



# A Global Review of Circular Economy Case Studies from the Retail & CPG Sector



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COMPOST

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# Acknowledgements

The Steering Committee for this Review, listed below, was made up of our ECR Community Circular Economy Focus Group and external circular economy experts and practitioners. We would like to thank them for their time and contribution to this Review.

Thank you to the companies who submitted insight articles and case studies for this Review; being able to offer insights and showcase best practice to our members is a key objective of ECR Community.

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We would like to thank GfK for sponsoring this Review.

# Foreword

Declan Carolan,  
General Manager,  
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ECR Community



## **ECR Community is delighted to present our Global Review of Circular Economy Case Studies from the Retail & CPG Sector 2022.**

The Review is the culmination of ECR Community selecting The Circular Economy as its main Focus Area for 2021/2022.

There were several reasons for choosing The Circular Economy as our Focus Area for 2021.

- ▶ ECR Community has attracted many new members from throughout the world requiring the selection of a focus area that had global reach & significance.
- ▶ The pandemic has impacted every single economy throughout the world in a similar fashion. Consumer & shopper behaviour & attitude has changed comparably across continents. Thus the concept that we are one planet is more apparent & accepted now than ever before, causing a surge of interest in global sustainability from consumers & shoppers.
- ▶ The earth has finite resources and we need to find better ways of reusing these resources repeatedly rather than discarding used product and replacing them by continuously extracting raw materials.

The Circular Economy requires global commitment. Consumers and companies have begun to realise that shrinking their environmental impact is not solely about reducing emissions and recycling more. There is a global acknowledgment that these actions only represent the tip of the iceberg and that true sustainability is required to reduce the amount of both raw materials coming into the economy, and waste coming out.

Yet there is much misunderstanding within companies on how to proceed to encourage circularity. Hence, the objective of this Review is to highlight case studies throughout a product's lifecycle that contribute to a Circular Economy in hope that the actions from these companies will inspire others.

ECR Community will build on this work during 2022 in two ways;

1. We will host global webinars allowing for in-depth presentations from the contributors in this Review.
2. Our focus area for 2022 is "Sustainability" whereby ECR Community will promote & disseminate best practices in Sustainability from ECR National Initiatives.

My sincere thanks and appreciation go to Ché McGann and the Steering Committee for bringing this Review to fruition, to all the companies for standing up and being prepared to showcase their efforts globally and to GfK for their support.

...the objective of this Review is to highlight case studies throughout a product's lifecycle that contribute to a Circular Economy in hope that the actions from these companies will inspire others.

