
Towards a New Plastics Economy

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TOWARDS A NEW PLASTICS ECONOMY

Sander Defruyt

Lead of the New Plastics Economy initiative, Ellen MacArthur Foundation



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The Ellen MacArthur Foundation was launched in 2010 to accelerate the transition to a circular economy. Since its creation, the charity has emerged as a global thought leader, establishing the circular economy on the agenda of decision makers across business, government, and academia. The Foundation works with the support of its Knowledge Partners (Arup, IDEO, McKinsey & Company and SYSTEMIQ), its Global Partners (Danone, Google, H&M, Intesa Sanpaolo, NIKE Inc., Philips, Renault, Solvay, Unilever), and its Core Philanthropic Funders (SUN, MAVA, players of People's Postcode Lottery (GB)).

Sander Defruyt leads the New Plastics Economy initiative, an ambitious three-year initiative bringing together key stakeholders to rethink and redesign the future of plastics, starting with packaging.

KEYWORDS

- CIRCULAR ECONOMY
- NEW GLOBAL PLASTICS SYSTEM
- PACKAGING
- INNOVATION
- COOPERATION

Our current plastics system is broken: if we do not fundamentally change it, there could be more plastic than fish in the ocean by 2050. Globally, just 2% of plastic packaging is recycled back into packaging, while the vast majority ends up landfilled, incinerated, or in the environment. To build momentum towards a plastics system that works, the New Plastics Economy initiative was recently launched in 2016 to promote the transition towards a circular economy for plastics in which they never become waste. It works with businesses, governments, NGOs, academics, and other stakeholders to catalyse the move away from today's linear "take-make-dispose" model and redesign the global plastics system based on the principles of a circular economy.

It is crucial for everyone involved in the plastics industry to understand that we need to go beyond collecting and recycling more. Both are important but they are not enough – we need to redesign the entire plastics system by starting upstream, thinking carefully about what we put on the market. Problematic or unnecessary plastic packaging must be eliminated through innovation and new business models. All remaining plastic packaging needs to be reused, recycled, or composted in practice. Finally, all plastic packaging is made from as much recycled content as possible and free from substances of concern. The aim is to ensure that plastic never ends up as waste, or worse, polluting the environment. It will require innovations, exploring the use of new materials, and new business models.

What is the ambition of the “New Plastics Economy” initiative launched by the Ellen MacArthur Foundation in 2016?

The New Plastics Economy initiative was created to work with businesses, governments, NGOs, academics, and other stakeholders to catalyse the move away from today’s linear “take-make-dispose” model and redesign the global plastics system based on the principles of a circular economy.

While plastics have become an integral part of our economy and daily lives, it has become clear that the system is broken.

Globally, just 2% of plastic packaging is recycled back into packaging, while the vast majority ends up landfilled, incinerated, or in the environment. The three best known major international beach and ocean clean-ups jointly deal with less than 0.5% of the annual volume of plastic marine litter. Efforts to clean up waste are crucial for dealing with the symptoms, but do not address the root causes of the plastic problem we face.

