you make are made of entirely recycled material and only one is compostable, but they are all reusable. Is that the same for your medical and pharmaceutical products? Are they made from recycled or reusable materials?

Mr. William St-Hilaire: Some are. We apply the same standards for the pharmaceutical industry as for the food industry. They are similar markets. It is important to mention that, when plastics are properly recycled and come to us, they are approved by the U.S. Food and Drug Administration. So they are food safe.

Again, the major problem right now is that we have difficulty accessing this Canadian material that comes from Canadian sorting centres and processors to make new packaging. We have difficulty sourcing it locally.

Ms. Monique Pauzé: Thank you very much.

I have a question for Ms. Misra.

In their remarks, a number of companies have addressed the potential dangers of plant-based and paper products that are waterproofed with acids. We have received communications about this.

Can you tell us what the difference is between a compostable plastic and a biodegradable plastic?

[*English*]

Dr. Manjusri Misra: There is a lot of controversy on what is compostable and what is biodegradable. For everyone's understanding, all compostable products are biodegradable but not all biodegradable products are compostable, meaning compostability is a phenomenon.

As for the standard as far the environment is concerned, it has to be in a controlled condition, with a controlled temperature, in the presence of microbes as well as in the presence of moisture.

When we talk about compostability, it has to happen either in an industrial facility or in a home composting facility. Saying a product is compostable has no meaning. It is a misnomer. We have to say whether it is at home or in industry.

Both have different conditions. For home, there is a one-year degradation time, and for industry, there is a six-month degradation time to carbon dioxide and water.

The Chair: Okay. Thank you very much.

We'll go to Mr. Bachrach now.

Mr. Taylor Bachrach: Thank you, Mr. Chair.

Professor Curran, we heard from Mr. Burt that we don't have a plastics problem; we have a waste problem. That's sort of an argument that plastics don't kill turtles; people kill turtles.

What do you make of this assertion? How do you see that informing this debate?

Ms. Deborah Curran: We wouldn't have a waste problem if we regulated the kinds of plastics that we produce so that they could the then be used to create the raw materials needed for what the other witnesses have said their industries rely on.

I wanted to refer back to something that Dr. Misra said. She indicated that we could get rid of 80% of single-use waste plastics if we could deal with three specific types, one being mixed material plastics, another being multi-layer protective films and the third being impractical items to recycle. This really shows that if we have these three types of materials that we actually can't deal with—they will always be waste; they will never be economically viable to deal with in another way—it is going to require the industry to shift to something that is reusable, and that then addresses the waste.

We can't promote recycling facilities or create federal standards or agreements with the provinces about recyclability, about concentrating the amount of recycled material in any one jurisdiction or place, unless we're actually creating useful material that can actually be reused.

That is just one example showing that, yes, we have a plastic waste problem, but the reason we have a plastic waste problem is not due to individual behaviour. Rather, it is due to a lack of regulation that would assist in giving industry those signals about what is useful for Canadian society.

We only have regulation when there is a failure of collective action or a failure of the market. In this case, through no fault of the industry, there is a failure of the market, so we have to send those signals through the federal government.

● (1710)

Mr. Taylor Bachrach: Is Canada leading on this issue, or are we playing catch-up to other jurisdictions?

Ms. Deborah Curran: We're certainly playing catch-up. We are a very large country, so we don't feel the pressure to deal with waste in a really meaningful way except in certain highly dense jurisdictions. We are definitely playing catch-up.

You all have seen, from your reports, the European focus on the circular economy, the fact that more than 30 countries and other jurisdictions have banned plastics or taxed them in a meaningful way.

The Chair: Thank you.

We'll go to Mr. Jeneroux now, for five minutes.

Mr. Matt Jeneroux (Edmonton Riverbend, CPC): Thank you, Mr. Chair.

I have two questions I'm hoping to get in, but I want to give Mr. Burt a chance to rebut some of that since his name was used in the question.

Mr. Burt, please go ahead.

Mr. Michael Burt: Yes, there are a couple of points that I want to clarify.

When we talk about recycling plastic, it seems that most individuals are really focusing on mechanical recycling. You are correct that mechanical recycling has a very limited ability to recycle a lot of plastics. That's not the future of plastics recycling. It is definitely something that is going to have to continue. It's a great quiver that we have to tackle plastic waste, but with advanced recycling technologies like gasification and pyrolysis, there is a Quebec company, Pyrowave, which takes the multilaminates—the chip bags, the polystyrene—and puts them in a reactor in the absence of oxygen with no GHG emissions coming off and depolymerizes them. They take a polymer right down to its base polymers.

That's what Dow and the industry are advocating for.

We can then take that, whether it's ethanol, methanol, rough-grade diesel, and blend it back into our facilities and turn it into virgin resin. The advantage of this is that it meets all Health Canada specifications. Basically, you're taking it right back to the base monomers so that you can create polyethylene and polypropylene.

That's the future of recycling. It's advanced chemical recycling using these new technologies. They've been around for quite some time. They're advancing exponentially.