## Circular Product Design

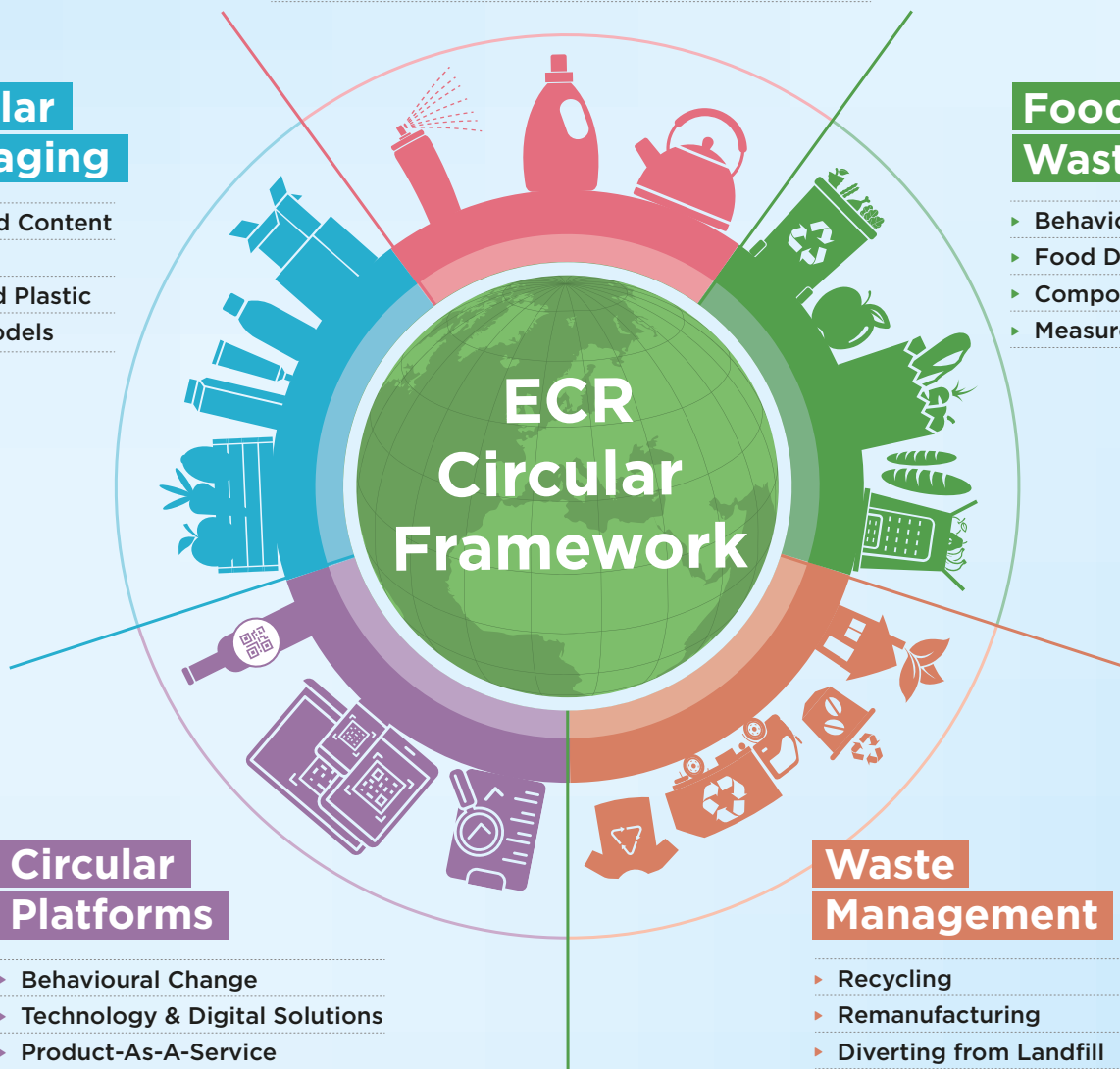
- ▶ Restricts Single-Use Plastic
- ▶ Reduces Environmental Impact of Manufacturing
- ▶ Remanufacturing

## Circular Packaging

- ▶ Recycled Content
- ▶ Reuse
- ▶ Reduced Plastic
- ▶ Refill Models

## Food Waste

- ▶ Behavioural Change
- ▶ Food Donation
- ▶ Composting
- ▶ Measurement



## Circular Platforms

- ▶ Behavioural Change
- ▶ Technology & Digital Solutions
- ▶ Product-As-A-Service
- ▶ Sharing Platforms

## Waste Management

- ▶ Recycling
- ▶ Remanufacturing
- ▶ Diverting from Landfill
- ▶ Secondary Raw Materials
- ▶ Process Innovation
- ▶ Sorting Technologies
- ▶ Social Partnerships
- ▶ Behavioural Change

# The ECR Circular Framework & Methodology

Ché McGann, Sustainability Lead,  
ECR Community



## The Global Perspective

The benefits of transitioning to a circular economy are clear. For the planet, it will help to keep resource consumption within planetary boundaries, reduce global greenhouse gases, and halt biodiversity loss. For businesses, it will provide new opportunities to design more sustainable products, keep resources in use for longer, and continue to capture value even at the end of product life. These new circular business models have the potential to improve relationships with customers, foster innovation, and ultimately reduce dependency on raw materials. For the consumer, it will mean better products, that last longer, and are designed to be reused, repaired, and ultimately recycled.

