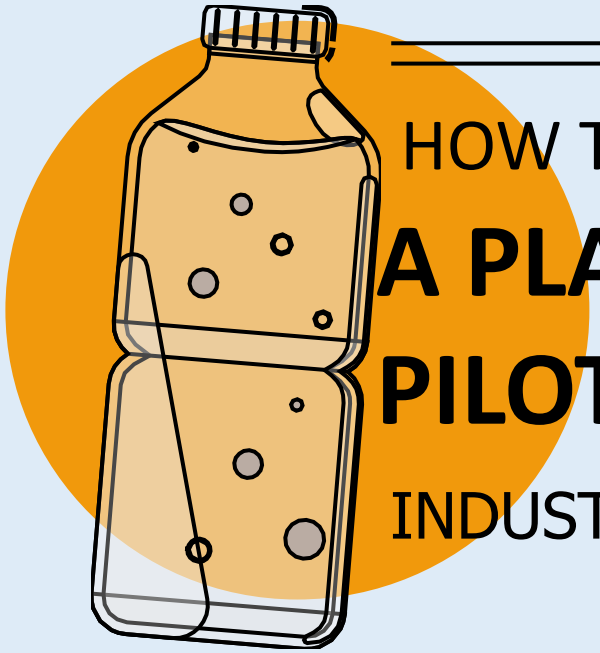

HOW TO LAUNCH

A PLASTICS CIRCULARITY PILOT

INDUSTRY PLAYBOOK

Developed by Enabling a Circular Economy for Plastics Working Group, a collaborative initiative of Canadian industry

BASF We create chemistry

UN Global Compact Network Canada

Loblaw Companies Limited

IKEA

rbi restaurant brands international

Bell

Cascades

ipg intertape polymer group

plasticbank

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EXECUTIVE SUMMARY

The Enabling a Circular Economy for Plastics Working Group was launched in June 2020 by BASF Canada and Global Compact Network Canada, to find solutions that optimize recycling processes, encourage product design and innovation for recycling, and capture the value of plastic waste to enable a circular economy.

The working group used the following definition of circular economy, as defined by Ellen MacArthur Foundation:

Looking beyond the current take-make-waste extractive industrial model, a circular economy aims to redefine growth, focusing on positive society-wide benefits. It entails gradually decoupling economic activity from the consumption of finite resources and designing waste out of the system. Underpinned by a transition to renewable energy sources, the circular model builds economic, natural, and social capital. It is based on three principles:

Design out
waste and pollution

Keep products
and materials in use

Regenerate
natural systems

Together, with 7 other working group members who operate in various parts of the plastics value chain, this guide has been developed to support companies in piloting a circularity project within their own organization and value chain. This playbook includes the inputs taken directly from the working group discussions over the course of the past 5 months, and summarizes key insights, best practices, and examples of on-going pilot projects within Canada.

CIRCULAR ECONOMY FOR PLASTICS AND SDGs

SDG 3: ENSURE HEALTHY LIVES AND PROMOTE WELL-BEING FOR ALL AT ALL AGES

Canada continues efforts in assessing the impact of plastic pollution on the environment and human health. Industry has been invited to comment on on-going science assessments.

SDG 8: PROMOTE SUSTAINED, INCLUSIVE AND SUSTAINABLE ECONOMIC GROWTH, FULL AND PRODUCTIVE EMPLOYMENT AND DECENT WORK FOR ALL

Canada has the opportunity to capture $7.8 billion of total trapped value from non-recycled recyclables.

SDG 9: BUILD RESILIENT INFRASTRUCTURE, PROMOTE INCLUSIVE AND SUSTAINABLE INDUSTRIALIZATION AND FOSTER INNOVATION

Canadian provinces are leading the charge in developing mechanisms to incentivize a shift from linear to circular business models.

SDG 14: CONSERVE AND SUSTAINABLY USE THE OCEANS, SEAS AND MARINE RESOURCES FOR SUSTAINABLE DEVELOPMENT

Canada led the Oceans Plastics Charter which brings together leading governments, businesses and civil society organizations to better manage plastics pollution in the ocean.

SDG 12: ENSURE SUSTAINABLE CONSUMPTION AND PRODUCTION PATTERNS

Canada has set a plan to achieve zero plastic waste by 2030.

SDG 17: STRENGTHEN THE MEANS OF IMPLEMENTATION AND REVITALIZE THE GLOBAL PARTNERSHIP FOR SUSTAINABLE DEVELOPMENT

Canada is leading several nationwide collaborative initiatives between industry and government to advance circular economy along the plastics value chain.

