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Green Loop

GREEN
LOOP



2024-2-SK01-KA210-
SCH-000278989



1. Icebreaker and Introductions

- "Two Truths and a Lie"
 - Each participant shares three statements about themselves, two of which are true and one of which is a lie.
 - The other participants guess which statement is the lie.



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Introduction

- **Introduction to Circular Economy & Sustainability Principles**
- What is Circular Economy?
- **Circular Economy vs. Linear Economy**
European Green Deal & Circular Economy Action Plan



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Who Am I?



Education

- PhD in STEM Education, 2022
- MA in Science Education (Nature of Science), 2015
- BA in Chemistry Education, 1994

Professional Experience

- Founder, Edunexera Education Academy, 2023 – Present
- Member/Educator, KUCEDER, 2024 – Present
- Science Teacher, 2005 – 2023
- Headmaster, 2001 – 2005
- Science Teacher, 1997 – 2001
- Class Teacher, 1994 – 1996



Circular Economy & Sustainability Principles



What is **Sustainability**?

Sustainability is the ability to **meet the needs of the present** without **compromising the ability of future generations** to meet their own needs.

- 1.Environmental Sustainability
- 2.Economic Sustainability
- 3.Social Sustainability



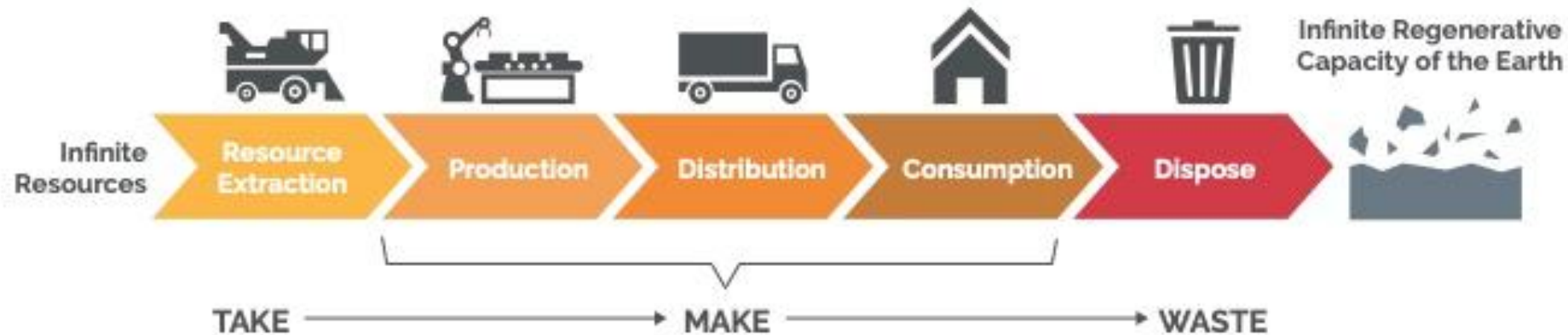
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A school cafeteria that switches from disposable plastics to reusable plates contributes to **environmental and economic** sustainability while educating students on responsible consumption (**social sustainability**).



