ELLEN MACARTHUR FOUNDATION

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Innovation and the circular economy

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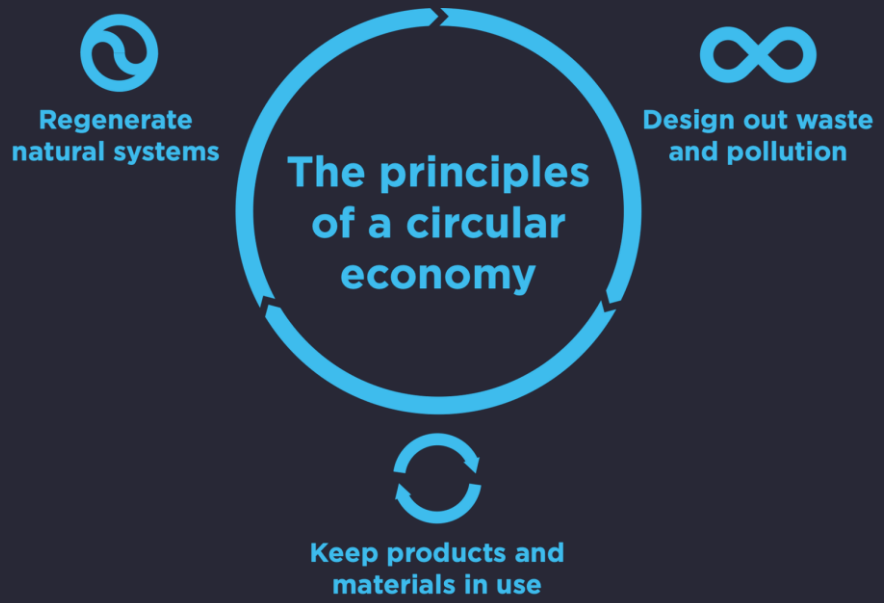
The Ellen MacArthur Foundation

The Ellen MacArthur Foundation was launched in 2010 with the aim of accelerating the transition to a **circular economy**.

ellenmacarthurfoundation.org

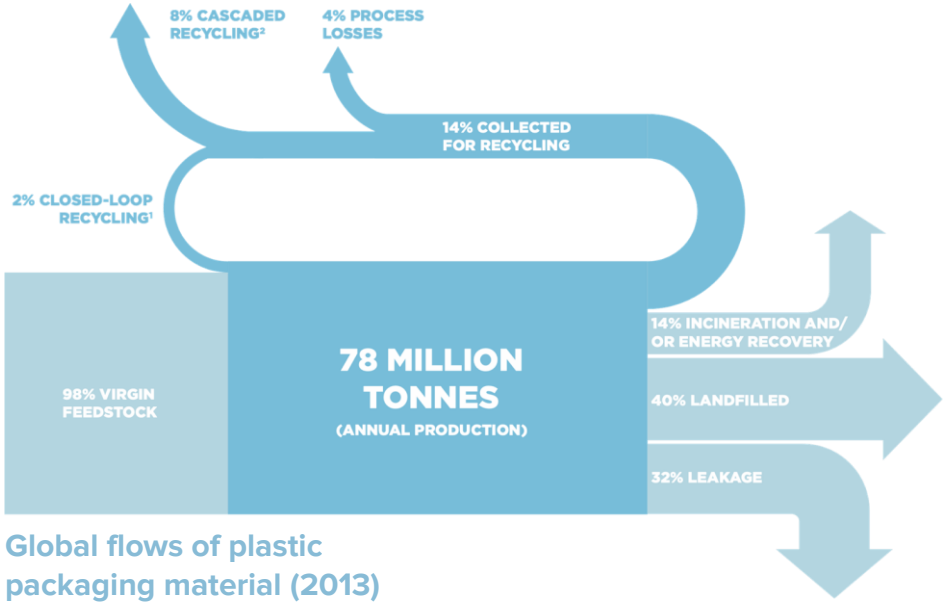
@circulareconomy



WHAT IS THE CHALLENGE?

The linear economy is broken
Our plastic system is broken.

Just 2% of plastic is recycled into the same or similar quality applications.

