

Designing for a circular textiles economy

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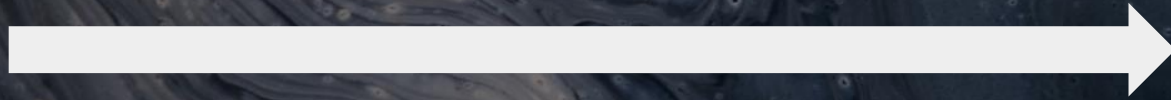
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World Customs Organisation

Visualising a greener Harmonised System symposia series



THE LINEAR ECONOMY



Take - make - waste

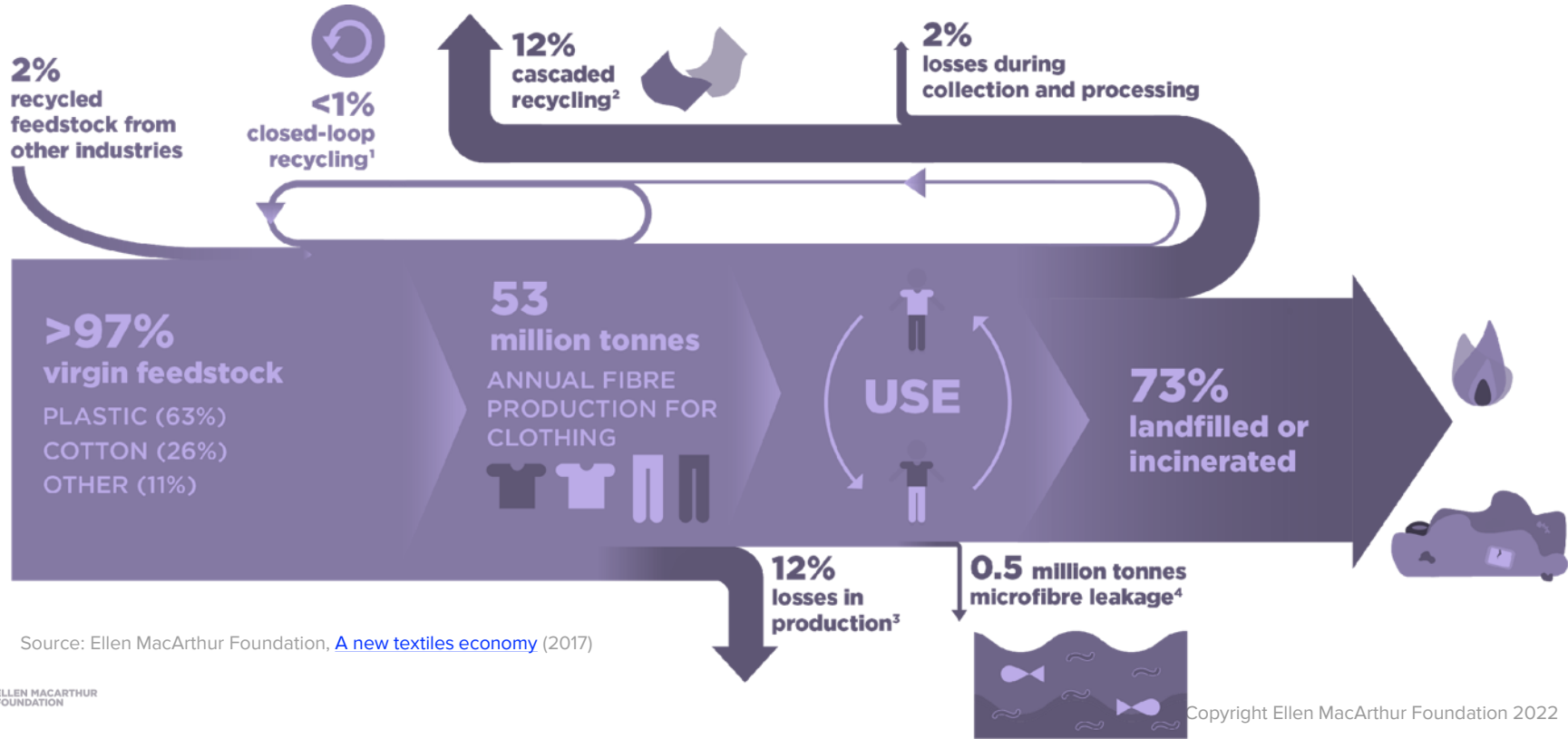


**1/3 of all food produced globally –
worth USD 1 trillion – is thrown away
each year.**

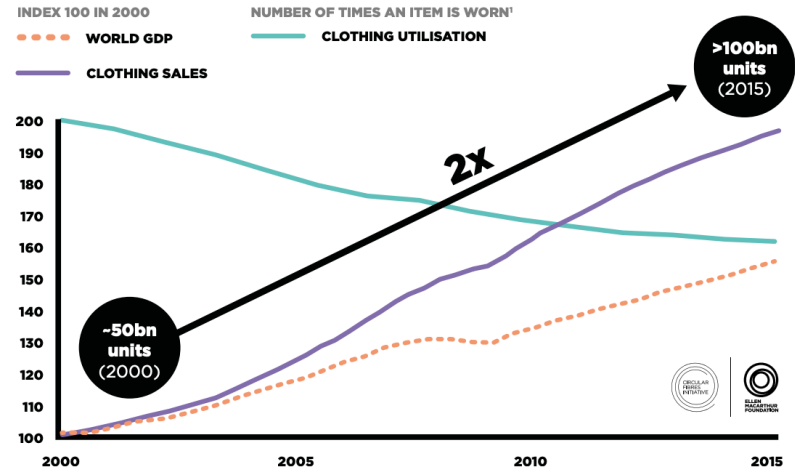
A photograph of a beach heavily littered with plastic waste and seaweed. In the foreground, there is a large white plastic jug, a blue plastic container, and various pieces of debris. The beach is covered in brown seaweed and other organic matter. In the background, several tall palm trees stand against a clear blue sky. The ocean is visible on the right side of the frame, with waves breaking onto the shore. A white text box is overlaid on the image, containing the text:

Plastic flows into the ocean are projected to nearly triple by 2040.

What this looks like for textiles



Since 2000, clothing production has doubled, while clothing utilisation has decreased by a third



