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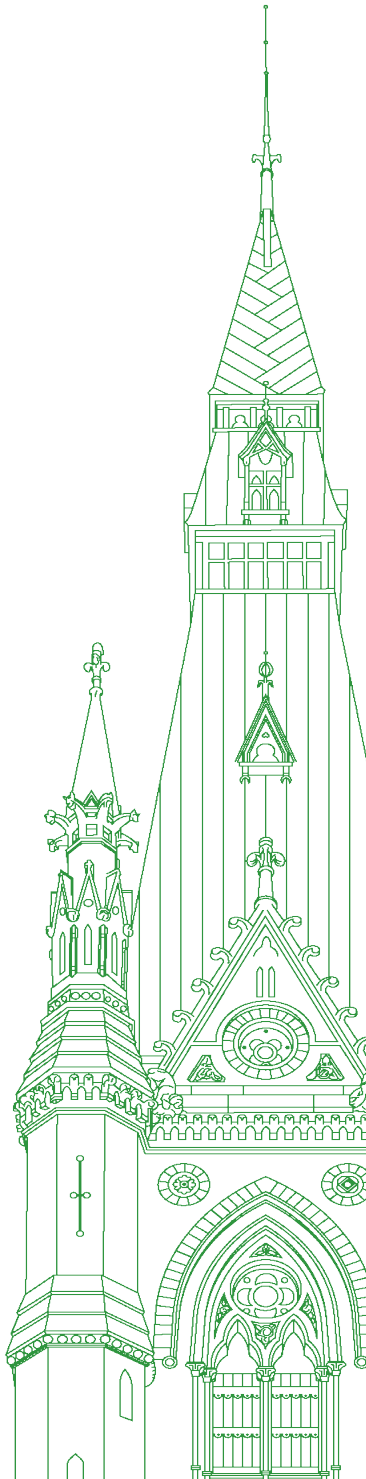

Chair: Mr. Joël Lightbound

Standing Committee on Industry and Technology

Wednesday, March 29, 2023

● (1635)

[*Translation*]

The Chair (Mr. Joël Lightbound (Louis-Hébert, Lib.)): Good afternoon, everyone.

I call this meeting to order.

Welcome to meeting No. 65 of the House of Commons Standing Committee on Industry and Technology.

[*English*]

Pursuant to Standing Order 108(2) and the motion adopted by the committee on Monday, November 28, 2022, the committee is meeting to study the development and support of the electronics, metals and plastics recycling industry.

Today's meeting is taking place in a hybrid format, pursuant to the House order of Thursday, June 23, 2022. I'm happy to report that for the first time in a long time everyone is here in Ottawa, and all of our witnesses are here. It feels like 2019 all over again. It's good to have you.

[*Translation*]

I'm very happy to have you.

I would like to thank the witnesses for participating in this exercise.

So today we have Sheryl Groeneweg, Director General, Advanced Manufacturing and Industrial Strategy Branch, and Patrick Hum, Senior Director, Advanced Manufacturing and Materials Industries Directorate, both from the Department of Industry.

We also have Kimberley Lavoie, Associate Assistant Deputy Minister of Mineral Policy and Critical Minerals at the Department of Natural Resources.

And last, we have, from the Department of the Environment, Megan Nichols, Associate Assistant Deputy Minister, Environmental Protection Branch; Dany Drouin, Director General, Plastics and Waste Management Directorate; and Leah Canning, Director, Policy Priorities, Strategic Policy Branch.

Thank you for taking the time to come and meet with us and tell us about the subjects we are studying.

Without further ado, the floor is yours for five minutes, Ms. Groeneweg.

Ms. Megan Nichols (Associate Assistant Deputy Minister, Environmental Protection Branch, Department of the Environment): If I may, Mr. Chair, I will be starting the presentation.

The Chair: Fine.

Ms. Megan Nichols: Thank you.

[*English*]

Good afternoon.

Thank you for the opportunity to appear before the committee in support of its study. I'm pleased to appear here with colleagues from Environment and Climate Change Canada; Innovation, Science and Economic Development Canada; and Natural Resources Canada.

The circular economy provides an alternative and more sustainable framework for the design, production and consumption of products and materials. It keeps them in the economy and out of landfills for as long as possible. That's all in support of the Government of Canada's efforts to tackle climate change, biodiversity loss and pollution, while creating opportunities for clean growth and job creation.

As such, the Government of Canada has embedded circular economy principles into policies and initiatives across a variety of sectors, including food waste, mining and minerals, home appliances and electronics, and plastics.

[*Translation*]

More specifically, I am going to talk about the approach taken by the Government of Canada to supporting the transition to a circular economy for plastics. My colleagues will address the other components of your study.

[*English*]

Improving the way we manage plastic waste can reduce plastic pollution and carbon pollution, retain the value of plastics in the economy, and generate new revenues and jobs. In support of this, we've set an ambitious Canada-wide goal of zero plastic waste by 2030 and announced over $275 million to support its achievement.

However, we know there are challenges to overcome. These include the cost of recycled plastics and the lack of economies of scale, especially compared to new plastics and the costs of landfilling; weak end-markets for recycled plastics due to limited supply and demand for these products, and their uneven quality; and low collection and recycling rates due to a range of factors, such as contamination and lack of infrastructure.

[*Translation*]

The approach taken by the government for meeting these challenges applies at each stage of the life cycle of plastics and follows the hierarchy of waste management. At the top of that hierarchy, measures for preventing and reducing waste are the most effective and often cost less and have environmental benefits. They are followed by reusing and repairing, remanufacturing and refurbishing, recycling, and, last, burying.

[*English*]

In Canada, this is a shared responsibility. The federal role in supporting the transition to a circular plastics economy rests in the government's market levers and environmental protection authorities. Downstream collection and disposal is the purview of the provinces and territories. Many have regulated producers of plastic packaging and electronics to require them to pay for the collection and recycling of these products through extended producer responsibility regulations. Municipal and regional governments manage public landfills and implement bylaws to increase waste diversion.

[*Translation*]

The federal government works closely with the provinces and territories, under the aegis of the Canadian Council of Ministers of the Environment, to implement the Canada-wide Action Plan on Zero Plastic Waste and the strategy that accompanies it.

[*English*]

The CCME action plan contains a broad range of activities, from improving plastic product design to supporting reuse and repair, establishing consistent extended producer responsibility programs across the country, providing support for infrastructure to recover and recycle plastics, and developing standards for recycled content in plastic products.

In addition to collaborating with provinces and territories, the federal government is taking measures to achieve our zero plastic waste goal through innovation, regulations and collaboration with other actors. We have banned certain single-use plastic items where they are harmful to the environment and difficult to recycle. We have committed to requiring labelling of recyclable and compostable plastics to reduce confusion and improve recycling and composting outcomes. We have committed to implementing minimum recycled content requirements for plastic packaging to strengthen end-market demand and supply, and we have launched work to achieve a recycling rate of 90% for plastic beverage containers.

● (1640)

Canada continues to work with other countries as well to tackle plastic pollution. We are advocating for an ambitious, legally binding international agreement to address waste and pollution. If these negotiations are successful, plastic markets around the world will be under even greater pressure to become more circular.

[*Translation*]

Thank you for giving me the opportunity to talk with you today.

[*English*]

I look forward to answering your questions.

[*Translation*]

The Chair: Thank you.

[*English*]

I don't know who wants to go next.

Madame Lavoie, the floor is yours.

Ms. Kimberly Lavoie (Associate Assistant Deputy Minister, Mining Policy and Critical Minerals, Department of Natural Resources): Thank you, Mr. Chair, for the opportunity to appear before committee today.

Critical minerals are the base inputs to electric vehicle batteries and advanced manufacturing sectors, including clean energy, information and communications technology, and defence applications. The demand for critical minerals is forecast to skyrocket in the years ahead.

[*Translation*]

In December 2022, Minister Wilkinson announced the Canadian Critical Minerals Strategy, with an overall goal of stimulating the development of Canadian critical mineral value chains—from exploration and research through to full-scale production, to recycling.

Representing the largest single investment that the Government of Canada has ever made in mining, the Canadian Critical Minerals Strategy includes the circular economy as a key tenet of supporting economic growth and competitiveness.

This commitment to a circular economy is also reflected in the Canadian Minerals and Metals Plan—a pan-Canadian policy framework to boost the competitiveness of the entire minerals and metals industry in this country.

[*English*]

Circular economy approaches will be essential to meet the material requirements of a low-carbon transition and ensure the long-term competitiveness of Canada's minerals and metals sector in meeting those requirements.

The Government of Canada is committed to helping embed circular economy principles into our sustainable mining practices, both here at home and on the world stage. For example, Canada announced the creation of the sustainable critical minerals alliance at COP15 in December 2022, which includes a commitment to building a circular economy.

[*Translation*]

And we are making progress. Canada is already a leading recycler of a number of minerals and metals including iron & steel, aluminum, scrap copper, lead, nickel and zinc, through our existing smelters and refining capacity. As first generation clean technologies like wind turbines and solar panels reach their end of life, new economic opportunities to recycle will emerge.

[*English*]

Further, the sector continues to innovate. Some of the leading practices the Canadian mining and minerals industry is undertaking here in Canada include CVW CleanTech, extracting titanium and zircon from oil sands tailings; Geomega recycling, building an alumina waste-processing plant and active in rare earth magnet recycling; and Li-Cycle, scaling up their lithium-ion battery-recycling facility in Kingston from 5,000 tonnes to 10,000 tonnes per year and expanding globally into France.