For more information on advancing the Sustainable Development Goals in Canada visit: https://globalcompact.ca/about/sdgs/

UN GLOBAL COMPACT Network Canada

OVERVIEW OF THE KEY CHALLENGES TO TRANSITION FROM LINEAR TO CIRCULAR MODELS

Sorting
- Limitations of mechanical sorting
- Contamination of materials
- Lack of consumer knowledge

Infrastructure
- Capacity of recyclers in Canada
- Limited technology including industrial scale composting infrastructure
- Storage capacity constraints

Price
- Price parity between recycled and virgin material
- Added premium for products containing post-consumer recycled materials
- Initial investment costs to shift to circular economy

Policy
- Lack of harmonization of legislation across jurisdictions
- Legislation that may heighten negative perception of plastics as opposed to focusing on how to capture value of plastics
- Lack of support for creating PCR end markets

Design
- Challenges in recycling multi-layered products
- Quality of recycled material and end product
- Food contact approved materials

Incentive
- Lack of policy instruments that create incentives for companies to participate in a circular economy
- Lack of recognition for existing industry innovation and R&D on plastics circularity

3

WHAT YOU MAY FIND WHEN MAPPING YOUR VALUE CHAIN

Consider the following questions when mapping your value chain:

How easy is it for you to map your value chain? What steps were required throughout the exercise?

- Keep the value chain mapping at a high level
- Map the current linear model to get a better understanding of participating stakeholders
- Use internal resources and data to make it easier to map the value chain
- Connect with internal colleagues to generate discussion and dialogue

Does the mapping exercise reveal a linear or circular model in your supply chain?

- Identify if a circular model applies to entire product portfolio or specific to a certain product
- Consider the lifespan of a specific product to determine if a circular model is applicable

What are the common incentives across each value chain?

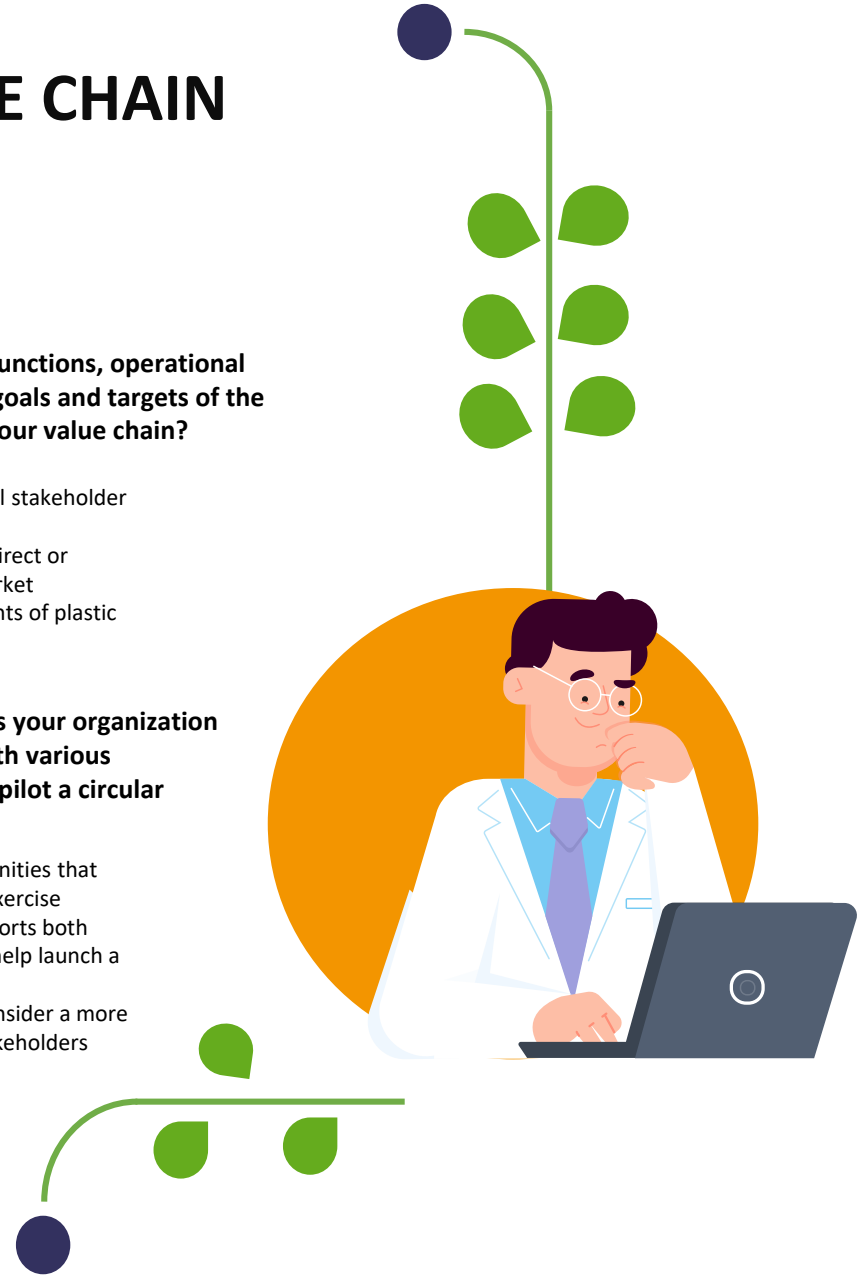
- Is there opportunity for cost savings and positive impact on an organization's bottom line?
- Are there potential incentives for stakeholders beyond collection of materials?
- How can consumers and employees be further engaged?