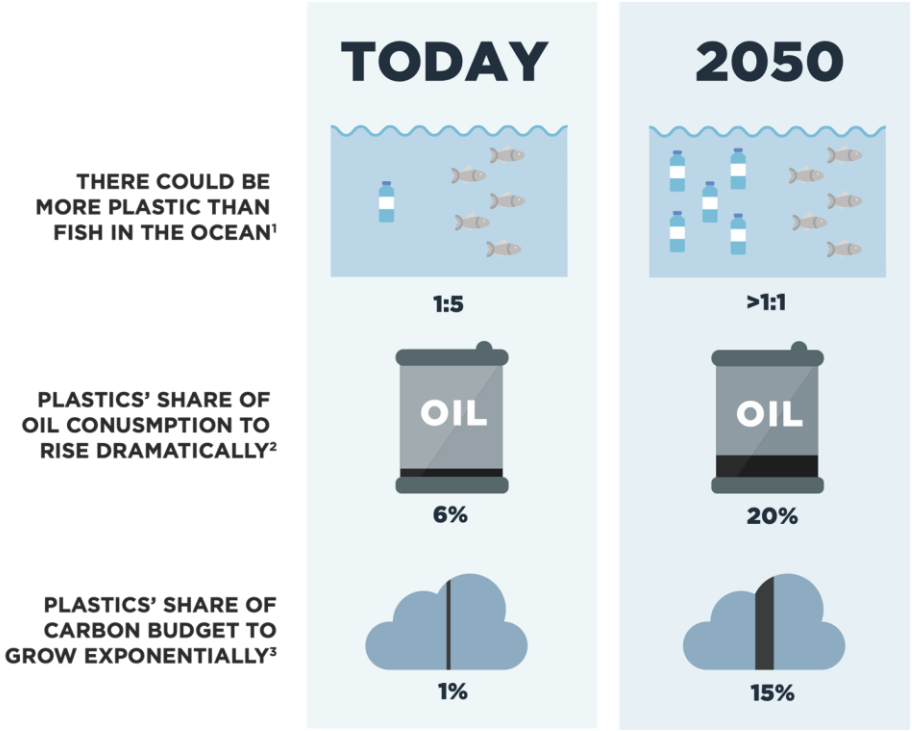


Global flows of plastic packaging material (2013)

1 Closed-loop recycling: Recycling of plastics into the same or similar-quality applications
2 Cascaded recycling: Recycling of plastics into other, lower- value applications

WHAT IS THE CHALLENGE?

Without bold action, the plastic pollution problem will get much worse as consumption surges.



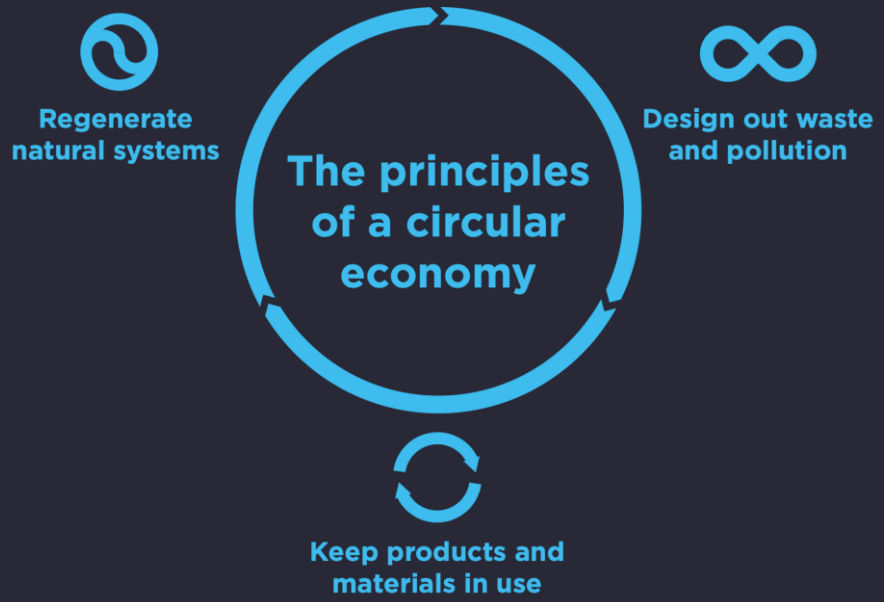
1 Fish stocks are assumed to be constant (conservative assumption)

2 Total oil consumption expected to grow slower (0.5% p.a.) than plastics production (3.8% until 2030 then 3.5% to 2050)

3 Carbon from plastics includes energy used in production and carbon released through incineration and/or energy recovery after-use. The latter is based on 14% incinerated and/or energy recovery in 2014 and 20% in 2050. Carbon budget based on 2 degrees scenario