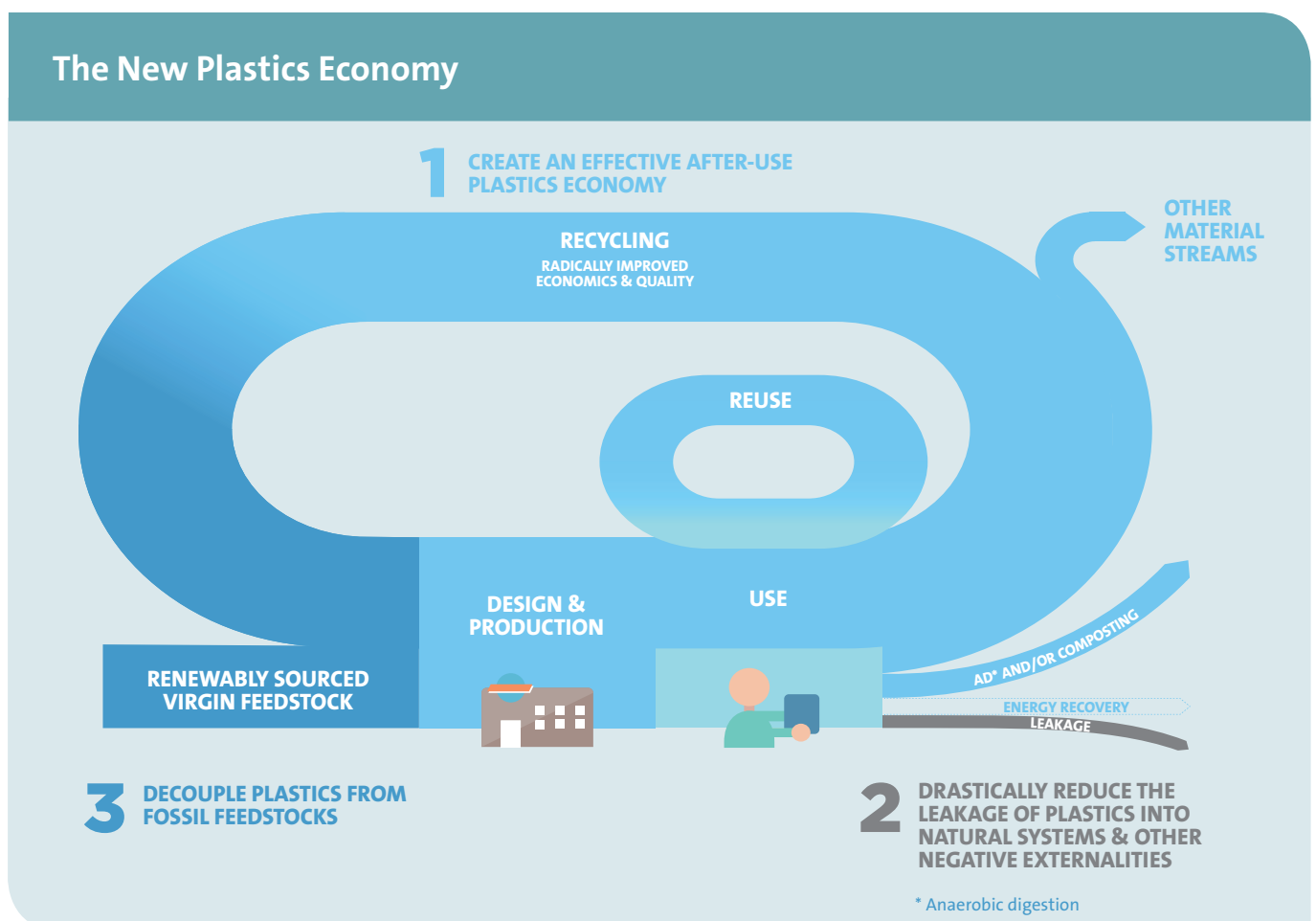
Equally, rethinking the system is about more than just improving collection and recycling. While it is part of the solution, we cannot simply recycle our way out of the

issues we face. We need to start thinking carefully about what we put on the market in the first place. For example, 30% of all plastic packaging items on the market today are either too small (e.g. small wrappers and sachets) or too complex (multi-layered materials) to be recycled. They require fundamental redesign and innovation.

By adopting the full system redesign set out by the New Plastics Economy, we can ensure plastics do not become waste and remain in the economy as a valuable material.

What are the main outcomes of the New Plastic Economy thus far?

Our first report, The New Plastics Economy – Rethinking the future of plastics, was published in January 2016 and laid out the drawbacks of today’s broken system. The prospect of there being more plastic than fish in the ocean by 2050 if we do not fundamentally change our plastics system, captured global headlines and is still being referred to by media and others on a very regular basis. More importantly, the same report not only highlighted the problems but also put forward a vision of a plastics system that works – a circular economy for plastics in which they never become waste.