How familiar are you with the functions, operational requirements and constraints, goals and targets of the value chain actors included in your value chain?

- Identify and understand individual stakeholder targets
- Check if value chain actors have direct or indirect access to plastics end market
- Determine the quality requirements of plastic for end use

After completing the exercise, is your organization more inclined to collaborate with various members on the value chain to pilot a circular economy?

- Assess the challenges and opportunities that have been revealed through the exercise
- Identify potential collaboration efforts both internally and externally that can help launch a pilot
- If the current map is high level, consider a more granular approach to mapping stakeholders



IDENTIFYING THE RIGHT STAKEHOLDER AND PARTNERS

ADOPTING A CONSORTIUM-BASED APPROACH

- Collaborate between likeminded stakeholders
- Define a shared end goal for the project
- Within the consortium, identify leaders, supporters and observers
- Identify stakeholders who can bring innovation and leadership around plastics

TRANSPARENCY

- Share and understand the mutual challenges and pain points for all stakeholders
- Assess each stakeholder across the value chain nodes and identify how each stakeholder will be incentivized to participate

INTERNAL STAKEHOLDERS

- Create and maintain internal awareness within organization
- Identify internal champions who can support with time and resources for the project
- Establish buy-in to secure future phases of the project

HOW TO CONDUCT A REGULATORY REVIEW

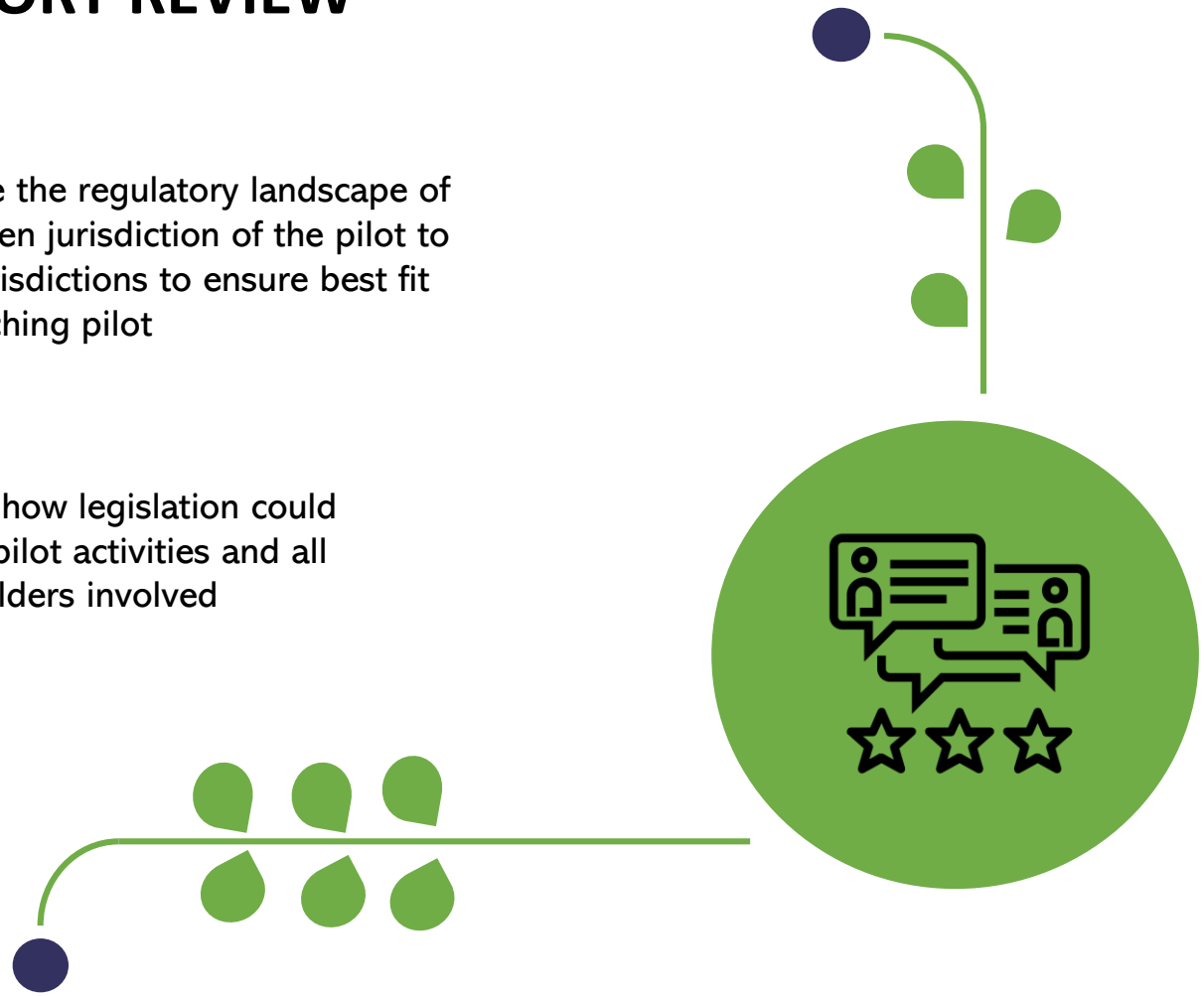
1. Conduct a scan of the regulatory landscape to ensure no barriers exist

