

EDUEPastic

Education for Plastic in Circular Economy

Transforming our relationship with plastic requires education. We need to shift from linear consumption to a circular approach. This presentation explores how education can drive the change toward sustainable plastic use in our economy.

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AGENDA:

- 1. The Plastic Problem
- 2. Understanding the Circular Economy
- 3. Key Stakeholders in Plastic Education
- 4. Educational Strategies for Plastic Circularity
- 5. Call to Action: Implementing Circular Plastic Education



1. The Plastic Problem

1 Overwhelming Scale

Over 380 million tons of plastic are produced annually. Only 9% gets recycled worldwide.

2 Environmental Damage

Plastic pollutes oceans, endangers wildlife, and releases toxins. Marine life often mistakes plastic for food.

3 Economic Loss

\$80-120 billion worth of plastic packaging is lost from the economy yearly. This represents valuable resources wasted.

Microplastic

Plastic

Nanoplastic

2. Understanding the Circular Economy



Unlike the linear "take-make-dispose" model, circular systems keep materials in use. This reduces waste and pollution while regenerating natural systems.



Collecting materials after use

Processing into new resources

3. Key Stakeholders in Plastic Education

Industry Professionals

Companies need reskilling in circular design and production. Technical training must evolve with recycling innovations.

Students & Schools

Future innovators need early exposure to circular concepts. Schools can integrate sustainability across subjects and age groups.



Government & Public

Policymakers require education on regulatory frameworks. Communities need awareness of recycling practices and benefits.



4. Educational Strategies for Plastic Circularity

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HEIs engagement as active strategic partner

Advanced Research & Innovation

Specialized university programs

Practical Application

Hands-on recycling projects

Industry Partnerships

Internships and real-world experience

Core Curriculum Integration

Embedding circular concepts in standard education

Educational approaches must span from foundational knowledge to specialized expertise. Interactive learning promotes deeper understanding of circular systems.



Innovative Technologies and Approaches to be Included in HEIs programmes

Chemical Recycling

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Breaking plastics down to molecular level. Creates virginquality materials from mixed plastic waste.

Circular Design Alternative Materials

Creating products for disassembly and recycling. Eliminating problematic additives and mixed materials.

Developing compostable and biodegradable options. Using renewable resources for plastic production. URGENT actions! Awareness and innovation in engineering education!

Case Studies: Successful Education Programs





Circular Economy Academy

Delft University's program trains engineers in circular design principles. Students collaborate with industry on real plastic challenges.



Industry Training Initiative

Unilever's in-house sustainability program has trained 2,500 employees. Results include 10% reduction in virgin plastic use.



Community Education

Singapore's "Save Our Seas" program reaches 50,000 citizens annually. **Combines public installations with** schools' outreach **ASEAN Circular Economy Stakeholder** Platform

It is possible to do change the mindsets by engagement the stakeholders!

5. Call to Action: Implementing Circular Plastic Education

Assess Current Programs

Evaluate existing curricula for circular economy concepts. Identify gaps in plastic education across disciplines.

Develop New Materials

Create engaging, accessible resources. Partner with industry for real-world examples and data.

3

2

Train Educators

Prepare teachers and trainers with circular economy knowledge. Build networks for sharing best practices.

4

Measure Impact

Track understanding, behavior change, and environmental outcomes. Adjust approaches based on results.



EDU4PlastiCircular "Education for Plastic in a **Circular and Climate Neutral** Economy -**Preventing Waste Ending Up** into the Environment" (Erasmus+ 2023-1-RO01-KA220-HED-000166242)

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LEARNING

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Evidence of the EDU4PlastiCircular Awareness Campaigns (NEWS & NL)

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IN THIS EDITION OF THE NEWSLETTER:

1. 2ND TRANSNACIONAL EDUAPLASTICIECULAR PARTNERS MEETING

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5. THE TRANSILVANIA UNIVERSITY TEAM PRESENTED THE PROJECT EDUAPLASTIC AT RESEARCHER NIGHT



The training program structure (modules and lessons) Developed by the project consortium:



DERMOL digital business solutions





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Thank you very much for your attention!



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