

November 2023

Taking a science- based approach: Optimising the Plastic Packaging Transition to meet future regulations & long term targets

Executive Summary

What you will learn

This paper explores the challenges and opportunities in transitioning to renewable and circular packaging, with a focus on overcoming barriers and managing costs and giving some practical considerations for collaboration and future planning.

This paper is based upon the interviews Unibloom has held with several stakeholders in the industry and deep dive interviews with Notpla, WRAP & Swedish Environmental Protection Agency as well as wider desk research.

The overall finding is that the plastic transition is happening and corporates have committed to ambitious targets. However it is very complex & time consuming to optimise right trade-offs at the right time, understand which materials & costs actually are the best blend and even harder to get decisions made to truly operationalise with the speed, which needs to happen.

The risk of leaving those analysis, planning towards target & collaboration between departments and teams in spread sheets and emails is a high risk of delaying decision making and missing regulation changes and missing 2030 climate targets.

70%
of recyclables
end up in landfills





The over-exploitation of the planet's resources through the way we consume food and products needs to change. Together with energy, ingredients, natural resources & social impact, plastic packaging is one of the key transition elements that companies operating in these sectors need to address. **Therefore, if the consumer goods industry wants to set a path to a net zero future & hit their commitments to science based targets, it will have to fundamentally rethink its relationship with plastic.**

Consumer goods companies, the health sector and particularly companies in the food and beverage industries are operating in a complex and challenging environment. On the one hand, they are facing a raft of new regulations and taxes aimed at moving the sector away from many forms of single use plastic. This is also happening in parallel with increasing consumer awareness of the environmental impact of packaging waste.

As companies operating in these sectors are increasingly compelled to rethink their approach, many are starting to set concrete targets to reduce plastic in their value chains, but now need a way to find innovative ways to meet their sustainable packaging goals while balancing climate, cost, and biodiversity impact.

The knock-on impact of all of this means that the global packaging industry is undergoing a major transformation. The industry is having to respond to the sustainability concerns of the companies they supply as well as the regulatory pressures from within the markets they operate. **This is driving the adoption of renewable and circular packaging solutions.**

If we are to maintain the 1.5-degree target and make net zero achievable, we must shift our consumption habits **to address the excessive use of Earth's resources in the production and consumption of food and goods.**

3.4%
of all emission is
coming from
plastic packaging

This will require systemic changes throughout our supply chains and fostering collaboration. Altering the way we produce and consume items is crucial, **as it directly impacts 45% of global greenhouse gas emissions.** Food production alone contributes to 30% of these emissions, while textiles contribute a further 8%. Plastic packaging accounts for 3,4% of emissions so tackling these has an important role to play in our path to net zero, not only that, as when it comes to plastic, the emissions associated with it are only part of the problem

Packaging and its impact have become such a huge focus for food and beverage and FMCG brands from a sustainability perspective. It's no secret that a lot of this packaging is still made from plastic. It's an interesting time to be in this space as we're starting to see a lot of new policies coming into force globally limiting or banning certain single use plastics, so brands are really feeling the pressure to look at more sustainable materials

Hoa Doan

Head of Sustainability & Impact at Notpla



Take a holistic approach

Research by WRAP has shown that:

- ✓ The world produces **141 million tonnes** of plastic packaging a year
- ✓ **Around a third of all plastic** packaging put on the global market leaks from collection systems, polluting the environment.
- ✓ Plastic production, use and disposal contributes **about 1.8 billion tonnes of carbon emissions annually**.

