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ADITYA BIRLA FASHION & RETAIL

Implemented by

CEE
Centre for Environment Education

ICCE

Circularity Awareness Workshop

A programme for Top Management of Textile & Apparel Brands

Foreword

Approaches for Circular Textiles and Apparel Industry in India

A public-private partnership (DeveloPPP.de) programme

Between

Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH

&

Aditya Birla Fashion and Retail Ltd (ABFRL)

Centre for Environment Education (CEE) is the implementation partner.

Project Objectives

Demonstration Projects

WORK PACKAGE 01

- **Baseline assessment** to understand status quo of the Indian textile sector.
- 3 innovative interventions resulting in **demo projects.**

Creation of Circular Textile and Apparel Guidelines

WORK Package 03

- To develop the '**Circular Textile Manifesto'**
- **Key performance metrics** and benchmarking tool for the Industry

Capacity development

WORK Package 02

- **Training/capacity** building curriculum & program for Industry, suppliers across the value chain and workers
- Collaboration with **educational institutions**

Knowledge Exchange and Dissemination

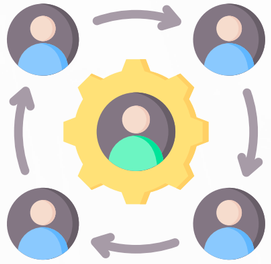
WORK Package 04

- Mapping **circularity policy/legislation** and preparation of best circular practices.
- Annual industry **conventions** & **Policy advocacy.**

Baseline Assessment Report Summary

Conducted pan-India baseline assessment to understand the circular practices in Indian Textile and Apparel (T&A) industry ecosystem.

90+ stakeholder consultations. Leading to the identification of key areas require strategic intervention to adopt circularity.



One of the major identified requirements is to cultivate a **deeper understanding** among the various levels of management within the industry.

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Topics to be covered

Why this Session?

Circularity in Textile Value Chain

Circular Business Models

Practice Circularity while avoiding Greenwashing

Why this Session?

Table of Contents

Linear Economy Model

Current Practice: "Take-make-dispose"

A system where resources are extracted to make products that eventually end up as waste and are thrown away.

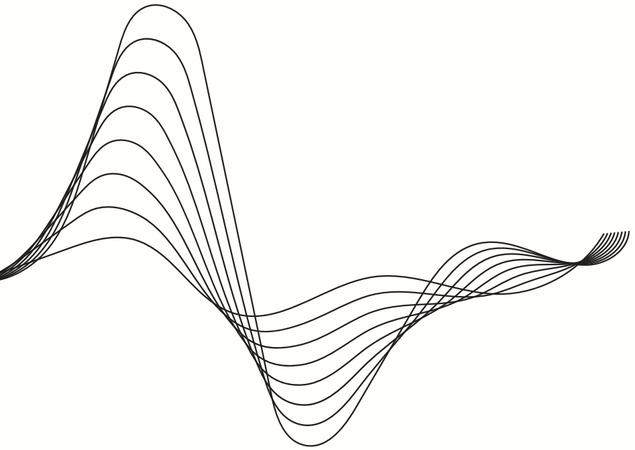
Problems in the linear economy model

Water pollution, which is responsible for **1.4 million** deaths each year, with **2.3 billion** people lacking access to safe sanitation services.

Extractions of global resources, which have more than tripled since **1970**, from **27 billion tons** to **92 billion tons** in **2017**. Without action, resource extraction will more than double from current levels to **170–184 billion** tons by **2060.**

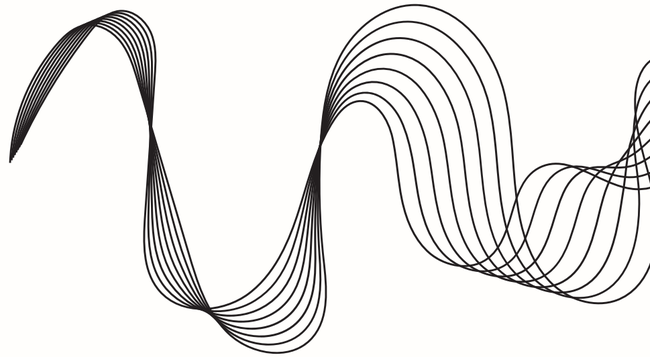
Source: Global Resources Outlook (UNEP, 2021)

Introduction to Circularity



"A circular economy is a **systemic approach** where materials never become **waste** and **nature is regenerated**. It is designed to benefit **businesses, society**, and the **environment**.