Governments also recognise that the transition to a circular economy can help to address global

commitments to the Paris Agreement; the result being the adoption of circular strategies by the EU, China, Japan, and Latin America<sup>1</sup>.

Given these obvious benefits, the practical application of circular principles by businesses remains a challenge as there is no commonly accepted definition for circularity. With no single circular framework or supporting measurement methodology defined, the circular economy continues to remain somewhat abstract for businesses.

There are several global organisations working to address this challenge, including The Ellen MacArthur Foundation, The Circle Economy, and the World Economic Forum's Platform for Accelerating the Circular Economy (PACE). They provide resources & tools to better understand and implement circular economy strategies within businesses.

CIRCLE ECONOMY'S CORE ELEMENTS	STRATEGIES FOR RESOURCE CYCLING <sup>3</sup>	10R FRAMEWORK	5R FRAMEWORK	ELLEN MACARTHUR FOUNDATION
 <b>Prioritise Regenerative Resources</b>	Regenerate flows			Regenerate ecosystems
	Narrow flows	Refuse Reduce Rethink	Reduce	Design out waste
 <b>Stretch the Lifetime</b>	Slow flows	Reuse Repair Refurbish Remanufacture	Reuse Repair Refurbish	Keep products in use for longer
 <b>Use Waste as a Resource</b>	Close flows	Repurpose Recycle Recover	Recycle	Design out waste

Source for <sup>1</sup> and table above: <https://www.circle-economy.com/resources/the-key-elements-of-the-circular-economy-framework>



When developing a company's circular strategy, it is important to understand how a circular project fits within the wider sustainability eco-system and to follow a structured approach.

Some initial frameworks that should be considered when developing a circular strategy include,

- ▶ The **Key Elements Framework**, developed by Circle Economy, sets out 8 elements of circularity that can be applied at different levels (i.e., the national, sectoral, business, product, process, material) to achieve a circular economy.
- ▶ **10R Framework**, developed from the Reduce Reuse Recycle mantra, aims to design out waste across manufacturing and supply chains [Refuse, Reduce, Rethink, Reuse, Repair, Refurbish, Remanufacture, Repurpose, Recycle & Recover]
- ▶ The three **Principles of the Circular Economy**, developed by the Ellen MacArthur Foundation, are to preserve & regenerate ecosystems, to keep products in use for longer, to design out waste.

## Our Approach

While the various global frameworks & circular indicators provided valuable input to our approach, the Review is structured around the ECR Circular Framework. This was developed by the Steering Committee based on the circular topics addressed in the case studies – circular packaging, circular product, circular platforms, waste management, and food waste.

It does not attempt to provide an alternative to any of the existing global frameworks, instead it provides ECR members with a snapshot of where retailers & brands are on their circular journey. It also provides insight on which countries & ECR Nationals are focusing on the topic of circular economy. Consideration will be given to updating it in the future as companies develop their circular strategies and projects.

Via an 'online call', which was promoted through our ECR National network, retailers and brands were invited to share their circular economy case studies. More than 40 companies submitted their circular case studies, with a total of 18 being selected for inclusion. They are intended to provide the reader with a flavour for what retail and CPG companies are doing on this topic. Included are cases from established international companies, as well as smaller disruptive companies with circular principles at the core of their business.

## Selection Methodology

The following methodology was used to select the companies. It is based on the [EU Circular Economy Indicators](#) (Sustainable Resource Management, Societal Behaviour, Business Operations) and the 6 principles of the BS8001:2017 Circular Economy standard.

