



Consultation paper: Towards Canada-wide rules to strengthen recycling and composting of plastics through accurate labelling



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Executive summary

The Government of Canada has committed to introducing labelling rules that prohibit the use of the chasing-arrows symbol on plastic products unless 80 per cent of Canada's recycling facilities accept, and have reliable end markets for, these products. These rules would seek to improve plastic packaging design, improve public participation in recycling systems, reinforce public trust in recycling, and improve the performance of recycling systems to generate more and higher-quality post-consumer recycled plastics. In addition, the Government is proposing to introduce rules to regulate the use of terms such as "compostable", "degradable" or "biodegradable" in the labelling of plastic packaging and single-use items.

Currently, plastic packaging makes up approximately half of all plastic waste, but less than 15% of plastic packaging is recycled. Packaging suffers from low collection rates, but also high losses during the sorting and processing stages (approximately 30%). In addition, over 20,000 tonnes of plastic packaging was released into the environment as pollution in 2018. These poor outcomes stem in large part due to packaging design choices that limit recyclability and contaminate recycling and organics streams, and labels that provide inaccurate information to Canadians on whether an item should be put in a recycling or organics bin. The combination of poor outcomes, packaging complexity and inaccurate labelling risks undermining public trust in recycling systems, which could have larger effects on Canada's ability to transition to a circular economy for plastics.

The Government of Canada is therefore proposing to introduce rules that would require producers to assess their packaging or single-use plastic item to determine whether it is recyclable. Recyclability would be measured in terms of whether the item

- is accepted in public recycling systems accessible to at least 80% of the population in one or more of five regions across Canada; and
- can be sorted into bales that attract a reliable, positive price on a North American end market (i.e., high-enough prices that are stable over time, and that contribute to successful recycling outcomes)

The rules would apply to all methods for communicating recyclability, not just the use of the chasing arrows symbol (e.g., expressions such as "100% recyclable"). Producers would have to label all their plastic packaging or single-use plastic items as recyclable or not recyclable (or a mix, such as for different components or if an item is recyclable in one region but not another). However, the Government would not specify what a recyclability label would need to look like (except for certain minimum standards such as legibility).

To assess their packaging or single-use plastic item for recyclability, producers would be required to select a compliance mechanism, such as a calculator, guideline or third-party labelling program. A compliance mechanism would need to meet certain minimum standards and follow a systematic process. The recyclability label applied to the packaging or single-use plastic item would reflect the results of the assessment conducted using the compliance mechanism.

Accountability would rely on transparency and disclosure. Producers would be required, on request, to disclose to the Minister both the compliance mechanism chosen and the assessment of a particular package or single-use plastic item. In addition, a producer would need to explain, in writing, how an item is recyclable or not to anyone who asks (though this obligation could be discharged via proactive disclosure, such as on a company's website or the use of QR codes or other digital labels).

For proposed compostability labelling rules, a producer would require third party certification of the plastic packaging or single-use item to a specified standard or standards for compostability. Outside of this exception, the labelling of applicable plastic products as degradable, biodegradable or compostable, would be prohibited. Producers would also need to be able to provide written evidence of the certification on request.

The Government is also considering ways to promote and support compliance with labelling rules. These could include, for example, data collected from surveys of what is accepted in public recycling systems across Canada, a technical committee of experts to advise on implementation, as well as guidelines and other tools to facilitate recyclability assessments.

Written feedback to this consultation paper is requested by October 7, 2022.

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1. Purpose

The Government of Canada has committed to introducing labelling rules that prohibit the use of the chasing-arrows symbol on plastic products unless 80 per cent of Canada's recycling facilities accept, and have reliable end markets for, these products. In addition, the Department is seeking to address inaccurate biodegradability, degradability, and compostability claims for plastic products. This consultation paper is the first opportunity for stakeholders to provide input on how this commitment could be met. It outlines the Government's current understanding of the issue and proposes potential approaches for establishing a labelling regime for recyclable and compostable plastics in Canada, focusing on plastic packaging and single-use items.

Stakeholders and interested Canadians are invited to provide their feedback on anything raised in this paper. Comments received will help the Government understand the key issues, design an effective instrument to put the labelling rules in place, and develop an appropriate implementation approach.

2. Introduction

Plastic pollution litters communities, waterways and the natural spaces Canadians love, and is a collective problem that must be addressed. In 2018, Canadians threw away over four million tonnes of plastic, only 8% of which was successfully recycled.¹ This means that the vast majority of plastic products in Canada end up in landfills at the end of their useful life or enter the environment as pollution, where they pose a risk to wildlife and wildlife habitat.

Plastics can be kept out of landfills and the environment by re-circulating them in the economy through value recovery strategies such as reuse, repair, remanufacturing, refurbishment and recycling. In addition to saving landfill space and preventing pollution, a circular economy for plastics would bring a range of significant benefits.²

The Government of Canada has a comprehensive agenda to achieve zero plastic waste by 2030. As part of this agenda, the Government working with partners and stakeholders on a range of measures to prevent plastic pollution and improve the rate at which plastics is recovered at end-of-life and re-circulated in the Canadian economy. These measures include:

- banning harmful single-use plastics, which would prevent 22,000 tonnes of plastic pollution and 1.3 million tonnes of hard-to-recycle plastic waste over ten years
- developing a federal public registry to require producers to report on plastics in the Canadian economy, which support the Government's broader plastics agenda, including working in collaboration with provinces and territories to make producers responsible for recycling systems, which will improve collection and recycling infrastructure

¹ Statistics Canada, Table 38-10-0150-01 *Pilot physical flow account for plastic material, by product category*. Available at: <https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=3810015001>

² Environment and Climate Change Canada, *Economic Study of the Canadian Plastic Industry, Markets and Waste: summary report* (2019). Available at: <https://www.canada.ca/en/environment-climate-change/services/managing-pollution/publications/plastic-waste-report.html>.

- requiring that plastic packaging in Canada contain at least 50% recycled content by 2030, in particular by developing regulations that will set minimum percentage recycled content requirements for certain items made of plastic, which will strengthen reliable end-markets for plastics at their end of life

3. Framing the issue for recyclability labelling

More accurate recyclability labelling would protect Canada's environment by avoiding or minimizing the creation of new waste by diverting plastics from landfills and recirculating them in the economy.

3.1 Objectives of labelling rules

By improving outcomes at each stage in the recycling process, labelling rules can help keep plastics in the economy to be used multiple times. This will help reduce the accumulation of waste in landfills year after year.

Labelling rules would avoid or minimize the creation of waste by seeking to achieve the following outcomes:

- **Improved plastic packaging design:** Enforceable rules governing recyclability labels could incentivize producers to re-design their plastic packaging to be more widely recyclable and take advantage of the growing market demand for more environmentally friendly packaging
- **Improved public participation in recycling systems:** Improved recyclability labels could offer more accurate information on what is truly recyclable in Canada, which could better empower Canadians to sort and prepare plastic packaging for recycling, thus improving the quality of recyclable plastics that enter the recycling stream
- **Reinforced public trust in recycling systems:** By creating uniform rules for recyclability labelling that Canadians know they can rely on, trust in recycling systems may be reinforced. This could improve participation in recycling systems, increasing both the quantity of recyclable plastics placed by Canadians in the recycling bin and the quality of plastics received by recycling facilities. When Canadians know that what they put in their recycling bins will be recycled, they will be more likely to spend the time and effort needed to prepare items for recycling
- **Improved performance of recycling systems to generate more and higher-quality post-consumer recycled plastics:** The combination of re-designed packaging and improved consumer participation in recycling systems could help reduce the amount of contamination in the recycling stream. This could make it easier for recycling facilities to successfully sort, clean, bale, and ultimately re-process plastics, creating more and higher quality post-consumer recycled plastics that could be used in new products and packaging. This could mean, for example, reducing the difference between the amount of plastic that enters the recycling stream and the amount successfully recycled

Labelling rules would also seek to support other measures. For example, by helping improve the quantity and quality of post-consumer recycled plastic, labelling rules would enhance the effectiveness of measures that seek to increase levels of recycled content used in new products and packaging.