In a circular economy, products and materials are kept in **circulation** through processes like **maintenance, reuse, refurbishment, remanufacture, recycling, and composting**. "



Ellen MacArthur Foundation

Circular Economy

In contrast to the linear '**take-make-waste**' model, circular economy tackles climate change and other global challenges, like biodiversity loss, waste, and pollution, by decoupling economic activity from the consumption of finite resources.

This comprehensive approach follows **6Rs principles** and prioritizes the preservation of value in energy, labor, and materials.

Regenerate

Restoring, replenishing, and regenerating natural resources and ecosystems promotes sustainability as a regenerative process .

Reduce

Optimising product design, minimising packaging, and encouraging responsible use to reduce waste and resource usage.

Reuse

Encourage product and material reuse to extend their lifespan and reduce waste and resource use.

Redesign

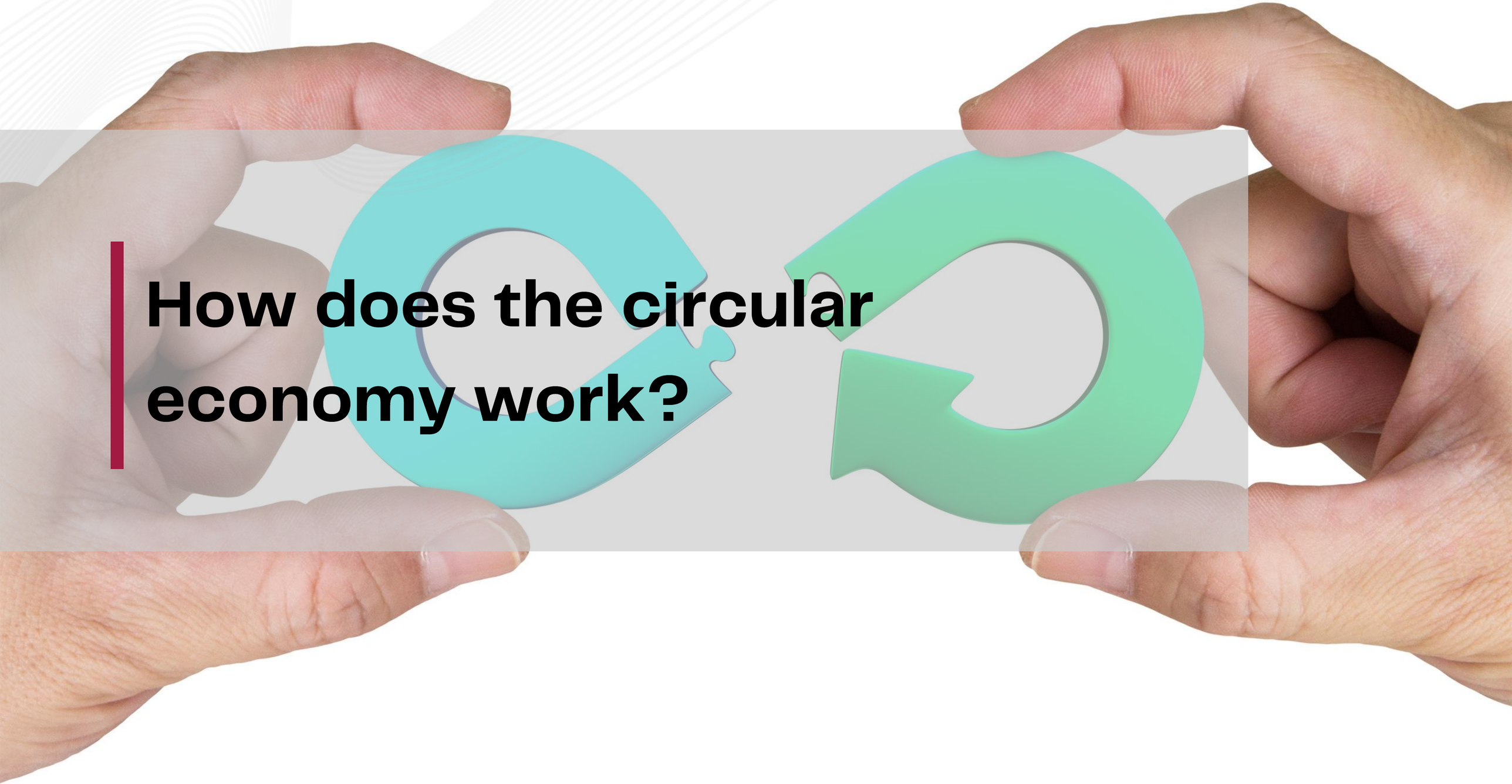
Emphasising circular design to reuse, repair, and recycle resources in goods, processes, and systems.