### STAGE 1

Project needs to demonstrate both

#### 1. Sustainable Resource Management

*Support the transition towards circularity by managing resources more efficiently (energy, water, materials etc.) and reducing waste?*

#### 2. Behavioural Change

*Raise awareness of circular economy within the eco-system it is being completed, mainly consumers and employees.*

### STAGE 2

Project needs to demonstrate at least one

#### 1. Collaboration

*Demonstrate the creation of mutual value through internal/external and formal/informal partnerships from across the value chain*

#### 2. Eco-innovation

*Support the creation of more circular business models to keep resources in the system through circular concepts, new technologies, circular business models, and game changers.*

#### 3. System thinking

*Shows an understanding of how this project fits into the wider system i.e. circular business models.*

### STAGE 3

Ensure the Review has a balance between retailers, manufacturers, countries, circular economy topics

# Insights



# Green Takes the Lead: the Consumer Imperative

Lenneke Schils,  
Global Insights Director,  
GfK



Growth  
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Green as a choice driver has quickly become a forceful dynamic in the consumer landscape. The recent pandemic is only further contributing to mainstreaming the circular economy. In our latest sustainability report Who Cares? Who Does? we found that the global share of eco-active consumers in CPG grew from 17% in 2019 to 22% in 2021. In Europe this is even 28%. These consumers, that show a high concern about environmental issues and take prompt measures to reduce their footprint, represent **a whopping 446 billion USD of sustainable spending power**. It is a telltale sign that over two-thirds of shoppers have stopped buying certain products because of their negative impact, and an equal amount has switched to comparable products that have a positive impact.

With these behaviors becoming commonplace, interest is spreading into other areas. Consumers are increasingly aware of the environmental impact of every part of their lifestyle: whether we are talking about reduced meat consumption, using DIY alternatives or shopping locally, 30% of consumers say they will do this much more in 2022.

It is clear that protecting the environment is rising as a personal value. **Green is increasingly worn as a badge of honor**. This is especially true for eco-actives, of whom 70% feel that buying sustainable products shows others what they stand for. As a result, green lifestyle choices are seen as an enrichment, rather than restraint. **Circular business models empower consumers to play the active role that they increasingly crave** – thereby increasing the attraction they feel towards circular brands.

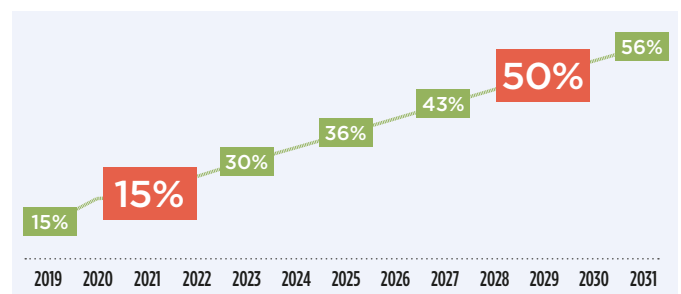
## The consumers' view on sustainability

The sentiment shift around sustainability towards circular business models has not just been in the number of consumers interested in sustainable practices, but also **in the nature of change they want to be part of**.

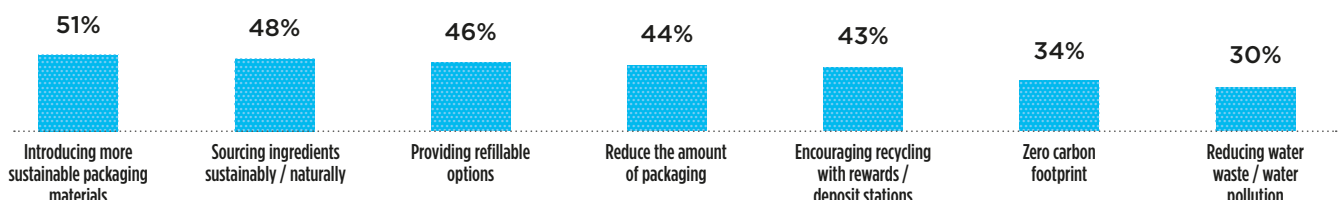
Eco-friendly behavior has largely centered around minimizing plastic waste. Already 93% of eco-actives uses refillable bottles when going out, 90% regularly uses refill packs, and 76% regularly avoid buying plastic drink bottles altogether. Well over 40% of all shoppers intend to both purchase more sustainable packaging and use more reusables next year.

