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**Transition Time!
A Circular Economy
for Plastics**

Summary



Promoting Principles of Circular Design

Conscious Customer & Consumer Use

Championing Collection Infrastructure

Sustainable Production & Innovate Recycling

Conclusion Collectively Closing the Loop

To drive the transition to a circular plastics economy, we need to start all the way at the start. When designing a new product, the afterlife of the product’s raw materials needs to be considered too. Promoting principles of circular design can help ensure materials end up as secondary raw materials.

To create truly circular plastics, supply and demand must be in structural balance. It is therefore essential that all organisations across the value chain help drive the uptake of recycled plastics in new products, whilst we also promote the development of high-quality circular plastics. For every phase in the plastics value chain, concrete measures will accelerate the transition to a circular plastics economy.

Designing for advanced recycling which is creating a boost in quality and supply

🏠🎓 Develop clear quality criteria for recycled plastics in upcoming revisions of the EU Packaging and Packaging Waste Directive. These criteria should take into account innovations such as advanced ‘chemical’ recycling and improvements across the value chain. The criteria will require a clear, unambiguous definition of the recyclability of plastic products.

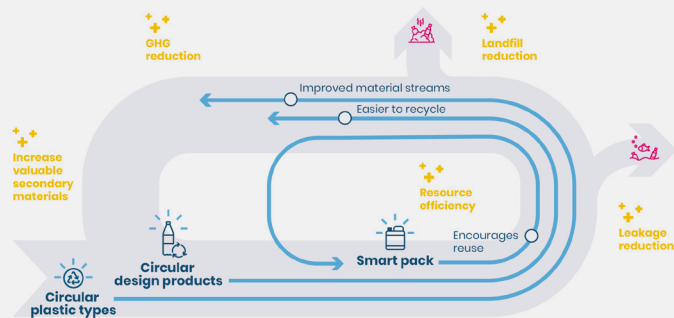
Providing flexibility while stimulating circular design

🏠🎓 Adjusting the Eco-Design Directive to function as a framework directive for reference purposes and to include various industry guidelines that can be adapted and updated based on the latest market developments.

Stimulating the uptake of recycled content and recyclability in Extended Producer Responsibility (EPR) schemes

🏠🏢 Stimulating effective EPR schemes including eco-fee modulation within those schemes based on the recyclability and recycled content of a product.

Promoting circularity across the value chain



- 🏠 European Commission & Governments
- 🎓 Academics & Experts
- 🌱 Societal Organisations
- 🏢 Business Sector



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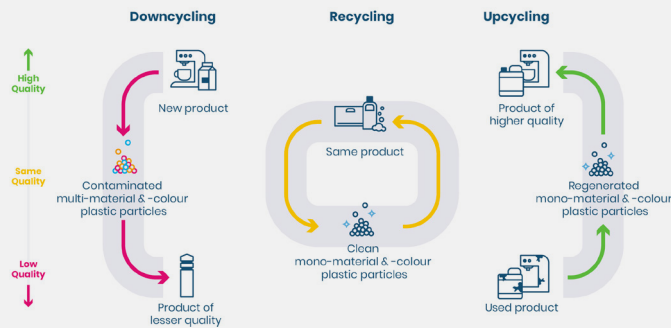
Sustainable Production & Innovate Recycling

Conclusion Collectively Closing the Loop

Customer and consumers have a crucial role in extending the lifecycle of plastics. The ecological footprint of products is increasingly influencing the purchasing decisions for both companies and consumers. In particular, renewable and recycled content in plastics is becoming a prerequisite, while setting higher standards and demanding more sustainable products is becoming the norm.



Upcycling restores material value



- European Commission & Governments
- Academics & Experts
- Societal Organisations
- Business Sector

To meet the growing demand for circular plastics, organisations across the value chain have a common interest in accurate plastics data. As such, we all need to stimulate and adopt new digital technologies to provide key information about the composition of plastic material streams and optionality for the most adequate processing method. As a result, we will more easily be able to require the upcycling of materials and ensure safety by design. In this phase of the plastics value chain, there are several concrete measures to accelerate the transition.

Improving quality across the value chain and develop standardized quality grades

- Develop EU-wide quality grades based on various quality & safety criteria as well the relevant material properties for new plastic products.
- Ensuring the quality of plastics is maximised throughout the value chain by introducing incentives to improve quality in the sorting and recycling stages and by eliminating substances that complicate processing, sorting and recycling.

Reviewing the definitions of plastics across the lifecycle to ensure circularity

- Initiating a reclassification of existing 'end-of-waste', 'by-product' and 'raw material' criteria to stimulate repair, reuse and recycling of products in the first place, and to support alternative recovery options if required.

Taking context into account to determine the most sustainable options

- Amending existing EU Directives to ensure the most sustainable options depending on a specific context, such as recyclable plastic tableware, cutlery in aviation operations and the most sustainable options to apply in logistical operations.



