

The circular economy and the challenges with packaged goods

— A look back and a path for the future

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Over the past 5 years, you have probably heard a flurry of stark messages about packaging, in particular plastic packaging. Perhaps you have paused to think that some of those messages are conflicting with each other, and asked yourself what really is true.

In reality, the understanding about the packaging system and how it interacts with and impacts society and the environment is constantly evolving. A lot has happened in just over 5 years – before which our understanding was relatively immature.

Since then, we have gone through 3 distinct stages of insight that have shaped how we look at the possible solutions. You will find that these insights have gradually moved the focus upstream, from concentrating on dealing with the waste to redesigning the delivery models themselves. As you will also discover soon, the most recent stage of insight is the most profound yet, and will drastically change how the packaging system works.

Before we dive in, let's point out a few seemingly obvious but important things:

——— Packaging, and particularly plastics, brings enormous benefits to society. It is hard to imagine a modern life without packaging to protect food and other products through their complex, global value chains, and help us in uncountable other ways.

——— Yet, the data clearly shows that the extreme linearity of the packaging system is a big – and rapidly growing – problem.

——— The extent of this problem is different in different geographical areas, but since packaged goods are often part of a global value chain, it's all connected.

Stage 1: Focusing on the after-use system (2012–2015)

As plastic waste washing up on beaches in even remote locations, along with images of bird carcasses with bellies full of plastic became more and more frequent in social media and the news, industry and policymakers started to pay attention, **realising that there is a problem with plastic waste.** [A research article in Science in 2015](#) gave us a startling understanding of the size of the problem: *4-12 million tonnes of plastic enters the world's ocean every year*, roughly equivalent to [1 garbage truck dumping plastics in the sea every minute](#). Since it was shown that almost all of this material is land-generated waste, it was natural to start looking at how this waste is handled. Moreover, since most plastic waste is generated in emerging markets, should we not focus on them?

The 2015 report [Stemming the Tide](#) recommended focusing on 5 high-leakage countries to help the often completely informal waste sector expand and handle more waste. Note that we are not talking about closing the loop here, only to stop the waste from entering the ocean once created. A couple of years earlier, [The Ocean Cleanup](#) was founded, a sophisticated approach to collect plastics from rivers and oceans once it made its way there.

While a lot of people and businesses joined the bandwagon to help clean up beaches, riverbanks and parks, it was argued that since packaging usually makes its way through consumers before becoming waste, a lot of responsibility for preventing it was put on consumers. Therefore, a lot of effort was put into 'educating' consumers to recycle more and not litter (a practice that is still common in marketing and communications). But are consumers really the weakest link in the chain to close the loop on plastics?

In fact, this message to consumers was far from new. The now infamous ['Crying Indian'](#) commercial from 1971, which urged American consumers



to stop littering, has been [heavily criticised](#) for moving responsibility for pollution from businesses to consumers. By the end of 2015, it was becoming increasingly clear that the solutions to the plastic pollution problem needed to be more systemic and found further upstream.

Stage 2: Redesigning the packaging for recycling (2016–2019)

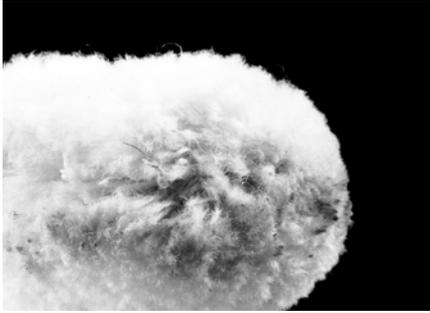
To really start addressing the problem with plastic waste required understanding that in fact, **there is a problem with the packaging system.** A new milestone in our understanding of the plastics system was reached in early 2016: [The New Plastics Economy](#) report showed that if we continue on the current pathway, there could be

[more plastics than fish](#) in the world's oceans by 2050. It was one of the first works to argue that the plastics system as we currently know it is broken and set up to fail if we don't change it. Finally, it proposed a way of making the plastics system work, based on circular economy principles.

The key idea behind circular economy, which now started to dominate business and policy discussions around plastics, is to make the system [restorative and regenerative by design](#). In such a system, there are no silver bullet solutions, but it is clear that a packaging's fate is dependent on its design.

Therefore, during this period, more focus was put on designing for recycling, placing more onus on brands and packaging manufacturers to move away from

Photographer: Sam Moqadam



unrecyclable materials and formats. The need to improve and expand recycling systems was of course also recognised, but it's a pretty big step to rethink plastics as a design problem instead of a waste problem.

A major consequence of this shift is that we now started to regard some plastics as 'unnecessary or problematic', leading to one of the landmark legislations of this period: the [EU Single Use Plastic directive](#). It with among other things, bans a number of plastic items deemed unnecessary, prone to littering and too costly to recycle.

In parallel, companies and governments started to make new and more ambitious commitments to contribute to a circular economy for plastics. Unilever arguably led the pack with its [2017 announcement](#) to sell 100% reusable, recyclable or compostable packaging by 2025. A year later, the number of companies making this commitment [had grown to 11](#), and in the fall of 2018 the [Global Commitment](#) was launched, involving over 100 companies making an extended list of 2025 pledges. The number has since then [grown to over 450](#), representing ~20% of the entire plastics packaging value chain.

The Global Commitment is a fitting culmination to a stage characterised by moving from awareness to action, and a reckoning with the value chain's own responsibility to deal with the plastics problem. However, for all the ambition displayed, [not much intent has been shown](#) to do something about the underlying business model: to sell large volumes of stuff wrapped in single use packaging. This is true regardless of material, and although switching

from plastics to paper can in some cases increase recycling and reduce environmental footprint, it is not at all a perfect solution to the plastics crisis. As we are learning in the final stage, we have to challenge the basic business model of packaged goods.