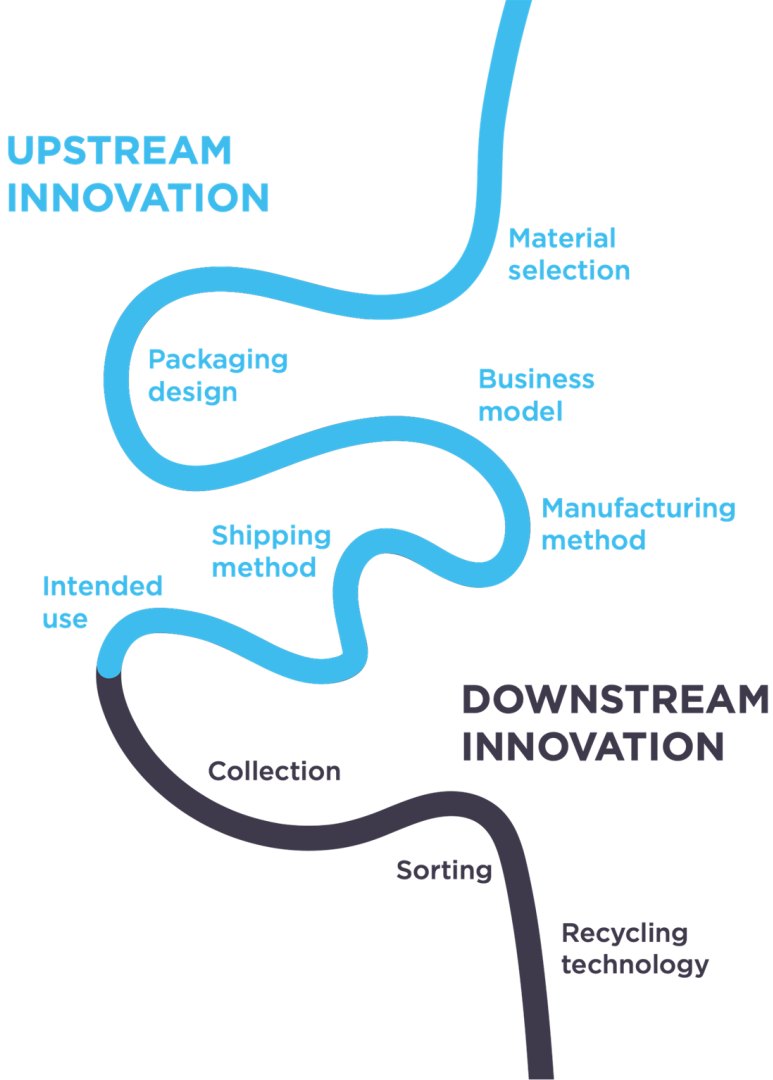
Photo by Todd Trapani on Unsplash

We need a fundamental rethinking of our economy



WHAT IS UPSTREAM INNOVATION?

If you came home to find that your apartment was flooding, would you immediately start mopping up the water?



WHY EXPLORE UPSTREAM INNOVATION?

WHY EXPLORE UPSTREAM INNOVATION?

1 Tackle plastic pollution

Every year, Coca-Cola's reuse model for PET bottles prevents

1.8 BILLION SINGLE USE BOTTTLES

being produced in Latin America.

Photo: Latam Returnable Agile Project Team 2018 - Coca-Cola

WHY EXPLORE UPSTREAM INNOVATION?

1. Tackle plastic pollution
2. Provide the solutions customers want

In 2018, Unilever's Sustainable Living Brands that communicate a strong social or environmental purpose had

69% FASTER GROWTH

than the rest of the business.

Photo: Unilever

WHY EXPLORE UPSTREAM INNOVATION?

1. Tackle plastic pollution
2. Provide the solutions customers want
3. Capture untapped business opportunities

Globally, replacing just 20% of single-use plastic packaging with reusable alternatives offers a

10 BILLION USD OPPORTUNITY[1]

1 Ellen MacArthur Foundation (2019): Reuse - Rethinking packaging

Photo: Abel & Cole Ltd

WHY EXPLORE UPSTREAM INNOVATION?

1. Tackle plastic pollution
2. Provide the solutions customers want
3. Capture untapped business opportunities
4. Reduce carbon emissions

Using Sodastream to make make sparkling water at home creates

87% LESS CARBON EMISSIONS

compared to sparkling water sold in single-use plastic bottles.

Photo: PepsiCo

WHY EXPLORE UPSTREAM INNOVATION?

1. Tackle plastic pollution
2. Provide the solutions customers want
3. Capture untapped business opportunities
4. Reduce carbon emissions
5. Get ahead of changing regulation

BY 2023

fast food retailers in France will no longer be allowed to sell meals in single-use plastic containers for in store consumption.[1]

1 French Circular Economy Law 2020-105

Photo: Christopher Williams on Unsplash

WHY EXPLORE UPSTREAM INNOVATION?