2. Compare the regulatory landscape of the chosen jurisdiction of the pilot to other jurisdictions to ensure best fit for launching pilot

3. Identify how the pilot could support local government targets

4. Identify how legislation could impact pilot activities and all stakeholders involved

5. Engage with relevant government authorities to build awareness about the pilot and validate additional regulatory considerations



IDENTIFY THE PILOT AND KEY OBJECTIVES

OPEN VS CLOSED PILOT

- Determine if pilot will be commercial, semi-commercial, or non-commercial
- Open pilot: opportunity to influence current and upcoming regulation and provides more consumer awareness and marketing opportunities. Open pilots can also influence stakeholders participating in the pilot through increased public perception
- Closed pilot: allows brand protection and protects complexities of the project including intellectual property and sensitive technology

DEFINING PILOT GOALS

- Define intended outcomes that are attainable and can be easily measured
- Set goals that align to your organization's risk appetite
- Understand and align the individual value chain stakeholder goals

HOW TO EFFECTIVELY MANAGE A PILOT PROJECT

Outline available financial and human resources

Be flexible, and build agility into the planning process

Define the scope and boundaries early on to maintain control and stay on track

Draft the roles and responsibilities for every actor and understand what skillsets are available

Set realistic goals and timelines, and assess progress along the way

Identify frequency for project calls and review project milestones

Keep communication lines open between actors, and communicate project changes immediately

Design with vision – look beyond the defined project goals

Brainstorm scalability models early on to ensure impact beyond pilot phase

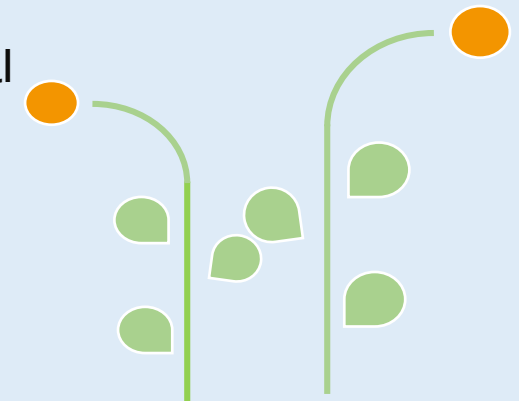
Plan to continually inspire to commit stakeholders to a greater goal

Design for flexibility, opportunity to pivot and build in external technological or partner inputs