Repair

Emphasising product repair to extend their lifespan, reduce replacements, and reduce environmental effect.

Recycle

Reintroducing recycled materials into the production cycle reduces the need for virgin resources and waste sent to landfills or incineration.



How does the circular economy work?

Circular Economy Principles

As per the Ellen MacArthur Foundation:

A circular economy is based on three principles, all driven by design.

Eliminate waste and pollution

Circulate products and materials

Regenerate nature

1st Principle - Eliminate Waste & Pollution

Eliminate waste and pollution – To design out waste and pollution from the start

We can treat waste as a design flaw. In a circular economy , a specification for any design is that the materials re-enter the economy at the end of their use.

There is no onward path for many products on the market after they are used. For Eg. Despite the introduction of biodegradable packaging, the continued use of multi-material flexible plastic bags that cannot be reused, recycled or composted end up as waste.

Product Design and Development is key to Success

In line with the first principle, **product design** and development must focus on **waste** and **pollution elimination** from the **beginning**, while considering their potential circulation.

Currently, product at end of its **life cycle** is **discarded** due to its inability to fit into either **economic cycle**, highlighting the **urgency** for mindful and **sustainable product design.**

The **current product design** doesn't factor **recycling** making the **process** of taking them apart is both **time-consuming** and **expensive**.

For example, Resortecs has developed a dissolvable thread that makes it easier to recycle stitched clothes.