Basically, all new recycling facilities that go forward are going to be based on some of these advanced recycling technologies and the reality is that you don't have to do as much sorting. We were talking about the MRFs, the sorting facilities. You can put all the hard-to-recycle plastics.... For instance, black plastic is not recycled; the optical scanners don't recognize it. Chip bags are not recycled and polystyrene is not recycled. All of those can be done with advanced recycling technology.

The technology is already in place. It's moving forward, and that's where we want to see the federal government putting a lot of its initiatives, working with the provinces to get these facilities up and running.

We are looking at an opportunity where you don't have to do a lot of sorting, you don't have to do a lot of washing, and you immediately get food-grade polyethylene or polypropylene out the back end.

Mr. Matt Jeneroux: I might just have time for one question, Mr. Chair, but I'll try to perhaps just raise a point of clarification for Madame Boudreault in response to one of the earlier questions. There was a question asked about whether or not an exemption would be made to your products. You said no. However, to my understanding, unless an exemption is made on PHAs, your products would be classified under this recent toxic designation.

I'll just leave that with you, Madame Boudreault.

Mr. Burt, perhaps write to the committee if that's correct or not correct, from the first round of Mr. Albas's questions.

I really want to get to another question. A huge part of GHG emissions—and I'll pose this to Mr. Burt first, but open it to others if they want to weigh in—comes from food waste.

Can you explain the role that plastic plays in reducing that waste? For example, the one that I always hear about is the plastic on cucumbers. Does that not, one, make food last longer in making it accessible to remote areas, but also, two, help in keeping the prices down?

Again, I'll pose it to Mr. Burt, but if any others want to weigh in afterwards, we might have a few seconds.

● (1715)

Mr. Michael Burt: I think most people would understand that, basically, food preservation is a huge issue when it comes to GHG emissions. Given the amount of energy that is put into manufacturing and transporting food, and how food waste is one of the largest items that goes into landfills, anything you can do to preserve food, to make it last longer, to keep it on the shelves longer is of paramount importance to reaching our GHG targets.

Plastic has been proven, time and time again, and the food wrap that we have exponentially increases the life of some products.

Mr. Matt Jeneroux: I'll open it up to anybody else who wants to weigh in on that question. I thought it was a good question.

Okay. How much time do I have left, Mr. Chair?

I'll cede my time.

The Chair: Okay.

Mr. Saini, you have five minutes.

Mr. Raj Saini (Kitchener Centre, Lib.): Thank you very much, Chair.

Thank you very much to all of the witnesses for coming today. It's been a very enlightening conversation.

Dr. Misra, I'd like to start with you because I am interested in some of the work you've done. I reviewed the paper you wrote in 2018, “Composites from renewable and sustainable resources”. I'm interested in the fact that when we talk about commercially available bioplastics, we're generally talking about hybrids, both bio-based and fossil-based composites.

You noted that 100% of bio-based plastic composites have limited success in some applications. I am wondering if you could elaborate for all of us on where you see the future for the 100% bio-based plastics, and what obstacles you see standing in the way of their mass adoption.

Dr. Manjusri Misra: The main thing is that whenever bioplastics.... Different kinds are either are synthetically made or are from natural resources, like starch, lignin or celluloids. Basically, whatever product you make, there's some lack of performance, and that is the main thing: they don't perform well. For example, if you need really high-barrier, highly moisture-resistant material like making packaging for bioplastic, it is not possible at each step.

We can make packaging from polypropylene; we can make packaging from polyethylene or PET as an individual polymer, which is not possible in the case of many biopolymers. That's why we always do hybridization of a minimum of two or more polymers along with other additives to make it really price and performance competitive. There is also processability, because it is also important that traditional machinery can process the material because it degrades as it goes to the temperature of processing. Normally polypropylene is processed at 200° centigrade, and the compounding cannot happen with bioplastics itself in many cases.

Mr. Raj Saini: Sorry.

Obviously we all want to reduce our use of plastics, and having a medical background, I know that single-use plastics are sometimes necessary for certain medical procedures or medical devices, because they're easy and needed for sanitary purposes. Do you believe that bioplastics could help us achieve zero plastic waste in the areas that may necessitate single-use items?

Dr. Manjusri Misra: Yes, it's not for everything, but in some areas it can really reduce plastic waste 100%.

Mr. Raj Saini: Some of the questions I had are on some of the climate effects of bioplastics. As I understand it, bioplastics require a significant amount of land, water and fertilizer in order to grow the plants or the crops they're made of. Would it be possible to scale up bioplastic production to the levels at which we are currently consuming fossil-based plastics?

Dr. Manjusri Misra: It may be possible several decades down the road, but not right now. This is an area where Canada can lead. Indeed, this currently a completely open area, and particularly, as for making any kind of bioplastic, Canada produces none. All of the bioplastics are produced on large scale in China, and a certain amount is produced in the U.S. and some in Europe, but nothing in Canada right now. In order to be a global leader, this is an opportunity to work on this area to find out, in particular, the monomers that are required to make plastics. We have different places where monomers can be synthesized and scaled up.

● (1720)

Mr. Raj Saini: The final question I have is on the difference between the United States and Canada. In the United States, they have a way of defining or characterizing what can be considered a bioplastic or something that's biodegradable, and I understand that we don't have that classification system here. Would you suggest that's something that we think about?

