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GreenX – Sustainable Development & Green Innovation

PRESENTATION 2

CIRCULAR ECONOMY & GREEN BUSINESS MODELS

Start Slide

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REDESIGNING GROWTH FOR A SUSTAINABLE FUTURE

The circular economy represents a new way of thinking about growth — one that aims to balance economic development with environmental protection. Instead of exploiting resources and generating waste, it focuses on keeping materials and products in continuous use. Green business models are the practical expression of this vision, showing how innovation and sustainability can create long-term value.

INTRODUCTION

The global economy traditionally follows a linear model: resources are extracted, transformed into products, used, and then discarded. This “take–make–dispose” pattern leads to massive waste and depletion of natural resources.

The circular economy replaces this with a system where materials are reused, repaired, or recycled, keeping them in circulation for as long as possible. It aims to design waste out of the system entirely and promote efficiency throughout value chains.

WHY IT MATTERS

As global populations rise and demand for resources grows, traditional production models can no longer sustain economic progress. The circular economy matters because it allows societies to decouple growth from resource use, achieving prosperity without exhausting the planet. It reduces dependence on finite resources, lowers emissions, and creates new green jobs through innovation and efficiency.

Key Points:

- Promotes long-term resilience and resource security.
- Reduces greenhouse gas emissions and pollution.
- Creates economic opportunities in repair, recycling, and remanufacturing.
- Encourages innovation and sustainable competitiveness.

LINK TO SUSTAINABILITY GOALS

The circular economy directly contributes to achieving several United Nations Sustainable Development Goals (SDGs). By transforming how we design, produce, and consume, it supports global efforts to build sustainable, inclusive, and low-carbon economies.

Relevant SDGs:

- SDG 12 – Responsible Consumption and Production:
- Promotes efficient use of resources, waste reduction, and sustainable supply chains.
- SDG 9 – Industry, Innovation, and Infrastructure:
- Encourages innovation in manufacturing and supports eco-industrial development.
- SDG 13 – Climate Action:
- Reduces emissions and supports adaptation by lowering waste and resource extraction.

WHAT IS THE CIRCULAR ECONOMY?

A circular economy is an economic system designed to eliminate waste and make the most of resources. It keeps products, materials, and resources in continuous use through reuse, repair, remanufacturing, and recycling. Unlike the traditional linear model, it views waste as a valuable input, aiming to regenerate natural systems rather than exploit them.

- Focuses on closing loops of material and energy use.
- Minimizes extraction of new raw materials.
- Encourages long-lasting product design and sustainable business practices.
- Shifts from “end-of-life” to “endless-life” thinking.

FROM LINEAR TO CIRCULAR

EThe linear economy follows the traditional pattern of Take → Make → Dispose, where resources are extracted, transformed into products, and discarded after use. This system depends on cheap resources and energy, generating waste and emissions.

The circular economy, on the other hand, is based on Reduce → Reuse → Recycle → Recover. It aims to design out waste, maintain product value for as long as possible, and regenerate ecosystems.

KEY PRINCIPLES OF CIRCULAR ECONOMY

The circular economy is built around three fundamental principles developed by the Ellen MacArthur Foundation:

1. Design out waste and pollution – Products and systems should be created to minimize waste and environmental damage from the start.
2. Keep products and materials in use – Extend the lifespan of goods through repair, reuse, remanufacturing, and sharing.
3. Regenerate natural systems – Return valuable nutrients to ecosystems and rely on renewable energy sources instead of depleting ones.

BENEFITS OF CIRCULAR ECONOMY

Adopting a circular economy generates economic, environmental, and social benefits. It reduces waste, preserves resources, and fosters innovation across industries. By designing efficient systems, it promotes resilience and competitiveness while reducing environmental impact.