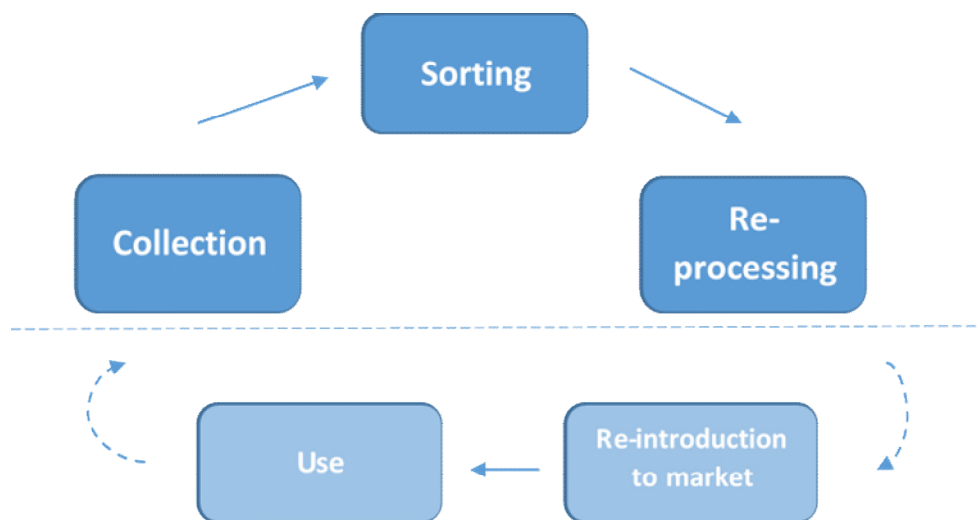
Discussion question 1

Are there any other objectives the Government should be seeking to achieve as it develops labelling rules for recyclability?

3.2 The three principal steps in the recycling process are collection, sorting and re-processing

There is currently no consistent definition of “recycling” in Canada. For the purposes of this consultation document, recycling can be understood as a process consisting of numerous steps that plastics must successfully pass through to be turned into feedstock for new products that are then reintroduced into the market for use. The principal steps in the recycling process are collection, sorting and re-processing (see Figure 1).

Figure 1: The recycling process



- **Collection** includes all activities that introduce plastics into the recycling stream. This can include:
 - residential curbside collection
 - collection sites, which can be permanent (e.g., depots) or temporary (e.g., collection events organized by municipalities or producer responsibility organizations)
 - collection contracts from institutional, commercial and industrial locations
 - recycling bins in public spaces (e.g., sidewalks, parks)
- **Sorting** occurs after collection. Collected plastics are sorted with other plastics (e.g., by resin type), cleaned and baled for sale to re-processors

- **Re-processing** is the act of turning sorted plastics into feedstock for new plastic products. This may include mechanical recycling or chemical recycling techniques. After being re-processed, a plastic product can be considered successfully recycled

Other intermediary activities may occur in the recycling process, such as transporting plastics to transfer sites, storing them in warehouses, or buying and selling bales of recyclable plastics through brokers. The principal steps in the process, however, remain collection, sorting and re-processing.

3.3 Plastic packaging is a significant portion of the recycling stream, and the burden is placed on the public to know what is recyclable

Packaging in particular represents 50% of all plastics disposed of and 47% of the plastic that ends up in landfills. This is due in part to the importance of packaging in transporting and protecting a range of different goods, as well as packaging's short useful life span.

More than most plastic product categories, such as electronics, construction plastics, and end-of-life vehicles, the burden is on the public to know whether plastic packaging is recyclable and how to prepare it for recycling (e.g., through rinsing or separating components made from different materials). This is made difficult by complex design elements such as the increasing use of flexible plastics, additives and multi-material plastics. Canadians therefore need comprehensive and accurate information to allow them to participate effectively in recycling systems for packaging in particular.

3.4 Large amounts of plastic packaging end up in the environment or landfills

In 2018, large amounts of plastic packaging entered the environment or landfills. Data produced by Statistics Canada shows that 26,348 tonnes of plastic packaging leaked permanently into the environment as pollution before it could be collected as part of a managed waste stream. For packaging that was collected as part of a managed waste stream, Figure 2 provides a visualization of the total losses of plastic packaging to landfills or incineration at each stage in the recycling process.

Figure 2: Flow of plastic packaging through the recycling stream, 2018



In total, the data show that, in 2018, 116,382 tonnes of plastic that entered the recycling stream via collection was lost due to a range of reasons, including contamination and improper sorting. This is in addition to the 1,766,172 tonnes that was never collected for recycling. The total recycling rate for plastic packaging in 2018 was 14%.³

Figure 2 provides a breakdown of where in the recycling stream the 116,382 tonnes were lost:

- of the 2,193,470 tonnes of plastic packaging that was disposed of at the end of its useful life, 427,298 tonnes were successfully collected for recycling, with the rest being landfilled or incinerated
- of the 427,298 tonnes collected for recycling, 372,831 tonnes were successfully sorted and sold for re-processing, with the remainder (54,467 tonnes) going to landfill or incineration from sorting facilities
- of the 372,831 tonnes successfully sorted, 301,263 tonnes were re-processed in Canada and sold as feedstock for new plastic products, with the remainder either being exported for recycling in other countries (9,653 tonnes) or going to landfill or incineration from re-processing facilities (61,915 tonnes)

Discussion question 2

Is there more granular data the Government should be aware of regarding outcomes of specific kinds of plastic items or packaging in the recycling stream?

³ Calculated as the quantity of recycled plastic pellets and flakes ready for use in production of new products or chemicals divided by the quantity of collected plastic packaging sent directly for disposal or diversion.

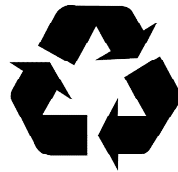
3.5 The “chasing arrows” symbol and other terms, expressions and symbols used to communicate packaging recyclability

Plastic packaging may include labels communicating environmental claims such as recyclability, the presence of recycled content, biodegradability and compostability. These labels may use a range of different terms, expressions and symbols. The following sections outline the most prevalent.

3.5.1 The “chasing arrows” symbol

The “chasing arrows” symbol is well known and commonly used to communicate to consumers that a product is recyclable (See Figure 3). It is also known as the “Mobius loop” symbol or “universal recycling” symbol.

Figure 3: The “chasing arrows” symbol



The “chasing arrows” symbol is freely available in the public domain for use by anyone. Its use is currently governed by a range of voluntary and non-voluntary regimes, such as:

- voluntary programs that aim to improve the accuracy of recyclability labels, such as the industry-led How2Recycle (note this example should not be taken as an endorsement)
- technical standards such as *ISO 14021, Environmental labels and declarations*
- general prohibitions on false, misleading or unsubstantiated environmental claims⁴

Available evidence suggests that the “chasing arrows” symbol is predominantly used on plastic products to communicate the recyclability of packaging, rather than the product contained in the packaging. For example, there are industry labelling programs in North America and internationally that provide labels to members on the recyclability of packaging only, including How2Recycle for the US and Canada.

The “chasing arrows” symbol is also used to communicate other information, such as the presence of recycled content or the type of plastic resin used as feedstock to manufacture the item. An outdated version of the technical standard ASTM D7611, *Standard Practice for Coding Plastic Manufactured Articles for Resin Identification* incorporates a version of chasing arrows as part of resin code labelling (Figure 4).

⁴ These can include prohibitions found in the *Competition Act, Textiles Labelling Act, and Consumer Packaging and Labelling Act*. For more information, visit <https://www.competitionbureau.gc.ca/eic/site/cb-bc.nsf/eng/04607.html>.

Figure 4: Example of current and outdated ASTM D7611 standard resin codes

Example of current ASTM D7611 resin code standard that communicates that a product is made using polyethylene terephthalate



Example of outdated standard



Discussion question 3

Is the “chasing arrows” symbol commonly used for any other product categories beyond packaging? If so, which product categories? Are there special challenges to affixing a label on some type of packaging (e.g., films)? What are they?

Discussion question 4

Is there any data (e.g., market data) the Government should be aware of regarding the use and prevalence of the “chasing arrows” symbol on packaging or other product categories?

Discussion question 5

What is the process and timelines for designing and implementing changes to labelling (e.g., lifespan, costs, marketing considerations)?

3.5.2 Other terms, expressions and symbols

Besides the “chasing arrows” symbol described above, other terms, expressions and symbols might also be used to communicate recyclability claims on labelling, such as:

- **proprietary symbols**, many of which may adapt a version of chasing arrows combined with other symbols (e.g., chasing arrows around the perimeter of an image of a bottle)
- **text claiming recyclability** (e.g., “this product is recyclable” or “100% recyclable”) or urging consumers to recycle the product (e.g., “recycle this product”)
- **expressions**, such as those used to qualify a recyclability claim (e.g., “recyclable where facilities exist” or “check locally”)

3.6 Many recyclability claims are likely inaccurate

Research has shown that consumers increasingly make purchasing decisions in part based on the recyclability of packaging.⁵ However, many labels that claim that packaging is recyclable or compostable are inaccurate and do not give individuals the information they need to make the right recycling decisions.