These are important examples to bring the concept of a circular economy to life and to demonstrate how it connects to economic activity and prosperity for our communities.

[*Translation*]

We are actively developing policies and working with provinces and territories on the regulatory frameworks to encourage more circular solutions.

Where supply chains are nascent or developing in Canada, as in the case of rare earth elements and battery materials, we may provide funding where this can help advance solutions and development.

● (1645)

[*English*]

We also develop science and technology policy more broadly. As well as conducting research and development, NRCan—Natural Resources Canada—leads the “mining value from waste” initiative, which is part of our ongoing green mining innovation research.

[*Translation*]

Governments can also play a role in de-risking technology adoption through initiatives like the Critical Minerals Research, Development and Demonstration program where Natural Resources Canada is supporting industry, including in the areas of recycling and from alternative sources.

[*English*]

I hope these examples of the innovative work happening on critical minerals and circular solutions to support the clean energy transition will inform the committee's thinking on approaches being undertaken in this important area.

[*Translation*]

Thank you.

I would be happy to take questions from members of the committee.

The Chair: Thank you, Ms. Lavoie.

Ms. Groeneweg, the floor is now yours.

[*English*]

Ms. Sheryl Groeneweg (Director General, Advanced Manufacturing and Industrial Strategy Branch, Department of Industry): Thank you very much, Mr. Chair.

ISED's mandate is to improve conditions for economic investment, enhance Canada's innovation performance, increase Canada's share of global trade and ensure a fair, efficient and competitive marketplace. The department has a purview across a wide range of industrial sectors: steel, aluminum, chemicals, plastics, textiles and apparel, critical minerals, clean technologies, automobiles, aerospace, space, marine, digital, AI and quantum. It's quite a wide swath of the economy.

The composition, performance, pressures and opportunities facing these sectors are essential to setting the strategic direction for Canada's economic future. As ISED undertakes its work, there is recognition that, globally, there is an ever-increasing emphasis on industrial policy that sees competitive advantage in the transition to a low-carbon economy, and recycling as an economic advantage and, furthermore, an industrial policy pillar. There is a drive to spur on innovation and develop technologies that create new market value and are considerate of robust supply chains and resiliency.

In this context, ISED is active in areas related to circularity, particularly when it comes to emission reductions and industrial transformation. For the work of this committee, this includes areas such as critical minerals recycling, and innovation and development of the advanced materials necessary for Canada's clean technology and manufacturing industries. For example, with the growing demand for electric vehicles, Canadian companies continue to pursue advantage at the forefront of R and D. This includes considering how best to enable the sustainable recovery of critical minerals from spent electric vehicle batteries.

Across Canada's industrial sectors, companies are actively exploring and implementing disruptive changes to the ways in which they do business as the world transitions to a low-carbon economy. Through existing direct-funding programs, including the strategic innovation fund, the department is supporting projects that exemplify Canada's domestic orientation for industrial transformation towards a greener economy.

For example, with funding delivered through the Canadian critical minerals strategy, the SIF provided $222 million in support of a $737-million project with Rio Tinto Fer et Titane. This project aims to recover scandium from existing waste streams and promotes a circular economy approach, while also growing Canada's critical mineral production capacity for strategic industrial sectors.

SIF and the Canada Infrastructure Bank also provided $820 million in federal investments to ArcelorMittal Dofasco and Algoma Steel to support both producers in transitioning from coal-fired steelmaking to scrap-based electric arc furnace steel production in Sault Ste. Marie and Hamilton, Ontario, respectively.

Greater reliance on circularity, particularly in recycling, reuse and repair, has the potential to alleviate supply chain pressures that are persistent in the postpandemic global context. Both in Canada and around the world, a growing number of companies are looking at different ways to harvest key inputs, including critical minerals like lithium, neodymium, gallium, graphite, aluminum and copper, from post-consumer products. Some companies operating in this space are already processing 100,000 tonnes of recycled materials annually. This includes materials vital for Canada's emerging battery-manufacturing ecosystem, where new business models that promote circularity are just beginning to emerge now.

As the committee explores the topic of circularity and recycling, I would like to mention several market failures that are preventing widespread adoption in the deployment of recycling across industrial sectors.

For example, in many sectors, the cost of recycling—including collection, sorting and processing—is high. It is challenging for companies to grow and scale operations to a point of profitability, particularly when they are competing in the context of international markets. In many manufacturing sectors, it is often significantly cheaper to source new materials from overseas, many of which have a higher carbon intensity. Many recycling processes also require significant volumes of energy or need to be conducted at a scale the infrastructure across the country cannot currently support, such as in the case of plastics.

As well, I will point out that the complexity of the shift to a circular economy, particularly when considering a broad spectrum of products like electronics, metals and plastics, cannot be overstated. There is appreciable diversity within all industrial areas, each of which is facing particular challenges and opportunities that must be understood within their unique sectoral contexts.

● (1650)

With this understanding, ISED continues to support the government in advancing its circularity and climate objectives. The department's breadth of regulatory, legislative, policy, and program tools are available in support of these goals.

As the work of this committee continues, I would encourage you to speak with representatives from a broad range of sectors to understand the unique circumstances of different industries.

Thank you. I look forward to your questions.

[*Translation*]

The Chair: Thank you.

We are going to begin the discussion with Mr. Fast.

The Clerk: It's Mr. Vis.

[*English*]

The Chair: Okay.

I'm sorry. There have been a few changes.

Mr. Vis, go ahead.

Mr. Brad Vis (Mission—Matsqui—Fraser Canyon, CPC): Thank you to all the witnesses here today. I'm really looking forward to this study.

For the witnesses from Natural Resources, it was mentioned that critical minerals are important for the development of the circular economy in Canada. How much lithium was mined in Canada last year?

Ms. Kimberly Lavoie: Canada has two active lithium mines. Last year there was only one, in Manitoba. I don't have the exact stats at my fingertips, but I can certainly get them for you.

Mr. Brad Vis: Thank you.

How important is lithium to the development of battery technology?

Ms. Kimberly Lavoie: Lithium is one of the essential components in all of our current battery technologies, whether we are looking at it for electric vehicles or for storage. Lithium is an integral component, yes.

Mr. Brad Vis: What proportion of lithium reserves are in Canada, in the global context?

Ms. Kimberly Lavoie: Canada has significant lithium reserves. I would say the majority are right now in Chile and in China; Canada, I believe, is about sixth. I can certainly come back to confirm that.

Mr. Brad Vis: How many mining projects or how many applications to mine lithium are currently with the Government of Canada?

Ms. Kimberly Lavoie: There are a number of advanced projects that are under way in this country. If I had known, I would have brought my lithium brief with me.

Mr. Brad Vis: It's not advanced projects. How many environmental applications to mine lithium are currently before the federal government?

Ms. Kimberly Lavoie: Okay. Much of mining is in the realm of the provinces and territories. The vast majority of the regulation is in the provincial space, so most of the mining environmental assessment applications would be in that provincial space, not—

Mr. Brad Vis: Do you have any idea of the number of applications with provincial or territorial jurisdictions?

Ms. Kimberly Lavoie: I can get you the number. When I say “advanced projects”, those are ones that have either a feasibility or a pre-feasibility study and are ones that would be entering or have entered the environmental assessment process. I can get those numbers for you, as well as possibly the names.

Mr. Brad Vis: Thank you. That's very helpful. I look forward to that information.

To our industry officials, we heard, in great fanfare over the last number of days, that the Government of Canada made an investment with Volkswagen to develop a new battery plant. Can you tell us how much money the government gave Volkswagen to bring forward a battery plant to Canada?

● (1655)

Ms. Sheryl Groeneweg: Thanks so much for the question.

That information is not yet public, so there is nothing I can communicate to you at this point.

Mr. Brad Vis: Are you aware of the number, but unable to give it to me?

Ms. Sheryl Groeneweg: Yes.

Mr. Brad Vis: Mr. Chair, can I bring forward a motion to request that all papers from Industry Canada be provided to this committee in order to know how much the Government of Canada paid Volkswagen—which, I might add, has a poor environmental record in Canada—so we can receive that information at this committee?

Mr. Andy Fillmore (Halifax, Lib.): I have a point of order.

The Chair: Yes, Mr. Fillmore, go ahead on a point of order.

Mr. Andy Fillmore: We need to keep our questioning relevant to what's before us, and we have to respect the constraints under which our valued public servants work. I feel like Mr. Vis's request is really right up against the boundaries of good discourse here.

Mr. Brad Vis: Well, I'll respond to that. We're doing a study on circular economy. I was listening to *The Herle Burly* podcast last night, and the number of $15 billion was being thrown around. I know that the Government of Germany offered Volkswagen over $10 billion to have a lithium battery-processing plant in that country. We're talking about a lot of money here. It's a very straightforward question. We all support the development of battery technology, but if there are taxpayer dollars at hand, that is completely relevant to the study and the operations of this government, and in the realm of what we're discussing here today, Mr. Chair.

Thank you.

Mr. Ken Hardie (Fleetwood—Port Kells, Lib.): I have a point of order, Mr. Chair.

The Chair: Yes, Mr. Hardie.

Mr. Ken Hardie: I believe the normal process would be to provide a notice of motion, a 48 hours' notice, in both official languages.

Mr. Brad Vis: I believe that under the process of committee, Mr. Chair, during my time I'm allowed to move relevant motions per our Standing Orders on a subject relevant to our study.

Thank you, Mr. Chair.