## The growing business sense to it

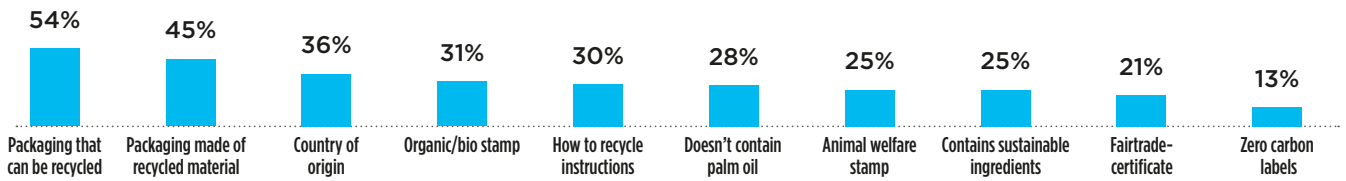
Projection of eco-actives, global



Behaviors consumers relate to brands with a genuine concern for the environment



84% of consumers look for sustainability information on pack. What consumers look for on labels:



At this rate, **eco-actives will account for half the population globally by 2029**. Brands, retailers and categories that currently underperform with eco-actives face a big loss as the population shifts. Winning favour with sustainable shoppers takes time and it is quite urgent to act now to benefit in years to come.

Here's a small example with large consequence. Whereas 41% of consumers see plastic drinks bottles as most polluting, only 8% list glass bottles. In Germany, the world's leading green market, 65% of eco-actives (and there's a lot of them over there) regularly avoid plastic drinks bottles. As eco-actives are characterized, well, by acting, logically we'd expect a sales effect. In only one year, the value share of plastic bottles in the carbonated soft drinks category has dropped from 87% to 81%. Beyond switching formats, eco-actives are also turning away from the category, resulting in a **predicted loss of 703 million in the CSD category** in just 4 countries studied (BE, GER, SP, UK).

## The challenge of closing the value action gap

In spite of increasing self-activation, there is still a huge cohort of 36% of global consumers that try to act sustainably but are not taking necessary steps. **This value-action gap** is currently worth 806 billion dollar. That's a lot of consumer spend sitting in the green waiting room. The main cited barrier is that shoppers feel they either **can't find or can't afford** sustainable products. Additionally, day-to-day priorities and in-store distractions pose a further obstacle, even for eco-actives.

This showcases the importance of brands operating circular business models to work with

their consumers to reduce collective environmental footprint. Game changing solutions, that combine the need **for** convenience, saving money while tapping into a green motive at the same time, will increasingly have a huge impact on our market.

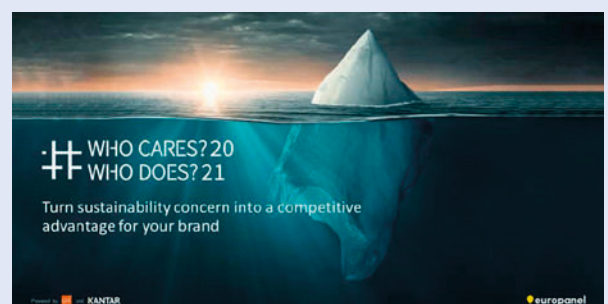
It is however also a fact **that currently 6 out of 10 cannot name a brand** that does good for the environment. Thinking tangible in terms of (circular) product or pack will resonate before intangible corporate rep sheets. In a market build on trillions of daily transactions, it is time that stakeholders unite in putting transformation to that equation.

## Transactional transformation

- ▶ **Make it understood.** Projects to raise awareness are a vital first step. Showing how one can contribute personally is key here to increase a sense of ownership.
- ▶ **Make it easy.** Whereas eco-actives are taking time to for instance check labels, other eco-types will not. Digital watermarks for efficient sorting are potentially great contributions to ease the process.
- ▶ **Make it desirable.** Green is increasingly used as a badge of honor. Tap into this sentiment to achieve greater involvement.
- ▶ **Make it rewarding.** It is not all about removing rational barriers. It is as much about offering a positive emotional pay-off. Multiplying the impact of a single transaction is an example of just that.
- ▶ **Make it a habit.** Thoughtful shopping should be enabled. Refill stations, front of pack information and targeted discounts are likely examples to stimulate lasting behavior change.