Industry leaders are working to address recyclability issues. For example, the Canada Plastics Pact's Golden Design Rules provides useful guidance for producers for re-designing packaging for recyclability.⁶ The Government will continue to support these efforts, and labelling rules will complement this kind of progress. Nonetheless, available evidence suggests that producers may overestimate the recyclability of the packaging they place on the market. For example, based on 2020 data, 43% of plastic packaging placed on the market by Canada Plastics Pact (CPP) partners was designed to be reusable, recyclable or compostable, but the recyclability labelling program How2Recycle reports that only 17.8% of their members' plastic packaging is "optimally recyclable" and 56.6% is "partially or not yet recyclable".⁷ While these two examples are not directly comparable, together they help indicate that producers may be marketing non-recyclable packaging to consumers as recyclable.

Discussion question 6

Is there any other data the Government should be aware of regarding the accuracy of recyclability labelling on plastic packaging or other product categories?

3.7 Packaging design choices and inaccurate labels result in poor recycling outcomes

Plastic packaging may not be successfully recycled for a range of reasons related to their design or the products they contain, including:

- resin type
- size, shape or colour
- presence of liners, labels or other components
- presence of mixed materials (e.g., toys)
- food or other residue
- presence of improperly sorted plastics
- presence of certain additives⁸

⁵ United Nations Environment Programme, "Can I recycle this?" A global mapping and assessment of standards, labels and claims on plastic packaging (2020). Available at:

https://www.oneplanetnetwork.org/sites/default/files/from-crm/unep_ci_2020_can_i_recycle_this_1.pdf.

⁶ Available at: <https://goldendesignrules.plasticspact.ca/>.

⁷ Canada Plastics Pact (CPP). *Our Starting Gate: CPP 2020 Baseline Report to inform a circular plastic packaging future for Canada*. (2022). Available at:

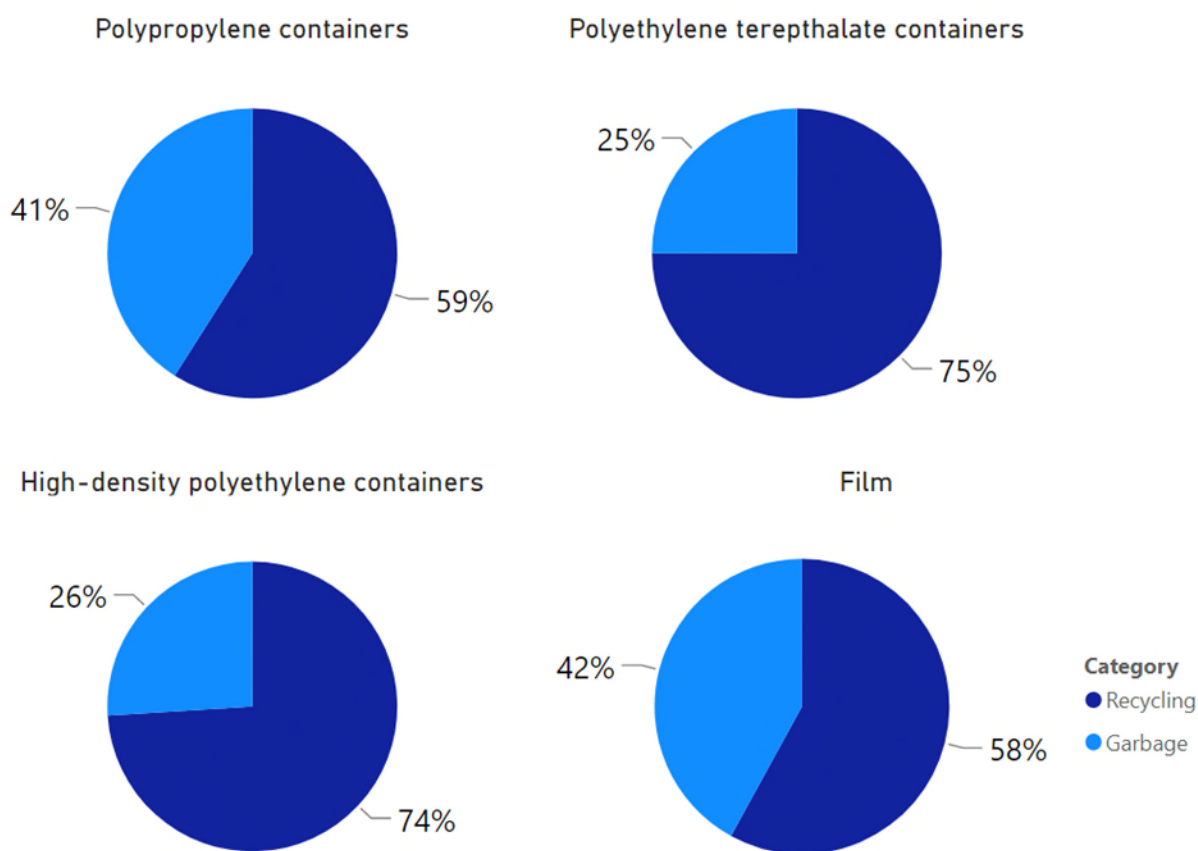
<https://roadmap.plasticspact.ca/roadmapdocument/>; How2Recycle, "How2Recycle Recyclability Insights" (2020). Available at: <https://how2recycle.info/insights>.

⁸ UNEP, *Supra* note 5.

These can increase the level of contamination in the recycling stream, lowering the amount and quality of recyclable plastics that get sorted and baled for re-processing.

Consumers often look first to recyclability labels for information on whether to recycle an item.⁹ However, the presence of a label communicating recyclability does not guarantee that plastic packaging can in fact be recycled in their local recycling programs.¹⁰ As a result, Canadians may not know if their items are recyclable locally or not. This lack of accurate information can lead them to keep recyclable plastics out of the recycling stream or introduce contaminants, despite good faith attempts to recycle correctly. For example, waste audits conducted in Ontario have found recyclable plastics placed in the garbage and non-recyclable plastics placed in the recycling bin (see Figure 5, below).¹¹

Figure 5: Select summary data from Ontario Waste Composition Studies, average 2016-2020, showing the recycling rates of three types of plastic containers that are typically accepted in recycling programs (polypropylene, polyethylene terephthalate, and high-density polyethylene) and one (film) that is not.



⁹ *Ibid.*

¹⁰ *Ibid.*

¹¹ The Continuous Improvement Fund’s 4-Season Residential Waste Composition Study Results for the years 2016-17 to 2019-20 are available at: <https://thecif.ca/centre-of-excellence/policy/waste-composition-studies/>, along with terms of reference, frequently asked questions and standard material categories.

Figure 5 suggests that a significant amount of plastic containers typically accepted in recycling programs (such as polypropylene, polyethylene terephthalate, and high-density polyethylene) are placed in the garbage, while plastic packaging known to be less recyclable, such as film, is often placed in the recycling bin. In addition, other evidence suggests that the level of contamination is even higher in public spaces such as parks and sidewalks.¹²

Discussion question 7

Are there any other factors that can impact a plastic item's recyclability, beyond the factors listed?

Discussion question 8

What kinds of information would make it easier for individuals to prepare and sort plastics for recycling adequately?

3.8 Packaging design choices and inaccurate labelling may harm public trust in recycling systems

It is increasingly clear to Canadians that recycling systems suffer from serious shortcomings due to packaging design choices that complicate recycling and inaccurate labelling that can confuse the public. Evidence suggests that approximately half of Canadians trust that items are recycled effectively,¹³ that public trust in recycling systems is declining,¹⁴ and that trust is lowest among the young.

Without improvements in packaging design for recyclability, coupled with better information on whether packaging is recyclable, public trust in recycling may continue to decline to the point that participation rates suffer. This could reduce the amount of plastic packaging introduced to the recycling stream and hamper efforts to use more post-consumer recycled content in new products and packaging.

Discussion question 9

Is there any other information the Government should be aware of regarding levels of public trust or confidence in recycling systems, links between recyclability labelling and public trust, or links between public trust and levels of participation in recycling systems?

Discussion question 10

What kind of design features on plastic items or information on labels would be most effective in helping strengthen public trust in recycling systems?

Discussion question 11

Could more accurate labels be used in sorting facilities to improve outcomes? If so, how?

¹² See, for example, Recycle BC, *Packaging and Paper Product Extended Producer Responsibility Plan* (2019) at 15. Available at: https://recyclebc.ca/wp-content/uploads/2019/07/RecycleBCStewardshipPlan_16July2019.pdf.

¹³ See, for example, York Region, *Single-use Items: What you Said* (2022). Available at: <https://www.york.ca/media/104121/download?attachment>; Leger Marketing, "Are Canadians confident that the recycling system properly recycles their waste?" (2020). Available at: <https://blog.legeropinion.com/en/news/canadians-confident-recycling-system/>.

¹⁴ Leger Marketing, *supra* note 18.