Mr. Iqwinder Gaheer (Mississauga—Malton, Lib.): I have a point of order, Mr. Chair.

The Chair: Okay. Just a moment.

Yes, you are, Mr. Vis.

In the spirit of the type of consensus that we've had around this table and in this committee, I was wondering, Mr. Vis—and we can continue to debate through points of order or debate the motion that's on the floor right now—if you would entertain this idea. Because you're asking, if I heard you correctly, for all documents, would you be willing to accept asking for a written response, and then we can take it from there?

Mr. Brad Vis: You know what, Mr. Chair? That's a good idea. If they could provide us with a written response with the cost of the money that the Government of Canada, in their words, invested in Volkswagen to build a battery plant here in Canada—if the department could please provide that to the committee—I would be happy to amend my motion.

Thank you.

The Chair: I'm not sure that you even need a motion for this. It's a regular practice of this committee to ask for documents from witnesses. It's on the record, so I'm sure the officials with us will do what is in their power to provide the information that they can provide to the committee, as is always the case when we receive officials.

Mr. Brad Vis: Well, if I request it under the power that all standing committees have to request papers, I can make it specific, and then we can have a vote. The power of the committee, the authority granted to this committee, is stronger if we actually have a vote on a motion, Mr. Chair.

The Chair: Okay. I'll take it under advisement for one second, so bear with me.

Mr. Brad Vis: Mr. Chair, can I just make one more point? I'm not asking for something theoretical. The witness told this committee that she is in possession of the information we are seeking, so it's a very specific request. I'm just looking for a number, and that number is, how much money did the Government of Canada give Volkswagen to build the battery plant?

The Chair: Yes, I'm just not sure that you need a motion for that, but I understand that you want to move it and have the committee vote on it so that it has more weight in your mind.

I have a point of order from Mr. Gaheer.

● (1700)

Mr. Iqwinder Gaheer: Thank you, Mr. Chair.

I just don't see how this motion is relevant. It is not specifically on the circular economy.

Chair, I'd like to ask you for the title of the study for today.

The Chair: I think it can be argued that it is within the scope of today's study when we're talking about circular economy.

Mr. Iqwinder Gaheer: I think we're covering “Development and Support of the Electronics, Metals and Plastics Recycling Industry”, so if it's in the scope, it's at the far boundary of what we're covering today.

Mr. Brad Vis: It's completely relevant, 100%. It's a straightforward question.

The Chair: We're talking about access to the raw material as well in the text of the motion, and I have been in the habit of taking more of a liberal approach to the scope of what we're studying. I think this, as argued, fits in, so I will accept that it's within the range of the study.

Mr. Vis, you want to proceed to a vote on that. You want the proper.... What I'm saying to you, Mr. Vis, is that you don't really need us to go to a vote. You've asked for the documents. It's on the record, and the officials will get back to you, as they've acknowledged, but if you want the proper motion, then we can start the debate right now.

I have Mr. Fillmore.

Mr. Andy Fillmore: This is really wandering off the path here.

Canadian investments in Volkswagen are not related to "Development and Support of the Electronics, Metals and Plastics Recycling Industry". This is an important study that needs to get done. It's not a fishing expedition for talking points that the member is looking for, for possible question period fodder. This is a serious study that needs to get done.

Mr. Chair, while we understand what the member is trying to get at here, I would ask that we suspend, please.

The Chair: I'll accept that we briefly suspend so that members can discuss how they want to vote on the motion that's on the floor.

We'll briefly suspend for a few minutes.

● (1700)

_____(Pause)_____

● (1705)

The Chair: Colleagues, we are back in session.

Our apologies to our witnesses. Thanks for your patience.

[*Translation*]

Everyone thinks it preferable that you amend your motion, Mr. Vis.

[*English*]

Mr. Brad Vis: Thank you, Mr. Chair.

Thank you to the witnesses for being honest. I know I was a bit prosecutorial there.

What I will do is withdraw the motion and kindly ask that the information I requested—that is, the Government of Canada investment in Volkswagen—be provided to this committee before our next meeting, Mr. Chair.

Thank you.

(Motion withdrawn [*See Minutes of Proceedings*])

The Chair: The meeting is in three weeks, when we resume from the spring break.

I understand that the department will provide a written response to the committee with the information that was asked for by Mr. Vis.

You still have a minute and a half left, Mr. Vis, but I'm tempted to take it from you. I'm not sure you deserve it.

Voices: Oh, oh!

Mr. Chair: If you want, you can pursue your questioning.

Mr. Brad Vis: I have another line of questioning.

I will say that I do appreciate the collegiality on this.

I have another question for the Department of the Environment.

I was reading our brief today, and it outlined some statistics on plastic waste. How many tonnes of plastic waste are exported from Canada to Asia on an annual basis?

● (1710)

Mr. Dany Drouin (Director General, Plastics and Waste Management Directorate, Department of the Environment): Plastic waste exports have officially been controlled since January 1, 2021. The vast majority is going to the United States. I don't have the tonnage, but most export waste goes to the U.S.

Mr. Brad Vis: With regard to the export waste going to the United States, is it going to processing facilities, or is it going to ports for exportation from America?

Mr. Dany Drouin: It could be both. We don't have a clear division of stats on those two.

What I can say, though, is that you need an export permit to export outside of Canada. If the waste transits through the U.S., you still need the permit.

Mr. Brad Vis: Thank you.

I have one final quick question. Is there a negative and positive list on toxic plastic substances that determines whether those export permits are issued to a company or an individual?

Mr. Dany Drouin: Yes. The regulation works in such a way that if the waste is covered under one of the annexes of the Basel Convention, which lists different types of waste, and has hazardous characteristics that are portrayed in that waste, it triggers our regulation.

Our regulations also get triggered if the recipient countries consider this waste hazardous, regardless of whether or not we consider it hazardous in Canada. If the recipient countries consider this hazardous, it triggers the regulation and someone needs to have a permit.

For anyone who exports without a permit, it's called an illegal export and is subject to enforcement activities.

[*Translation*]

The Chair: Thank you, Mr. Drouin.

Ms. Lapointe, the floor is yours.

Ms. Viviane Lapointe (Sudbury, Lib.): Thank you, Mr. Chair.

[*English*]

My first question is for Kimberly Lavoie. It was a pleasure having you in Sudbury and seeing you again at PDAC earlier this month.

We talk a lot about critical minerals and the need for us to ramp up critical minerals. We've identified that there are really only three ways to do that: opening up new mines, ramping up existing mines or looking for minerals through some waste products. Experts, including the International Energy Agency, have suggested that recycling e-waste could alleviate pressure on critical mineral extraction, since most e-waste is made up of several minerals, including critical minerals.

Can you tell us what initiatives Canada has put in place specifically to reuse critical minerals in e-waste?

Then I have a second part to my question: What steps should Canada take to recover more of the high-value materials that are found in e-waste, such as iron, copper and gold?

Ms. Kimberly Lavoie: I'm going to defer to my colleague from Industry because she deals much more with e-waste than I do.

Ms. Sheryl Groeneweg: Thank you, Kim.

Thank you very much for the question. I'm going to read my prepared answer, and then we can get into some more specifics on the question you have.

E-waste is both an environmental waste management issue, given the volumes that exist, and an economic opportunity for Canada. I'll note that provincial governments are the lead in regulations and legislation regarding e-waste. That's a very important factor in terms of how that's managed in the Canadian ecosystem, although I would note that there are federal levers related to the treatment of certain toxins in metals, such as mercury, lead and arsenic.

ISED has taken an important role in helping to ensure the longer life of electronic goods by diverting electronic waste from landfills. One example I can describe is the computers for schools program that we have. Through diverting computers that are no longer in their first life of use, they can be taken to another, second life for lower-income people or schools, etc.

There continues to be a significant volume of e-waste in Canada, and that moves through the recycling industry. Businesses in the recycling industry that specialize in the safe disposal of e-waste ensure that components, from plastics to valuable metals, are disposed of properly and re-enter supply chains as recycled content. However, not all recycled inputs have the same value, which impacts the demand for these recycled materials.

In essence, we have a very nascent, burgeoning recycling of e-waste sector, if you can even call it a sector. In some instances, the products of e-waste might go to various offshoots or key inputs of other parts of the manufacturing system. It's quite dependent, as I said in my opening remarks, upon the ability of those products to be absorbed into the manufacturing sectors for which they could become part of the circular economy.

I hope that somewhat answers your question.

● (1715)

Ms. Viviane Lapointe: It's helpful.

My next question is for Ms. Nichols.

Can you tell us what the industry is doing? We're focused on the government, but I'm curious to know what the industry is doing to promote the recyclability of its products and to increase the durability of its products.

Ms. Megan Nichols: Thanks very much.

Certainly, many parts of industry are taking Canada's ambition very seriously and contributing to the solutions. For example, there is the Canada Plastics Pact, which is a collection of a number of companies. About 50 companies are members of the Canada Plastics Pact, as well as universities and municipalities. They are working together to identify voluntary targets to reduce the impacts of plastic on the environment.

Ms. Viviane Lapointe: Can you tell us how well voluntary actions work to promote that greater electronic recycling?

Ms. Megan Nichols: I would say that, in general, voluntary approaches can work very well in certain cases. It really depends on a certain outcome that we are looking to achieve.

In terms of the electronics sector, in particular, we have worked with them to create a kind of action plan or road map. One of my colleagues from Environment might be able to speak to that a bit further.