## Who Cares Who Does '21

- ▶ Sustainability Concerns and Buying Behavior
- ▶ 3rd Edition
- ▶ 26 markets reaching >88,000 households
- ▶ (c) GfK Kantar, Europanel
- ▶ [www.gfk.com/products/gfk-sustainability-concern-and-action](http://www.gfk.com/products/gfk-sustainability-concern-and-action)



# Digital for Green and Green for Digital: Why Circular Economy Needs Product Data Standards

Francesca Poggiali,  
Chief Public Policy Officer Europe,  
GS1 Europe



The idea that products should carry a digital passport is not new and definitely not new in GS1.

What is new in the EU and what is driving many of us passionate about is that it is meant to enable circularity and digital transformation and eventually reconcile consumers safety data. Supply chains' ethical and transparency issues are also of

fundamental importance and being considered as data attributes of the EU product passport.

An additional interesting factor is that the product passport is coming through legislation and not as an entirely industry and/or consumers driven process. Regulators are playing a refreshed and very important role in Europe, impacting the global community.

From my perspective in Brussels, for first time in the last 25 years, I see that the European Green Deal<sup>1</sup> recognises the cross-sectoral nature of the climate challenge and puts forward a vision that streams circularity into all policy fields and in several sectoral strategies.

The Green Deal's objectives are being transformed into more concrete actions e.g.: the Sustainable and Smart Mobility Strategy, the Chemicals Strategy for Sustainability, the Farm to Fork Strategy, a Regulation to Curb Deforestation, another one on Waste Shipments and a new EU Soil Strategy.

To reach the 2050 carbon neutral goal<sup>2</sup>, all these policies and rules are fundamental but the Sustainable Products Initiative, which is expected to be published in the first quarter of 2022, will be a real cornerstone of the EU's endeavours to create a circular economy. It will include proposals to revise the Eco-design Directive and other legislative measures to make products placed on the EU market more sustainable and it will introduce a cross sectoral product passport data structure.

<sup>1</sup> [https://ec.europa.eu/info/strategy/priorities-2019-2024/european-green-deal\\_en](https://ec.europa.eu/info/strategy/priorities-2019-2024/european-green-deal_en)

<sup>2</sup> [https://ec.europa.eu/clima/eu-action/climate-strategies-targets/2050-long-term-strategy\\_it](https://ec.europa.eu/clima/eu-action/climate-strategies-targets/2050-long-term-strategy_it)