Example

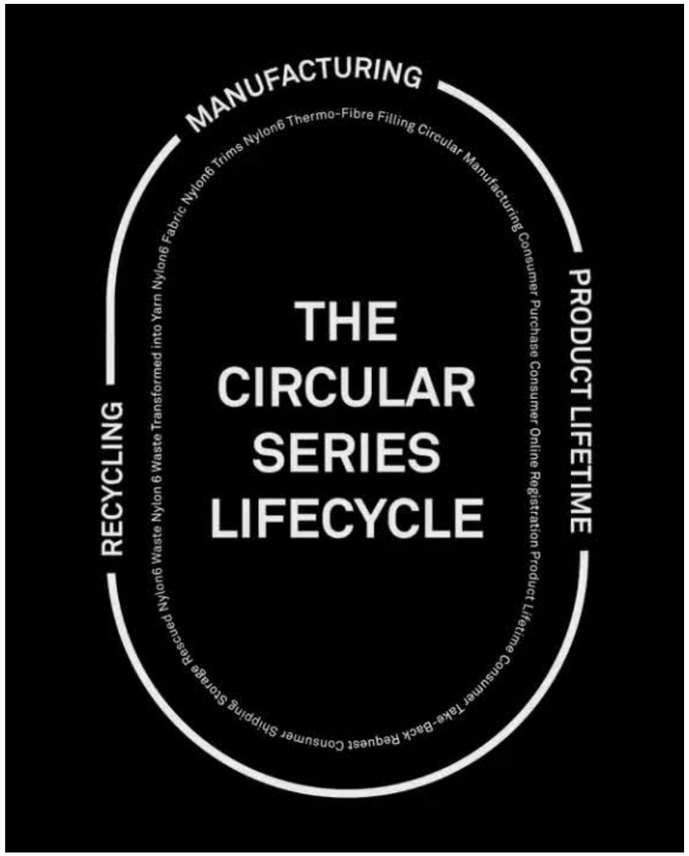
Mono material usage to eliminate waste

NAPAPIJRI

Napapijri simplified the design to make the jacket's fabric, stuffing, and trims from **one polymer**.

The polymer, **Nylon 6**, is robust, high-performing, and recyclable. The insulation material and zips has been invented from scratch.

Customers are encouraged to **register** their Circular Series jackets **online** to ensure they are **recycled**. After two years, the customer can return the jacket and get 20% off new purchase.



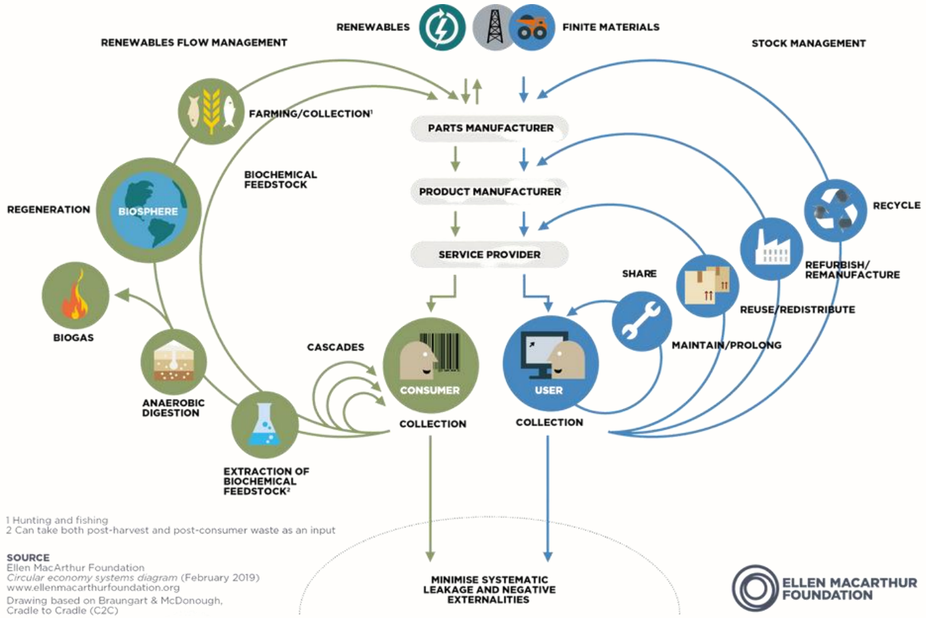
2nd Principle - Circulate Products & Materials

To circulate products and materials at their highest value.