Mr. Dany Drouin: The voluntary approach is usually very useful if you're dealing with a small number of willing companies. In that case, you always have a different approach, which is that if the voluntary approach doesn't work, regulatory tools could be used. Often, in environmental protection, we'll look at the two different approaches and they can work together, combined.

However, there's a lot of work happening in the industry. You'll hear retailers, for example, talking about what the consumers want and what their employees want. Restaurants are another good example. They sometimes have trouble finding employees if they don't serve with a certain type of cutlery, for example. I see there are no plastics here today.

On e-waste, this is a very valuable product, so it has a higher economic value. Therefore, as a commodity, it gets treated in a more robust way.

[*Translation*]

The Chair: Thank you, Ms. Lapointe and Mr. Drouin.

Mr. Lemire, the floor is yours.

Mr. Sébastien Lemire (Abitibi—Témiscamingue, BQ): Thank you, Mr. Chair.

I would like to thank everyone. I'm happy we have been able to begin this study. I think you have all laid the groundwork very well, as have our analysts.

I initiated this important work at the Standing Committee on Industry and Technology because I believe in the importance of critical and strategic minerals, in particular, in the energy transition. I also believe in the importance of the circular economy in this regard, something we are hearing about more and more, both in the various government publications and in what industry representatives are saying.

I think my colleagues would agree with me that what we also want is to see more predictability, transparency and honesty in everything relating to this challenge connected with recycling. We want to highlight the work to be done to strengthen the implementation of this circular economy. We want to see our things being transformed instead of seeing them just retired when there are still good quality inputs that could be used in manufacturing other items.

I wanted to tackle this study a few months ago now because I think the recycling industry is part of the solution and the extraction and transformation of critical and strategic minerals also presents challenges in terms of social acceptance.

I come from Rouyn-Noranda. You have all heard about the problems connected with the Horne Foundry. Those problems have definitely divided our community and had an impact on social harmony. We can never play with people's health. The main factors affecting health, public health and the environment were obviously the responsibility of the Government of Quebec, and I think it was important for it to table its plans before we started a study like this one.

How do you see the question of social acceptance in a context like that?

Mr. Guilbeault had announced that the federal government—more specifically, the Department of the Environment—had asked questions and requested a study.

What is this study that was requested?

What comments and recommendations, if any, do you have?

● (1720)

[*English*]

Ms. Megan Nichols: Speaking of the Horne Foundry, I can certainly say, Mr. Chair, that addressing air pollution is a shared responsibility between federal and provincial governments.

The new Quebec ministerial authorization for the Horne smelter certainly tightens obligations on the facility by setting stricter targets for heavy metals in ambient air and requiring the company to submit a plan to achieve the provincial standard for arsenic, over time. We are certainly looking at this authorization and the conditions, and assessing them jointly with our colleagues at Health Canada. We'll certainly continue to support the Province of Quebec and regional health authorities with respect to this issue.

The federal government is also looking at taking action in terms of the development of a health-based ambient air quality objective for arsenic that will represent the highest safe level of exposure to the substance. This voluntary tool could then be used by stakeholders, including provinces and territories, to manage arsenic health risks.

I'll see if my colleague from NRCan wants to add anything in terms of this particular facility.

Ms. Kimberly Lavoie: As we look at the work that's being done in the critical mineral space, it's very much a balance between economic opportunity and environmental protection. We work very closely with our colleagues at Environment, and we work very closely with our colleagues at Industry, to look at how we can achieve that balance.

The particular situation in the Horne smelter is one that is incredibly unfortunate. It's an old smelter. It's one that has been around for a long time, but it is the only one in North America that is currently recycling copper, and it's recycling e-waste as well. The objective that we are looking towards is how we can allow that smelter to continue to do its important work while still protecting human health. That's the work that's happening with Environment, with Health Canada, with the province, and actually Glencore itself. They have agreed to put in measures. They are putting $500 million into cleanup measures to reduce the emissions, and they have set a target to do that.

I think if we all work together, we can certainly reduce the environmental impacts, improve the outcomes for human health, and still ensure that we achieve our recycling and smelting objectives.

[*Translation*]

Mr. Sébastien Lemire: Thank you for your answer.

In the 1980s, we had a big problem with sulphuric acid and acid rain. The federal government played an important role in building a sulphuric acid plant.

In the budget presented yesterday, I am particularly interested in the 30 per cent refundable tax credit for investments in new machinery and new equipment used for manufacturing or transforming key clean technologies and extracting, transforming or recycling the principal critical minerals.

Could Glencore/Horne Foundry receive that tax credit?

Would it be eligible in connection with its operations?

● (1725)

[*English*]

Ms. Sheryl Groeneweg: Yes, we noted that in the budget yesterday. I would have to defer the answer to your question to the tax policy folks at the Department of Finance, who are in a much better place to respond to that than we are.

[*Translation*]

Mr. Sébastien Lemire: With pleasure, but I think my speaking time is up.

The Chair: I'm quite generous, Mr. Lemire. You can continue.

Mr. Sébastien Lemire: You mentioned that the Horne Foundry was unique in North America.

What can be done to enhance the value of an asset like that?

How is it part of the solution, if we really want to bank on the circular economy?

What role can the Horne Foundry play in this development process, particularly for Quebec and Canada?

[*English*]

Ms. Kimberly Lavoie: That's a very good point. I do think that industry has a huge role to play in this work, and Glencore is no exception to that. They are a key tenant in the minerals industry in Canada, both in Quebec and in Ontario, in Sudbury in particular.

I think that if we all roll up our sleeves and look at the art of the possible with respect to embracing new technologies that can clean up the emissions that are coming out of that factory, that refinery can actually be part of the solution on a go-forward basis.

As we are looking to mine more copper, which we need for everything.... For every light we have, the electricity runs through copper. If we don't have that smelter capacity, then we actually have no choice but to export that raw material and not have the value chain in Canada. In order to do that, we need to work with industry to help them be able to reduce their emissions, be able to achieve the targets they need to achieve so that people can have long, happy lives as well as good-paying jobs, and be able to achieve our shared objectives.

[*Translation*]

Mr. Sébastien Lemire: Thank you.

If it is possible, we would like to have more information about the data you requested on the environmental aspect this summer. As well, our press review indicates that a study has been done. If it were possible for you to submit that to the committee, we would be grateful.

Thank you.

The Chair: Thank you, Mr. Lemire.

Mr. Masse, the floor is yours.

[*English*]

Mr. Brian Masse (Windsor West, NDP): Thank you, Mr. Chair.

Thank you to the witnesses.

If I pop out, it's because I'm going to get my phone, which broke, and then my glasses broke. These are 15 years old, so I can't see you. If I'm squinting at you, it's not because I don't believe you.

Mr. Vis had a good question with regard to the exportation of plastics and so forth. It was really embarrassing, I think, for a lot of Canadians when we saw what took place in the Philippines. I want to follow up on that.

Are you making assurances here for us today that, if it goes to the United States...? I'd never thought about what Mr. Vis just brought up, which is that we could do indirectly what we can't supposedly do directly now. I believe that—I'm just going by memory now because I dealt with this file—we didn't sign all the international agreements on plastic dumping into developing countries and other countries.

Can you perhaps give me an update as to those two things? I think there was a side agreement—it starts with a B—to stop some of that, and I'm not sure if Canada signed that. Can you also talk about what Mr. Vis raised with regard to sending it to the United States, maybe to Mexico or some other place—it doesn't matter where—to end up somewhere else that we can't track?

Mr. Dany Drouin: There's a lot in the question, and it goes back to the international regime on the movement of waste. At the core of it is the Basel Convention, which is an international agreement that Canada signed and ratified. The cornerstone of trade is prior and informed consent, so nobody can send any waste to a country that has not provided its consent first. In doing so, the principle behind it is that the country can assert that it can manage the waste in an environmentally sound manner: i.e., it can be dealt with properly from an environment perspective.

● (1730)

Mr. Brian Masse: There are certain countries that I don't trust with their human rights, let alone whether they could follow through with toxic chemicals and plastics.

One of my first motions in the House of Commons here was on environmental contaminants and human health. I come from an area that's been subjected to a lot of toxicity in its environment due to the auto industry in the Ohio valley and so forth.

Is there a list that we track in terms of...? Could we find out where any of this waste has gone and where it ended up in terms of plastics and recyclables that we sent out?

Mr. Dany Drouin: The system is not totally opaque. I talked about illegal waste. I want to be clear here that we have a regulation in place. We have an international convention. We have enforcement activities, and we have compliance, but cases of illegal waste export sometimes occur, and we take enforcement activity.

Our waste, generally speaking, goes to the OECD countries, as well as the United States. The United States is not part of the Basel Convention, so we have a bilateral agreement with them, which is allowed by the convention, to continue to exchange waste with countries that are not part of the—

Mr. Brian Masse: Do we audit that later on, when we send it to the United States? Is there follow-up? That gives me concern. That sounds a little different, quite frankly, from what was presented earlier in terms of a nuance there.

You're right. I couldn't remember, but I knew it started with a B. It is the Basel agreement, and I knew the United States didn't sign on to it.

Have we done an audit to find out whether or not our junk is ending up somewhere else?

Mr. Dany Drouin: We work with other countries, the World Customs Organization and the CBSA. We've participated in an operation called Demeter. It's a coordinated, targeted enforcement operation with maybe 18 or 20 countries where enforcement officers would target containers, open containers and look at them. In some ways, that has yielded really important results in terms of finding illegal waste and informing us about some industries that sometimes try to mislabel a shipment. There are some spot checks.

