



Environmental
Sustainability

CONSUMER PACKAGING WASTE MANAGEMENT: A BLUEPRINT

EXECUTIVE SUMMARY

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Building a Circular Economy for Packaging

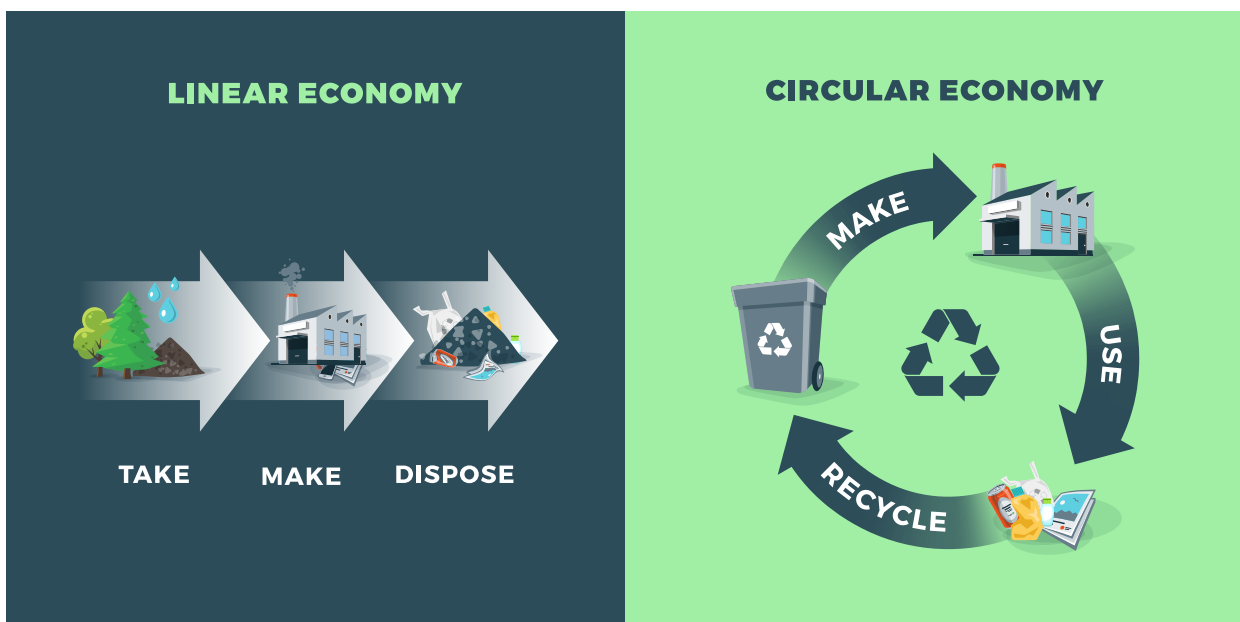
Moving from a linear to a circular economy requires a different approach to plastic usage, from production, consumption and reuse, to recycling and disposal. This new approach will require collaboration, knowledge and experience sharing, and creating partnerships with different sectors and organisations that, under different circumstances, might not normally have come together to act.

There is an urgent need to tackle the environmental problems associated with plastic waste, especially as 95% of plastic packaging is created for single use and packaging produced by our industry is on the rise globally. The United Nations Environmental Programme estimates that of the 8.3 billion tonnes of plastics produced since the 1950s, about 60 percent has ended up in a landfill or the natural environment. The 8-12 million tonnes of plastic litter that ends up in the ocean every year is one of the most visible and alarming signs of this problem. We need collaborative action,

and the CGF is in a prime position to drive positive change on the plastic waste challenge and toward a circular economy, given:

- the scale of the waste issue globally;
- our direct and visible association with it; the desire of some governments to raise funding for new waste handling facilities;
- the risk of cost impacts for the industry; the growing focus on the social and economic plight of waste pickers;
- the inability of any of our members to solve this issue alone;
- and the opportunities that can arise from the recovery of raw materials.

As such, the CGF is committed to working towards a common vision of a world where no plastic waste ends up in nature – land or sea.



Project Background

The CGF's work on plastic waste began in 2018 when our Board publicly recognised the need for our industry to play a leading role in tackling the issue. In October 2018, we endorsed the Ellen MacArthur Foundation's New Plastics Economy vision of a circular economy, and committed to implementing pre-competitive, collaborative actions towards greater circularity with the aim of eliminating plastic waste on land and sea.

The Board then identified the specific areas where our members can collaborate to make a difference, and in 2019 our working groups carried out significant actions behind the scenes as part of the CGF's work on environmental sustainability.

In this particular study, part of an intensive 12-week project, thirteen fast moving consumer goods (FMCG) companies — members of The Consumer Goods Forum — partnered to solve end-of-life challenges for packaging waste, notably the plastic packaging that has garnered significant media, consumer and regulatory attention.