How much are we collecting and recycling

The rates of recycling for plastic packaging remain relatively low and it's important to note that data collection quality on recycling rates is still developing, so actual rates may differ from reported figure

- ✓ In the United States **only about 28 percent** of packaging and food service plastics are recovered.
- ✓ **In Europe, the reported plastic-packaging recycling rate is somewhat higher at around 40 percent**, however, this is still low when compared to the recovery of other materials (**e.g., paperboard boasts approximately 80 percent, and metal and glass range from 75 to 80 percent**).
- ✓ Emerging regions, especially in Asia, face significant pressure due to the rapid growth in packaging demand surpassing global growth rates, with inadequate waste-collection systems and limited recycling infrastructure.
- ✓ **Globally, about 19 percent of all plastic** material flows experience leakage or end up in unmanaged dumps, and only 16 percent of plastic waste is reprocessed to create new plastics

Unfortunately, a substantial portion of global plastic waste, around 25 percent, is incinerated, and 40 percent ends up in landfills, resulting in the permanent loss of these materials as a resource, despite the potential for reuse and recycling.

How much is leaking and what is the impact of this?

Plastic pollution has been observed across all major ocean basins, beaches, rivers, lakes, and even in remote areas like the Arctic and Antarctic. **The estimated global release into the environment, both on land and in water, was 22 million tonnes in 2019. This figure is expected to double, reaching 44 million tonnes by the year 2060.**

Most of this pollution consists of macroplastics, by that we mean easily recognisable items like beverage bottles, primarily entering the natural environment due to insufficient collection and disposal practices. Other sources of leakage include littering, illegal dumping, and activities in marine environments.

Microplastics, which are small plastic pieces measuring less than 5 mm (0.2 inches) in length, also contribute significantly to the overall pollution. They often enter the environment through the wear and tear of tires and road markings, as well as the unintentional release of plastic pellets and the washing of synthetic textile fibres.

Plastic leakage is causing disruptions to both marine and terrestrial ecosystems. Determining the precise number of marine animals affected by plastic pollution is challenging, but estimates suggest that approximately 100,000 marine mammals succumb to plastic-related issues annually. **Among the 123 known marine mammal species, 81 have been documented to either ingest or become entangled in plastic.**

In addition, plastic leakage also poses significant threats to human livelihoods reliant on these environments, such as tourism and fishing. **In 2019, 6.1 million tons of plastic waste found its way into rivers, lakes, and the ocean.** Most plastics enter the ocean through rivers, undergoing a slow process that can span years or even decades. **By 2019, an estimated 109 million tons of plastics had accumulated in rivers globally.**

With the escalating use and disposal of plastics, the stock of plastics accumulating in aquatic environments **is projected to more than triple from 140 million tons in 2019 to 493 million tons by 2060.** The task of cleaning up these plastics from nature is becoming increasingly challenging and costly each year, exacerbated by the fragmentation of plastics into ever smaller particles.

What about global emissions?

The threats posed to oceans, land, and human health, isn't the only impact of our addiction to plastics, as plastics also play a significant role in the overall global greenhouse gas emissions. **In 2019, plastics were responsible for 1.8 billion tonnes of greenhouse gas (GHG) emissions, accounting for 3,4% of the world's total emissions.** Notably, 90% of these emissions originated from the production and conversion of plastics from fossil fuels. Projections indicate that by 2060, emissions from the entire lifecycle of plastics will more than double, **reaching a total of 4.3 billion tonnes of GHG emissions.**

Consumer awareness and concerns

Back in 2022, Ipsos carried out a global survey Attitudes towards single-use plastic» in conjunction with Plastic Free July. The survey revealed that around three-quarters of people across 28 countries agreed that single-use plastic should be banned as soon as possible.

In Britain, 8 in 10 (80%) support banning single-use plastics while the highest levels of agreement are seen in Colombia (89%), Chile and Mexico (both 88%), and Argentina and China (both 84%), and the lowest levels in Japan (37%), the United States (55%) and Canada (66%).

The study was conducted among 20,513 adults under the age of 75 across 28 countries on Ipsos's Global Advisor online platform.

1

Another survey by Tetra Pak **found that over 80% of people** were worried about plastic litter in the oceans, and just over three quarters of respondents were concerned about microplastics.

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However, on the flipside, whilst consumers are concerned about plastic waste and pollution, Previous research in the UK showed that the public **only recycled 12%** of single use packaging and throw away about 100bn pieces of plastic a year with the vast majority coming from food and drink (83%).