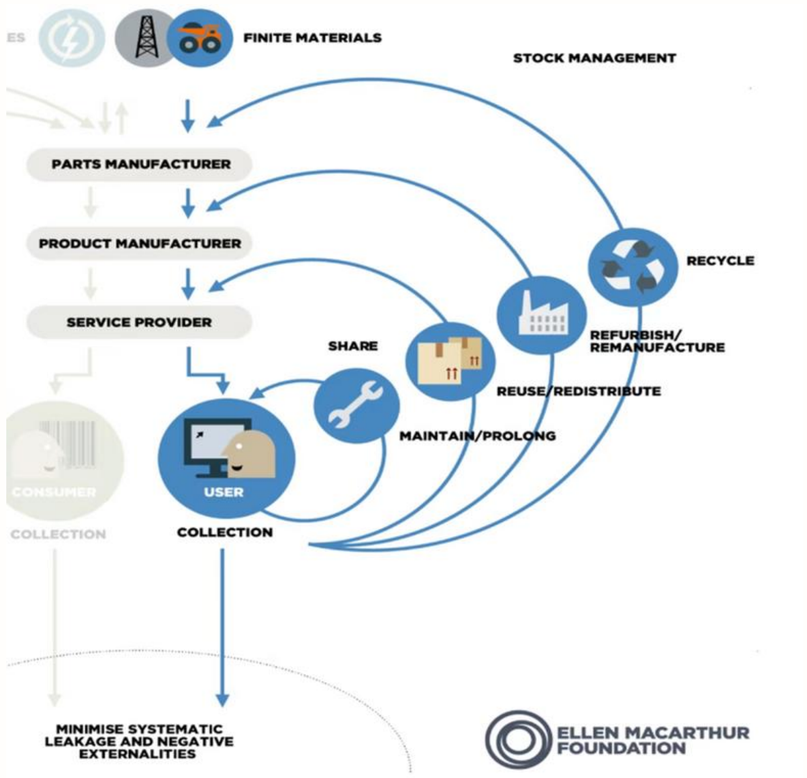
This means keeping materials in use, either as a product or, when that can no longer be used, as components or raw materials. This way, nothing becomes waste and the intrinsic value of products and materials are retained.

The Butterfly Diagram

The Ellen MacArthur Foundation explains the approach of circular economy with the help of a butterfly diagram that illustrates the continuous flow of materials in an economy.



Cycles of Butterfly Diagram



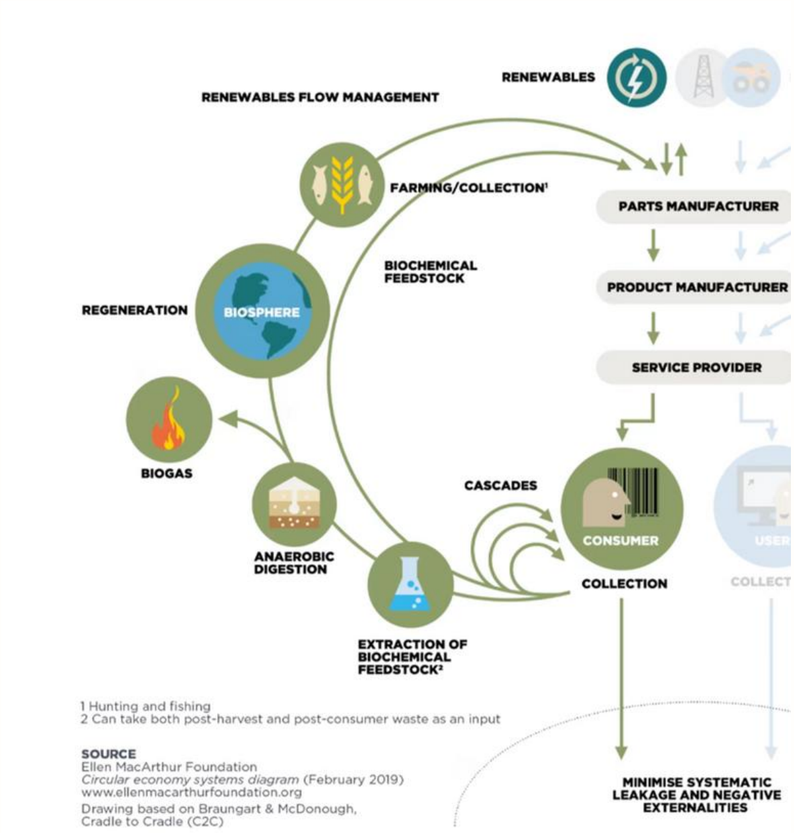
Technical loop:

The illustration demonstrates that larger outer loops encompass smaller inner loops.