This also included partnering with SYSTEMIQ and McKinsey to create this blueprint for reaching our ambitions through the development of a simulation model comparing collection and recycling rates, material flows, as well as associated financial and social implications for different combinations of waste management system design choices.

“We are grateful for the collaboration from McKinsey to support the CGF members in robustly understanding the global flows of consumer packaging waste through extensive analytical modeling and expertise. Their work created the basis for how we as an industry propose to tackle the issue of packaging waste together. However all policy recommendations from the coalition are solely from CGF members.

*Eric Hannon
Partner
McKinsey & Company*

“The challenge of plastic waste is real and urgent, and best addressed through specific actions that CGF members can take individually and collectively in partnership with governments, NGOs and the recycling industry. Our members are committed to doing their part to ensure we close the loop and help improve plastic waste management.

*Ignacio Gavilan
Director, Environmental Sustainability
The Consumer Goods Forum*

Supporting CGF Members



The Case for Change

- Public opinion regarding packaging and plastics is quickly shifting.
- Recent examples demonstrate accelerating shifts in consumer sentiment, creating regulatory and brand risk for fast moving consumer goods (FMCGs) producers, at a rate faster than any previous issue, such as sugar.
- The financial risk to the consumer packaging goods (CPG) industry is up to \$130 billion per year; the net cost to operate a robust collection and recycling system across the world.
- This cost is approximately 3% of the combined industry revenue for fast moving consumer goods producers.
- According to research from the Morgan Stanley Institute for Sustainable Investing, plastics reduction and climate change are sustainable investors' top priorities.



Project Ambition and Key Insights

- The member companies aligned on a common ambition: “No waste to nature with significant progress towards a circular economy by 2030.”
- To create a blueprint for reaching the ambition, the project developed a detailed waste management model for both mature- and transitional-market archetypes.
- Mature market archetypes are characterised by full population coverage of waste management systems, which eliminates leakage to nature, and therefore focuses on increasing recycling.
- Immature market archetypes are characterised by low waste management coverage, which causes high leakage to nature risk, and therefore focuses initially on increasing collection.
- The model was used to create detailed blueprints for two representative countries: the UK (mature archetype example) and Indonesia (immature archetype example).



Mature Market Insights

- In mature markets, increasing recycling rates to approximately 50% is possible by implementing existing methods and technologies including harmonised collection systems with source separation, separated paper waste streams, and optimized DRS.
- To increase recycling rates from ~50% to ~70% requires significant modernisation of the recycling system. This will take new technologies in sorting and the scale up of chemical recycling to give a circular solution for flexible plastics.
- The costs to increase recycling rates to the European Union target levels of 70% are potentially manageable (c. 2% of industry revenue) if the most effective levers and technologies are implemented.
- Just improving waste management reaches a natural performance limit at ~70%, therefore to push past this limit and to preserve profit pools CPG companies must also address:
 - Packaging design (e.g., reduce, standardise)
 - Consumer education (e.g., through advertising and packaging)
 - Changes in business models (e.g., reuse models, partnerships with retailers)



Transitional Market Insights

- In transitional markets, the scale-up to reach 100% collection by 2040 is immense. We need to add 400,000 people (or 100,000 households) per day, every day, into the system for the next 20 years.
- The costs to build and then operate these are not affordable by government or industry as they roughly equate to the entire profit pool of the CPG industry.
- Therefore it is likely that major packaging redesign (potentially out of plastic) or new business models will be needed.
- An additional challenge is that to reach this tremendous scale up by 2040 you need a mix of informal and formal collection. The informal waste-picking sector is effective but fraught with social issues.



Results & Recommendations

The initiative was successful: it has deepened every company's understanding of the issues, created a strong team of peer organisations working to address this common problem, led to a strong alignment on some important insights, and developed a set of specific recommendations.