Stage 3: Redesigning the business model (2020–)

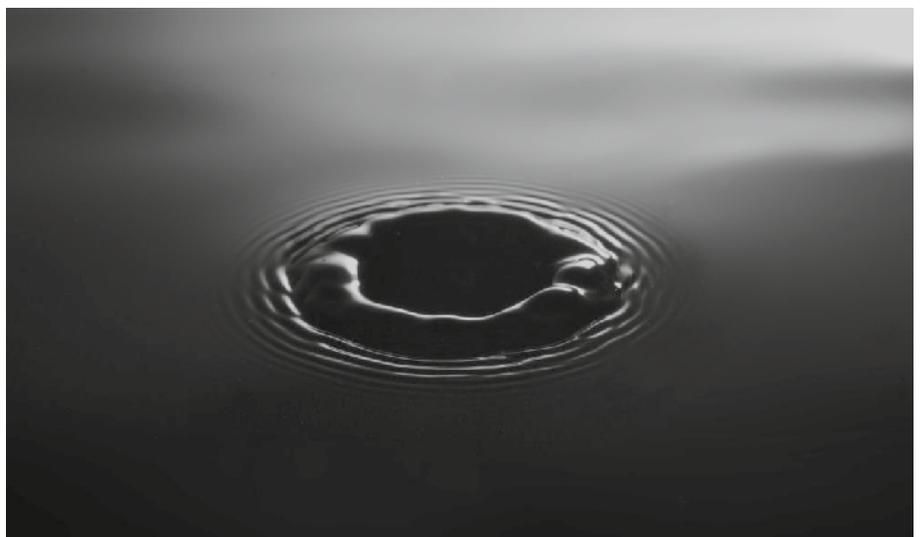
As businesses now start concentrating on delivering on their commitments, we're also beginning to learn just how difficult it is to ensure plastics packaging can be recycled, and that perhaps **there is a problem with the amount of packaging we use**. In practice, only 3 plastic types are widely recycled in Europe today (PET, rigid PE, rigid PP), with actual recycling rates below or in the low 20%. This is still seen as one of the most advanced markets for recycling. Almost no flexible plastic, which today makes up 48% of all plastic packaging and is the fastest growing packaging type, is recycled.

The recycling challenge was highlighted already in 2016 by the NGO consortium [#breakfreefromplastics](#) who stated that "we cannot recycle our way out of this" and called for a reduction in plastics use. Since then, NGOs have continued to scrutinise the

proposition that making packaging more recyclable is enough, with some going as far as saying that promoting recycling is just a [corporate strategy to delay legal action](#).

In 2020, more and more research supports the idea that just trying to recycle our single-use packaging without changing the underlying business model is not going to work. The report [Breaking the Plastics Wave](#) put fresh numbers to the untenable evolution of the plastics system, supported by a [peer-reviewed methodology](#). It shows that in a business as usual scenario, plastics use is set to double by 2040. And with the amount of plastic packaging growing faster than the capacity to recycle plastics, the plastic leakage to oceans would triple in the same timeframe. Unfortunately, the unprecedented commitments made by companies and governments in the last few years would only reduce the leakage by 7 percentage points.

So, it is clear that a new ambition level is needed, and the report has a suggestion. Based on what we've learned about circular economy so far, it should come as no surprise that among a set of systematically evaluated scenarios, only a broad combination of measures would reduce plastic leakage to the oceans sufficiently. More striking is the finding that the biggest potential in eliminating plastic waste comes



Photographer: Julian Böck

from reducing plastic use in the first place. Even more striking: Reducing plastic use is the most cost-effective set of measures in the whole range of interventions.

We are already seeing implications of this stage of insight: Companies like [Unilever](#) and [Nestlé](#) have set absolute reduction targets for plastics, and more can be expected to follow. Achieving such reductions, however, will not be possible without moving away – at least partially – from single-use packaging as the basis of delivering products. We're talking about alternative business models using reusable containers – or no containers at all.

Does this mean returning to an arcane, expensive 'milkman' model? Both yes and no. Direct to home delivery of packaged goods is a good way of introducing reusable packaging without burdening the consumer with inconvenient returns. The rapid expansion of [LOOP](#) shows it can be done. Add a layer of connectivity and automation and your milkman is on call 24/7 and can customise your every order.

Reuse is coming. Behind pioneers like [LOOP](#), [Splosh](#) or [CupClub](#), countless innovators are rushing to provide solutions using [reusable packaging](#), or no packaging at all. And while these solutions come at a premium compared to thin-film plastics made with subsidised oil today, an EU-wide [EUR 800/tonne tax on virgin plastics](#), proposed to come into effect on 1 Jan 2021, gives a hint of how legislators are moving to level the playing field.

What does this mean for you?

We're now in the third major stage of insight about the plastics system, and how to tackle its problems. There might be more – who knows? What we can say is that there are a few key takeaways to be mindful of if you want to future-proof your business:

Change is coming – be prepared. More and more businesses are at risk if placing all chips on the status quo, and there is a first mover advantage for those betting on change.

There will certainly be some backlash – and rebound – as a reduced demand for plastic causes the already depressed price to stabilise or shrink further and create tempting incentives to stick with single-use plastics. It doesn't help that there is [\\$400 billion worth of investment](#) in new capacity by big oil companies, who seek a replacement for the anticipated decline in demand for fuel.

The good news: the tools have never been more available, and the market never more ready for a radical rethink of how packaged goods get delivered from you to the customer. As for the multi-billion dollar investments in more cheap plastics, they might just turn out to become [stranded assets](#).

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