Inner loops are where the most value can be retained. it includes **renting** and **reusing**.
Also, **refurbish** and **remanufacture** make use of products & materials already in circulation

In a circular economy, **recycling** is the last option because it reduces a product to its basic materials, which means it loses some of its value.

Cycles of Butterfly Diagram



Biological loop:

The butterfly diagram's left side depicts the biological cycle, which pertains to materials capable of naturally **breaking down** and **returning to the earth** without harm.

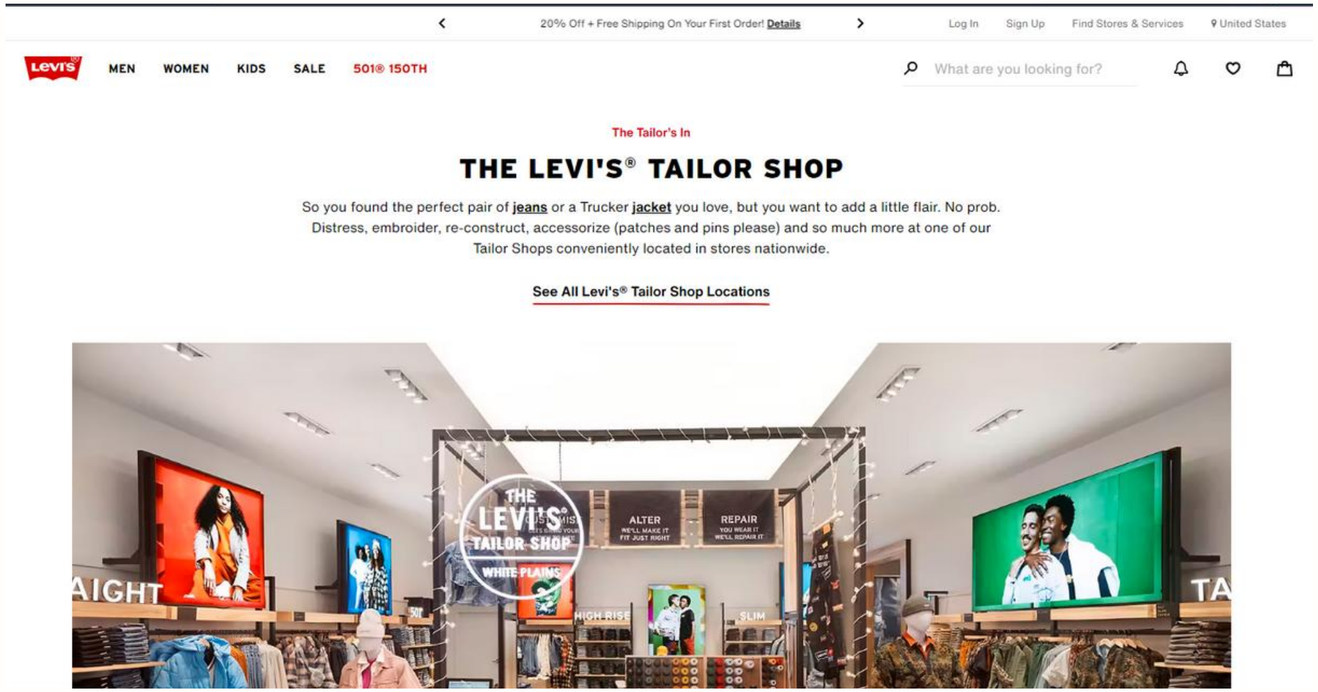
This cycle mainly concerns products that are consumed, such as food. However some biodegradable materials, such as **cotton** or wood, may eventually make their way from the **technical cycle** into the **biological cycle** once they have degraded to a point where they can no longer be used to make **new products**.

Example

The products must be circulated in Inner loops of technical cycle where the most value can be retained

This could mean making items for sharing or reuse more durable, designing products for easy **repair**, modularity, and easy separation of materials for recycling.