Current regulatory environment

Ursula von der Leyen

President of the
European Commission



Governments on every continent are implementing regulations to address packaging waste, especially single-use packaging waste.

These regulations range from bans on single-use plastics to recycling targets and extended producer responsibilities. For example, the European Union has introduced the «New EU Directive for Single-Use Plastics,» which aims to reduce plastic leakage into the environment. Countries like the United States, China, and Latin American nations are also taking steps to regulate packaging waste.

And the adoption of regulatory tools like Extended Producer Responsibility (EPR) schemes, plastic taxes, labelling requirements, and Deposit Refund Schemes are continuing to spread.

UK regulatory context



In January 2023, the UK government officially announced its commitment to take stronger measures **by implementing a ban on the distribution of single-use plastic items, including plates, trays, bowls, cutlery, balloon sticks**, as well as expanded and extruded polystyrene food and beverage containers in England.

This ban is set to take effect from October 2023, aligning England's regulations more closely with those already in place in Scotland and the EU. Worth noting, Scottish regulations extend even further by encompassing oxo-degradable plastic products such as plastic bags, agricultural mulch films, and plastic bottles within their scope. Companies also must comply with the Extender Producer Responsibility requirements.

Voluntary: UK Plastics Pact

In addition, the new plastic packaging tax has rigorous reporting requirements. For example, if you wanted to try and prove to HMRC that your packaging has the required 30% or more recycled content - and therefore is exempt from a tax - **you need to provide an extremely robust paper trail, which will have significant implications for companies who wish to take advantage of this tax exemption option.**

A non-regulatory response in the UK is the UK Plastics Pact, which unites businesses spanning the entire plastics value chain, collaborating with UK governments and NGOs to combat the issue of plastic waste.

The overarching goal of the pact is to establish a circular economy for plastics, preserving their value within the economy and preventing their entry into the natural environment.



Pact members are committed to the following:

- ✓ Eradicating problematic plastics
- ✓ Reducing overall packaging on supermarket shelves
- ✓ Fostering innovation and new business models
- ✓ Contributing to the development of a robust recycling system in the UK



The overall aim is to ensure that plastic packaging is designed for easy recyclability, therefore enabling it to be used as a feedstock for new products and packaging.

The UK Plastics pact is led by WRAP and serves as the pioneer in a global network of Pacts, **made possible by the Ellen MacArthur Foundation's New Plastics Economy initiative**

EU Regulatory context

Regionally, the EU is setting a high bar and companies should prepare for regulations like the Packaging & Packaging Waste Directive (PPWD). Beyond the EU, other regulatory tools like Extended Producer Responsibility (EPR) schemes, plastic taxes, labelling requirements, and Deposit Refund Schemes are continuing to spread. Country specific regulations will drive inconsistent reporting requirements, creating headaches for multinational businesses if it is not streamlined and gathered in one platform and one source of truth

EU Single Use Plastics Directive

In the EU, the EU Single-Use Plastics Directive (SUPD) is an extensive piece of legislation with a broad reach, aiming to diminish marine plastic pollution. The directive mandates that EU member states ensure manufacturers, producers, retailers, importers, and sellers all adhere to specified measures.

The Single-Use Plastics Directive (SUPD) entails:

1. **Product Bans (Article 5):**

Bans on certain single-use plastics, like cotton buds, cutlery, plates, straws, and more, in the EU from 2021

2. **Design Requirements (Article 6):**

Mandates 25% recycled content in PET beverage bottles by 2025, reaching <0% for all plastic beverage bottles by 20<0. By 2024, container caps must remain tethered to reduce litter

3. **Collection Targets (Article 9):**

Requires member states to separately collect 77% of single-use plastic bottles with caps by 2025, increasing to 90% by 2029

4. **EPE Obligations (Article 8):**

Member states must establish Extended Producer Eesponsibility (EPE) schemes by 2021.

Producers cover waste management costs, including awarenessraising and clean-up, for items like food containers, beverage containers, and more

5. **Awareness Measures (Article 7):**

Involves a measurable reduction in consumption (Article 4), labelling for proper disposal, and various awareness-raising initiatives.