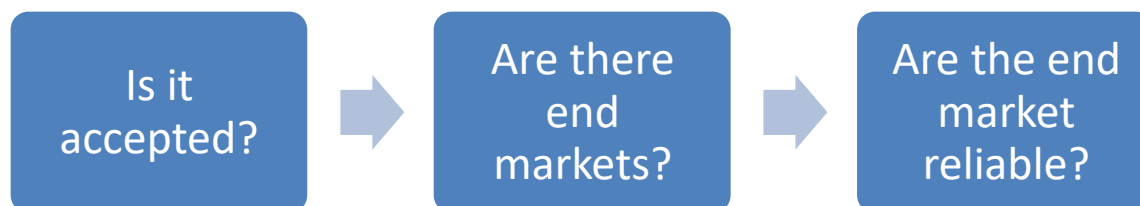
4. Framing the Government's commitment on recyclability labelling

The Government's commitment is to introduce labelling rules that prohibit the use of the chasing-arrows symbol on plastic items unless 80 per cent of Canada's recycling facilities accept, and have reliable end markets for, these products. This section unpacks the different elements of this commitment to provide the basis of a recyclability labelling regime under the *Canadian Environmental Protection Act, 1999*.

The commitment can be broken down into three elements (see Figure 6), which form the criteria for determining whether plastic packaging can be labelled as recyclable. Each of the following criteria would need to be met for a recyclability claim to be made:

1. accepted in 80% of recycling facilities in Canada
2. end markets exist
3. these end markets are reliable

Figure 6: Criteria for determining recyclability



4.1 Determining whether packaging is accepted in 80% of recycling facilities in Canada

A principled approach should be used to determine what is accepted for recycling in Canada, while acknowledging that what is accepted for recycling across Canada may change over time, requiring an approach that is also adaptable.

4.1.1 How acceptance can be determined

“Acceptance” can be determined by looking at what is accepted in public collection systems, such as municipal or industry-operated residential curbside recycling programs. These programs identify the kinds of plastics that can be accepted at scale in the recycling stream for further sorting, cleaning and baling. They also depend heavily on individuals having the right information regarding what can be included for recycling or not.

Other potential approaches to measuring acceptance, such as collection from industrial, commercial and institutional (ICI) locations are currently lacking sufficient granularity. However, as more data becomes available from these sources, the Government will consider how they could be included in measuring acceptance in the future, if appropriate.

Discussion question 12

What are the major differences between what is accepted in public recycling programs and what is collected for recycling from ICI locations that the Government should consider?

4.1.2 Principles for measuring acceptance

Rules for determining acceptance will be developed according to the following principles:

- to the extent possible, Canadians should be able to use labels as a reliable source of information on the recyclability of plastic packaging in their area, regardless of where they live in Canada
- labelling rules should only reflect acceptance in collection systems that are:
 - free for the public to use
 - consistently offered to the public (e.g., dedicated collection sites or weekly curbside pickup)
 - easily accessible by the public
 - operated at scale

4.1.3 Approach to measuring acceptance for the purposes of recyclability labelling rules

The Government would establish an initial assessment of what is accepted for recycling across Canada through a survey of municipal and provincial recycling systems and incorporating the results in the design of recyclability labelling rules, guidelines and other tools. The results of the assessment would be made publicly available to support compliance with the labelling rules.

Recyclability labelling rules would establish an acceptance threshold where 80% of the population must have access to a collection system for an item in each of the following regions:

- Atlantic Canada (encompassing Newfoundland and Labrador, Nova Scotia, Prince Edward Island and New Brunswick)
- Quebec and Nunavut
- Ontario
- Prairies and Northwest Territories (encompassing Manitoba, Saskatchewan, Alberta and Northwest Territories)
- Pacific (encompassing British Columbia and Yukon)

These regions are based on existing knowledge of recycling markets; provinces and territories are grouped together based on whether they belong to the same regional market for recyclable plastics.¹⁵ Where no data is available for a jurisdiction, it is included with nearby jurisdictions.

The Government also recognizes that collection systems in many provinces and territories will be shifting towards producer-funded and operated extended producer responsibility systems between now and 2030, and this may result in changes to what is collected for recycling. Recyclability labelling rules will be designed to be adaptable to these changes, and the

¹⁵ See, for example, the markets outlined at <https://www.recyclingmarkets.net/>.

assessment of what is accepted for recycling across Canada may be updated over time, if appropriate.

Discussion question 13

Does the regional market breakdown reflect the current situation in Canada? Are there alternative ways to establish 80% acceptance thresholds?

Discussion question 14

Do companies currently identify what is collected for recycling when developing recyclability labelling? If so, how?

Discussion question 15

How could labelling rules provide accurate information to residents of rural, remote or Northern communities where recycling programs may operate on different models (e.g., drop-off depots) or may not be present at all?

Discussion question 16

How often do acceptance rules for public recycling programs change, and why?

Discussion question 17

What kinds of information should be sought as part of the initial survey and assessment of what is accepted for recycling across Canada?

4.2 Reliable end markets

If acceptance in recycling systems broadly aligns with the collection stage in the recycling process (as explained in section 4.1.1) an item must still be capable of successfully completing the other stages of the recycling process (i.e., sorting and reprocessing) to be considered recyclable.

The presence of reliable end markets help move plastics towards successful re-processing and use in new products and packaging. When entities such as materials recovery facilities (MRFs) are able to sell into end markets, they can generate revenue to support their ongoing operations. When they know that the end markets are reliable, they can plan ahead and invest in expansions or improvements to their operations.

End markets must be situated in North America, as it can be difficult to determine whether plastics exported to another continent are successfully recycled.

4.2.1 Determining what is meant by “end market” and where in the recycling process an “end market” exists for the purposes of labelling rules

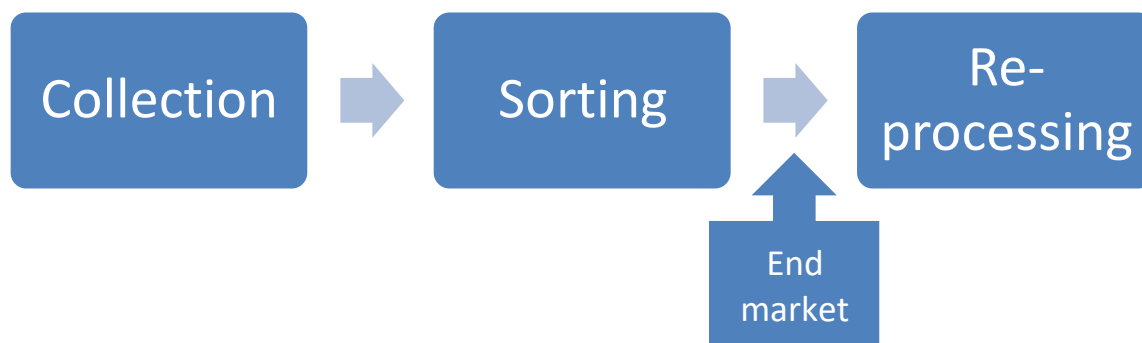
An end market, for the purposes of assessing recyclability, can be understood at a minimum as the point in the recycling process where recyclable plastics should be expected to have a positive market value (i.e., the point at which plastics can be sold to entities operating at the next stage of the recycling process). For example, a single-use plastic container may have no positive market value until it has completed several steps in the recycling process:

1. at the disposal stage, the individual consumer cannot sell the used container on the open market

2. at the collection stage, a collector likely would not be able to sell the container in its unsorted, uncleaned, unbaled state
3. after the container has been sorted, cleaned and baled with other similar plastics it gains a positive market value, as the sorter is able to sell the bale on the open market to a re-processor or an intermediary

In this example, the end market for the container is after the sorting stage and before the re-processing stage in the recycling process. It is likely that, for many plastics, the end market would be the same as for the plastic container in the above example, at the point in the recycling process between sorter and re-processor (see Figure 7).

Figure 7: Location of end markets for recyclable plastic packaging for the purposes of recyclability labelling



4.2.2 Determining whether a North American end market exists for a product

Whether a North American end market exists for an item can be determined by considering factors such as the following:

- **Bale specifications:** Organizations that work with recyclers in North America such as the Institute of Scrap Recycling Industries and the Association of Plastics Recyclers have developed model bale specifications for various kinds of plastics.¹⁶ Inclusion in a model bale specification may be a good indicator that an item is typically sorted and baled for sale into end markets
- **Recyclability guidelines:** Industry groups and other organizations have shown leadership in developing guidelines for producers on designing plastic packaging to make them recyclable. These resources often reflect considerable research and collaboration with recyclers and other experts. Examples include the APR Design Guide developed by the Association of Plastics Recyclers¹⁷
- **Material flow data:** Statistics Canada’s pilot physical flow account provides data on downstream outcomes for plastics based on product and resin types. This and other similar macro-level data can be used to help determine to what extent certain categories

¹⁶ ISRI’s model bale specifications are available at: <http://www.scrap2.org/specs/>. The Association of Plastics Recyclers model bale specifications are available at: <https://plasticsrecycling.org/model-bale-specifications>.

