

THE STORY OF PLASTIC

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THEN

THE RISE OF PLASTICS

1869

First synthetic polymer as a substitute for natural polymers is invented.

1907

First synthetic plastic made from fossil fuels is invented.

1941

Polyethylene terephthalate (PET), what will become the most commonly used plastic, is invented.

1939

Industrial manufacturers begin to incorporate synthetic polymers in military equipment – airplane parts, ropes, parachutes, body armour – for World War II.

1949

High impact polystyrene introduced as a commercial plastic.

1950s

Plastic becomes an essential element in manufacturing due to its availability, low price point, and convenience.

1973

PET bottles are patented and become the preferred alternative to glass bottles. The first PET bottle will not completely degrade till year 2043.

2043

17x

THEN

GROWING CONCERNS ABOUT PLASTIC

1981

Kitchener, Ontario trials the world's first curbside collection program, with support from Recycling Council of Ontario, to recycle household packaging.

1979

Plastic bags are first introduced in America.

1985

75% of supermarkets now offer plastic bags to customers.

1988

A system of codes and symbols is developed to identify material resins and facilitate sorting of plastics for recycling.

PETE HDPE PVC LDPE PP PS OTHER

1997

Sailor and researcher Charles Moore discovers a massive gyre of plastic pollution in the central North Pacific Ocean that is nicknamed the Great Pacific Garbage Patch.

2000s

The output of plastic waste rises more in a single decade than it had in the previous 40 years.

2001

Waste Reduction Week in Canada is launched by Recycling Council of Ontario and a coalition of not-for-profit environmental groups and governments from each provincial and territorial jurisdictions in Canada.

2007

Leaf Rapids, Manitoba becomes the first municipality in North America to adopt a ban on single-use plastic shopping bags.

2001 logo

2016 logo

NOW

THE CURRENT STATE OF PLASTICS

2015

Marine biologist Christine Figgener shares a video removing a plastic straw from a sea turtle that becomes viral with more than 45 million views.

2016

The majority of plastic packaging is used only once: 95% of the value of plastic packaging material, worth USD \$80-120 billion annually, is lost to the economy.

2015

380 million metric tonnes of plastic is produced globally annually.

Half of this was produced in the last 13 years.

2017

In response to rapid increases of plastic waste sent overseas for recycling, China announces import ban of 24 types of solid waste, including several types of plastic that are end-products of recycling programs in Western countries.

2017

To help reduce the quantity of plastic microbeads entering Canadian freshwater and marine ecosystems, Canada prohibits the manufacture, import, and sale of toiletries containing plastic microbeads.

2018

Canada, France, Germany, Italy, United Kingdom, and European Union adopt the Ocean Plastics Charter to demonstrate their commitment to take concrete and ambitious action to address plastic waste.

2017

One million plastic beverage bottles are purchased every minute around the world.

2019

Study reveals that only 9% of the 3.2 million tonnes of plastic waste produced each year in Canada is recycled.

9%

2019

Prince Edward Island becomes Canada's first province to ban single-use plastic bags.

2019

Circular Innovation Council launches Canada's Plastic Action Centre – a knowledge hub that gathers information to educate, engage, and empower action on plastics.

2019

Vancouver, B.C. becomes the first Canadian city to introduce by-law banning single-use plastic straws, disposable utensils, disposable cups, shopping bags, and polystyrene cups and containers.

2020

Plastics is listed as a toxic substance under the Canadian Environmental Protection Act to address the potential ecological risks associated with certain plastic manufactured items.

2020

Government of Canada announces a national ban on the sale of six harmful single-use plastic items: plastic straws, stir sticks, cutlery, six-pack rings, carryout bags and expanded polystyrene plates, and takeout containers.

2021

Canada Plastics Pact is launched with 40 partners – including Circular Innovation Council – to achieve actionable plastics targets on packaging by 2025.

Plastic does have its benefits, however, to achieve a circular economy we have to eliminate and redesign products to reduce problematic plastics. While we can improve and expand collection and processing capabilities, we will never recycle our way to zero plastic waste.

Reduce single-use

Replace wasteful single-use with limited utility in favour of materials that are designed to be used over and over again.

Circular supplies: post-consumer recycled (PCR) content

Use PCR plastic as a resource for new product inputs displaces the need to create virgin plastic made from fossil fuels.

Circular supplies: renewable materials

Create alternative packaging that use renewable resources and biological sources rather than fossil fuels that have end-markets for reuse and recovery.

Individual behaviour change

Make simple changes in your everyday life to reduce your plastic footprint. Every action counts.

Extended Producer Responsibility (EPR)

Shift responsibility for collection and management of plastic waste from taxpayers to producers. EPR incentivizes innovation in plastic recycling and technologies.

A CIRCULAR FUTURE FOR PLASTICS