Levi's has introduced **circular economy service** for its customers so that they can wear their denim for as long as possible by offering second-hand authorized vintage resale, repair, and customization services at **Levi's Tailor Shops.**



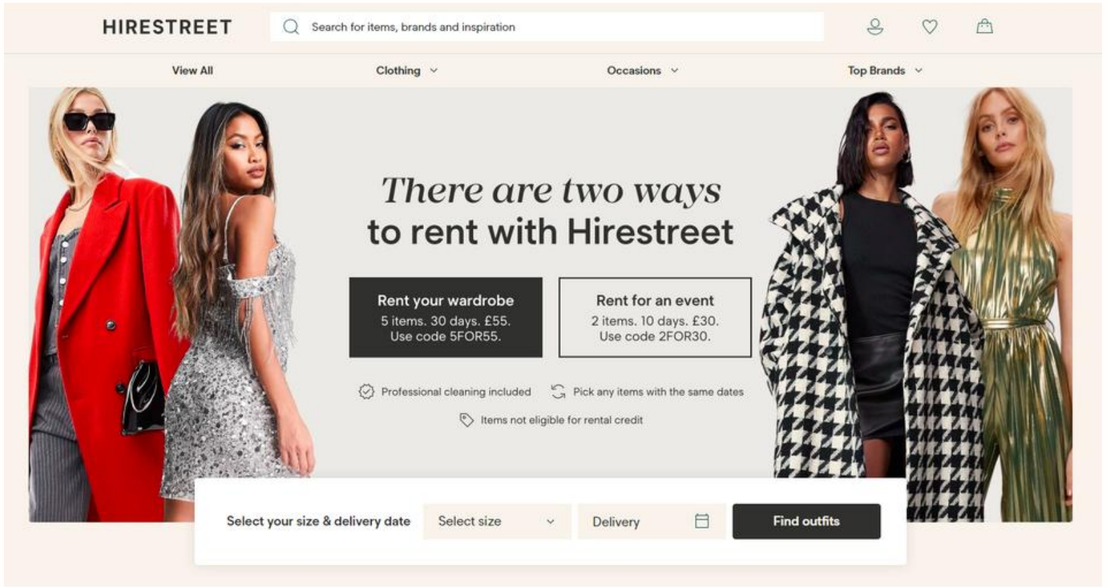
Source:levi.com/US/en_US/features/tailor-shop

2nd Principle - Example

UK-based **clothing rental** platform **Hirestreet** has started renting clothes in **collaboration** with **brands** such as French Connection, Rat & Boa, Asos, and M&S.

The company has focused on renting dresses, skirts and jumpsuits suitable for the party season, as well as premium leather and wool coats and jackets.

The model involves having shoppers book their **rental online**. The clothing is then delivered to their address and, once the rental period is up, they are supported in returning the clothing by post. A four-day rental is typically **18%** of a product's **MRP**.



Source:
hirestreetuk.com

3rd Principle - Regenerate Nature

The **third principle** of the circular economy is to **regenerate nature**. By moving from a **take-make-waste** linear economy to a **circular economy**, we support **natural processes** and leave more room for nature to thrive.

We can employ the below mentioned **practices** to support the process:

- Renewable material from regenerative agriculture
- Renewable Energy

By shifting our economy from linear to circular, we shift the focus from extraction to regeneration.

Currently, **biodiversity** is lost due to farming and the land used to grow is depleted of nutrients.

Instead, we employ regenerative farming practices that allow nature to rebuild soils and increase biodiversity, and return biological materials to the earth.

3rd Principle - Example

Regenerative Cotton

Regenerative Cotton is a revolutionary **method** of **cultivating cotton** which seeks to upturn the environmental effects of **industrial farming**.

Its primary goal is to preserve long-term **soil health** through **sequestering carbon**, and minimizing **water** and **fertilization** usage.

SÖKTAŞ has used **nature-based methods** to **restore** the land and improve its **carbon storage capacity** – the soil absorbs more than **18 tonnes of carbon per hectare** a year.

SOKTAS first first converted **one hectare (2.47 acres)** of land in 2018, and now has **90 hectares (222 acres)** of regenerative land in 2023.