¹⁷ Available at: <https://plasticsrecycling.org/apr-design-guide>.

of plastic items are successfully sorted and re-processed, which can be useful indicators of the existence of end markets

- **Facility-level data:** Numerous studies and reports have been prepared by Canadian jurisdictions, waste management organizations, and civil society groups that assess the performance of various kinds of plastics in sorting facilities. These sources can be drawn from to help determine what is included in bales that is sold for re-processing, and what is baled but not sold (e.g., typically included in commingled bales), and what is sent straight for disposal or incineration. Similar studies could be conducted for re-processing facilities in the future
- **Market data:** Various sources publish data on the market value of bales that are sold to re-processors within North America.¹⁸ Available data suggest that end markets with positive market value do not exist for some kinds of sorted plastics or for all types of bales

The Government is considering drawing from the above sources to develop an approach (e.g., methodology, guidance) for producers to determine whether a North American end market exists for a specific item.

Discussion question 18

Are there any other factors the Government should consider in developing an approach to determine whether a North American end market exists for a particular plastic item?

Discussion question 19

Are there any particular categories of plastics that likely do not have North American end markets? Why?

4.2.3 Determining whether a North American end market is reliable

When recycling systems have predictable demand and can reasonably expect a certain price for recyclable materials, they can plan and justify investing in improvements to their operations over time (e.g., purchasing more efficient equipment). Reliable end markets that show strong and sustained demand for recyclable plastics are also a useful indicator of success further down the recycling stream, as it signals that re-processors are willing to pay for plastic they can turn into feedstock for new products and packaging and sell that feedstock at a profit.

For the purposes of recyclability labelling, North American end markets must also be “reliable”. There are numerous potential indicators for assessing an end market’s reliability. These could include:

- **Strength of market prices:** A positive market value is required for an end market to exist. However, positive market value must also be strong enough (i.e., high enough) to offer sustainable revenue streams to both maintain current operations and invest in new technologies and systems to improve recycling outcomes over time. A weak market price may not be a reliable market price, even if the price is stable over time

¹⁸ These include datasheets published by the Continuous Improvement Fund and the website www.recyclingmarkets.net.

- **Stability of market prices:** Businesses need sufficient certainty to justify investing in improvements to their operations. A multi-year history of stable market prices for recyclable plastics helps provide that certainty
- **Successful outcomes:** Reliable end markets should lead to successful recycling outcomes, as strong and stable demand for recyclable plastic, through for example, minimum required content requirements, would be driven by the desire to produce as much recycled product as possible to be sold as feedstock for new products and packaging. In this sense, end markets are “reliable” when they can be relied on to ensure that plastics are regularly recycled and turned into feedstock for new products

The Government is considering drawing from the above sources to develop an approach (e.g., methodology, guidance) for producers to determine whether an end market is reliable in relation to a specific item.

Discussion question 20

Are there any other factors the Government should consider in developing an approach to determine whether a North American end market for a particular plastic item is reliable?

5. Framing the issue for compostability labelling

Although compostable, biodegradable and biobased plastics may offer environmental benefits, their end-of-life management presents a variety of challenges to both the organics and conventional plastics waste streams. Accurate labelling of these plastic products would provide information to Canadians enabling them to improve how these products are sorted for disposal thereby diverting organic waste from landfills to organic waste management systems and preventing the contamination of conventional plastic recycling streams.

5.1 Background

Bioplastics, often referred to as compostable, biodegradable or biobased plastics, make up a small but growing share (<1%) of the market for single-use plastics and packaging.¹⁹ While biodegradable and compostable plastics may be made of either renewable feedstocks or fossil fuels, biobased plastics generally refer to plastics that are synthesized from biomass or renewable resources.

Biodegradable plastics are a type of plastic that are able to break down into carbon dioxide, water and biomass in the environment as they possess heteroatoms along their backbone that render them more susceptible to hydrolytic or enzymatic reactions. These processes cause the structure to break down (or degrade) into lower molecular weight fragments that microbial cells can assimilate and subsequently mineralize either aerobically or anaerobically. However, the

¹⁹ European Bioplastics, *Bioplastics Market Data* (2020). Available at: <https://www.european-bioplastics.org/market/>

conditions and time for biodegradable plastic to break down can vary. Compostable plastics are a sub-group of biodegradable plastic that are designed to biodegrade in a managed composting process through the action of naturally occurring microorganisms, typically within a specified time frame.²⁰

5.2 End-of-life challenges

While bioplastics may offer upstream environmental benefits such as carbon savings over fossil-based plastics and the potential to contribute to Canada's bioeconomy, these plastics are currently problematic to manage at their end of life.²¹ There are several types of bio-based plastic products on the market, with significant variation in performance along with inconsistent labelling. During previous consultations on the Government of Canada's zero plastic waste agenda, stakeholders from industry and industry associations, civil society organizations, and other levels of government, as well as individual Canadians identified the need for strict labelling requirements for compostable plastic items to distinguish them from other types of plastics, including recyclables.

Discussion question 21

Is there any data on end-of-life outcomes for compostable plastics and other types of biodegradable or degradable plastics, the Government should be aware of as it develops labelling rules?

5.2.1 Contamination

Compostable plastics are typically screened out by organics processing facilities and sent to landfill, due to confusion and contamination with other types of plastics (e.g., conventional and other types of degradable plastics), and generally longer biodegradation times than food and yard waste.

Additionally, compostable, biodegradable and degradable plastics contaminate conventional plastic recycling streams, as they are not intended to be managed in this stream. Most mechanical sorters are unable to easily distinguish and separate them from conventional plastics, and degradable plastic polymers negatively affect the quality of the reprocessed plastic resins.²²

²⁰ Government of Canada, *Science Assessment of Plastic Pollution* (2020). Available at: <https://www.canada.ca/en/environment-climate-change/services/evaluating-existing-substances/science-assessment-plastic-pollution.html>.

²¹ One exception is 'drop in' bioplastics, such as Biopolyethylene (BioPE) and Biopolypropylene (BioPP). These plastics are chemically identical to conventional resins and equally recyclable.

²² Eunomia. *The Impact of the Use of "Oxo-degradable" Plastic on the Environment*. Final Report for the European Commission DG Environment. Project conducted under Framework Contract No ENV.A.2/FRA/2015/0008. Office of the European Union, Luxembourg. Available online: <https://op.europa.eu/en/publication-detail/-/publication/bb3ec82e-9a9f-11e6-9bca-01aa75ed71a1> (viewed 2021-05-05) (2016); Recycle BC. *Compostable Packaging and Paper Product. 2019 Research Summary Report*. Recycle BC, British Columbia. Last updated April 2021. Available online: https://recyclebc.ca/wp-content/uploads/2020/06/Compostable-Packaging-2019-Research-Summary-Report_Final.pdf (viewed 2021-05-08) (2019).

5.2.2 Other degradable plastics

There are also some types of degradable plastic products that do not biodegrade in the conditions of composting facilities, further adding to contamination. Oxo-degradable, oxo-biodegradable and photodegradable plastics are plastics that have been designed with an additive to speed up their fragmentation into microplastics and other chemicals, but they do not fully degrade in an acceptable amount of time and into acceptable products under any conditions. Most municipalities across Canada direct consumers to dispose of plastic items labelled as biodegradable, oxo-biodegradable or photodegradable in the garbage. These items are not accepted in organic waste or recycling systems because they are known contaminants in these systems.

5.3 Existing standards and certifications

The Bureau de Normalisation du Québec (BNQ) and Biodegradable Products Institute (BPI) are two organizations that certify to accredited North American standards for compostable products. In Canada, compostability certification is currently voluntary.

- **BNQ:** CAN/BNQ 0017-088 is Canada's existing national standard for compostable plastics (adoption of international standard 17088 with minor modifications)
- **BPI:** Certifies products (to ASTM D6400 and D6868) associated with desirable organic wastes, like food scraps and yard trimmings that are collected for composting

5.4 Objectives of compostability labelling rules

Federal measures creating labelling and performance requirements for compostable plastics would seek to achieve the following objectives to help resolve the issues outlined above:

- **increase diversion of organic waste from landfill**
- **improve outcomes in organic waste systems** by decreasing contamination of the organics stream, and provide greater confidence to facility operators that the products they are receiving and processing are compostable within their operating parameters
- **improve outcomes in recycling systems** by decreasing contamination of the recycling stream and improve the quality of the plastics received by recycling facilities
- **reduce public and industry confusion surrounding the terms**

Such rules would consider alignment with existing third party standards and certifications for compostable plastics, where appropriate.