Mr. Brian Masse: Okay, but there's no real audit. This gives me a lot to think about and follow up on.

Quite frankly, I know of one country that was accepting Canada's waste and whose leader bragged about throwing somebody out of a helicopter. We have more Canadian waste going there. Later on, they complained about it.

What I'm looking for is this: What would the best process be for Parliament to further follow up, if some of us felt there was still a bit of weakness in our ability to track what we're actually sending overseas, which can often end up in the oceans or in other places?

I have a long history with microbeads. We moved on that. I give the Conservatives credit for that. It was an NDP motion—thank you, NDP—but it was Stephen Harper who enacted the motion. It could have been dismissed, but it was actually implemented by Stephen Harper, at that time. I give them credit for that.

How can we move on this with a bit more accountability?

Mr. Dany Drouin: Currently, we just launched consultations to amend our regulations. It's publicly available. It's the beginning of the consultation process. It will lead to amending our regulations to do two things. One of these is increasing the stringency of the controls on e-waste—something that was of interest here. We dealt with the plastics as part of the previous amendment to regulations.

The other one we're consulting on is whether Canada should accept the so-called Basel ban amendment, which would prohibit the export of hazardous waste to developing countries for final disposal. That is something currently out in the public domain for consultations.

Mr. Brian Masse: I know I'm out of time, Mr. Chair.

Could you send that information to our committee, as well? If there is any other information out there with regard to tracking our waste, it would be of interest, I think, to many people.

● (1735)

Mr. Dany Drouin: I can provide the information through Stats Canada.

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

[*Translation*]

The Chair: Thank you, Mr. Masse.

Mr. Gaheer, the floor is yours.

[*English*]

Mr. Iqwinder Gaheer: Thank you, Mr. Chair.

Thank you to the witnesses for their contributions, so far, to the committee.

My questions are for the Department of Industry.

Could you expand on the barriers to recycling? You mentioned it could use a lot of energy or have a high carbon footprint. What are the other barriers?

Ms. Sheryl Groeneweg: Thank you so much for that question. I'll attempt to answer your question by taking some real examples from a sectoral basis.

I'll take steel, for example. Steel is a highly recyclable material. We're very fortunate in Canada to have a very strong and advanced steel manufacturing sector. Steel is decarbonized by using scrap, so the recycling becomes part of a business opportunity and a market share opportunity going down that path. It's heavy. There are transportation considerations in acquiring steel scrap. There's likely going to be a global constraint on scrap availability as the world's steel production goes towards scrap metal usage. In some ways, that sector is contending with some countries that are putting in place export barriers to scrap, for example, from their waste streams.

Let's take plastics as an example. There are high energy costs to process plastics for recycling. I think there are technological barriers in terms of, for example, how to use plastics in a food context, where you must have certain standards for use in food packaging. The world is starting to solve that problem but is not quite there. It's about filtering the plastics that are good for that and filtering out those that are not, and then ensuring that there's the chemical process involved.

In Canada, is the plastics recycling stream sufficiently oriented towards feedstocks for any endeavour that would use recycled feedstocks to transform plastic into other manufactured products? That could have barriers, for example, on a province-to-province basis. Again, as I said in my opening remarks, the provinces tackle that in unique ways, and they have features they have built up within their systems.

There are means by which we could use, for example, by-products from the forestry sector as an input fuel, as an energy resource. Biochar is a good example of that. On the cost input to using biochar as a new energy resource that could go into a sector that needs high heat values to transform streel, for example, the cost of the input is not such that it's competitive with the alternative that might be currently used. Often, there's a cost price consideration; that dynamic means the market hasn't really picked up that signal yet.

Then, I would say, there's scale. Scale becomes a feature whereby unless the input sector has reached a sufficient scale—and therefore has a cost consideration as to how viable it would be as an input or a long supply chain as a consideration—the market failure means that the private sector, the market, is not necessarily readily picking that up on its own. Market failures are very important to recognize, and then we can figure out how to address them. That's sometimes why you see governments coming into play to incentivize, either through regulation changes or through funding mechanisms, to add a sweetener to businesses that are changing into a new business model.

Those are a few examples, but honestly, on a sector-by-sector basis, it's so particular.

Mr. Iqwinder Gaheer: Thank you for your answer. I know we're talking about so many different industries, and I appreciate the different examples you're giving.

According to OECD data, Canada recycled 14% of e-waste in 2016. That's in line with the U.S., but it's much lower than our European counterparts like Germany, France and Sweden, which are at higher than 50%. Have we improved since 2016?

● (1740)

Ms. Sheryl Groeneweg: Thanks for that question.

I don't know the answer. We would have to follow up with some data, if we can get it, as an after-submission to your question.

Certainly, there are jurisdictions that are moving ahead very aggressively. In part, there's experimentation happening in terms of the technology approaches to dealing with that.

I'd be happy to follow up with an answer to that as best we can.

Mr. Iqwinder Gaheer: Thank you.

Chair, do I have more time?

The Chair: You don't, Mr. Gaheer, unfortunately.

Mr. Iqwinder Gaheer: Thank you.

The Chair: Mr. Williams, the floor is yours.

Mr. Ryan Williams (Bay of Quinte, CPC): Thank you, Mr. Chair.

This is for the Department of the Environment. What is our recycling rate in Canada, and then what is the recycling rate in British Columbia?

Ms. Megan Nichols: I can speak to the recycling rate in Canada for plastics. Right now, the collection rate is about 25% and the recycling rate is 9%. That's a gap that we're trying to narrow. The reasons are often around contamination of what's collected, consumer confusion about what exactly is recyclable, and also sometimes the lack of infrastructure and capacity at facilities.

In terms of the B.C. rate, I don't have that at my fingertips, but we can certainly follow up.

Dany might want to add to that.

Mr. Dany Drouin: It's probably, just in quality terms, one of the really good ones in the country.

Mr. Ryan Williams: From my research, it seems like it's among the best. The recycling rate in B.C. seems to be over 75%. Would that sound about right? That's for all electronics and all recycling as a whole—diverted from landfill. I guess that's where I'm getting the recycling rate number.

Ms. Megan Nichols: We'd have to get back to you on that.

Mr. Ryan Williams: If you do get that, can you submit it to the committee?

Ms. Megan Nichols: Certainly.

Mr. Ryan Williams: One reason for that, I guess, is the extended producer responsibility program. Are you aware of that program?

Ms. Megan Nichols: Certainly.

Mr. Ryan Williams: Fantastic.

Can you tell the committee what that program is and why it's successful?

Mr. Dany Drouin: Can I just clarify whether this is related to B.C.?

Mr. Ryan Williams: Yes. Are other provinces doing it?

Mr. Dany Drouin: Yes. The EPR, or the extended producer responsibility program, transfers the responsibility and cost for the design, recycling, and end-of-life management of the product from the public to the industry itself. The economics behind that is that the industry will then have all the levers, tools and incentives to better design, better collect and better reintroduce it into the market. That's what the EPR program is.

There are EPR programs in Canada—in Quebec and recently in Ontario—but B.C. is one of the most established. There is also one being developed for the north in some territories. There are many EPR programs in the country. The one in B.C. is often seen as having a really wide scope of products. The programs take different shapes and forms, but essentially the province would set a target and would require the industry to meet that target and organize itself to do that.

Federally, we are working toward a federal registry that would allow us to get a national picture of the plastics put on the market. We're working with provinces and territories on this. At the CCME, we have published guidance on how to standardize and harmonize these EPR programs. The experience of B.C. and the leadership of B.C. in that collective work were actually really appreciated.

There is quite a lot happening in EPR in Canada.

Mr. Ryan Williams: Does the Department of the Environment see working with industries, even like Chemical Canada, as beneficial to that process where the EPR has worked in B.C.?

Mr. Dany Drouin: Given everything you've heard so far, we think that addressing the issue requires action by everybody, every level of government, including the industry, along the plastics life cycle, from design to cleanup and along the value chain. We do believe heavily in collaboration. We work collaboratively not only with provinces and territories but also with industry, including the chemicals sector, for sure, yes.

● (1745)

Mr. Ryan Williams: I'll direct a question, then, to the Department of Industry.

Chemical Canada has an active role, as far as I understand, in B.C. Does the Department of Industry track that? Can you tell me whether in the last five years we've had any investment from Chemical Canada in those industries into Canada?

Ms. Sheryl Groeneweg: We are very much engaged with the chemical industry on a number of fronts. In B.C. specifically, I cannot recall a project on our radar that relates specifically to them.

We've invested in some very significant projects in this sector in the past several years through the strategic investment fund, including in Nova Chemicals, for example. There are some prospective projects that we're working on with the industry as well that could both decarbonize and put in place really strong parts of the ecosystem in the Canadian system.

As for B.C. specifically, nothing is coming to mind.

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

[*Translation*]

The Chair: Thank you.

Mr. Lemire, the floor is now yours.

Mr. Sébastien Lemire: Thank you, Mr. Chair.

Concerning the Horne Foundry, what worries a lot of people is the question of inputs, that is, what is being processed inside the plant. That aspect may fall more within the federal government's jurisdiction.

What are the standards in force for complex concentrates, in terms of the toxicity of the products processed? Obviously, these products often come from the United States by rail.

What can we do to be proactive? I'm curious to know your opinion on this.