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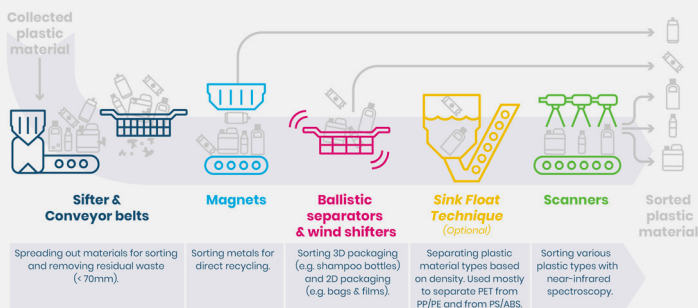
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Currently, around 30% of all plastic is collected for recycling in Europe; globally, this figure is much lower. Firstly, plastic needs to be collected to reduce leakage into the ecosystem. Once collected, plastic should be effectively processed to prevent less sustainable disposal, such as through landfill and incineration. A mature market for secondary plastics and effective collection infrastructure are essential for an economically sustainable system.

Post-collection sorting techniques



- European Commission & Governments
- Academics & Experts
- Societal Organisations
- Business Sector

High-quality recycling relies on relative clean plastic material streams. However, present-day waste management systems differ significantly among European countries and even within regions. Harmonising collection infrastructure will provide sizeable plastic waste streams that can be optimally processed within the European Union. Substantial investments in increased capacity are also needed to meet the ambitions shared between various involved organisations. Knowledge, innovations and public-private collaborations are all key elements for substantial improvements across markets.

Creating effective Extended Producer Responsibility (EP) schemes

Developing a new continuous improvement programme that includes the sharing of best practices for new and existing EPR schemes to ensure responsible sectors have sufficient authority and influence in each crucial processing phase.

Developing a fund, co-funded by business (through EPR) and governments to structurally improve collection, sorting and recycling infrastructure. This will increase the scope and improve quality across the value chain.

Investing substantially in innovation will boost the quantity and quality recycled plastics, with an emphasis on effective collection infrastructure and new sorting techniques towards automated sorting of various plastic resin types.

Harmonising collection schemes and working towards zero landfill

Enforcing the New Circular Economy Action Plan and related policies across Member States, supporting EU-wide harmonisation of collection infrastructures and policies regarding plastic and other materials, whilst at the same time offering sufficient space for new innovative solutions, such as post-collection sorting techniques.

Substantially investing in the capacity to process plastics sustainably within the EU, by allocating substantial EU budgets as part of Green Recovery plans.

Facilitating the movement of plastics to optimise processing capacity in the EU and internationally

Facilitate the transport of plastic waste in the EU Waste Framework Directive and the EU Waste Shipment Regulation to stimulate the most sustainable processing options for materials, developing a single, centralized market for plastics in Europe.

Substantially investing in the recycling infrastructure within the EU, and stimulate economies of scale for processing plastic waste into secondary raw materials.

Ensure a broad understanding of the Basel Convention and related transboundary movements and create alternative processing options.



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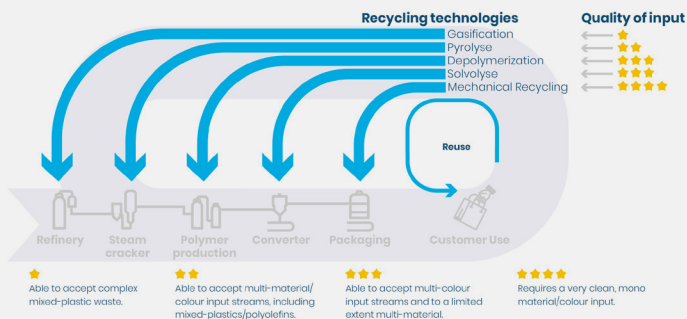
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A substantial amount of plastic waste is sent to landfills in Europe instead of being recycled. This is a loss for both the environment and the economy. Recycling plastic waste is often challenging due to complex waste streams, which results in downcycling, with recyclers opting for lower-quality applications. Sustainable production from renewable feedstock in combination with advanced recycling technologies will support closing the loop and turn the current linear economy for plastic into a circular economy.



Advanced technologies providing solutions



- European Commission & Governments
- Academics & Experts
- Societal Organisations
- Business Sector

Overall, the unfair competition between virgin fossil-based plastics versus regenerated and renewable plastics, due to both the current prices of crude oil and limited focus & incentives for large-scale breakthrough innovations. By creating a level-playing field, organisations will jointly scale innovations to accelerate the transition.

Addressing unfair & unequal competition for renewable plastic

Incorporating incentives into the latest Renewable Energy Directive and the EU Chemicals Strategy for Sustainability for processing of mixed plastic waste and biomass for new high-quality materials in the EU, thereby broadening the scope of the current stimulus for biofuels.