Key Benefits:

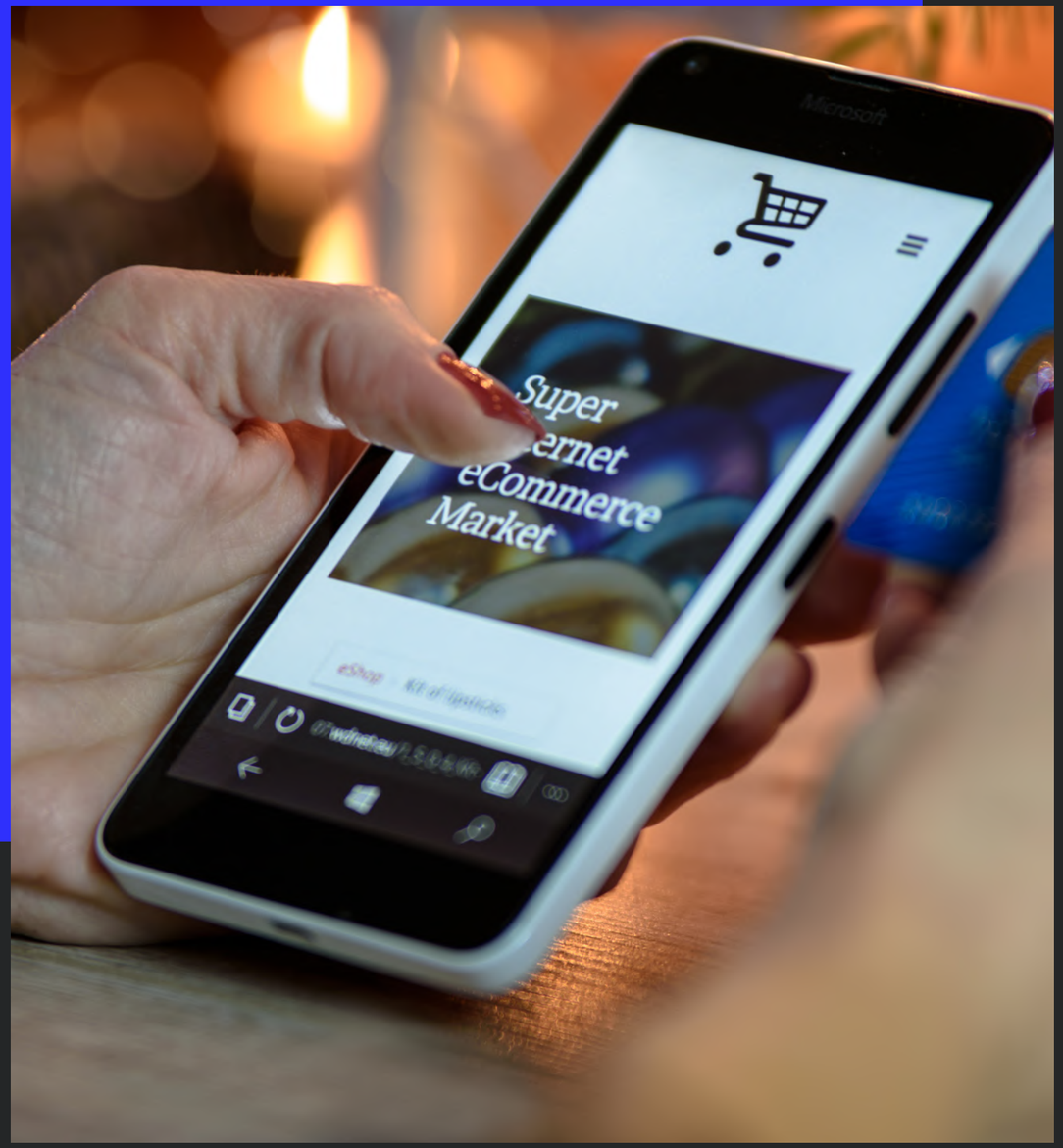
- Environmental: Decreases pollution, CO_2 emissions, and landfill waste.
- Economic: Creates new markets, jobs, and cost-saving opportunities.
- Social: Promotes inclusive growth and local employment in repair and recycling sectors.
- Innovation: Stimulates creativity in design and product development.

CIRCULAR ECONOMY AND INNOVATION

Innovation is at the heart of the circular transition. It drives new materials, production methods, and digital tools that enable companies to reduce waste and reuse resources efficiently. From biodegradable materials to product-as-a-service models, innovation helps businesses redesign their operations and create value without harming the planet.

Examples of Circular Innovation:

- Using artificial intelligence to track resource flows.
- Developing products made from recycled or bio-based materials.
- 3D printing to minimize waste in manufacturing.
- Sharing platforms that maximize resource use (e.g., mobility or fashion).



THE ROLE OF CONSUMERS

Cnsumers play a crucial role in enabling circular economies. By making sustainable choices — such as purchasing durable products, supporting repair services, or participating in recycling — individuals help close material loops. Consumer awareness and demand for ethical products encourage companies to adopt circular practices.