Discussion question 22

Are there any other objectives the Government should be seeking to achieve through compostability labelling rules? If so, what are they and why are they important?

6. Key elements of recyclability and compostability labelling rules

The following section outlines the key elements of the proposed approach to developing recyclability and compostability labelling rules.

6.1 Scope of application

The scope of application includes the types of products that should be targeted by the rules, as well as the kinds of recyclability claims that would be subject to the labelling rules.

6.1.1 Application to consumer-facing packaging and single-use plastics

The scope of recyclability labelling rules should be targeted to those products that would have the greatest impact in terms of achieving the objectives outlined in section 3.1. The greatest impacts would be achieved by targeting categories of products:

- that are intended to be used by the public, and
- where recycling outcomes depend directly on the public's knowledge of recycling and their behaviour (e.g., proper sorting, rinsing, separating material before collection)

As a result, the Government is considering the application of recyclability labelling rules to the following product categories:

- **primary plastic packaging, including beverage containers:** primary packaging is designed to come into direct contact with a product (e.g., food)
- **secondary plastic packaging:** secondary packaging is designed to contain one or more primary packages together with any protective materials where required
- **single-use, disposable, and other short-lived plastic products:** single-use and disposable plastics are items designed with the intent to be used only once or for a short period of time for their original purpose before they lose their original functionality, physical capacity or quality, or before they are discarded

The Government is considering the application of compostability labelling rules to the same scope of product categories, noting that a narrower range of applications are considered suitable for organics recycling:

- applications that facilitate the diversion of organic waste from landfills (e.g. certified compostable bin liners)
- applications that are difficult to recycle due to contamination or sorting challenges (e.g. produce stickers)

Note that the Government may consider expanding the labelling rules to other consumer product categories such as electronics, textiles and major home appliances in the future.

Discussion question 23

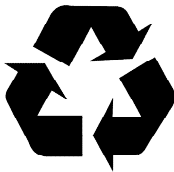
Are there any limitations or exclusions or additional elements that should be incorporated into these categories included in the scope of application? If so, why?
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6.1.2 Kinds of recyclability claims subject to labelling rules

As discussed, there are many ways producers can communicate the recyclability of an item. While the “chasing arrows” symbol is likely the most recognizable method, other symbols, terms and expressions may be used. There are three potential approaches to determining the kinds of recyclability claims that would be subject to labelling rules:

- **Approach 1** would only apply rules to the use of the common “chasing arrows” symbol also known as the Möbuis loop described in ISO 14021

Figure 8: Approach 1 would only regulate the use of the “chasing arrows” symbol



- **Approach 2** would apply to the common “chasing arrows” symbol described in ISO 14021, as well as any other use of chasing arrows, such as those described in the previous version of standard ASTM D7611, or on proprietary labels

Figure 9: Approach 2 would also apply to other symbols that use chasing arrows such as this resin code that follows an outdated version of the ASTM D7611 technical standard



- **Approach 3** would apply to any claim on a label that is related to recyclability. This could include those outlined in approaches 1 and 2, as well as the use of terms such as “recyclable”, “recycle this product”, or qualified terms such as “recyclable where facilities exist”, as well as other terms, expressions or symbols that communicate whether a product is recyclable, or that otherwise urge consumers to recycle something

The Government is considering adopting approach 3, which would have the greatest impact to provide consistent information to consumers. This could avoid situations where a producer chooses not to use the “chasing arrows” symbol but communicates inaccurate recyclability claims via other terms, symbols or expressions (e.g., a simple statement on a label saying “100% recyclable”).

Discussion question 24

Which of the above approaches for the kinds of recyclability claims that should be subject to labelling rules (1, 2, 3) should the Government adopt, and why? Is there another approach the Government should adopt instead?
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6.2 Requirements for recyclability labelling

The information in this sub-section outlines the proposed requirements for recyclability labelling, including whether it should be obligatory, information on the design and location of labels, whether to use additional or qualified statements on labels, and if the “chasing arrows” symbol should be allowed to be used to convey information other than recyclability.

6.2.1 Permissive versus obligatory labelling

Currently, labels communicating an item’s recyclability are not obligatory. Producers choose to make recyclability claims on their products and packaging, subject only to existing rules prohibiting false, misleading or unsubstantiated environmental claims. The Government is considering two potential approaches to whether a producer must communicate the recyclability of an item:

- **Approach 1** would create a permissive system where recyclability labels are not obligatory, but if a producer chooses to communicate recyclability, they would be required to follow the labelling rules
- **Approach 2** would create an obligatory system where recyclability labels must be included on consumer-facing plastic packaging and single-use plastics to communicate whether it is recyclable (with or without qualifiers) or not

While a permissive approach may be somewhat less burdensome for producers, the Government is considering an obligatory approach to recyclability labelling. This would provide the greatest impact in terms of attaining the environmental objective of avoiding the creation of new waste by achieving the desired outcomes outlined earlier and again in Table 1.

Table 1: Potential impacts of obligatory labelling rules

Desired outcome	Impact of obligatory labelling rules in achieving desired outcome
Improve plastic packaging design	Obligatory rules would create a greater incentive for producers to make packaging more recyclable, to avoid having to communicate that their packaging is not recyclable.
Improve public participation in recycling systems	Obligatory rules would eliminate most uncertainty around whether something is recyclable or not, helping Canadians improve how they recycle.
Reinforce public trust in recycling	Obligatory rules would give Canadians confidence that an item can in fact be recycled, potentially doing the most to reinforce and sustain high participation rates in recycling systems.
Improve outcomes in recycling systems	Obligatory rules would provide clear instruction to consumers on what is recyclable and what is not, improving the quality of materials that enter the recycling stream.

Discussion question 25

If an obligatory system is adopted, what should the Government consider in order to minimize costs to industry while maximizing environmental outcomes (e.g., appropriate timelines, cumulative impacts of different labelling requirements)?

6.2.1.1 Exemptions and special rules for certain items

If the Government were to adopt an obligatory approach to recyclability labelling, the Government would then consider either exempting from recyclability labelling rules, or establishing special rules, for the following:

- **certified compostable plastics:** Compostable plastics are not typically designed to enter the recycling stream, as they are intended to be managed in the same waste stream as organics. As a result, items subject to rules for labelling compostable plastics described in section 6.3, could be considered for exemptions from obligatory recyclability labelling rules
- **small items:** It may not be feasible to include recyclability labels due to characteristics such as size and shape. As a result, items under a certain size threshold (based on height, length or width) could be exempted. However, recyclability labels could be required in the following ways:
 - for small, single-use plastics, labels could be placed on the items' packaging. For example, under the *Single-Use Plastics Prohibition Regulations*, single-use plastic flexible straws must be sold in retail stores in packages of at least 20. The packaging for these single-use plastic flexible straws could communicate the recyclability of the straws themselves, in addition to the recyclability of the packaging
 - for small components of packaging and single-use plastics (e.g., bottle caps), labels could provide instructions for all the components (e.g., "remove lid" or "lid not recyclable")

Discussion question 26

Are there any other kinds of plastic items that may warrant special rules or exemptions from labelling rules under an obligatory system? Why?

6.2.2 Design and location of recycling labels

The design and location of recyclability labels may determine how effective they are to help consumers recycle.²³ Rules for food labelling information can be a useful guide for effectively communicating information on labels.²⁴ For example, the *Food and Drugs Regulations* and *Safe Food for Canadians Regulations* require food labelling to be clearly and prominently shown, and

²³ See, for example: UNEP, *Guidelines for Providing Product Sustainability Information* (2017). Available at: <https://www.oneplanetnetwork.org/knowledge-centre/resources/guidelines-providing-product-sustainability-information>

²⁴ *Ibid.*

readily discernible and legible to the purchaser or consumer under the customary conditions of purchase and use.²⁵

Labels that are hard to read due to size or location would be less effective in communicating information. However, the Government is sensitive to the interests of producers in controlling how their packaging is designed, as well as other labelling requirements.

The Government is considering two potential approaches related to the design and location of recycling labels:

- **Approach 1** would mandate a standard for how recyclability labels should look, and could in effect create a single, uniform recyclability label for plastics in Canada. Producers would have minimal discretion on the label's location and design, as well as the use of any other symbols, terms or expressions that are scoped into the rules
- **Approach 2** would simply govern the use of the recyclability claims. While rules may establish minimum standards such as requiring information to be legible and easily found on a label, producers would have more discretion on how recyclability claims are communicated, including the symbols (e.g., proprietary images), terms and expressions used

The Government is considering adopting approach 2. This would balance the need to convey accurate information that can be easily found with the interest of producers in controlling the design of their labelling. Recyclability rules would establish minimum standards to ensure consumers can easily access information on an item's recyclability and producers would have discretion on how that information is displayed. This would also avoid unintended consequences for producers that have already worked to improve recyclability claims on their labels, such as by joining a labelling program.