[*English*]

Ms. Megan Nichols: In terms of the inputs for the Horne foundry, certainly, the federal government has a role. Some of these materials require permits from the Minister of Environment when they meet the criteria under the cross-border movement of hazardous waste and hazardous recyclable material regulations. In those cases, the Minister of Environment must be confident that the materials will be managed in a manner that will protect the environment and human health before issuing the permit.

There are a number of permits already in place with the Horne foundry, and we continue to look at those to make sure they meet the requirements for the regulations. With the new Quebec ministerial authorization, we are examining the new conditions to ensure that the minister continues to fulfill his obligations under the regulations. The results of our assessment will determine whether any additional measures need to be taken.

[*Translation*]

Mr. Sébastien Lemire: In Canada, there is a code governing Canadian foundries.

What are the Canadian government's objectives when it comes to arsenic emissions, for example, and how does that compare to other countries in terms of the standards applied, in particular to the Horne Foundry?

If there are differences with the other provinces, how do we explain them?

Has the code been updated recently?

In terms of regulations, what is the impact of new knowledge and new data about toxic emissions and what is the impact of base metals on the regulations?

[*English*]

Ms. Megan Nichols: Mr. Chair, the federal government, indeed, has some environmental performance agreements in place with the base metals smelting and refining sector.

In terms of a federal standard, Health Canada is currently developing a health-based ambient air quality objective for arsenic. There is not one in place at the moment, but we expect that this tool will be able to be used by the federal government, provincial governments and industry to help establish the level that's appropriate in order to manage arsenic health risks.

[*Translation*]

Mr. Sébastien Lemire: Thank you, Ms. Nichols.

Mr. Chair, may I ask one last question?

The Chair: Certainly, Mr. Lemire.

After all, you are the one who suggested that we do this study.

Mr. Sébastien Lemire: Thank you.

I would like those documents to be provided to the Committee, if that is possible.

The last aspect we should address in connection with this industry, in my opinion, is obviously the question of recycled products. I believe that a tiny portion of recycled products in Quebec and Canada is sent to the Horne Foundry. For example, we know that products from Silicon Valley will end up there.

How could we increase the volume of electronic waste and metals that end up there? In my opinion, it would be in our interest to do that. The more products we recycle, the less we will depend on complex concentrates to get the same volume of products.

At the same time, this waste that is to be recycled, which comes from electronic parts, in particular, contains silicon components, paint, and toxic elements. What impact does that have on product recycling and on the environment? There seems to be a disconnect between the standards and their effects on the environment.

In other words, can we increase production of anodes or copper by mandating that a larger volume of electronic products be recycled?

What it often comes down to is money. I get the feeling that it costs less to go international, and that corporations—often private corporations—will make more money by buying products and exporting them internationally rather than keeping them here. That means we also lose the resource.

● (1750)

[*English*]

Ms. Sheryl Groeneweg: Thank you so much. That's a very important line of questioning. Hopefully, I'm answering your question as directly as I can.

The demand for copper is going to be quite a bit bigger—even conservative estimates are very strong. The world has to consider all avenues for access to copper, including through extraction and then refining virgin copper from the earth, as well as what has already been extracted and transformed into some manufactured product, and then the recycling of those.

There will be differentials around the world in terms of how this is approached. In Canada, we are very fortunate to have natural resources and the ability to extract and process, etc. There are countries that are not as fortunate as Canada. They are looking very hard at how to recycle what they have within their borders now and where to get access to greater post-consumer product recycling. I would imagine that those approaches will put farther ahead the ability for recycling to be a more viable economic way in which to do this.

It's not absent right now, of course. You know that the Horne foundry is accepting recycled material and is processing that. It's a very important part of what it does. It does both. It takes virgin copper and it takes recycled content. I would see more of both things happening around the world, and I would see Canada having a very important role in how this plays out as well.

[*Translation*]

Mr. Sébastien Lemire: Thank you.

The Chair: Thank you, Mr. Lemire.

Mr. Fast, the floor is yours.

[*English*]

Usually it would be Brian Masse, but unfortunately he had to run out for a few minutes, so we'll skip the NDP this time.

Hon. Ed Fast (Abbotsford, CPC): He's not here. I'm ready to go.

Thank you.

There are six of you here, so I'm sure one of you can answer my question. I'm trying to understand the extended producer responsibility, because the latest statistics we have in our possession show that Canada has lagged way behind the Europeans in the collection of e-waste. In fact, Sweden is at 70%, and Canada is at 14%. Mr. Drouin, I think you're coming up with some additional stats on this, but that is not a pretty picture to paint for Canadians. We're laggards in that area.

My understanding of extended producer responsibility is that those very manufacturers of the products that end up being waste, which those manufacturers profit from, are responsible for the eventual recycling or at least collection of that waste. Do I have that correct so far?

All right. I see you nodding. Thank you.

Yet, we're at 14% in Canada. These manufacturers, by the way, charge fees to consumers, to their customers. At some point in time, to obviate the responsibility of the consumer to do all the recycling, the manufacturer gets paid for this, yet it doesn't appear that the producers are actually doing the work they have been paid to do. I'm obviously missing something in that equation. Can someone explain to me EPR and the degree to which manufacturers are actually responsible for recycling e-waste?

● (1755)

Mr. Dany Drouin: The best answer I can give you is that the manufacturers discharge their obligations through the fees from their own operations. They will not collect those fees from consumers to then transfer them to the province, for example. It's within their own operations. There might be eco fees put forward by different jurisdictions, and it's the purview of the provinces and territories to do so.

I think what you're pointing out is what I would call the landscape of EPR programs across the country. I mentioned the one in B.C. not long ago, which covers e-waste. Not all EPR programs cover all types of material, so that could be one example and one explanation of the delta in the recycling rate, for example, in Sweden versus in Canada.

Another important factor is the timelines for when those EPR programs are being implemented through legislation. Some may not be in effect right now or weren't in effect two years ago, so the implementation and the scope of each EPR program may have implications and impacts on the stats you mentioned.

Hon. Ed Fast: Is there something that the federal or provincial governments can do to improve the rigour of our EPR regimes across Canada?

Mr. Dany Drouin: The provinces are responsible for the setting up and the administration of the EPR programs. At the federal level, we are working with them in the CCME, the Canadian Council of Ministers of the Environment, where we created a guidance document around the standardization and harmonization of EPR programs across the country. That document is online on the CCME website. It presents what an EPR could look like across the country for each jurisdiction.

Federally, we spend most of our regulatory effort in action that would apply nationally across the country. We've looked at a prohibition on single-use plastics, for example. We're also looking at recycled content in plastics products so we can have one standard for the country.

The EPR is something that's for a province to deal with.

Hon. Ed Fast: Okay. I have another question. Another way we can reduce e-waste—it's a small way but we can do it—is by moving to a universal charger. The European Union is well on its way to doing that. If you came into my home, you would find drawers full of chargers. Somehow I don't believe that in Canada we're yet at a point where we're willing to move towards the adoption of a universal charger.

Can someone clarify whether we're moving in that direction?

Ms. Sheryl Groeneweg: I think there was a budget item relative to this yesterday. That's just yesterday, so I think it's for future discussion, perhaps at the committee. You can imagine that it's always fresh news for us what's in the budget, as it is for every other Canadian. You might not think that, but it's always news to us, too.

● (1800)

Hon. Ed Fast: You can confirm that right now, for the Government of Canada, prior to yesterday's budget there was no plan to move forward with a universal charger. It's possible the budget may have changed that.

Ms. Sheryl Groeneweg: That's right. There was no active action area that was under way prior to that, yes.

Hon. Ed Fast: Okay.

How much time do I have?

The Chair: You have minus two minutes, Mr. Fast.

Voices: Oh, oh!

Hon. Ed Fast: Thank you for your generosity.

The Chair: I always appreciate Conservatives' highlighting the good points in a Liberal budget such as this one.

Voices: Oh, oh!

Hon. Ed Fast: It's very generous.

The Chair: I'll now turn to Mr. Fillmore.

Mr. Andy Fillmore: Thanks very much, Mr. Chair, and maybe that's a good reason to vote for the budget. It's clearly something that's very important to the Conservatives.

Hon. Ed Fast: I'm not crossing the floor anytime soon.

Mr. Andy Fillmore: We'll give you a better seat.

Thanks to the witnesses for all their time and all the work they do in the departments every day. I'm extremely grateful. All of us are.

Ms. Lavoie, I'll start with you.

We've heard a lot today about the critical minerals strategy and the importance of critical minerals in all kinds of things, from electric vehicle batteries to defence and telecommunications. The list is long. The demands are great. As we progress into this future, we have to figure out ways to mitigate the pressure on extraction and all the geopolitical, environmental and social complications that come with that. We have to really turn to recycling and using what we have out of the ground already.

I just wonder if you could provide to us what you know of the programs. Which programs are in place now in Canada? What are we doing in Canada right now to extract critical minerals from e-waste and then reuse them?

Ms. Kimberly Lavoie: Canada is doing some really interesting work, actually. We have a program that is running through the CanmetMINING system in the federal government in partnership with industry and academia. It's called “mining value from waste”. It is really looking at old mines and the tailings of those mines, which contain many tonnes—in some cases, hundreds or thousands of tonnes—of material that is actually usable, particularly in the critical minerals space.

We're looking at extracting the nickel and cobalt that we need for those batteries that we're all looking to put into our vehicles and our storage. We are looking at how we can get those from those waste streams.