Key Actions for Consumers:

- Choose products designed for longevity or made from recycled materials.
- Support businesses that offer take-back, repair, or reuse programs.
- Practice mindful consumption — buy less, choose better, waste less.
- Advocate for circular solutions in local communities.

WHAT ARE GREEN BUSINESS MODELS?

A green business model integrates environmental, social, and economic sustainability into its operations and value creation. Instead of focusing solely on profit, it also considers how products and services can reduce environmental impact and benefit society. These models are the backbone of a circular economy, proving that businesses can thrive while protecting natural resources.

Key Points:

- Combine profitability with sustainability goals.
- Minimize waste and emissions throughout the value chain.
- Focus on long-term value creation, not short-term gains.
- Strengthen brand reputation and attract eco-conscious customers.

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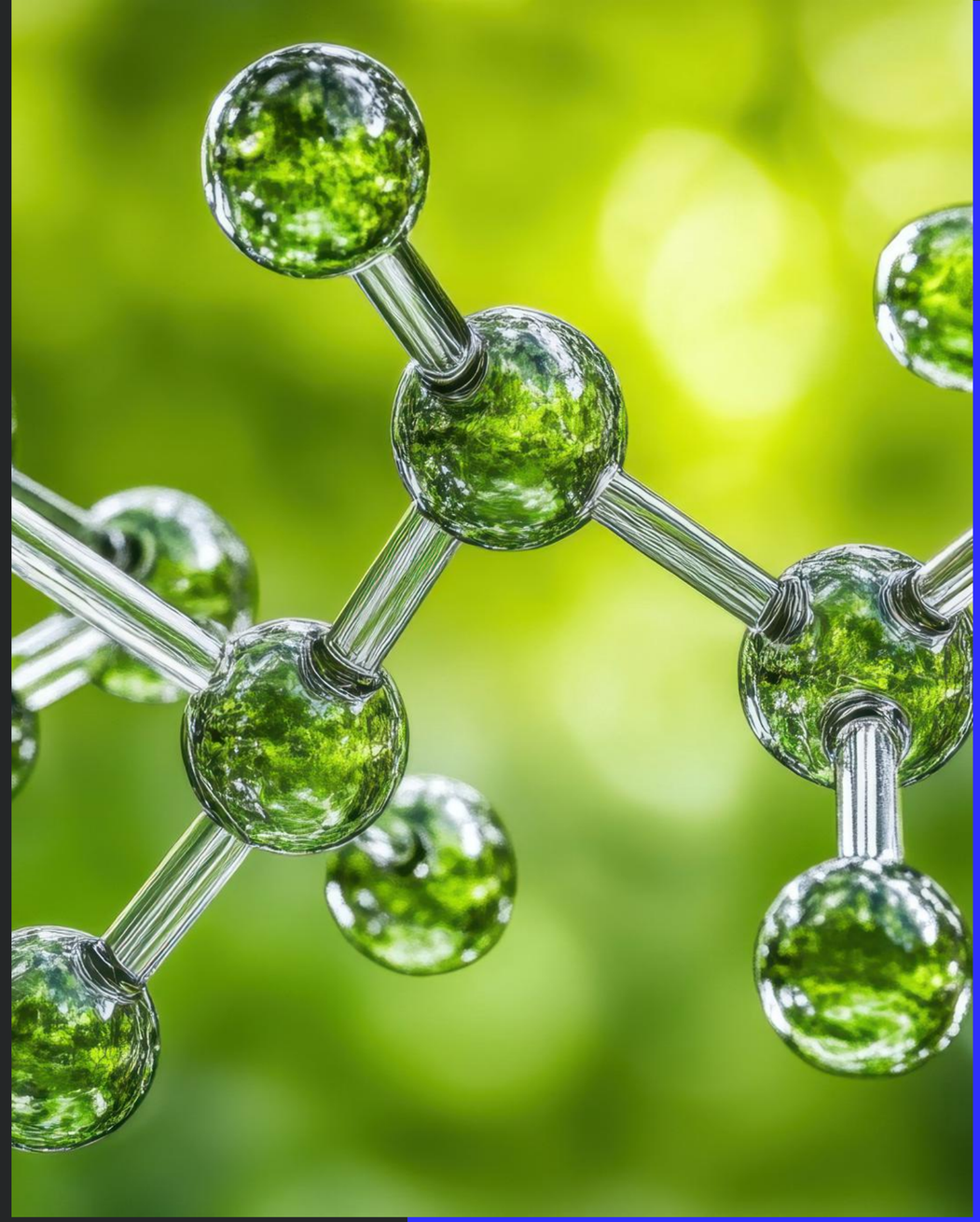
TYPES OF GREEN BUSINESS MODELS