Discussion question 27

What should be the minimum standards to ensure consumers can easily access and use information on a label (e.g., size, font, location on the package, text size, required symbols)? Why?
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6.2.3 Qualified recyclability information

Qualified information is already part of existing standards and practices. For example, archived 2008 environmental claims guidance discourages “generalized qualifications” such as the expression “recyclable where facilities exist”, and encourages claims that “adequately convey the limited availability of collection facilities”.²⁶

²⁵ See <https://inspection.canada.ca/food-label-requirements/labelling/industry/legibility-and-location/eng/1328038498730/1328038540376?chap=1>

²⁶ Available at: <https://www.competitionbureau.gc.ca/eic/site/cb-bc.nsf/eng/02701.html>.

The Government is considering establishing a uniform approach to how qualified information regarding recyclability is communicated. Recyclability labels would be required to communicate the following:

- the plastic components (e.g., lids, film, trays) that are recyclable and not recyclable
- regions where an item is recyclable, using the regions outlined in section 4.1.3 (e.g., “recyclable in Quebec, Ontario and Pacific, but not Atlantic Canada or Prairies”)

Discussion question 28

Are there any other considerations besides components and regions that may require qualified recyclability information?

6.2.4 Use of the “chasing arrows” symbol for other purposes

The “chasing arrows” symbol is often used to communicate various kinds of information, such as the resin code or the presence of recycled content in an item. A variation of the “chasing arrows” symbol is sometimes also used to communicate compostability or biodegradability.²⁷ These different uses have the potential to confuse consumers, who may consider the “chasing arrows” symbol a universal symbol of recyclability.

Use of the “chasing arrows” symbol for some purposes such as communicating recycled content is a common industry practice for which international standards exist.²⁸ However, UNEP (United Nations Environment Programme) recommends that labels communicating claims other than recyclability be re-designed to remove the use of “chasing arrows”, due to their potential to mislead or confuse the public.²⁹ There are two potential approaches that could be taken under a recyclability-labelling regime with regard to these other uses:

- **Approach 1** would scope recyclability labelling rules narrowly to only govern the use of the “chasing arrows” symbol when it communicates whether an item is recyclable or not. Other kinds of claims using the “chasing arrows” symbol would continue to be allowed, subject to existing rules such as those prohibiting false, misleading or unsubstantiated environmental claims
- **Approach 2** would prohibit the use of the “chasing arrows” symbol for any claims other than recyclability

The Government is considering adopting approach 2. This would further simplify the meaning of the “chasing arrows” symbol to refer only to recyclability. Under this approach, the public could rely on the mere presence of the symbol to make decisions on whether to place an item in the recycling stream or not, without having to determine what kind of information the symbol is communicating. This has the potential to further improve the effectiveness of labelling rules to achieve the desired objectives.

²⁷ UNEP, *supra* note 5.

²⁸ See, for example, ISO 14021.

²⁹ UNEP, *supra* note 5.

Discussion question 29

Would there be any unintended consequences of prohibiting the use of the “chasing arrows” symbol for any purpose other than to refer to recyclability?

6.3 Requirements for compostability labelling

The Government recognizes the benefits of restricting labelling of compostable plastics to products certified to specified standards, and aligning with existing labelling requirements under these certifications. The Government is therefore proposing to prohibit applicable plastic products from being labelled degradable, biodegradable or compostable, unless certified as compostable by a third party. Other jurisdictions have implemented similar requirements. For example, California and Washington State prohibit the sale of plastic products labelled “biodegradable” and “degradable” and require products labelled as “compostable” to meet established standards for compostability. These laws also include labelling rules for compostable products, such as distinctive markings or colour schemes.

The standardization and restriction of terminology for compostable plastic products, along with increased public education, would help reduce confusion for Canadians and improve the quality of both the organics and recycling streams.

Discussion question 30

Should there be any criteria for determining whether a third-party certification is adequate to ensure compostability in Canadian composting facilities? If so, what should be the criteria and why?

Discussion question 31

Are there existing third-party certification programs that would ensure compostability in Canadian composting facilities? If so, which?

6.4 Complying with rules for recyclability and compostability labelling

The following section provides information on the proposed mechanisms producers may choose to help comply with the recyclability and compostability labelling rules, as well as how they may demonstrate that compliance.

6.4.1 Principles for compliance mechanisms

To be effective, recyclability and compostability labelling rules will need mechanisms to ensure producers are complying and that compliance can be verified. The Government proposes the following principles to guide the development of rules for compliance and compliance verification:

- producers need clear rules that facilitate compliance and minimize risk, and flexibility in how they meet those rules
- industry leadership to improve the recyclability and compostability of their plastic products and packaging should be leveraged to the extent possible

- the public needs transparency to strengthen and sustain public confidence in the recyclability and compostability labelling regime specifically and recycling systems generally
- recycling and organic waste systems need effective compliance approaches that ensure labelling rules actually reduce contamination and improve efficiency

Discussion question 32

Are there any other principles or other important considerations the Government should take into account in developing rules for compliance and compliance verification?

6.4.2 Compliance mechanisms

The Government recognizes that industry leaders and other organizations have invested significant effort, time and money in developing tools to improve the recyclability of plastic packaging, and that these tools have real potential to help producers meet recyclability labelling rules. In addition, plastic packaging is a broad category of items that have different applications, characteristics and downstream outcomes. The Government is therefore proposing that producers could comply with recyclability labelling rules using a range of different mechanisms. These mechanisms could be developed by the producer itself and used internally, or could be developed by third parties and used by producers, and could include:

- data-driven tools that quantify an item’s recyclability using metrics derived from market research, technical expertise, and data collected from recycling facilities
- design-for-recyclability guidelines that outline how a producer can assess an item’s recyclability, often with sequenced steps and clear criteria (e.g., the kinds of resins that are highly recyclable, moderately recyclable, and not recyclable)
- third-party labelling programs that producers can join to outsource recyclability assessments, and that certify an item’s recyclability according to internal metrics and processes designed to meet legal obligations

Discussion question 33

Are there any other kinds of potential compliance mechanisms the Government should be aware of as it develops rules for labelling?

Discussion question 34

What kinds of changes would be needed to existing tools, guidelines and programs to meet the new labelling rules? How could the Government help facilitate these changes to ensure existing tools, guidelines and programs can continue to be used?

6.4.3 Demonstrating compliance for recyclability labelling

While producers would be given flexibility in choosing a compliance mechanism, the Government would need to ensure that the chosen mechanism meets minimum standards. These could include the following:

- the compliance mechanism considers all characteristics of a product that may affect its recyclability, such as shape, size, resin types, or presence of additives

- the compliance mechanism applies the methodologies, considerations and standards set out in the labelling rules (e.g., with regard to measuring acceptance or determining the reliability of end markets)
- the compliance mechanism is transparent in terms of how it leads to a determination of whether an item is recyclable or not

Producers may need to be able to explain, on request, how their chosen compliance mechanism meets each of these standards.

After demonstrating that a compliance mechanism meets the minimum standards, producers may then have to demonstrate that they used the compliance mechanism correctly. This could involve:

- keeping records that would need to be provided to the Government on request, explaining how an item was assessed for recyclability using the compliance mechanism and what the results were
- a requirement to provide a written explanation of how an item is recyclable to any individual who requests it, or else proactively provide a written explanation in an accessible format (e.g., accessed through the company's website or via a QR code on the label)

6.4.4 Demonstrating compliance for compostability labelling

To demonstrate compliance with compostability labelling rules, a compliance mechanism would be required to:

- consider whether the product was certified by a third party to a specified standard or standards
- include a requirement that the producer obtain written proof of the third party certification

Producers may have to demonstrate compliance in a similar fashion to recyclability labelling (i.e., by keeping records, providing them on request, and providing explanations to individuals who request one).

6.5 Implementation of recyclability and compostability labelling rules

The implementation of the final labelling rules would be accompanied by the development of supporting materials, such as guidance documents, and an awareness campaign. The impact of the rules would be evaluated to ensure that their objectives are being met.

6.5.1 Developing tools and guidance to facilitate compliance

Given the broad range of producers and items that could be subject to labelling rules, the Government would develop tools and guidance to make compliance easier and cheaper. These could include:

- technical documents elaborating methodologies, standards and criteria set out in the labelling rules, and that could be updated periodically

- generic guidelines that producers could use or build from to facilitate recyclability assessments

The Government is also considering organizing a technical committee of experts to advise on the development of tools and guidance as they are developed or updated.

Discussion question 35

Are there any other kinds of tools and guidance the Government should consider developing to support industry and facilitate compliance with labelling rules?