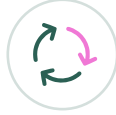
Global Plastics Treaty

Back in March 2022 Heads of State, Ministers of environment and other representatives from UN Member States endorsed a historic resolution at the UN Environment Assembly to End Plastic Pollution and forge an international legally binding agreement by 2024. The resolution addresses the full lifecycle of plastic, including its production, design, and disposal

Whilst we will have to wait until the end of 2024 to see the details of the treaty, campaigners such as WRAP and EMF and others have argued that the Global Treaty should:



Set clear mandated global rules and obligations to be implemented at a national level, recognising local circumstances and capabilities.



Use a comprehensive circular economy approach, prioritising elimination, minimisation, and reuse.



Implement measures to manage plastics that cannot be eliminated, reused, or recycled including legacy plastic pollution.



Enable a safe and just transition to a circular economy for all, particularly recognising the role and being inclusive of informal waste workers.



Recognise the contribution of plastics and their production to climate change, and take measures to address this and the role of a circular economy in achieving net zero targets; and

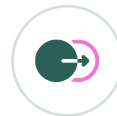


Support implementation at a national, regional, and global level by drawing upon the successful approach of existing initiatives such as the Plastics Pacts.

WRAP and others have also argued **that the Treaty should also call for:**



The reduction of both plastic waste and the emissions generated through the production of new plastics; and



For necessary plastics, support and encourage material circularity to ensure that the transition to circularity is accelerated for economies across the world.

Businesses must continue to seek opportunities for representation through entities like the Business Coalition for Global Plastics Treaty and leverage this treaty as a catalyst for change.

The sectors response

Businesses response (e.g., FMGC, Food & Beverage sectors)

In recent years, there has been a noticeable shift in the stance of packaged goods manufacturers and retailers towards addressing the issue of packaging waste. Fast-moving consumer goods (FMCG) companies and retailers have made significant commitments to improve the sustainability of their packaging. Many top FMCG companies have pledged to adopt bioplastics and increase the recyclability of their packaging. These commitments focus on three main areas such as the recyclability and the use of recycled content, the reduction of total plastics usage, and innovation in packaging materials and design.



Companies are reimagining their packaging systems, experimenting with new materials, and exploring circular delivery models. These bold commitments reflect the growing consumer demand for sustainable packaging solutions

We need bold innovations that challenge existing designs, materials, and business models.

Our priority is to fundamentally rethink our approach and pave the way for new solutions such as reusable and refillable formats

Richard Slater

Chief R&D Officer, Unilever



Many of the top 100 FMCG companies have made bold statements and undertaken commitments to drive sustainability efforts in the coming years. McKinsey & Company research has identified that these commitments are primarily concentrated on three key areas of action:



Enhanced Recyclability and Increased Use of Recycled Materials

This is the most prevalent initiative, accounting for 60% of the commitments. Companies are placing a significant emphasis on designing packaging that can be fully recycled and incorporating a higher percentage of recycled content into their products



Reduction in Total Plastics Usage

Approximately 26% of the commitments are geared towards reducing the overall use of plastics. This signifies a growing awareness of the need to decrease plastic consumption to minimize environmental impact.



Innovation and Promotion of Packaging Change

About 14% of commitments are directed towards fostering innovation in packaging design and promoting changes in the way packaging is used. This reflects a proactive approach to exploring novel, sustainable packaging solutions.

These commitments represent a notable advancement in the FMCG industry's endeavours to tackle waste and transition towards more environmentally sustainable practices. Brands are making variable progress in fulfilling these pledges, influenced by factors such as technical challenges, consumer expectations, and the impact of regulations and industry standards.