Reducing greenhouse gas emission (GHG) emissions through circular plastic solutions

Scaling up advanced recycling technologies in the European Union will reduce GHG up to 50% compared to incineration. Stimulating the competitiveness of sustainable action by rewarding a reduction in GHG emissions across the value chain. This will create a strong business case for circularity.

Creating co-funding opportunities to scale advanced technologies for the chemical conversion of biomass and complex plastic waste developing high-quality secondary raw materials whilst reducing Greenhouse Gas Emissions.

Creating clarity around bio-based and biodegradable plastics and solutions for complex plastic waste streams

Developing a clear policy framework for bio-based and biodegradable plastics, outlining the pros, cons and responsible application of these materials.

Phasing out substances of concern & developing sustainable alternatives

The EU can set global standards to ensure substances of concern, especially those of very high concern, are phased out internationally. Specifically, we advise developing new methodologies to track and minimise the presence of substances of concern in recycled materials and stimulating the development of sustainable alternatives.

Recognising & stimulating advanced technologies

Stimulating investments in advanced processing technologies, developing scalable solutions creating a mature market for high-quality plastics as secondary raw materials.

Recognising & promoting advanced recycling technologies as a valuable sustainable innovation, contributing to overall recycling targets by revising.

Developing an EU-standard for various Chain of Custody models, ensure circular plastics, based on accurate traceability & verification to incentivise scaling sustainable circular plastics towards the future.



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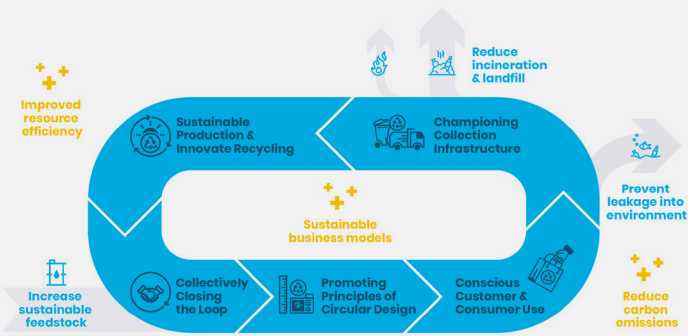
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As outlined previously, collaboration across the value chain – and across public and private organisations and institutions – is crucial to driving change with impact. Through cooperation and sharing ambitions, we can achieve the necessary scale for circular raw materials and long-term economic sustainability.

Key interventions for a Circular Plastic Economy



Key interventions

Create scale through collaboration across the value chain	Ensure plastic will become new secondary raw materials.	Guarantee materials remain within a circular economy	Set up effective & harmonized collection systems	Scale renewable feedstock & advanced recycling

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In particular, collaboration and innovation are key to successfully accelerating the transition. An internationally scalable approach will support improvements in markets beyond the European Union, enable knowledge to be shared internationally, and new solutions to be scaled across the world. Jointly steering investments into knowledge and innovation, collection infrastructures and new technologies will enable solutions, even in the short term.

Together towards a circular future

Going forwards, the members of the Dutch Sustainable Growth Coalition (DSGC) underline the need for collective action to close various plastic loops, starting with a shared vision of a sustainable and circular future for plastics. We believe an enabling policy framework, cutting-edge knowledge and innovation, together with leading ambitious sector leaders will generate breakthrough structural solutions. This required an international outlook as well.

Based on joint ambitions, new collaborations will create scale for global impact. Therefore strongly recommend to include circular economy in bilateral & multilateral trade agreements to mainstream circular economy objectives. Prioritising a circular future by making substantial investments in innovation in the coming years to drive both the quantity and quality of recycled plastic, with a focus on developing advanced infrastructures and new technologies for collection and sorting, which can be achieved through existing & new EU policy-funding instruments. Finally scaling solutions globally by promoting innovations across the world and through trade missions; providing sustainable solutions to address environmental challenges and create local economic opportunities in emerging regions beyond the EU.

We therefore recommend parallel action across the separate phases to drive system change.

- Promoting Principles of Circular Design
- Conscious Customer & Consumer Use
- Championing Collection Infrastructure
- Sustainable Production & Innovate Recycling
- Collectively Closing the Loop

It's really *Transition Time!*

Colophon

DSGC Publication 'Transition Time! – A Circular Economy for Plastics' Published by The Dutch Sustainable Growth Coalition (DSGC), 2021.

The Dutch Sustainable Growth Coalition (DSGC) is a CEO-led coalition of eight Dutch multinational corporations: Thierry Vanlancker (AkzoNobel), Geraldine Matchett and Dimitri de Vreeze (DSM), Hein Schumacher (FrieslandCampina), Dolf van den Brink (HEINEKEN), Pieter Elbers (KLM), Frans van Houten (Philips), Marjan van Loon (Shell) and Annemarieke de Haan (Unilever). The DSGC is supported by the Dutch Confederation of Industry and Employers VNO-NCW with president Ingrid Thijssen and facilitated by Accenture with country managing director Irine Gaasbeek. Chairman of the DSGC is Jan Peter Balkenende.

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