Main Types:

- Product-as-a-Service (PaaS): Customers rent or lease products instead of buying them (e.g., car-sharing, clothing subscriptions).
- Resource Recovery: Turning waste into raw materials or energy (e.g., composting, recycling).
- Circular Supply Chains: Using renewable, recyclable, or biodegradable inputs.
- Repair & Reuse Models: Offering repair, refurbishment, or resale services.
- Collaborative Consumption: Sharing platforms that reduce ownership (e.g., Airbnb, coworking spaces).



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SOCIAL INEQUALITIES

Green business models rethink the entire product life cycle — from design and production to distribution and disposal. Instead of selling products for one-time use, they encourage systems that retain value and reduce waste.

- Core Strategies:
- Design products for longevity and easy repair.
- Create take-back systems or second-life programs.
- Use data and digital tools to monitor resource efficiency.
- Collaborate with suppliers, customers, and communities.

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ECONOMIC AND SOCIAL BENEFITS

Adopting green business models generates benefits across multiple dimensions. Economically, they reduce costs, improve efficiency, and open new markets. Socially, they promote inclusion, local employment, and environmental responsibility.

Key Benefits:

- Economic: Cost savings from reduced material use and energy consumption.
- Environmental: Lower pollution and waste generation.
- Social: Support for local repair and recycling jobs.
- Innovation: Encourages creativity and new service models.

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POLICY & SUPPORT FRAMEWORKS

The European Union plays a key role in promoting circular and green business practices. The European Green Deal (2019) sets the goal of climate neutrality by 2050, encouraging clean energy and sustainable production. The EU Circular Economy Action Plan supports this by focusing on waste prevention, eco-design, and resource efficiency across industries.

Alongside policy, the EU invests in education and innovation to strengthen green entrepreneurship. Programs such as Horizon Europe and Erasmus+ fund research, training, and sustainable startup initiatives. Projects like GreenX under the BBX program empower young people to develop circular business models and lead Europe's green transition.

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ESG & CORPORATE RESPONSIBILITY

Environmental, Social, and Governance (ESG) criteria are becoming central to business operations. Companies are now evaluated not only on profit but also on their social and environmental performance.

Key Elements:

- Environmental: Energy use, emissions, resource efficiency.
- Social: Employee well-being, diversity, community impact.
- Governance: Transparency, ethics, and accountability.

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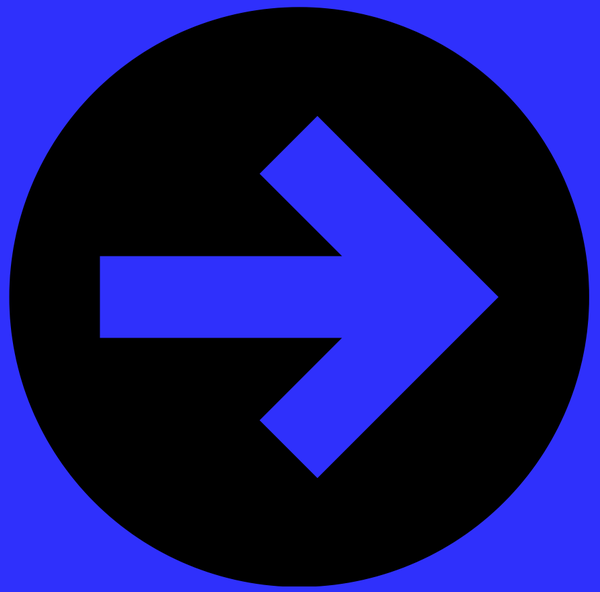
CHALLENGES FOR GREEN BUSINESSES

Main Challenges:

- High upfront costs for technology and redesign.
- Limited consumer awareness or willingness to pay more.
- Lack of infrastructure for repair and recycling.
- Complex supply chains and data management issues.
- Insufficient policy support in some regions.



OVERCOMING BARRIERS

To scale green business models, a supportive ecosystem is needed combining education, innovation, and policy. Programs like GreenX (BBX Project) empower young entrepreneurs with skills, mentorship, and access to networks.

