

Media Backgrounder

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Plastics Europe's response to: "ReShaping Plastics: Pathways to a Circular, Climate Neutral Plastics System in Europe"

Europe's plastics manufacturers commissioned this extensive independent report to help them evaluate the European plastics system's current position and the possible innovations and investments needed to help it reach the EU's ambitious net zero carbon emissions and circular economy goals. It demonstrates the strong commitment of Europe's plastics manufacturers to understanding the challenges and options available to us as we help transition.

The report explores a series of scenarios based on current publicly available market data, as well as innovations, commitments and policies. It also makes projections about how these different elements, including emerging technologies, may play out over a long time period.

The report - commissioned at such a critical time - makes a valuable contribution to informing and guiding the decisions of Plastics Europe, our members, and all stakeholders, as we consider the most sustainable pathways to circularity and net zero emissions. It is part of an ongoing process to support the transition - Plastics Europe and its members will take the report's conclusions into consideration when evaluating strategies to help support the EU's net zero carbon emissions and circularity ambitions.

1. Plastic Europe's response to the report

The report sets out one possible pathway for the industry to achieve climate neutrality, which highlights a faster, systemic change of the European plastics system, utilising all up and down stream levers, and recognises the scale of the reorganisation and innovation necessary to make the transition to net zero. Whilst there are many encouraging findings in the report, it is also critical in parts and raises challenges that Plastics Europe and our members need to analyse and consider.

The report confirms circularity is one of the fastest, most affordable, effective and reliable methods for reducing plastic waste and GHG emissions from the plastics system, and a key driver of system emissions reduction in the short to medium term. It highlights the need for all up- and down-stream levers to be engaged, including mechanical and chemical recycling, use of biomass, and design for recycling, as well as access to sufficient low carbon and renewable energy to reduce plastic waste and enable significant GHG reductions.

The report also recognises that plastics applications will play an important role in delivering emissions savings in many sectors of the economy, and confirms that the substitution of plastics with other materials provides very limited scope for reaching net zero emissions. What remains fundamental is that plastics are produced sustainably and the plastics we produce allow other industries to also improve their sustainability.

We support the need to improve and increase the collection, sorting and use of high-quality circular feedstock, thereby reducing the dependence on fossil feedstocks and considerably lowering the GHG emissions of the plastics system. The industry is already investing heavily in circular feedstocks as well as increasing the use of low carbon and renewable energy to reduce CO₂ emissions as we move towards net zero emissions and circularity.

- **Scale and complexity of the transition:** Our members are undertaking a far-reaching reorganisation of their production and technology base. This requires the use of alternative raw materials and energy sources, innovation, and new technologies and investments. This transition has accelerated in recent years, although long-investment cycles mean that it will take a number of years before the full benefits become apparent.

We are already working with our partners in the plastics value chain to deliver new systems thinking, mind set and behavioural changes, higher performing products, eco-design innovation and new infrastructure. On a weekly basis, our member companies are publicly announcing substantial investments, innovations and partnerships to help drive these systemic changes. These include investments in advanced recycling technologies, renewable energy and the production of more plastics from bio feedstocks and other potential sources of carbon such as CO₂ capture.

Plastics Europe recently announced, for example, a significant increase in planned chemical recycling investment: from 2.6 billion Euros in 2025 to 7.2 billion Euros in 2030.

Transitioning to net zero emissions requires a drastic reduction in emissions across the entirety of the European plastics value chain, from raw materials to end-of-life. We are under no illusions about the scale and complexity of this transition. We are talking about multiple supply chains, thousands and thousands of products and companies, each of whom have their own business strategies and models.

We fully agree that all up- and down-stream partners of the plastics value chain must be engaged to achieve the EU's objective of net zero carbon emissions by 2050 and successfully mitigate the impact of climate change. We agree that this will require significant short and longer-term investments from different private and public actors, as well as further technological innovations, new infrastructure and business models. This must be supported by policy frameworks that better support and incentivise our industry and value chain.

- **Circularity:** Plastics Europe will work more intensively with our members and value chain partners to encourage the adoption of (a) design for recycling, (b) circularity targets and (c) increased recycling across all key plastics value chains.
- **Net zero emissions:** To reach net zero emissions the plastics system will require a mix of industry action and the development of enabling conditions, including:
 - Investments over the coming decades across the value chain, including producers. This is also likely to impact on consumers through higher costs of goods.
 - Sufficient access to competitive, abundant renewable and low carbon energy. A clear policy framework that: helps the plastics industry realise the emissions reduction potential of enhanced circularity, identified in the report as the key driver of short to medium term emissions reductions.
- **Greater collaboration:** Collaboration between our industry and value chain has delivered real benefits. However, the report calls for more intense and effective collaboration between the plastics industry, our value chain and policy makers, and hope that its findings and recommendations will help to achieve that. The report gives an example of a 'plastics transition committee' model to work towards upstream and downstream climate and circularity targets.