A snapshot of innovation in the sector

Reduce: Innovative approaches to reducing packaging

Lidl started focuses on the role of plastics within their value chain back in 2018. The set some specific goals including:

20%

Reducing their own label plastics packaging by 20% by 2022 against a 2017 baseline

50%

Ensuring that 50% of their own label packaging be sourced from recycled content by 2025

And that by 2025 all their own label packaging will be **recyclable, reusable, refillable or renewable.**

They have made good progress against all of these. **For example, by 2021 they had removed 1 billion single use plastic items from their stores.** As a growing business their overall footprint in tonnes has increased, but they are on track **to achieve their goal of 20% relative reduction by 2022.**

Re-use: scalable re-use schemes

There are lots of examples of innovation in this area for example Cabinet Health have launched refillable prescriptions in glass jars. Event Cup Solutions that provide reusable cups for events and stadiums. Uber Eats trialed a re-usable container solution earlier this year. Their system was designed to be easy for customers to use. They could opt in for reusable containers and then scan a QR-code to arrange for collection. All they had to do was give the container a quick rinse and book the collection which was managed by Again.

Recovery: innovations in recovery schemes the role of DRS

Deposit and return programs are operational in 13 European nations. Before 2007, Sweden, Iceland, Finland, Norway, Denmark, Germany, the Netherlands, Estonia, and Croatia had successfully implemented their systems. Despite ongoing efforts, Scotland has faced challenges in establishing its own scheme. The push for Deposit Return Schemes (DRS) gained momentum after the 2019 Single-Use Plastics Directive, which aims for a 77% separate collection of plastic bottles by 2025 and 90% by 2029.

In 2022, Slovakia, Latvia, and Malta successfully implemented DRS, while Portugal, Romania, Ireland, Hungary, and Austria are set to follow suit by 2025. Notably, the three major southern countries — France, Italy, and Spain — have not yet adopted DRS. Portugal stands as an exception, but its scheme has encountered delays since January 2022, with authorities yet to determine its management. Italy introduced a DRS for single-use beverage containers in 2021, yet the lack of an implementing decree hinders the effective enforcement of the law

The next big packaging nut to be cracked is around flexible plastic film, like bread bags and cereal bags. This type of packaging makes up about a third of plastic that goes into the bin, and it can be really complicated to recycle due to the multilayered property of the material. To tackle this, we're working with brands to move to mono singular materials that are much easier to deal with but also working with partners on FlexCollect which is aiming to understand how this type of packaging can be collected at the kerbside.

Claire Shrewsbury

Director of Insights and Innovation at WRAP





Biobased Materials

An example of a great application of a biobased packaging material is ReLoaded, bio laundry pods from Mack. Which use Notpla's seaweed derived materials.

Notpla, are the trailblazers of biodegradable and edible seaweed & plant-based packaging solutions. BY working with Notpla, Mack have been able to ditch the old Polyvinyl Alcohol (PVA) from their BioPods and instead use Notpla's water-soluble film. For Mack, this is an important detail, as it taps into their customers ever-growing concern over plastic pollution and the potential of bioaccumulation of PVA. The final solution is an outer packaging film that dissolves entirely in water, leaving no harmful microplastics behind.



Biobased Adhesives

One area of focus in the development of renewable packaging is the use of biobased adhesives for food packaging. Adhesives play a crucial role in joining packaging materials together, and the shift towards more sustainable adhesives is gaining momentum. Traditional synthetic adhesives can have health and environmental concerns, which has led to the exploration of biobased alternatives. Biobased adhesives are formulated with natural raw materials, such as biopolymers obtained from plants, animals, and natural gums.

These adhesives offer properties like traditional formulations while being renewable, biodegradable, and non-toxic. The use of biobased adhesives can contribute to the overall sustainability of food packaging.

Main barriers and challenges

Complexity of the challenge

While the transition to renewable and circular packaging presents opportunities for growth and innovation, packaging converters face significant challenges. The complexities of sustainability requirements, trade-offs between recyclability and carbon footprint, and technical and economic feasibility vary by plastic type, application, and geographic region. **Packaging converters need to invest in innovation** and scale up their capabilities to meet the demands of sustainable packaging.