Discussion question 36

If a technical committee of experts is established, what should be its composition and what should be its role in the development of tools and guidance?

6.5.2 Spreading awareness

The Government will work with industry leaders, civil society organizations, provinces and territories, and municipalities to help spread awareness of the labelling rules, so that Canadians know that recyclability or compostability claims on labels are subject to new rules that make them more trustworthy. This could involve, for example:

- working with producer responsibility organizations to incorporate information on the labelling rules in their public education and awareness campaigns that they operate under provincial and territorial extended producer responsibility regulations
- working with civil society organizations that work to mobilize Canadians to reduce plastic waste and pollution
- working with provinces and territories, and municipalities to include information on labelling rules in communication and outreach activities that promote waste diversion and reduction

Discussion question 37

How should the Government work with partners and stakeholders to spread awareness and promote compliance with labelling rules, including disclosure requirements?

6.5.3 Measuring and reporting on results

The Government proposes to measure results using the metrics described below in Table 2 for each of the objectives outlined in this paper.

Table 2: Potential performance measurement metrics for recyclability and compostability labelling rules

Objective of labelling rules	How progress could be measured
Improving packaging design	<ul style="list-style-type: none"> • Reports and surveys of third-party programs promoting design for recyclability such as the Canada Plastics Pact and How2Recycle • Random samples of recyclability assessments provided by producers
Improved public participation in recycling systems	<ul style="list-style-type: none"> • Available waste composition reports that analyze what Canadians place in the recycling bin • Statistics Canada and other data sources that show amounts of plastic collected for diversion
Reinforcing public trust in recycling systems	<ul style="list-style-type: none"> • Periodic public opinion research to assess changes in the level of public trust in recycling systems over time
Improving outcomes in the recycling stream	<ul style="list-style-type: none"> • Statistics Canada and other data sources that show reductions in tonnes of plastic packaging sent from sorters and re-processors to landfills or incinerators
Improving outcomes in organic waste systems	<ul style="list-style-type: none"> • Reports and surveys, including waste characterization studies, from organic waste facilities

More broadly, the Government will measure rates at which plastics are diverted from landfill and the environment to help measure progress towards the broader environmental objective of preventing the creation of new waste by recirculating existing waste in the economy.

The Government would then publish periodic updates on the results of the labelling rules in achieving the objectives discussed in this document.

Discussion question 38

Are there any other performance metrics the Government should consider in tracking progress and evaluating success?

7. Next steps

The Government of Canada invites interested partners, and all stakeholders, including the public, to provide written comments on or before October 7, 2022. Consultation questions found throughout this document and summarized in the Annex are intended to help focus input. However, feedback is welcome on any issue or proposal raised in this document.

Following the comment period, the Government commits to the following next steps:

- analyze feedback to inform the choice of instrument, instrument design, and implementation plan
- continue to consult with stakeholders as rules are developed
- publish a draft instrument for public comment before finalization

Comments can be submitted by email to plastiques-plastics@ec.gc.ca, or by mail to:

Tracey Spack
Director
Plastics Regulatory Affairs Division
Environment and Climate Change Canada
351 St. Joseph Blvd
Gatineau Quebec K1A 0H3

Annex: Consultation questions

Framing the issues for recyclability labelling		Location
Discussion question 1	Are there any other objectives the Government should be seeking to achieve as it develops labelling rules for recyclability?	Page 5
Discussion question 2	Is there more granular data the Government should be aware of regarding outcomes of specific kinds of plastic items or packaging in the recycling stream?	Page 8
Discussion question 3	Is the “chasing arrows” symbol commonly used for any other product categories beyond packaging? If so, which product categories? Are there special challenges to affixing a label on some type of packaging (e.g., films)? What are they?	Page 10
Discussion question 4	Is there any data (e.g., market data) the Government should be aware of regarding the use and prevalence of the “chasing arrows” symbol on packaging and other plastic product categories?	Page 10
Discussion question 5	What is the process and timeline for designing and implementing changes to labelling (e.g., lifespan, costs, marketing considerations, and implementation timelines)?	Page 10
Discussion question 6	Is there any other data the Government should be aware of regarding the accuracy of recyclability labelling on plastic packaging or other product categories?	Page 11
Discussion question 7	Are there any other factors that can impact a plastic item’s recyclability, beyond the factors listed above?	Page 13
Discussion question 8	What kinds of information would make it easier for individuals to prepare and sort plastics for recycling adequately?	Page 13
Discussion question 9	Is there any other information the Government should be aware of regarding levels of public trust or confidence in recycling systems, links between recyclability labelling and public trust, or links between public trust and levels of participation in recycling systems?	Page 13
Discussion question 10	What kind of design features on plastic items or information on labels would be most effective in helping strengthen public trust in recycling systems?	Page 13
Discussion question 11	Could more accurate labels be used in sorting facilities to improve outcomes? If so, how?	Page 13

Framing the Government’s commitment on recyclability labelling

Discussion question 12	What are the major differences between what is accepted in public recycling programs and what is collected for recycling from ICI locations that the Government should consider?	Page 15
Discussion question 13	Does the regional market breakdown reflect the current situation in Canada? Are there alternative ways to establish 80% population thresholds?	Page 16
Discussion question 14	Do companies currently identify what is collected for recycling when developing recyclability labels? If so, how?	Page 16
Discussion question 15	How could labelling rules provide accurate information to residents of rural, remote or Northern communities where recycling programs may operate on different models (e.g., drop-off depots) or may not be present at all?	Page 16
Discussion question 16	How often do acceptance rules for public recycling programs change, and why?	Page 16
Discussion question 17	What kinds of information should be sought as part of the initial survey and assessment of what is accepted for recycling across Canada?	Page 16
Discussion question 18	Are there any other factors the Government should consider in developing an approach to determine whether a North American end market exists for a particular plastic item?	Page 18
Discussion question 19	Are there any particular categories of plastics that likely do or do not have North American end markets? Why?	Page 18
Discussion question 20	Are there any other factors the Government should consider in developing an approach to determine whether a North American end market for a particular plastic item is reliable?	Page 19

Framing the issues for compostability labelling

Discussion question 21	Is there any data on end-of-life outcomes for compostable plastics and other types of biodegradable or degradable plastics, the Government should be aware of as it develops labelling rules?	Page 20
Discussion question 22	Are there any other objectives the Government should be seeking to achieve through compostability labelling rules? If so, what are they and why are they important?	Page 21

Key elements of recyclability and compostability labelling rules

Discussion question 23	Are there any limitations or exclusions or additional elements that should be incorporated into these categories included in the scope of application? If so, why?	Page 22
Discussion question 24	Which of the above approaches for the kinds of recyclability claims that should be subject to labelling rules (1, 2, 3) should the Government adopt, and why? Is there another approach the Government should adopt instead?	Page 23
Discussion question 25	If an obligatory system is adopted, what should the Government consider in order to minimize burden on industry while maximizing environmental outcomes (e.g., appropriate timelines, cumulative impacts of different labelling requirements)?	Page 25
Discussion question 26	Are there any other kinds of plastic items that may warrant special rules or exemptions from labelling rules under an obligatory system? Why?	Page 25
Discussion question 27	What should be the minimum standards to ensure consumers can easily access and use information on a label (e.g., size, font, location on the package, text size, required symbols)? Why?	Page 26
Discussion question 28	Are there any other considerations besides components and regions that may require qualified recyclability information?	Page 27
Discussion question 29	Would there be any unintended consequences of prohibiting the use of the “chasing arrows” symbol for any purpose other than to refer to recyclability?	Page 28
Discussion question 30	Should there be any criteria for determining whether a third-party certification is adequate to ensure compostability in Canadian composting facilities? If so, what should be the criteria and why?	Page 28
Discussion question 31	Are there existing third-party certification programs that would ensure compostability in Canadian composting facilities? If so, which?	Page 28
Discussion question 32	Are there any other principles or other important considerations the Government should take into account in developing rules for compliance and compliance verification?	Page 29
Discussion question 33	Are there any other kinds of potential compliance mechanisms the Government should be aware of as it develops rules for labelling?	Page 29

Discussion question 34	What kinds of changes would be needed to existing tools, guidelines and programs to meet the new labelling rules? How could the Government help facilitate these changes to ensure existing tools, guidelines and programs can continue to be used?	Page 29
Discussion question 35	Are there any other kinds of tools and guidance the Government should consider developing to support industry and facilitate compliance with labelling rules?	Page 30
Discussion question 36	If a technical committee of experts is established, what should be its composition and what should be its role in the development of tools and guidance?	Page 31
Discussion question 37	How should the Government work with partners and stakeholders to spread awareness and promote compliance with labelling rules, including disclosure requirements?	Page 31
Discussion question 38	Are there any other performance metrics the Government should consider in tracking progress and evaluating success?	Page 32