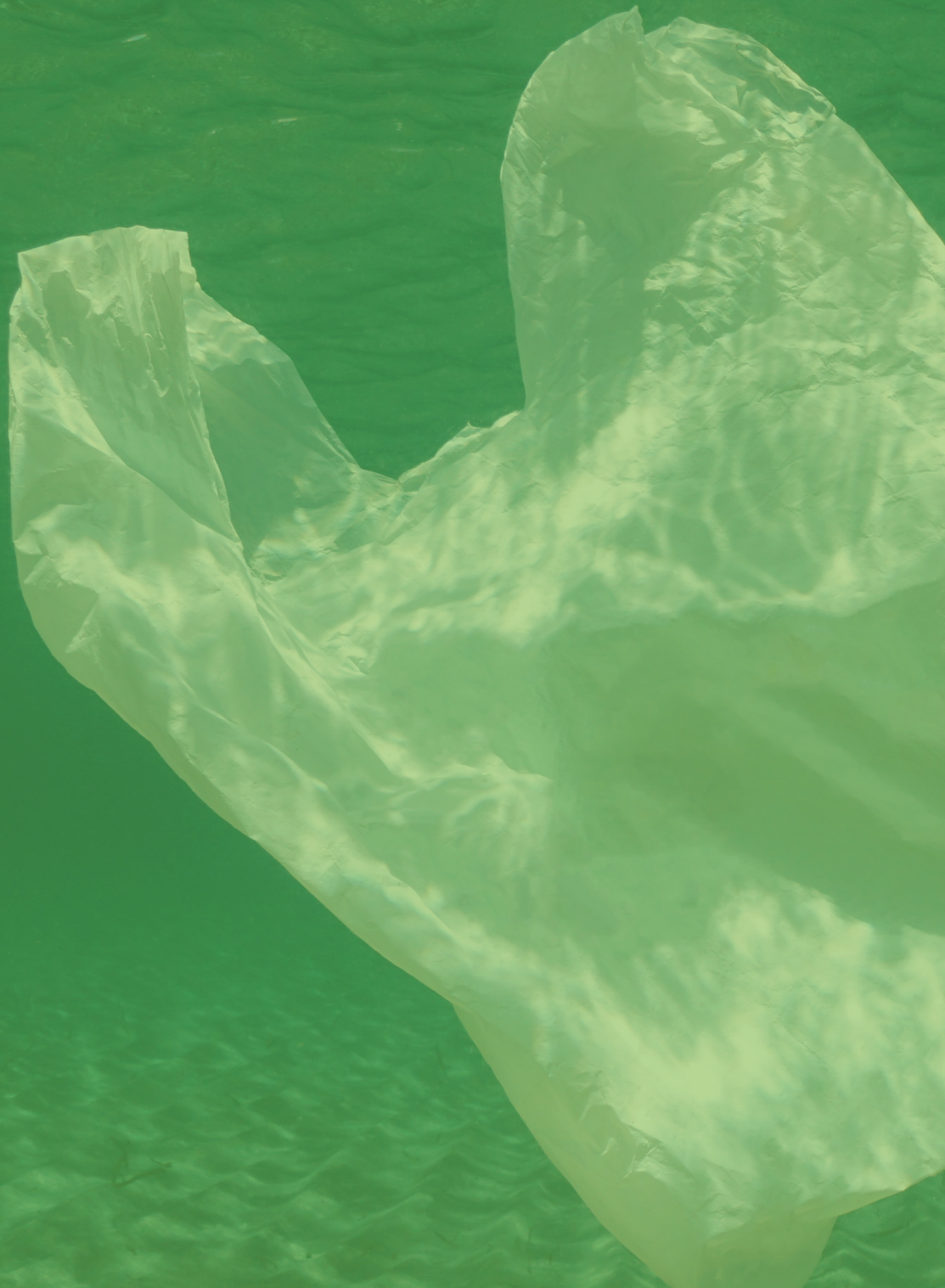
1. Engage with stakeholders in mature countries to enable implementation of the optimal waste management system.
 - Use the insights gained from the modeling to influence the stakeholders including government in a first wave of priority mature markets towards the most efficient waste management system.
 - Most mature markets have existing mechanisms in place – such as PROs and Pacts – that can serve as vehicle for engagement. This will be most effective if peer companies influence in a harmonized and collective manner.
2. Launch a pilot at a country-scale to test the combination of different collection models to reach no leakage in transitional countries.
 - Use the pilot to confirm the best model(s) to quickly drive collection rates to acceptable levels, at a financially viable cost.
 - Our initial recommendations for pilot countries are: Indonesia, India, or Vietnam. (For Indonesia and India, we recommend a state-scale pilot.)
3. Build a buying consortium to create sufficient demand to catalyze investment in scale-up of chemical recycling for flexibles.
 - Flexible films today have no at-scale solution to recycling or increasing recycled content; the most promising is pyrolysis (chemical recycling) which requires significant investment to reach scale.

In order to make progress on these recommendations, it is imperative that this group of companies continues to work together to refine the model and identify further countries for blueprint modelling.



About The Consumer Goods Forum

The Consumer Goods Forum (“CGF”) is a global, parity-based industry network that is driven by its members to encourage the global adoption of practices and standards that serves the consumer goods industry worldwide. It brings together the CEOs and senior management of some 400 retailers, manufacturers, service providers, and other stakeholders across 70 countries, and it reflects the diversity of the industry in geography, size, product category and format. Its member companies have combined sales of EUR 3.5 trillion and directly employ nearly 10 million people, with a further 90 million related jobs estimated along the value chain. It is governed by its Board of Directors, which comprises 58 manufacturer and retailer CEOs. For more information, please visit: www.theconsumergoodsforum.com.



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