1. Tackle plastic pollution
2. Provide the solutions customers want
3. Capture untapped business opportunities
4. Reduce carbon emissions
5. Get ahead of changing regulation
6. Join the new normal

MORE THAN 1000 ORGANISATIONS

and 20% of the industry are united behind a common vision and targets for a circular economy for plastic.

photo: Bite

RETHINK PRODUCT & BUSINESS MODEL

REFILL AT HOME

Bite Toothpaste Bits

Toothpaste in tablet form

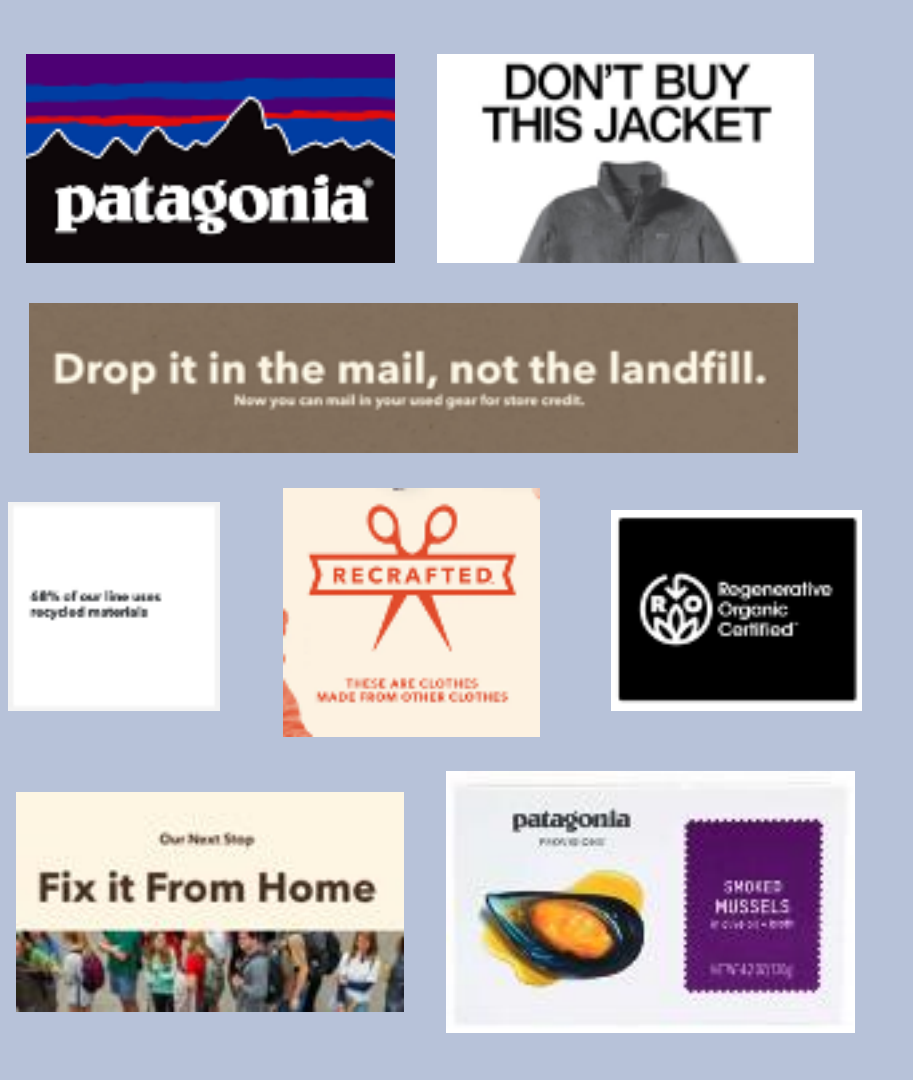
1 billion plastic tubes are landfilled every year, according to Bite. Bite's toothpaste in tablet form are sold on subscription with the first batch coupled with a refillable glass bottle. Subsequent refills arrive in home-compostable paper pouches, small enough to fit through a letterbox.

photo: Philips

Philips

Circular business models

Achieved 15% of revenues from circular products and services in 2020. Now has set a target of 25% of revenues from circular products and services by 2025. These objectives were achieved by implementing service based solutions like implementing repair, trade-in, refurbishment and digital solutions



Patagonia

Adopting the mindset of the circular economy

Since its November 2011 "Don't buy this jacket ad", Patagonia has continued to challenge its design practice and operating business model to transform the company with a circular economy mindset

Bocconi University and Intesa SanPaolo

Investing in the circular economy

In 2021, published a new research paper demonstrating how circular economy strategies can de-risk investments and drive superior risk-adjusted returns for investors and financial institutions by decoupling economic growth from resource consumption, diversifying business models, and allowing businesses to better anticipate stricter regulation and changing customer preferences. Embedding circular economy principles also reduces exposure to supply chain disruptions and volatility of resource prices.

Thank You