3rd Principle - Example

Renewable Energy

Renewable energy sources, such as wind, solar, and hydro, are an environmentally sustainable alternative to fossil fuels.

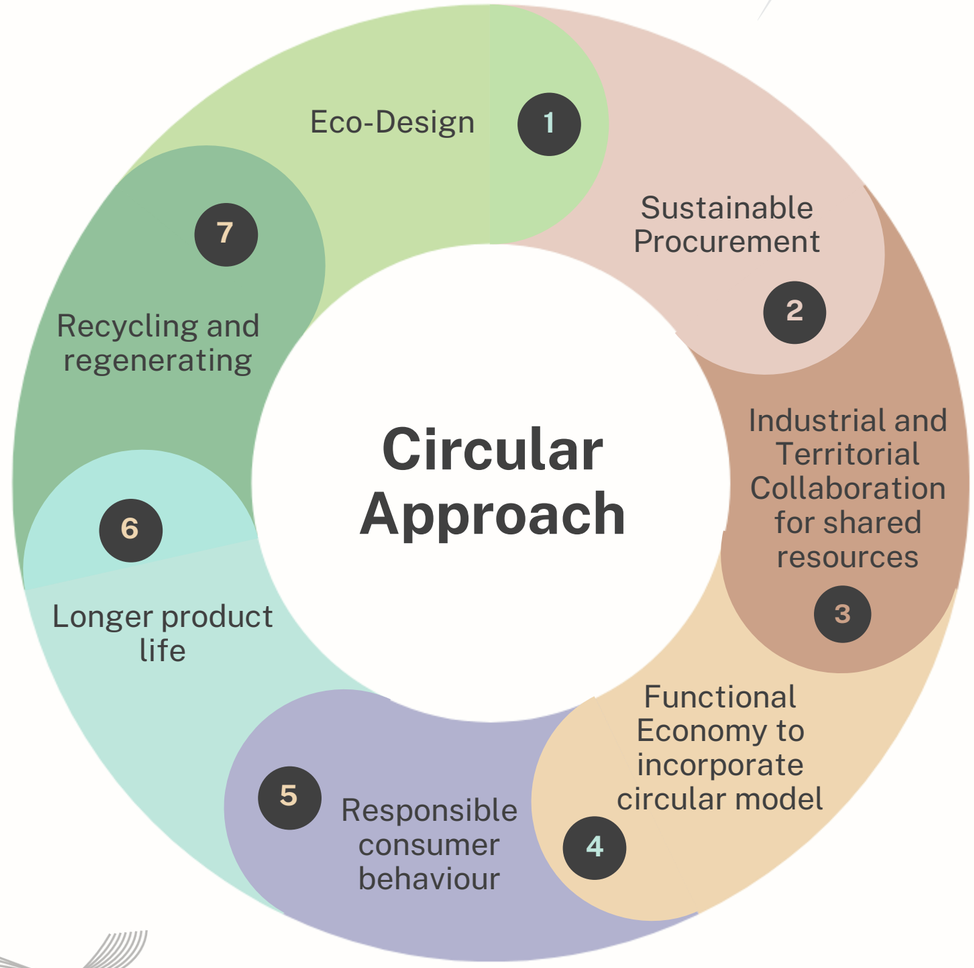
Unlike fossil fuels, which are finite and contribute to environmental degradation, renewable energy sources are **replenishable** and have a significantly **lower carbon footprint**.

By harnessing the power of **renewable energy**, we can promote the **nature regeneration**. Additionally, its use can lead to a **cleaner and healthier environment** for both humans and wildlife.

"Tamilnadu textile industries own 3,000 MW wind power and 1,500 MW solar power in the state, as the single largest captive consumer"

Source: india.mongabay.com/2023/11/harnessing-clean-energy-for-tamil-nadus-spinning-mills-is-not-as-easy-as-it-seems/

Stepwise approach for brands to implement circularity



Discussion Session