At the beginning of 2017, the second New Plastics Economy report laid out a more concrete action plan to realise the vision based on three pillars: redesign and innovation, reuse, and recycling. This again was endorsed by leading businesses and governments around the world.

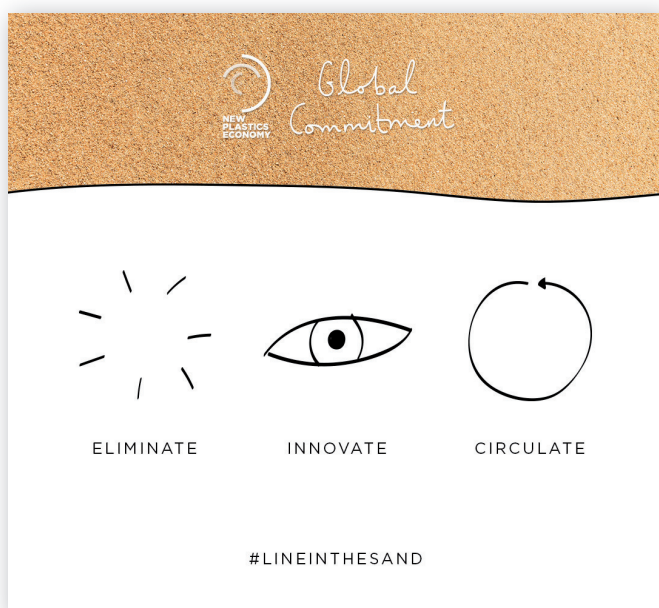
More and more businesses and governments, as well as NGOs, academics, and other organisations are rallying behind this common vision, recognising that it provides a systemic solution that addresses the root causes of the plastics pollution crisis and not just the symptoms.

We also set up our USD 2 million Innovation Prize, which has inspired others to take action. Following this contest, several multi-million investment funds have been set up for creating a circular economy for plastics.

Recently, we launched our Global Commitment to draw a line in the sand against plastic waste and pollution.

What is the role of the New Plastics Economy Global Commitment and how will it make a difference?

To tackle the problem of plastic waste and pollution at source, the Ellen MacArthur Foundation, in collaboration with UN Environment, launched the New Plastics Economy Global Commitment at the 2018 Our Ocean Conference in Bali (Oct, 29). With over 250 signatories, the Global Commitment aims to catalyse action to radically change our current ‘take-make-dispose’ approach to plastic and make way for a system where waste and pollution are designed out. Signatories commit to eliminate the plastic items we do not need; innovate so all plastic we do need is designed to be safely reused, recycled, or composted; and circulate everything we use to keep it in the economy and out of the environment.



It is the largest effort ever to mobilise businesses behind targets that can be pivotal to help end the plastic pollution crisis: the more than 250 signatories together cover over 20% of the global plastic packaging market and the commitment is supported by WWF, and has been endorsed by the World Economic Forum, The Consumer Goods Forum (a CEO-led organisation representing some 400 retailers and manufacturers from 70 countries), and 40 universities. Five venture capital funds have made commitments to invest over \$200 million by 2025 to create a circular economy for plastic and more than 15 financial institutions, including the European Investment Bank, with in excess of \$2.5 trillion in assets under management have endorsed the Global Commitment.

How can leading brands, retailers, and packaging companies change their plastics habits?

Given the scale of the challenge, immediate action is absolutely required. Many signatories are capturing quick wins and we strongly encourage others to follow their lead. For example, Marks & Spencer is removing single use plastic cutlery and straws this year. Colgate Palmolive will eliminate PVC packaging by 2020 and others have eliminated PVC from their packaging already. Eliminating such unnecessary and problematic plastic is something that can be done very quickly. We encourage all signatories to prioritise actions like these as they can have a significant impact in a minimum amount of time.

Unfortunately, there is no easy, one-size-fits-all solution to realise these commitments. It will vary from business to business and government to government. What is clear though, is that to be successful we need to collaborate as we are changing a global system that involves and affects so many people and organisations. It is by working together and sharing knowledge and best practices that we can provide support to jointly achieve our commitments and develop circular solutions that will make everyone better off in the end.