It's also a double bottom line because those tailings ponds need to be managed into perpetuity. If we look at extracting value from those tailings ponds, we can also, at the same time, look at environmental remediation to help clean them up. It becomes a source of valuable metals, so it's also an economic opportunity because it creates jobs. It's also improving the environment, which is absolutely a win-win scenario.

There's work that's being undertaken in that space. That work is accelerating as we move forward and recognize that we need to find ways to do more than greenfield mines and look at breaking new ground.

There's also existing technology and new technology that's being developed every single day that allows us to extend the life of current mines. Mines that normally would have a 25-year mine life are now being extended to 35 or 50 years. There's technology that allows people to go deeper, to find new pockets under the ground and to use remote technology so that there's no threat to human life and workers don't have to be in those confined spaces as you go deeper. You can get the ore out of the ground without creating a larger footprint. Both of those are great opportunities.

I mentioned the research, development and demonstration program. That program is very much working with industry to look at innovative approaches to the mining sector. That includes things like recycling and repurposing tailings.

Mr. Andy Fillmore: Thank you very much for that.

I visited the laboratory of Halifax battery scientist Jeff Dahn some time ago. During the course of a fascinating discussion, he talked to me about how important it would be to improve the recyclability of batteries, if there were some standards—much like the universal charger—around the manufacturer.

Is anything happening in Canada right now around a standardized manufacturer to make recycling easier or around standardized manufacturing processes? You described some manufacturing processes a moment ago that are forward-looking to make it easier and cheaper to reclaim those minerals.

Maybe that's for ISED.

● (1805)

Ms. Sheryl Groeneweg: I'll just add to what Kim mentioned about programs.

The $1.5 billion that was identified in last year's budget to go to the strategic innovation fund for critical minerals also includes a recycling incentive. If there are projects related to some sort of recycling in the critical mineral space, then that would qualify.

That's just to make sure there's a more comprehensive answer to that.

At this time, there's nothing yet on the standardization. It's a very good question. This is a very nascent part of the new development of a brand new sector within Canada and the world.

It's complicated. Let's just take batteries alone. You have to separate the plastics—and the kinds of plastics they are—from the various component parts that could all go off into different new production streams. There are some companies that are getting into this space, not just in Canada but elsewhere, because there is a market opportunity there. Standardization is definitely an interesting policy option worth considering.

I would imagine that this would require a global effort, though. You'd be out of step with the world and it makes it less effective and less considerate of how value chains actually function.

Mr. Andy Fillmore: I just wonder, for anyone on the witness panel who would like to respond, if there is a best practice somewhere in the world, whether it's a jurisdiction, an industry or a company, that is doing the thing that you wish we were doing here toward the ends that we're talking about today.

Is there, like, a shining thing out there that you'd love to have here at home in Canada?

Mr. Patrick Hum (Senior Director, Advanced Manufacturing and Materials Industries Directorate, Department of Industry): In response, I think perhaps we know too much about what's going on. Actually, there are some Canadian companies that are very much on the leading edge, for instance on battery recycling. There are some really interesting pieces of work in terms of full recyclability and doing it at scale. There's a lot of interest in Canada, particularly as we are growing a battery sector in Canada. The circularity is certainly part of that conversation.

I would say, without naming specific companies, that there are some really interesting technologies and companies in Canada that are actually quite world-leading.

Mr. Andy Fillmore: Thank you all very much.

The Chair: Thank you very much.

[*Translation*]

Mr. Généreux, the floor is yours.

Mr. Bernard Généreux: I would like to thank all the witnesses for being with us today.

My mother always told me: "Nothing is lost, nothing is created, everything is transformed." What is created on planet Earth therefore stays on planet Earth and is recycled—or so we hope, in any event.

I was the mayor of La Pocatière for four years, from 2005 to 2009. During those years, the Government of Quebec announced a policy calling for all biodegradable material to be recycled or transformed.

That said, 18 years later, 50 per cent of that material is being recycled or transformed. Initially, the deadline was 2015, which was then pushed back to 2020. Today, the target date is 2025. It might even get pushed back to 2030 or 2035.

So at the time, new objectives were set. However, as set out in the document entitled "Greening Government Strategy: A Government of Canada Directive," the Government of Canada committed to diverting at least 75 per cent by weight of plastic waste from landfills by 2030. That is six and a half years from now.

I asked my friend ChatGPT to get me some data. According to that controversial robot, in 2019, in Quebec alone, ten per cent of plastic material was recycled.

I am ordinarily a very optimistic man, but would it be a bit too optimistic to think we will be able to recycle 75 per cent of plastic material in Canada by 2025?

This is 2023, I would remind you. So that is in two years. Personally, I think it is impossible.

So what would be a genuine, realistic strategy?

I repeat: 2030 is in six years. I don't believe that in six years we will be recycling 75 per cent of all plastic in Canada—not because I don't want that to be true, but because we have to be realistic. There are technologies now that allow plastic to be recycled and transformed back into oil. Obviously, we will be inviting a lot of witnesses over the coming weeks and months in order to do this study, which will be extremely interesting.

I have a business myself, and in my print shop, which has about 20 employees, we recycle 95 per cent of all inputs, and have done for over 20 years. We were the first printing plant in Quebec to be recognized by RECYC-QUÉBEC for recycling 90 per cent or more of its materials. It is doable, but it takes a lot of energy to get there.

Is Canada really capable of recycling 75 per cent of plastic products by six years from now? The question answers itself, but I am asking you all the same.

● (1810)

Ms. Megan Nichols: Thank you for the question.

[*English*]

Indeed, it's a very ambitious goal. We're well aware of that. It's going to take a concerted effort by all players along the value chain—governments, industry and municipalities—to achieve our goal. Right now, this goal is collectively shared across federal and provincial governments. I think the fact that we are all aiming for the same target is a very positive step. Certainly, however, there are a number of challenges we need to overcome.

It's also important to note that some of the measures put in place are only just starting to bear fruit, such as the single-use plastics ban. We announced that we would be coming out with recycled content requirements for plastic packaging. We will have labelling requirements across the country, so there is less consumer confusion about what can be recycled and composted. Some of these are the challenges we're facing in achieving our goal. Moreover, we know we need more infrastructure and recycling capacity across the country.

We won't get there alone. We're probably going to need to do more. At this point, we are optimistic that, together—

[*Translation*]

Mr. Bernard Généreux: I didn't think there were people who were more optimistic than me. We have to believe there are.

Ms. Megan Nichols: We have to.

Mr. Bernard Généreux: The Town of La Pocatière, where I was mayor, was the first town in all of eastern Quebec to install brown bins, with the help of federal and provincial subsidies, of course. We support recycling.

Initially, we had recycling platforms and facilities for capturing leachate. Those facilities then became a biomethanation plant. It is managed by the Rivière-du-Loup region Société d'économie mixte d'énergie renouvelable, or SÉMER, a supraregional body. At the time, the project was to cost $10 million, but it ultimately cost $25 million. It included the biomethanation plant, which today produces gas, part of which is sold. In any event, investment of about $5 million remains to be made to make it completely operational.

We have developed our capacities, but the plant has still only been in operation since 2010, and it is now 2023. These things take a lot of time, and a lot of money has to be invested before any concrete results are achieved, all our goodwill notwithstanding. We hope to improve regional cooperation for using these new tools and extending that use on a larger scale. However, I do note that Quebec City and Laval have recently abandoned their biomethanation project.

I know I am digressing a bit.

Mr. Chair, do I have any time left? It seems like I still have at least five minutes. Be generous. You have been with everyone up to now.

The Chair: You may continue.

Mr. Bernard Généreux: I want to add a comment, because you are here and it is important that I say it, concerning electronic waste: telephones, computers, and so on.

In some of our regions in Quebec, not-for-profit organizations are hiring young people with a disability or adjustment disorder. I think these organizations deserve more encouragement, because they are doing an exceptional job in recovering and sorting all materials, if I may put it that way. They offer what are called work stations to help people with a disability. I think the federal government should give them much more assistance so they can continue their good work.

Thank you.

● (1815)

The Chair: You could maybe become the minister of environment and climate change, but not a timekeeper. Thank you, Mr. Généreux.

Mr. Van Bynen, the floor is yours.

[*English*]

Mr. Tony Van Bynen (Newmarket—Aurora, Lib.): Mr. Chair, my colleague Mr. Hardie has one question, so I'll share my time with him.

The Chair: Mr. Hardie, go ahead.

Mr. Ken Hardie: Thank you very much, Mr. Van Bynen.

Plastic isn't one compound. There are many different types of plastic. I have two questions in one: Are there some plastics that are more easily recycled than others? Given that so many of our electronics products come from overseas, do we have a chance of getting some worldwide standards on the plastics used in the various things we're trying to recycle? It would make that process easier, simpler and more productive.

Mr. Dany Drouin: Thank you for the questions.

I'll answer the second question first. These types of standards can be elaborated on through international co-operation. It is something that is possible. I'm not currently aware of activity in that domain, but this is how international co-operation sometimes creates changes for domestic implementation.

I want to say just this for now. I don't know if Sheryl has more on this. I can then speak to the first question.

Mr. Ken Hardie: Give a very brief answer, in the interest of Mr. Van Bynen, who has questions.

Ms. Sheryl Groeneweg: No, I have no knowledge of standards that are in the works right now. However, it doesn't mean that there isn't movement in some jurisdictions to attempt that, as this becomes a more and more pressing issue for the environment.

The Chair: Go ahead, Mr. Van Bynen.

Mr. Tony Van Bynen: Thank you, Mr. Chair.