Moreover, numerous external factors are influencing packaging innovation and supply chains. **These include environmental concerns, geopolitical events like the conflict in Ukraine, global inflation, social issues, legal challenges, and extended producer responsibility.** As a result, the packaging industry faces new and complex challenges in reaching the market effectively.

Economic uncertainty and rising costs have led consumers to reconsider their budgets. Brands are using messaging, technology, and retail strategies to demonstrate how packaging can offer value without compromising quality, convenience, freshness, safety, or environmental responsibility. **For example, Amazon's «Frustration-Free Packaging» initiative combines messaging to educate consumers about eco-friendly and easy-to-open packaging,** utilising technology to design customised packaging and retail strategies to offer this option to customers, demonstrating how packaging can add value without compromising quality or environmental responsibility.

Regarding the environmental factors, consumers are increasingly interested in the products they buy and the brands that produce them, focusing on ethical sourcing, responsible resource use, and transparency. **Packaging plays a role in conveying a brand's social and environmental values.**

Furthermore, stringent laws are being enacted to protect consumers from deceptive practices. New regulations regarding plastics, pollution, and health will significantly impact businesses. Companies must stay informed about current and future legislation on plastics, Perfluoroalkyl substance (PFAS), and Extended Producer Responsibility (EPR).

Overall, these trends reflect a shift toward sustainability, transparency, and value in packaging across various industries. Companies need to adapt and innovate to meet evolving consumer demands while considering economic, social, and legal factors



Cost and complexity of decisions and data

The transition to renewable and circular packaging faces various barriers and cost implications. One of the main challenges is the trade-off between sustainability goals and cost considerations. Companies need to carefully evaluate the impact of packaging choices on water usage, waste generation, biodiversity, deforestation, and emissions.

Also, balancing these factors while achieving science-based targets and cost targets requires a comprehensive approach. It is essential to consider the entire life cycle of packaging, from sourcing materials to end-of-life disposal and identify the best choices that align with sustainability goals and cost efficiency. A big hurdle is gathering, synthesising and then analysing the data required across all these elements and understanding the financial implications of different scenarios is a complex challenge

Role of data in driving informed decision making

To navigate the complexities of the transition to renewable and circular packaging, companies must rely on data-driven decision making. Deep-dive research and analysis of the environmental impact, cost implications, and technological advancements are crucial for making informed choices. Companies need to assess the suitability of different biomaterials, processing technologies, and recycling systems. **By leveraging data and scientific insights, companies can identify the most effective strategies, prioritise investments, and collaborate with stakeholders across the packaging value chain.**

Every stakeholder can take steps toward sustainable packaging from gaining control of data, to making small changes that, when combined, lead to more sustainable impact.

Asa Stenmark

Swedish Environmental Protection Agency (EPA)



Conclusions and recommendations

The transition to renewable and circular packaging presents both challenges and opportunities for the packaging industry. It requires a collective effort from governments, regulators, companies, and consumers to drive meaningful change. By embracing innovation, collaboration, and data-driven decision making, the industry can accelerate the adoption of sustainable packaging solutions. The vision for the future is one where packaging waste is minimized, materials are renewable and recyclable, and the environmental impact is significantly reduced. **With a positive and forward-looking mindset, the packaging industry can create a more sustainable future for generations to come.**

At Unibloom we recommend three key steps

STEP 1:

Evaluate current situation

To be able to make informed decisions about where to focus efforts and to guide target setting and transition plans, it is vital for companies to have all the data they need for this. Data sources could and should include things like cost, types of materials, weight, volume, LCA analysis as well as information about suppliers and their own sustainability strategies.

STEP 2:

Collaborate and innovate to discover potential solutions

The challenges that food and beverage companies and the FMCG sector face when it comes to solving the plastics packaging challenges they face will not be solved in silo. Companies will need to seek out innovations and partners to work with to co-create innovative solutions.

Making changes to existing processes and packaging materials could be a costly exercise. Being able to model potential solutions and compare the impact on cost, carbon emissions as a starting point, will enable companies to stress test options at a fraction of the cost before making decision as to which ones to proceed with.