Dr. Manjusri Misra: Exactly, classification of labelling and standards is a priority to be considered for bringing this innovative material to actual usage.

Mr. Raj Saini: Chair, do I have any time?

The Chair: You have about 30 seconds.

Mr. Raj Saini: Dr. Misra, I know that you're leading this research. How would the federal government...? Setting standards is one thing. How do you see a role for the us in this? Do you believe that investing in technology, investing in start-up companies and scaling them up is something we should be doing?

Dr. Manjusri Misra: Yes, there are multiple ways that the federal government can provide support. One is to help existing industries that are heavily using or making non-recyclable plastics to enter into this innovative field through the help of the federal government, as well as industry and technology partners. That can happen as one of the things. We cannot make reduce to zero some of things that are not possible to recycle. For new development, we can do some start-ups.

Mr. Raj Saini: Thank you very much, Dr. Misra.

The Chair: Thank you.

We have a couple of minutes left, so I'm going to give a five-minute round to Ms. May.

Ms. Elizabeth May (Saanich—Gulf Islands, GP): Oh, my heavens. Thank you, Mr. Chair. That's so kind of you. The witnesses have been extraordinary and I'm very grateful for a five-minute round.

I'm going to start with Professor Curran.

As we look at moving through a circular economy and you see this as a good first step, looking at a second step I'm very concerned about the polystyrenes that are not intended as single-use products. As you will know, living in this part of the world, on southern Vancouver Island, we have a tremendous problem with debris created by products that are not durable. They're in the marine environment. I think you'll know what I'm talking about. We have sometimes polystyrenes in floats and buoys, used along wharfs, on docks and in boats. We have fleets of volunteers who try to go to our beaches to collect tiny bits, because they do get consumed by fish. They are marine debris.

I see my friend Taylor nodding.

We have some forms of “styrofoam”, to use the conventional term, already listed under CEPA, but would you think we could act at the same time to deal with non-durable plastic items that are used in a marine context?

Ms. Deborah Curran: In addition to a Canada-wide context, the marine context really takes some additional consideration and some special law. As you know, you can't go to a beach in British Columbia without finding polystyrene. I've been on very remote beaches on the central coast, and you find polystyrene everywhere. This is an omnipresent and persistent problem that can't be addressed as a waste stream. It's impossible to deal with. Because it is in the marine environment, it gets broken apart, and then you simply can't deal with it as waste. It needs to be dealt with farther upstream, farther up the production chain, in a way that's meaningful so that we don't have the waste produced.

Ms. Elizabeth May: I certainly take Mr. Burt's point from the manufacturing side that we don't have a problem with plastics; we have a problem with plastic waste. I hate to throw this spanner in the works, but is it possible that our conceptualization of single-use items might not be as useful a frame as durability? Some items that are not single-use are not durable at all, such as polystyrene used in a marine context. Other times, as some have pointed out, there are single-use items for medical purposes, where you start carving out an exception.

Make no mistake; I do want to ban all single-use plastics. However, I wonder whether conceptually we can frame this to make sure that our focus is to keep plastics out of the marine environment.

● (1725)

Ms. Deborah Curran: That's an interesting, as you say, reconceptualization. Really, what you're getting to is, what is the utility of the thing being produced? Does society have to deal with it after it has been produced, or is there some ongoing either durability or use for it in another context? That's the question that has to be asked of the production aspect of plastics and everything that goes with it.

Ms. Elizabeth May: I have a question for Mr. Burt, if there's still time.

I note that Dow has been producing some very useful food storage items that are not immediately disposable. If I'm remembering the brand name correctly, they're called “Affinity”. As consumers seeks ways to avoid our own plastic waste in our own kitchens, is Dow looking ahead to shifting to produce more of those kinds of products so that your profitability goes forward?

The time I negotiated the most with Dow was in getting the Montreal protocol, when initially in your corporate history it wasn't the best record, but then the management shifted and said, “Okay, this is coming. We're going to have to reduce chlorofluorocarbons. We see that happening. We're going to shift our product line and go to alternatives to ozone depleters.”

Could you go to an alternative that wasn't a throwaway piece of plastic wrap and be profitable?

The Chair: Mr. Burt, you have 30 seconds.

Mr. Michael Burt: We believe so. We are an R and D company. That's what we do and that's how we make our profit. We respond to our consumer demands.

We make resin. We don't actually make the plastic bottles; we sell bulk resin. Right now, in terms of the demands from the people we sell to, the converters, what they're asking for is higher recycling content, higher recyclability, and more durable products as you've highlighted.

In the food packaging space, which is one of the ones where we spend a lot of time and effort, we are continuing to modify our products. We have our Pack Studio developing a number of products that are addressing those issues.

The Chair: Fabulous.

It's been a great session. Thank you to the clerk and the analysts for putting together this group of fabulous witnesses.

Thank you to the witnesses for their insightful answers.

Thank you to the members for their great questions.

We have about 15 minutes left until the vote. Happy voting. We will see everybody on Monday for the third panel in this plastics study.

Thanks again. Have a great evening.