

# Our plastic use

## Te whakamahi i te kirihou

Plastics are often useful in modern life and our use is increasing

He aha ngā kirihou?

### What are plastics?

The term ‘plastics’ refers to the large variety of materials made from polymers and additives that can be moulded and set into various shapes. Most plastics are made from fossil fuels.

He aha te take?

### Why were plastics invented?

Plastics were first created in the late 19th and early 20th centuries as a substitute for natural resources that were in short supply including ivory, horn, silk, cotton and natural rubber.

He aha ai?

### Why are plastics useful?

Plastics have many desirable properties including being strong, lightweight, heat and water resistant, hypoallergenic and easy to sterilise. Plastics are also cost-effective to produce and easily adapted into different shapes and colours.

By 2015, plastics represented a quarter of all types of packaging (by volume) and it is expected that plastic packaging volumes could double within 15 years.

Te rahi o te kirihou?

### How much plastics do we use?

Global production of plastics has grown exponentially and the industry is still expanding. In 2015, 407 million tonnes of plastics were produced worldwide, and 302 million tonnes of plastics were discarded.

Take! *Kia kaha*  
Action *te mahi*

Look at the diagram and see how we use and dispose of plastics. What properties of plastics make them so useful in all these industries?

KO TŌ RINGA KI NGĀ RĀKAU A TE  
PĀKEHĀ HEI ORA MŌ TE TINANA  
Nā Tā Apirana Ngata

Embrace the technologies of new



# Global Plastic Production, Use and Disposal

## Primary Production

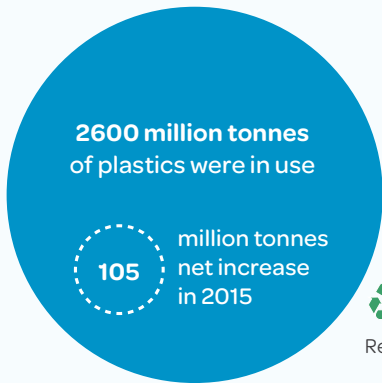


407 million tonnes of fossil fuel-based plastics were produced

Bio-based  
4 million tonnes



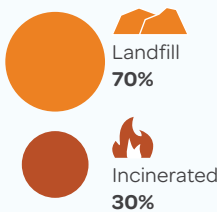
## Plastics in Use



## Primary Disposal



302 million tonnes were discarded as waste



About **one tonne** of plastic is recycled for every **five tonnes** sent to landfill or incinerated.

Recycling

## Secondary production

Recycling

## Breakdown by sector (in million tonnes)

	Packaging	146			141
	Building & Construction	65			13
	Textiles	59			42
	Consumer & Institutional Products	42			37
	Transportation	27			17
	Electrical/Electronics	18			13
	Industrial Machinery	3			1
	Other	47			38
			Primary Production	Primary Disposal	

While plastics produced for packaging are usually disposed of within a year, plastics produced for building and construction can stay in use for 20 years and longer, resulting in the different sector breakdowns for production and disposal.