STEP 3:

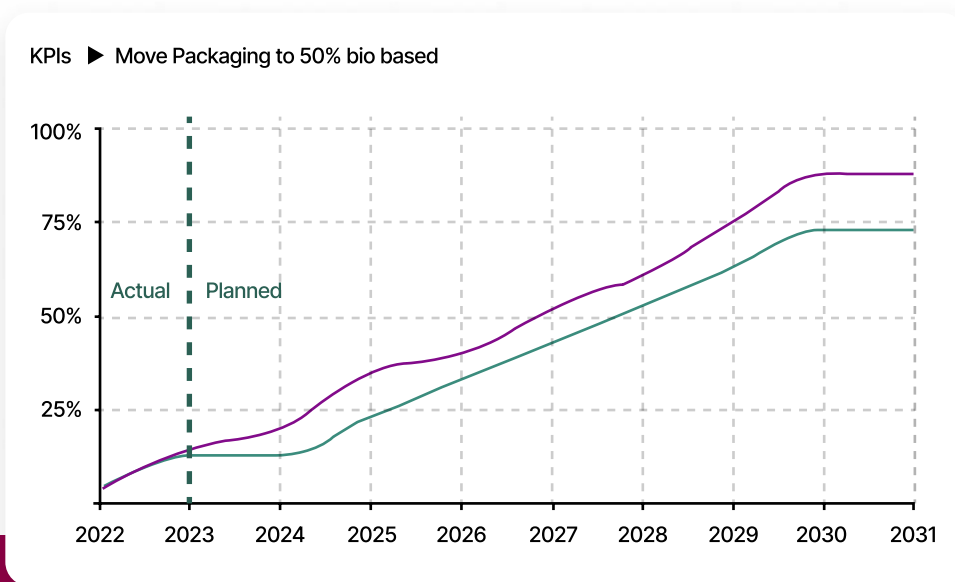
Select viable solutions, pilot, refine, and then scale up

Once viable solutions have been identified, the final step is to pilot these, refine them based on feedback and then scale them up.

Want to get in touch?

The transition to renewable and circular packaging is a pressing need in today's world. Governments, FMCG companies, and retailers are taking proactive steps to address packaging waste and improve the sustainability of their packaging systems. However, the challenges and costs associated with this transition should not be underestimated. It requires careful consideration of trade-offs, data driven decision making, and collaboration across the packaging value chain.

Snapshot from Unibloom's packaging module



By overcoming these barriers, the industry can create a more sustainable future, where packaging waste is minimised, and resources are utilised efficiently. **The journey towards renewable and circular packaging is a journey towards your science based targets. circularity & resource reduction targets.**

Contact Unibloom to find out more

Contact us if you want to learn more on how Unibloom's Platform can help you make the right trade-offs, material choices and investment allocations for new packaging.

Contact anna.sandgren@unibloom.world

Make the switch happen!

The team

Anna Sandgren, CEO, Vineet Ahuja, CTO & Jegak Seo, climate data scientist - bring more than 45 years of combined experience from Unilever/Ben & Jerry's focusing on climate & social development & global transformation: software development & complex data modelling from Bloomberg & data science within pollution & health from University College of London. They conducted desk research together with experts and interviewed more than 150 sustainability and packaging managers, and operational leads, to dig even deeper into the packaging transition challenges & opportunities. They see a big risk of keeping packaging data in spread sheets & trusting consumer demands more than real science based insights. They bring their expertise how to digitise collaboration, bring planet & business into the same view & optimise the transition plan with complex modelling & how to translate that to insights for non-climate experts in the organisation.



Anna Sandgren

CEO



Vineet Ahuja

CTO



Jegak Seo

UCL, PhD in pollution & environmental effects

Combining the insights from their research with their extensive experience, they aim to inspire business leaders and sustainability teams to accelerate the transition plans to hit science based targets in 2030, through data-driven digitalisation and predictive modelling to give insights and accountability across all teams. With Unibloom's tool the sustainability teams are empowered to collaborate with non-climate experts, operational climate actions and optimise financial allocations, everyday.

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