SETTING BUDGET AND FINDING FUNDING OPPORTUNITIES

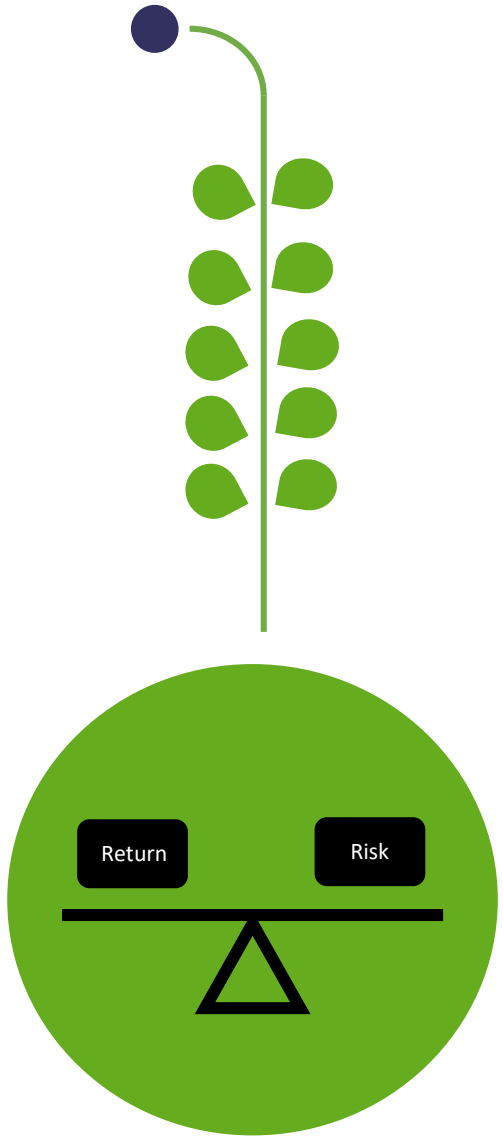
Key elements to consider: what are the financial resources required for the first phase of your pilot?

- Will the circularity pilot have a membership fee-based structure?
- Does the pilot require stakeholders' in-kind contribution (e.g. lab analysis, plant time, technical expertise)?
- What contingencies have you built into the pilot budget for widening or enhancing the scope?
- What is the pilot's long-term business model, and how does this benefit each stakeholder on the value chain?
- What government funding and other funding mechanisms exist to support initial phases of the pilot?



FORECASTING RISKS

- Communicate the project risk to internal pilot team regularly
- Identify external risks that may impact the pilot (e.g. external shocks, global events, legislative changes, shifts in public perception about waste)
- Identify internal risks that may impact the pilot (e.g. time, resources, bandwidth, internal buy-in, timeline approval, stakeholder prioritization)
- Agree on a threshold of scope-change together with stakeholders that allows you to adjust milestones while still meeting deliverables
- Put into place stakeholder project charters (NDAs, clear terms of reference outlining stakeholder roles, project timelines, deliverables and expectations of time commitment and resources)



HOW TO SCALE YOUR PILOT PROJECT

- Decide the scale of the project: municipal, provincial, national, regional or global
- Decide if the project remains closed or shifts to open
- Design technology platforms and models that allow for scalability and build in adaptability between technology, partners and jurisdiction
- Consider the business case and what business models are suitable for scalability
- Consider if scaling is required – based on project viability, purpose and key objectives
- Determine what level of visibility your pilot is seeking to attain

EXAMPLES OF ON-GOING CIRCULARITY PROJECTS IN CANADA

reciChain Canada

reciChain is a multi-stakeholder pilot that aims to prove physical circularity through a blockchain-enabled track and trace technology. As material flows along the value chain, conceivably plastics value chain actors could generate a plastic 'credit' or token which increases in value as plastic achieves multiple loop counts and could be used to offset EPR fees.

Loop And Loblaw – packaging pilot

Loblaw has partnered with sustainable packaging company Loop on a Toronto pilot where participants will be able to receive select products from President's Choice and other leading national brands in reusable containers, delivered right to their doors.

Ikea Mattress Re-purpose Program

Ikea Canada has partnered with Furniture Bank to extend the life of mattresses and combat furniture poverty through their mattress donation program. The program donates used mattresses that have been collected from Ikea stores in the GTA.

EXAMPLES OF ON-GOING CIRCULARITY PROJECTS CONTINUED

Plastic Bank – Social Plastic

The Social Plastic project is ethically recovered material that transfers its value to communities in need. The project allows for auditable and traceable supply chain of quality recovered plastic feedstock of recycled plastic.

Canadian Plastics Taskforce

Collaboration between consumer product companies, packaging producers and an industry association, the Circular Plastics Taskforce (CPT) aims at helping build a circular economy for post-consumer plastics in Canada.

Restaurant Brands International-Reusable and returnable cups or food containers

Together with Loop, Tim Horton's and Burger King is currently testing a pilot project that will provide customers the option of paying a deposit and receiving reusable and returnable cups or food containers with their order to support the reduction of single use plastic waste.

GET STARTED NOW!

1. Identify areas of your business that can be transitioned from linear to circular models

2. Get to know your value chain and start collaborating with stakeholders

3. Launch a circularity pilot and get started now!