Let me say I'm very happy to be joining this committee. As the mayor of the town of Newmarket, as a regional representative, and now at this level, I've had the opportunity to experience what this whole process is about, from the municipal level to the regional level. One thing I find extremely surprising is that all the initiatives are cascading down from the producers, through the extended producer responsibility program, but there doesn't seem to be any leverage there.

What are we doing to encourage stronger activism on the consumer side? For example, how do you think the retailers would react if the consumers had an opportunity to bring back all of the containers that their merchandise was in? That would create the pressure on the retail side and push it back up to the suppliers. What are your thoughts on that?

Mr. Dany Drouin: It goes back to the waste hierarchy. You want to reduce waste. You want to reuse. You want to refurbish. The type of model you're describing falls well into that waste hierarchy, which would create incentives for exactly what you're talking about. It is a model that I'm aware some retailers have tried and are using. For example, on containers, you can bring them back and go back home.

We spoke a lot about recycling today, but the actions up the waste hierarchy are extremely useful to reduce waste in the first place. I think this particular model of reusing or taking back is sometimes.... The problem with those models right now, to be frank, is the scale in the replication. They're not at scale in replication, but it's an excellent idea.

Mr. Tony Van Bynen: There are some provinces that have automatic deposit and return programs. How successful are they? I see that in Saskatchewan, but I don't see much of that in Ontario. Where are the successes in that? What kind of response is there to, let's say, a nickel on pop bottles and all of those plastics that need to come back?

● (1820)

Mr. Dany Drouin: Those systems are in place in many provinces, such as Quebec and a few other places. They are extremely successful. The return rates are really high, and they apply, sometimes, to plastics, bottles, glasses and different types of containers.

They're very successful.

Mr. Tony Van Bynen: At what rate is Canada recycling or donating waste? We saw a chart here in which our performance in relation to other countries is not stellar. Has there been an initiative on behalf of the federal government to take a look at what these other countries are doing and how those things can be applied here? Can you give me a couple of examples of that?

Mr. Dany Drouin: Yes. In anything we do, we often benchmark or do the previous analysis with what other countries are doing. On plastics, for example, the European Union is.... I want to say it's a set of countries that we are looking at often in terms of circularity, as an example.

With recycled content requirements, for example, there's really interesting work happening in Washington state and a few other U.S. states that we're also looking at. As we develop our measures, we also consider North American markets. It's really useful for us to engage with the U.S.

There is also some interesting work on exports of waste in Australia and New Zealand. Those two are islands, and they have put together different control measures to keep the waste in their jurisdictions.

We often need.... It's actually a requirement of the Treasury Board Secretariat.

Mr. Tony Van Bynen: Could you submit some specific examples that apply to that, for the committee's benefit?

Mr. Dany Drouin: Yes.

Mr. Tony Van Bynen: Do I have any more time, Mr. Chair?

The Chair: If you wish, Mr. Van Bynen.

Mr. Tony Van Bynen: I have one really quick question, then.

One thing I found very frustrating is that there's a municipal level of responsibility, a regional level of responsibility, a provincial level of responsibility and a federal. I see that the European Union has started looking at reducing administrative burdens by calling for harmonization of national registries and reporting formats.

What kind of mechanism can we introduce so we have that kind of harmonization that applies more effectively across the country?

Mr. Dany Drouin: The answer is collaboration with the levels of government across the table, given the jurisdictional powers and shared management responsibilities, generally speaking.

Mr. Tony Van Bynen: Is there any leverage that you would suggest would incentivize that collaboration?

Mr. Dany Drouin: There's a lot of willingness. Ministers agreed to harmonize, for example, an EPR program. There's a lot of willingness. There have been guidance documents developed together.

The lever you're talking about is how we make those documents real. This is where stakeholders are very useful levers in that conversation. The industry deals with many different programs across the country, so they are advocates for harmonization and they are a very loud voice.

Mr. Tony Van Bynen: Thank you, Mr. Chair.

The Chair: Thank you very much.

[*Translation*]

Mr. Lemire, the floor is yours.

Mr. Sébastien Lemire: Thank you, Mr. Chair.

The Government of Quebec has prepared a five-year plan to tackle the issue of recycling head on, particularly the recycling of critical and strategic minerals. Some components of that plan deal with mapping and data collection concerning those materials. A research and development network is to be created. It talks about financial support for projects and developing and consolidating energy transportation and telecommunications networks, in particular, within Quebec. It also talks about recycling and reusing critical and strategic minerals.

The plan even proposes a companion leaflet for potential investors for this industry of the future. We have tried a bit to see whether there was something comparable at the federal level, to try to help these industries in a relatively targeted way.

Can you give me some information about what the federal government is proposing in terms of a strategy directed exclusively to recycling?

If it's possible, could you send us that data?

Do you believe that companies in the electronics ecosystem in particular, which covers a broad spectrum, should also consider a modest eco tax on the products sold?

Those funds could also be directed to projects for facility updating or workforce training. That could open up some rather interesting opportunities.

I would be curious to hear what you have to say on this subject.

● (1825)

[*English*]

Ms. Sheryl Groeneweg: I think my colleagues are looking at me.

Thank you very much for the question. Currently, is there a recycling strategy in the federal government? There is not one ubiquitous recycling strategy. Indeed, as I said in my opening remarks, recycling is very particular when you take it as a sector-by-sector consideration. I think that's part of the dimensionality of thinking about this very important topic.

I'd have to read the Quebec plan a bit more in depth to be able to respond to your question. We will of course respond, perhaps in writing, to the direct request for information that you're making.

There are program tools available in the federal government for industry-led, value-creating, innovative capital projects. One of the biggest programs, which resides in my department, is the strategic innovation fund. Of course, it's an ongoing, rolling intake. If projects come in that tick the criteria for what qualifies for funding and they actually meet the objectives the government has laid out, including on the environment, those projects are very much of interest to officials, as we give advice to the government in terms of what it may or may not wish to fund. There is absolutely availability for high-value projects to be considered.

[*Translation*]

Mr. Sébastien Lemire: Thank you.

Two years ago, I voiced some criticism of the fact that there was no strategic vision for critical and strategic minerals. You now have a policy, and I would invite you to think a bit with the same strategic approach.

I would like to ask you the eco tax question again.

Do you think it could have an impact and help to fund infrastructure or investment in the recycling industry?

[*English*]

Mr. Patrick Hum: I think the use of an eco tax would probably be something we would need to study and consult on with our colleagues at the Department of Finance.

[*Translation*]

Mr. Sébastien Lemire: Thank you.

The Chair: Thank you, Mr. Lemire.

Mr. Masse, the floor is yours.

[*English*]

Mr. Brian Masse: Thanks, Mr. Chair.

Similar to the Volkswagen battery announcement, on Stellantis as well, in Windsor, where I'm from, I'd like to get the same information for it that we're getting for that. In the auto industry, there's a lot of clustering that goes on. What is happening with regard to recycling and clustering potential options for these battery plants? Has it been discussed? Is there something happening there? A huge part of the investment isn't just the actual investments; it's the spinoffs. In the auto sector, one job generally creates seven.

Is there a plan there? What's happening with that? Does it include recycling as well? It would be awful if we ended up shipping all of this stuff all over the place, instead of clustering it together, which is the tradition. A minivan made in Windsor literally crosses the border between Windsor, Detroit and other areas about seven times before it's made.

Ms. Sheryl Groeneweg: I can give a high-level response.

I think all the value chain considerations are in play now in terms of Canada's position on creating very strong, very globally relevant supply chain linkages to the auto sector, including EVs and batteries. I think we would need to follow up in greater detail on your question, which is a complex one and would require some consideration.

Mr. Brian Masse: That's fine.

I guess what I'm worried about as we go on here is that we have a strong Canadian tradition of rip-and-ship with our natural resources. That's different from the auto sector in terms of value added.

I'll end with that, Mr. Chair. The tool-and-die mould industry—the value-added components—is what we're looking at. As we evolve in this, I think we're all trying to be really interested in finding out what we're prepared to do. I remember Allan Rock back in 2003, when we had the national auto strategy round tables in Toronto. They were very effective. We haven't seen that kind of return to date. Other strategies have been employed. A briefing component would also be important to me, as much as the money.

● (1830)

Ms. Sheryl Groeneweg: On the recognition that maybe historically the country has had a strip-and-ship orientation towards the value of what we have naturally and how we add value, I would say that there's a very deliberate orientation toward creating as much value as possible within Canada's domestic economy. Indeed, in the critical minerals space specifically, EV batteries and the next generation of autos are in some ways a low-hanging fruit. It is the most ready of the areas where there are manufacturing opportunities.

That is absolutely one of the cornerstone considerations of investment and how countries that have less opportunity than Canada need to think about Canada differently in these global supply chain considerations. We have to think differently about our global position now.

Mr. Brian Masse: That's good.

On the transfer of our technology, this is huge. I did a green car strategy with Joe Comartin, our former member for Windsor—Tecumseh, and Dr. David Suzuki back in 2004. Now we're in the platinum age and to miss out on the value added would just be remiss. I'm glad to hear that there are other things, because that bumps it through the other chains.

Thank you. It's exciting to hear.

[*Translation*]

The Chair: Thank you, Mr. Masse.

That concludes our discussion today.

I want to thank all the witnesses for being here with us and giving us their time.

They have got the ball rolling for this study, which committee members had been eager to get started.

I want to welcome Mr. Van Bynen to the Standing Committee on Industry and Technology once again.

The meeting is adjourned.