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Linear Economy Model



The model is built on a *take, make, consume, and throw away* concept



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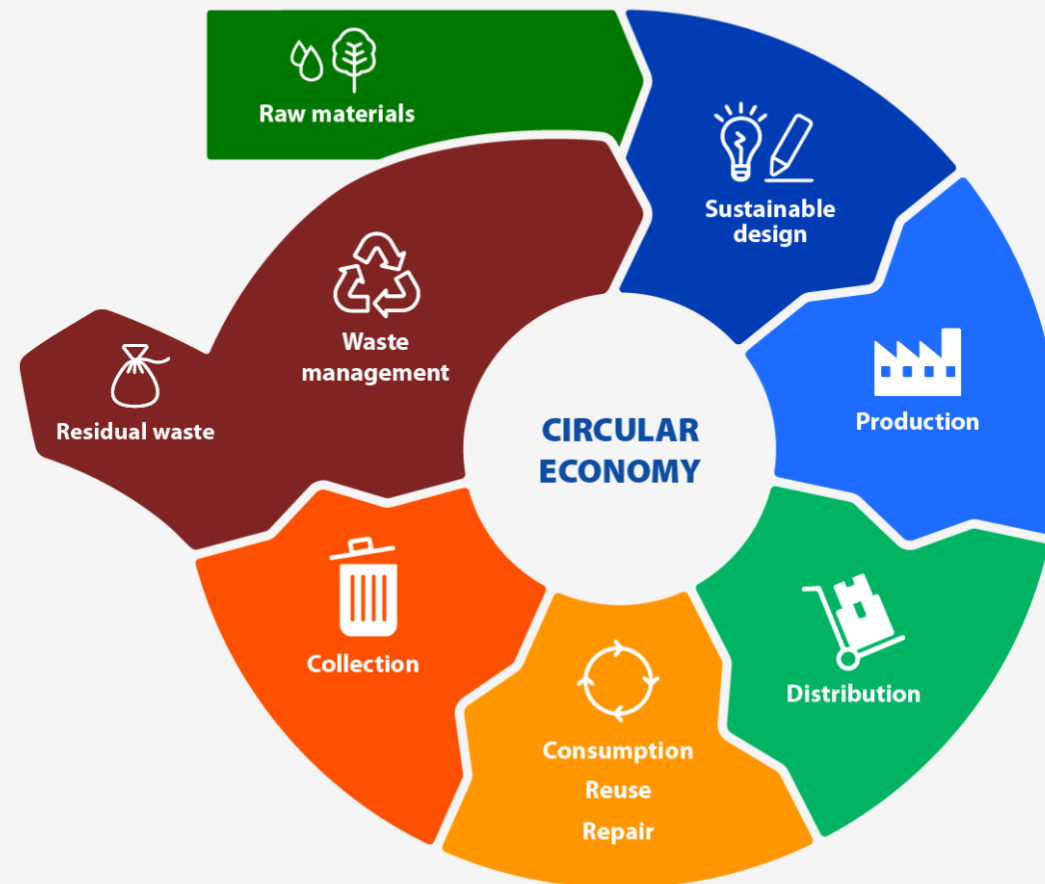


What is Circular Economy?

The circular economy is a model of production and consumption, which involves sharing, leasing, reusing, repairing, refurbishing and recycling existing materials and products as long as possible.

- Designing out waste and pollution
- Keeping products and materials in use
- Regenerating natural systems

The circular economy model:
less raw material, less waste, fewer emissions



Waste is a design flaw – if we design systems correctly, waste should not exist."



What is Circular Economy?

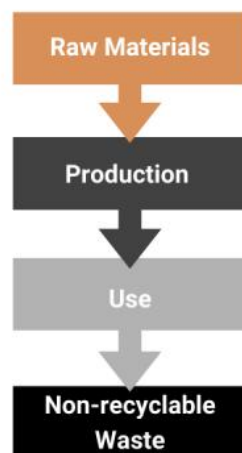
- <https://youtu.be/ZIAYu-N98tI?si=LvYFgbiKmJbHqXyk>
- <https://youtu.be/zCRKvDyyHmI?si=H2YltQ8-xfS1IHEo>
- <https://youtu.be/7b9R82vrA40?si=RZcnipR0O7w1NjST>
- <https://youtu.be/lhMooyLGWkc?si=-IFcYILMIZOhyDSb>
- <https://youtu.be/R51EkLZ3qYE?si=7P37OrbDPrZty6UV>



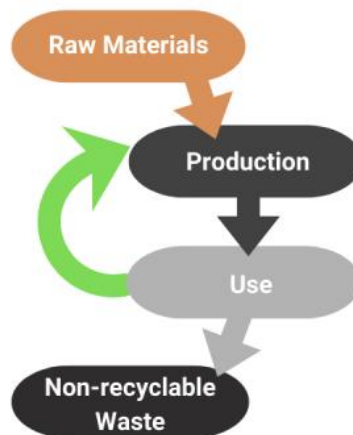
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Linear Economy To Circular Economy

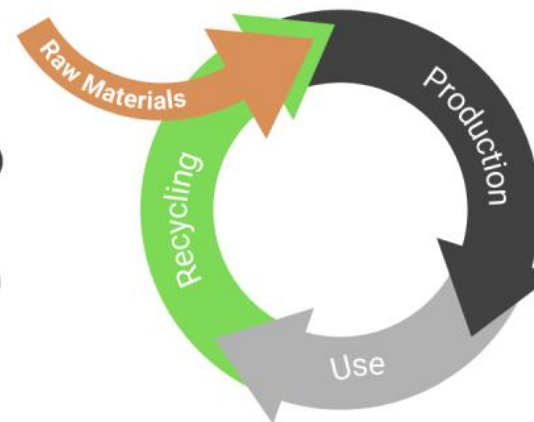
Linear Economy



Reuse Economy



Circular Economy



hubba

#1 choice for UK business waste

A circular economy shifts from a 'throwaway culture' to a 'reuse culture'



Why is Circular Economy Important?