How can we redesign the global plastic packaging market?

It is crucial for everyone involved in the plastics industry to understand that we need to go beyond collecting and recycling more. Both are important but they are not enough – we need to redesign the entire plastics system by starting upstream, thinking carefully about what we put on the market.

Problematic or unnecessary plastic packaging must be eliminated through innovation and new business models. All remaining plastic packaging needs to be reused, recycled, or composted in practice. Finally, all plastic packaging is made from as much recycled content as possible and free from substances of concern.

The aim is to ensure that plastic never ends up as waste, or worse, polluting the environment. It will require innovations, exploring the use of new materials, and new business models.

What are the examples of successful collaboration within the New Plastics Economy initiative?

Bringing together all the relevant stakeholders is at the core of the work of the New Plastics Economy initiative. A good example that highlights the importance of successful collaboration, is captured by our Pioneer Projects. These projects are all about cross-value chain collaboration and are initiated and run by businesses, using their expertise and knowledge to help tackle the barriers that we face in the transition towards a new plastics economy. They are pre-competitive collaborations that invite stakeholders from across the plastics industry to create and test innovations that could change the way we design, use, and reuse plastic packaging.

In the framework of the New Plastics Economy initiative, how do you develop initiatives at a local level ?

To create a New Plastics Economy we need ambitious efforts around the world with a shared vision. However, when it comes to implementing a new plastics economy, we still need solutions that are appropriate for their local context. The Plastics Pacts are precisely that: innovative, multi-stakeholder collaborations that help create a circular economy for plastics in their designated country or region within a specified timeframe.

Our team works to bring together all the key players involved in plastics at national or regional level. By collaborating with local stakeholders across the globe, we are creating a common agenda and setting ambitious 2025 targets. Through these pacts, a network national or regional frameworks will be set up so that countries can demonstrate their leadership and inspire and challenge one another.

The UK Plastics Pact is the first implementation of this wider international initiative. The pact is between UK businesses, governments, local authorities, NGOs, and citizens, addressing the need for collective action. It is led by UK charity WRAP and supported by the Ellen MacArthur Foundation. In Chile, 7,000 miles away, a second Plastics Pact is being prepared. After the UK and Chile, others will follow, all with the same vision – the creation of a new plastics economy.

What are the innovative approaches to develop new models for making better use of packaging?

There are numerous examples of innovative ways of “going circular” for plastics packaging. For instance, MIWA, from the Czech Republic, introduced an app that lets shoppers order the exact quantities of the groceries they need, which are then delivered in reusable packaging from the producer to their closest store or to their home. By connecting the producer with the consumer, the concept of package-free stores is taken to an even further level. This way single-use packaging is completely eliminated along the product’s value chain.

Algramo, a Chilean social enterprise, offers products in small quantities in reusable containers across a network of 1,200 local convenience stores in Chile, reaching more than 200,000 customers. Targeting economies where recycling infrastructure is limited and small packaging items such as sachets often end up in the environment, Algramo introduces a reusable packaging system with dispensers and affordable containers. While dispenser systems are not new, Algramo is at the forefront of making them a frugal and robust system for markets where single-use sachets are the most prominent form of packaging, and where designing them out will have the biggest impact.

Australian company Splosh provides customers with refills in dissolvable sachets, which they can mix with water in a refillable bottle at home.

How do you see the global plastics economy in five-ten years?

While the commitment already represented 20% of the global plastic packaging industry on the day it was launched, more businesses and governments need to join and become part of this unstoppable momentum to help create a plastic system that works – one that provides benefits for society, the economy, and the environment.

Since the launch, more organisations have signed up every week. In five years, businesses should have eliminated problematic and unnecessary plastics packaging, ensured the rest of their packaging is reused, recycled, or composted, and the use of recycled content will have been greatly increased – drastically reducing the need for virgin fossil-based materials.