Strategies for Success:

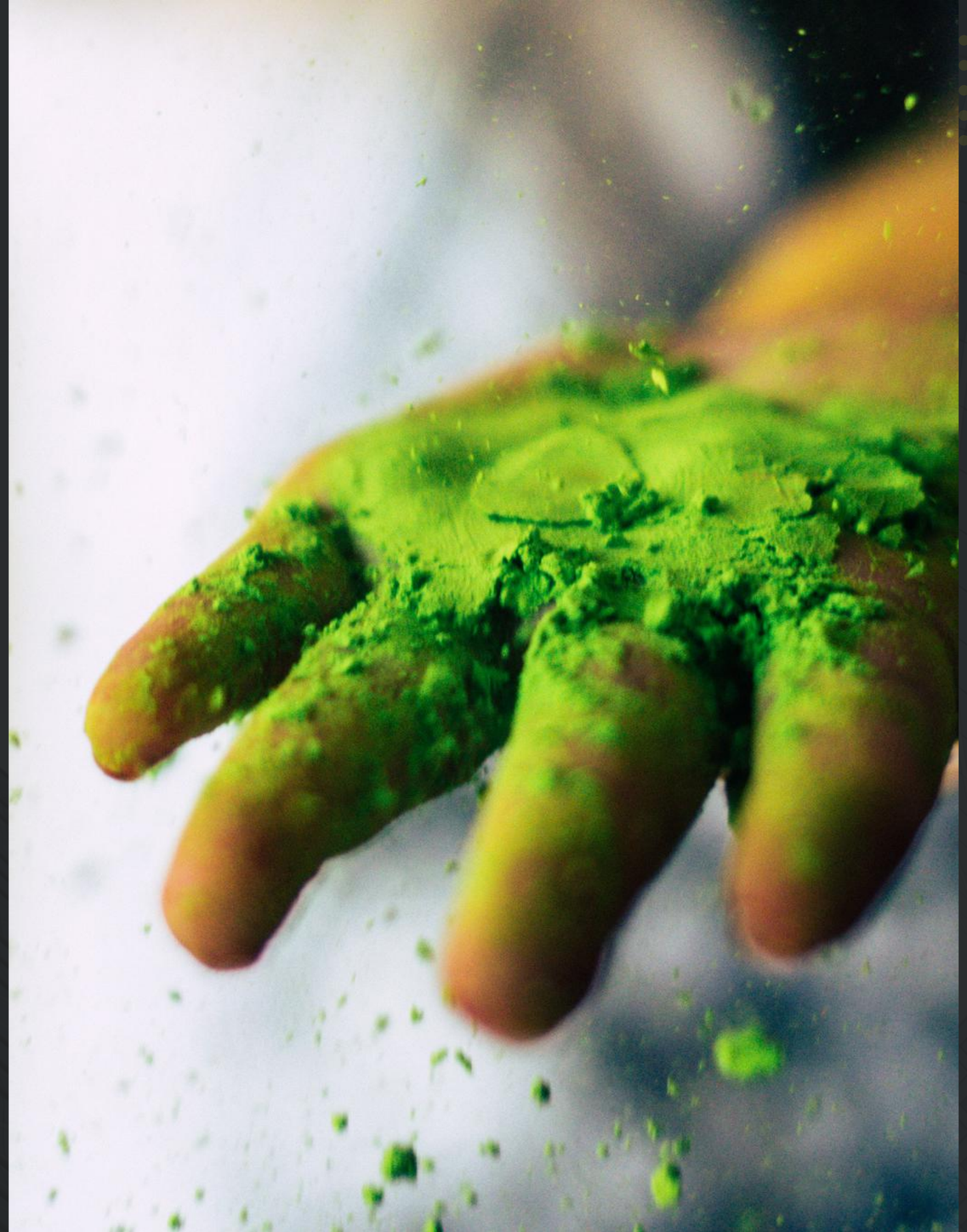
- Foster education on sustainability and green entrepreneurship.
- Encourage innovation through digital tools and research.
- Provide access to funding and circular investment models.
- Strengthen collaboration across industries and borders.

EUROPEAN CASE STUDIES - FAIRPHONE (NETHERLANDS)

Fairphone designs modular smartphones that are easy to repair, upgrade, and recycle. The company focuses on using responsibly sourced materials and ensuring fair labor conditions. By extending the lifespan of electronic devices, Fairphone reduces e-waste and sets a strong example of ethical, circular production in the tech industry.