The European Commission's Circular Plastics Alliance is a prime example of the type of concerted collaboration that is necessary. The alliance, in which Plastics Europe plays a leading

role, brings together over 300 value chain members striving towards the delivery of 10 million tonnes of recycled content in products by 2025.

Plastics Europe will work more intensively with our members and value chain partners to encourage the adoption of collaborative initiatives that support the EU's net zero carbon emissions goals.

- **Technology and innovation:** Plastics Europe fully supports the conclusion that increased investment in innovation and technology is needed to further develop and scale new pathways to net zero emissions, and its acknowledgment that chemical recycling technologies are essential for reducing plastic waste and increasing levels of circularity. In Europe, chemical recycling enables significant GHG reduction by diverting plastic waste from incineration.

It is important to also accept that uncertainty is inherent to net zero technologies and our industry cannot wait until we have all the answers before an enabling regulatory framework is put in place. This will only stifle investment and innovation.

- **Emission reductions:** Plastic Europe supports the EU's 2050 net zero emissions and 2030 emission reduction goals, and strongly believes that plastics have a critical role to play in enabling the transition of many downstream industries to net zero. We agree that achieving net zero emissions also requires a drastic reduction in emissions across the entirety of the European plastics value chain, from raw materials to end-of-life.
- **Reduction and reuse:** The report confirms that the substitution of plastics with other materials provides very limited scope for reaching net zero emissions. Plastics Europe therefore calls for: a recognition of the vital role that many plastics applications play in delivering emissions savings for any sector (e.g. automotive, medical, construction); and robust environmental and socio-economic impact assessments ahead of any policy proposal that is aimed at arbitrarily reducing the use of plastic or substitution with another material.

Reuse models will play a part in reducing emissions and plastics waste. Plastics Europe will work with stakeholders to define effective and sustainable EU reuse systems for relevant plastic items, including measurable targets.

- **Fossil feedstocks:** We support the need outlined in the report to increase the use of circular feedstocks and reduce the dependence on fossil feedstocks, considerably lowering the GHG emissions of the plastics system, and policies aimed at increasing the uptake of recycled or renewable content in plastic products, provided these ensure an overall environmental benefit (based on LCA).

Although the exact feedstock mix in the European plastics industry up to 2050 is not yet clear, it will combine reduced amounts of fossil feedstock use associated with increased amounts of chemically recycled plastic waste, bio feedstocks, and other potential sources of carbon.

- **Strengthening European competitiveness:** To maintain the competitiveness of the EU plastics system, climate policies must consider the global competitive environment. We welcome SystemIQ's finding that workable mechanisms and measures will be needed to keep the European industry globally competitive as the EU transitions to net zero.

2. Creating an enabling policy framework

Accelerating the transition will require an enabling policy framework that incentivises and fosters a climate of creative collaboration and competition which can help to maximise necessary and timely investment and innovation from both private and public actors. This framework should include:

- **EU Single Market: ensuring a harmonised and consistent regulatory framework:** The EU Single Market remains the single greatest opportunity in the industry's circularity and climate transition.

Restrictive national measures, definitions or requirements will slow the transition to a circular economy by creating different requirements across different geographies. It is essential that policymakers leverage the EU Single Market and create policy frameworks that are stable, long-term-oriented, and consistent across Member States which are pre-conditions for success.

It must foster a market environment that rewards supply of low-carbon and circular products and ensure that imported products adhere to the same standards as European production will remain key to the competitiveness of EU industry as it adapts to reach new EU climate and circularity targets.

- **Technology neutrality:** It is essential that all policies remain technology and material neutral to enable the rapid spread of current, and the development of future technologies required to achieve necessary levels of circularity and emissions reduction in the European plastics system, including in the fields of novel product design, collection and sorting systems, and recycling technologies.
- **Science-based and a data driven policy:** Policies should be science based and supported through holistic and agreed Life Cycle Assessments (LCA), including life-cycle GHG emissions. Plastics Europe is calling for robust environmental and socio-economic impact assessments based on clear, comprehensive and agreed methodologies ahead of any policy proposal that is aimed at arbitrarily reducing the use of plastic or substitution with another material. We must also ensure that innovation is considered in policies under development by the EU institutions, and that policy can evolve as new technologies are marketed.
- **Circularity and feedstocks:** We welcome the EU's aspirational target of 20% non-fossil carbon in plastic products by 2030 in its recent Sustainable Carbon Cycles Communication and call for an integrated and holistic policy approach with the necessary enabling framework to reach such targets, and linking such targets to downstream recycled content targets and clearly setting out the enabling conditions required to reach such targets. This should:
 - Ensure the availability of high-quality feedstock remains a key challenge for the plastics industry in reaching high levels of circularity - we call for continued investments in separate collection, sorting and recycling technologies.
 - Ensure that recycling remains the most viable end-of-life option for plastics waste through accelerating landfill bans and inclusion of municipal waste incineration in the revised EU ETS system.

European plastics producers recently called for a mandatory EU recycled content target for plastics packaging of 30% by 2030.