¹ Average number of times a garment is worn before it ceases to be used

Source: Euromonitor International Apparel & Footwear 2016 Edition (volume sales trends 2005-2015); World Bank, *World development indicators - GD* (2017)

Source: Ellen MacArthur Foundation, [A new textiles economy](#) (2017)

**Every second, one
garbage truck full of
textiles gets landfilled or
incinerated**



Source: Ellen MacArthur Foundation, [A new textiles economy](#) (2017)

The circular economy is designed to:



Eliminate
waste and
pollution



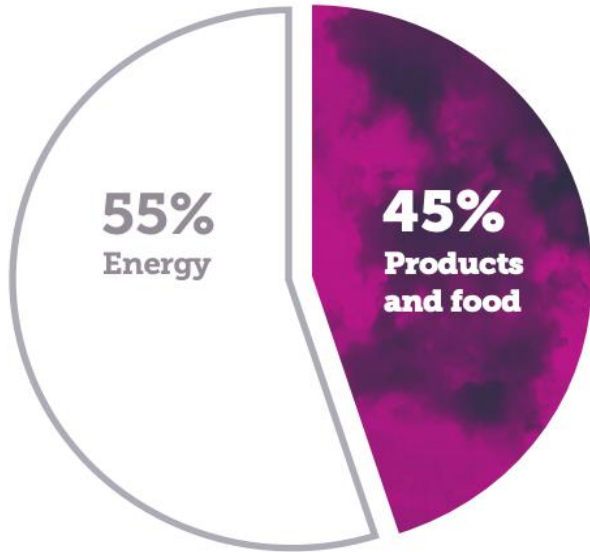
Circulate
products and
materials



Regenerate
natural
systems

THE CIRCULAR ECONOMY DELIVERS ON CLIMATE GOALS, WHILE OFFERING NEW AND BETTER GROWTH OPPORTUNITIES

TOTAL CURRENT GLOBAL
GREENHOUSE GAS EMISSIONS



HOW THE CIRCULAR ECONOMY
HELPS TACKLE CLIMATE CHANGE



Design out waste and pollution
to reduce GHG emissions
across the value chain



Keep products and materials in use
to retain the energy embodied
within them



Regenerate natural systems
to sequester carbon
in soil and products

In a circular fashion industry, products (apparel, footwear, accessories) are:

- used more,
- are made to be made again,
- and are made from safe and recycled or renewable inputs



[Read the full vision and definitions here](#)



THE JEANS REDESIGN

The Jeans Redesign Guidelines



Source: Ellen MacArthur Foundation,
[The Jeans Redesign Guidelines](#) (2021)

1/ Jeans are used more

- Ability to withstand a minimum of **30 home laundries**
- Provide **care information on the garment**:
 - Reduce washing frequency
 - Wash cold
 - Avoid tumble drying
- Offer **incentives for reuse, repair services, take-back, or collection** programmes.

2// Jeans are made to be made again

- Include a minimum of **98% cellulose-based fibres**, by weight, in the total textile composition
 - Cellulose-based threads
- Ensure any components added to the fabric are **easy to disassemble**:
 - Removable buttons
 - Removable zippers
 - Rivet elimination
- Enable **easy identification of recyclable jeans** during collection and sorting

3/// Jeans are made from safe recycled or renewable inputs

- Jeans are made with chemicals that comply with **ZDHC MRSL Level 1** as a minimum
 - **Prohibited use** of PP, stone washing, sand blasting, conventional electroplating
 - Fabric Mills implemented **ZDHC wastewater guidelines**
 - Water volume used for denim fabric is a **maximum of 30L/m**
-
- Source cellulosic fibres that have been produced using **regenerative, organic or transitional methods**
 - Include a **min 5% recycled content** on average by weight in the total textile composition

The Jeans Redesign

Insights from the first two years

2019-2021



80%

Participants made fabric
or jeans in line with the
guidelines

0.5M

Redesigned jeans put on
the market by brands

Source: Ellen MacArthur Foundation, [The Jeans Redesign: Insights from the first two years](#) (2021)

Solutions ready to scale

Rivet elimination

Chemical and process safety

Durability criteria based on home laundries

RIVET ELIMINATION



Credit: Weekday, Frame, and DEMCO

Source: Ellen MacArthur Foundation, [The Jeans Redesign: Insights from the first two years](#) (2021)

Innovation or investment
required to scale

Post-consumer recycled content

Recyclable **threads**

Organic cotton

Removable **buttons**

POST-CONSUMER RECYCLED CONTENT



Credit: MUD Jeans

Source: Ellen MacArthur Foundation, [The Jeans Redesign: Insights from the first two years](#) (2021)

Little or no solution found yet

Recyclable **stretch**

Regenerative sourcing

Removable **zippers**

RECYCLABLE STRETCH



Credit: BAM Bamboo Clothing

Source: Ellen MacArthur Foundation, [The Jeans Redesign: Insights from the first two years](#) (2021)

Building on insights from The Jeans Redesign, businesses and policymakers must take bold action to create a circular economy for fashion

Source: Ellen MacArthur Foundation, [The Jeans Redesign: Insights from the first two years](#) (2021)



Looking ahead

PRODUCT & TRADE POLICIES

To deliver a **harmonised approach** across markets, while **supporting uncontaminated material streams** that are safe to circulate.

INCENTIVES FOR CIRCULAR BUSINESS MODELS

To **make the economics work** for business models that reduce their dependence on the production of new clothes and the use of virgin resources.

FUNDING FOR INFRASTRUCTURE

To **scale and harmonise collection and sorting systems**, while mobilising investments in research and development.

Source: Ellen MacArthur Foundation, [The Jeans Redesign: Insights from the first two years](#) (2021)