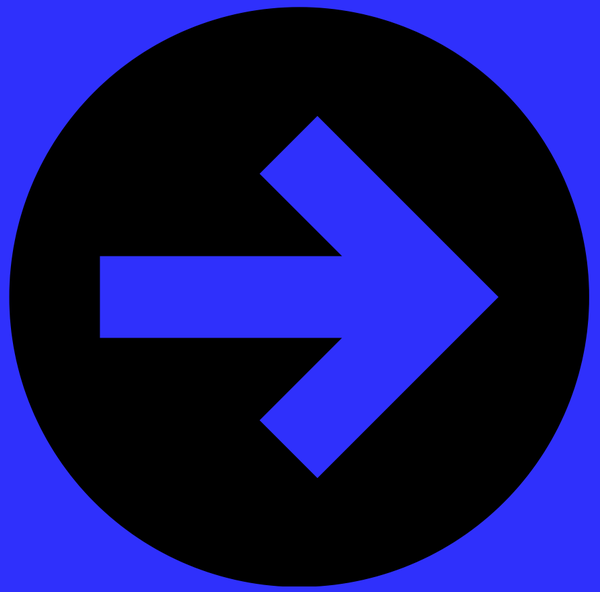
VIGGA (DENMARK)

VIGGA is a clothing subscription service for babies and children. Parents can return clothes once their child outgrows them, and the garments are reused by other families. This model reduces textile waste, saves resources, and promotes sustainable consumption through shared use rather than ownership.



TERRACYCLE (EU PRESENCE)

TerraCycle specializes in collecting and recycling materials that are usually non-recyclable, such as coffee capsules, cosmetics packaging, and cigarette butts. The company partners with brands and communities to close the loop on waste, proving that almost every product can have a second life with the right systems in place.



ECOALF (SPAIN)

Ecoalf is a sustainable fashion brand that creates high-quality clothing from recycled materials, including plastic bottles and discarded fishing nets. Their motto, “Because there is no Planet B,” reflects their mission to combine style with sustainability. Ecoalf shows that fashion can be both environmentally responsible and commercially successful.

TOO GOOD TO GO (DENMARK)

Too Good To Go connects consumers with restaurants and supermarkets to purchase unsold food at reduced prices. By preventing edible food from going to waste, the platform reduces CO_2 emissions and raises awareness about sustainable consumption. It has grown into one of Europe's most recognized green startups.

ENERKEM (NETHERLANDS/CANADA)

Enerkem converts non-recyclable waste into renewable fuels and chemicals using innovative clean technology. This process helps reduce landfill waste while creating sustainable energy alternatives. Enerkem demonstrates how circular principles can transform the energy sector and promote low-carbon innovation.

LESSONS FROM CASE STUDIES

These examples show that circular business models can succeed across different industries from technology and fashion to agriculture and energy. They prove that innovation, design, and collaboration are key to turning sustainability goals into practical, profitable action. Together, they highlight Europe's leadership in building a circular economy that benefits both people and the planet.

REFLECTION & CONCLUSION

The circular economy redefines how we create and consume value. By keeping materials in use, it reduces waste, cuts emissions, and promotes innovation. Green business models show that sustainability and profitability can go hand in hand. Together, they represent a shift from short-term consumption to long-term resilience and responsibility.

THE ROLE OF YOUTH ENTREPRENEURS

Young people are essential to leading the green transition. Through creativity, digital skills, and entrepreneurship, they can design solutions that make sustainability part of daily life. The GreenX component of the BBX Project provides youth with training, mentorship, and collaboration spaces to turn circular ideas into real businesses.

CALL TO ACTION

Building a circular economy requires everyone — businesses, governments, and citizens — to act. Choosing sustainable products, supporting responsible companies, and sharing resources all contribute to closing the loop. The time to act is now, as every decision can either reinforce waste or create value for the planet and society.

Key Points:

- Every consumer and entrepreneur can drive circular change.
- Collaboration accelerates sustainable transformation.
- Circular thinking should become part of everyday decision-making.

FINAL MESSAGE

The circular economy offers a hopeful vision for the future — one where waste becomes a resource, and growth benefits both people and nature. Green innovation and entrepreneurship turn this vision into reality. Together, we can redesign growth for a sustainable, inclusive, and circular world.

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