- **Public funding, innovation policy and investment support:** To maintain our competitiveness and strong technological leadership, we call for policies incentivising and promoting the use of circular feedstocks and thereby reducing dependence on fossil feedstocks, including all sources of recycled carbon from both mechanical and chemical recycling, sustainable biomass and carbon-

capture. We are also calling for continued R&D funding and incentives in the technologies which will be necessary to support the industry in reaching the EU's climate and circularity targets.

- **Net-zero and emissions reductions:** In addition to sufficient access to affordable, abundant renewable and low carbon energy at a global competitive cost, we are also calling for a policy framework that recognises the role of plastics in delivering emissions savings for key sectors like automotive and infrastructure. The carbon footprint of products must also be considered over their entire value chain (scope 1, 2 and 3) which is essential for industry to meet the 2050 net-zero emissions ambition.
- **Greater Collaboration:** We are calling for collaboration between policymakers (EU and national), all levels of the plastics value chain, and civil society in determining and working towards such upstream and downstream targets on climate and circularity. We will continue to engage in existing value chain partnerships and collaborations, including the European Commission's Circular Plastics Alliance (CPA). Meaningful progress towards achieving climate neutral ambition is clearly a global challenge so global policy efforts should align to promote a level playing field.

In addition, Plastics Europe is proposing a package of measures to help implement the report's recommendations and accelerate the industry's transition to net zero carbon emissions and full circularity. These include:

- Develop a roadmap for Plastics Europe and its members to accelerate the industry's transition towards 2050. This will include interim milestones / targets, as well as more ambitious policy recommendations and the development of mechanisms designed to support and incentivise the industry. This roadmap will report / review the targets being set by our members and progress being made.
- Ensure all Plastics Europe policy positions and recommendations are designed to accelerate the plastic systems' transition towards higher circularity and net zero emissions by 2050 - including the need for transformation of upstream and downstream GHG and circularity levers.
- Explore the creation of a new multi-stakeholder platform in 2022, modelled on the report's proposed 'plastics transition committee', which would be designed to ensure a step-change in the intensity and effectiveness of dialogue and collaboration with policy makers and the plastics value chain.

3. About the Report

ReShaping Plastics follows two reports from the Ellen MacArthur Foundation that established the vision of a circular economy, aimed at eliminating waste and encouraging the continual use of resources through reuse, redesign, and recycling. It also follows and relies on the many other studies listed as sources in this document. ReShaping Plastics builds on this previous research to provide an evidence-based, data driven, solution-focused, full-system approach aimed at answering the following key questions about the plastics system in Europe:

1. Where would the plastics system be headed if it continued along its historic trajectory?
2. What are the economic, environmental, and social impacts of current actions taken by governments and industry?
3. What are the impacts on plastic waste and GHG emissions by 2050 under different scenarios? What are the economic, environmental, and social implications of these scenarios and what are the benefits if they are implemented?

4. Can the European plastics system reach net zero emissions? What is required to achieve this goal and what are the costs?
5. What specific levers should be prioritised in the short, medium, and long-term to have maximum impact? What is a desirable innovation roadmap and how much could its implementation cost?

Independence

This report was developed under a rigorous independent governance mechanism. While the report was financed by Plastics Europe, an independent Steering Committee was established comprising a balance of leading civil society organisations, public sector leaders, and industry representatives (see full list of members on page 4). The Steering Committee provided strategic guidance and direction in all major project decisions and had complete independence in approving the strategic approach and recommendations. The detailed assumptions underlying the analysis were also supported by an independent Panel of Experts with deep competence in the range of subject areas touched on by this study (see full list of members on page 5). Plastics Europe was consulted to provide industry data, however all information was weighed against multiple alternative sources and final decisions were made by the independent Panel of Experts, Steering Committee, and SYSTEMIQ to ensure the report presents an unbiased position. The findings and conclusions of this report do not necessarily reflect the views of Plastics Europe or its member companies.

Steering Committee members:

- **Chair: Jyrki Katainen**, President of the Finnish Innovation Fund Sitra, Former European Commission Vice-President, Former Prime Minister of Finland
- **Deputy Chair: Kim Ragaert**, Full Professor and Chair of Circular Plastics, Faculty of Science and Engineering, Maastricht University
- **Dr. Martin Jung**, President, Performance Materials Division, BASF
- **Joan Marc Simon**, Executive Director, Zero Waste Europe
- **Sirpa Pietikäinen**, Member of the European Parliament
- **Marco Ten Bruggencate**, Commercial Vice President, Dow Packaging & Specialty Plastics
- **Werner Bosmans**, Team leader 'Plastics', DG Environment, European Commission
- **Cyrille Durand**, Lead, Plastics and Packaging, WBCSD
- **Ton Emans**, President PRE & Director, Group Recycling Cedo
- **Stéphane Arditi**, Director of Policy Integration and Circular Economy, European Environmental Bureau (EEB)
- **Prof. Martin Stuchtey**, Co-founder and Partner, SYSTEMIQ, Prof. of Resource Strategies, Innsbruck University
- **Rob Opsomer**, Executive Lead - Systemic Initiatives, Ellen MacArthur Foundation