- **Reduces environmental impact** (less waste, less pollution).
- **Encourages innovation** (new business models like repair, leasing, and recycling).
- **Decreases costs** (longer product life cycles mean fewer replacements).
- **Prepares students for the future** (teaching sustainability skills for green jobs).



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- **The Basics of Circular Economy | Ellen MacArthur Foundation**
- <https://www.ellenmacarthurfoundation.org/topics/circular-economy-introduction/examples>
- <https://www.apple.com/shop/trade-in>
- <https://www.ikea.com/us/en/customer-service/services/buy-back/>



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Activity 1: Introduction to Circular Economy (Life Cycle Mapping Activity)





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Activity 2 : “Redesign for Circularity” (Product Innovation Challenge)



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The Basics of Circular Economy | Ellen MacArthur Foundation

- <https://www.youtube.com/live/PkfkMNnRO14?si=BiHwA4U-0vUYLHue>



European Green Deal & Circular Economy Action Plan

EU European Green Deal

To make **Europe climate-neutral by 2050** by cutting greenhouse gas emissions, boosting resource efficiency, and promoting sustainable economic growth.

- **Climate Action** – Reduce greenhouse gas emissions by **55% by 2030** and achieve **net-zero emissions by 2050**.
- **Clean Energy** – Expand **renewable energy sources** and improve energy efficiency.
- **Sustainable Industry** – Apply **circular economy principles** to reduce waste and emissions in industrial production.



- **Energy-Efficient Buildings** – Increase the renovation of buildings to make them more **energy-efficient**.
- **Sustainable Mobility** – Promote **cleaner transportation** to reduce carbon emissions.
- **Biodiversity Protection** – Safeguard natural habitats and **reverse biodiversity loss**.
- **Farm to Fork Strategy** – Develop a more **sustainable food system**, reducing food waste and carbon emissions.
- **Zero Pollution** – Reduce **air, water, and soil pollution** by implementing stricter environmental policies.



Circular Economy Action Plan (CEAP)

To **reduce waste, increase resource efficiency**, and ensure products stay in the economy **for as long as possible** through **reuse, repair, and recycling**.

- **Sustainable Product Policy** – Ensure products are designed to be **more durable, repairable, and recyclable**.
- **Empowering Consumers** – Provide **clear information** about the sustainability of products.



- **Focus on Resource-Intensive Sectors** – Target **electronics, textiles, plastics, and construction** to apply circular economy strategies.
- **Better Waste Management** – Reduce landfill waste and increase **recycling rates across Europe**.
- **Support for Innovation** – Promote research, funding, and new business models that support **circular production systems**.

The Circular Economy Action Plan shifts from a "take-make-dispose" model to a circular one, where waste is minimized, and resources are continuously reused.-



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<https://tinyurl.com/yj6dyeuy>



- Patagonia's repair centers.
- <https://youtu.be/aBpSziExmA8?si=VP0RUHvSD-GkD4zc>
- Discussion Prompt:** *“How can schools encourage students to repair, reuse, or upcycle materials instead of discarding them?”*

<https://wornwear.patagonia.com/pages/repairs>



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“Can schools create a similar initiative for old books, uniforms, or electronics?”



Amsterdam's Circular Economy Strategy

<https://youtu.be/hWkX0bsBgHg?si=2KSU6DII16f34sXr>

- *“How can schools reduce waste and become more circular, like Amsterdam?”*



UN Sustainable Development Goals (SDGs)

- The **United Nations Sustainable Development Goals (SDGs)** are **17 global goals** designed to **end poverty, protect the planet, and ensure prosperity for all** by **2030**. These goals were adopted by **all UN member states in 2015** as part of the **2030 Agenda for Sustainable Development**.



The 17 UN Sustainable Development Goals

1. No Poverty
2. Zero Hunger
3. Good Health and Well-Being
4. Quality Education
5. Gender Equality



6. Clean Water and Sanitation

7. Affordable and Clean Energy

8. Decent Work and Economic Growth

9. Industry, Innovation, and Infrastructure

10. Reduced Inequalities

11. Sustainable Cities and Communities



12. Responsible Consumption and Production

13 Climate Action

14. Life Below Water

15. Life on Land

16. Peace, Justice, and Strong Institutions

17. Partnerships for the Goals



Schools: Finland's Waste-Free School Initiative

- **What is it?** Some Finnish schools **eliminate cafeteria waste** by composting and using digital learning materials.
- **Why is it circular?** It **prevents waste, promotes composting, and reduces paper use.**
- **How to Show It?**
 - **Ellen MacArthur Foundation Report:** Circular Schools.
 - **Discussion Prompt:** *“What practical steps can your school take to minimize food waste?”*