PRINCIPLE

1

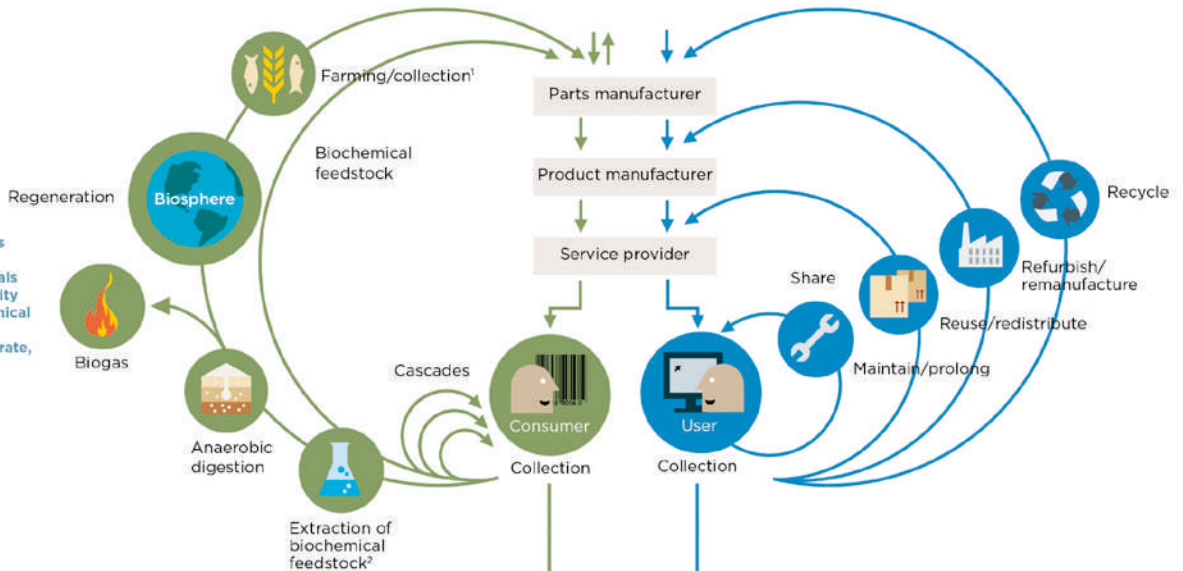
Preserve and enhance natural capital by controlling finite stocks and balancing renewable resource flows  
ReSOLVE levers: regenerate, virtualise, exchange



PRINCIPLE

2

Optimise resource yields by circulating products, components and materials in use at the highest utility at all times in both technical and biological cycles  
ReSOLVE levers: regenerate, share, optimise, loop



PRINCIPLE

3

Foster system effectiveness by revealing and designing out negative externalities  
All ReSOLVE levers



Source: Ellen MacArthur Foundation, 2015. Reproduced by permission of the copyright owner.

You may wonder why the product passport will be enshrined into the Eco-design directive and share the idea that since “consumers want sustainable products by design”<sup>3</sup>, it was a necessary move to take an integrated approach including sustainability by design and green data requirements

The European Commission estimates that 80% of products’ environmental impact is determined at their design phase<sup>4</sup> and that’s one of the reasons why we expect the product passport to include data on the origin of raw materials, the CO2 emissions per product. Furthermore, some important due diligence factors like the absence of child labour and certification schemes will need to be included.

The Sustainable Battery Regulation, published in 2020, represents the first example of sectoral legislation introducing the product passport concept, in advance of the Sustainable Product Initiative.

Based on the battery example, it is important to point out that the product passport won’t just enable digitalisation and circularity at the generic level. Besides, it will implicitly demand product data rules and technical specifications including on the green taxonomy yet to be developed, chemical substances identification reconciled with finished product ID, exact locations data, second-hand identification rules, mass serialisation, identification of packaging components, additional track and trace events etc.

It’s clear that in the EU digitalisation is becoming an enabler of the green transition but what about the contrary? I see a strong need also for green ICT rules that will help a green digitalisation. An unintended consequence of circularity cannot be the generation of more CO2 because of the digital solutions it demands compared to the emissions that it saves.

<sup>3</sup> [https://www.beuc.eu/publications/beuc-x-2021-075\\_making\\_more\\_sustainable\\_products\\_the\\_new\\_normal.pdf](https://www.beuc.eu/publications/beuc-x-2021-075_making_more_sustainable_products_the_new_normal.pdf)

<sup>4</sup> European Commission, Circular Economy Action Plan, 2020. [https://ec.europa.eu/environment/pdf/circular-economy/new\\_circular\\_economy\\_action\\_plan.pdf](https://ec.europa.eu/environment/pdf/circular-economy/new_circular_economy_action_plan.pdf)

## Where are we today

Several Governments around the world are taking measures to collect product data for different purposes. In the case of the EU the product passport should advance digitalisation but also enable circularity towards the 2050 carbon neutrality goal.

Digitalisation has been recognized<sup>5</sup> to be an accelerator for circular economy and digital solutions are emerging but they appear still fragmented.

This may be due to various factors like the transition from a linear to a circular economic model or the fact that policies have been fragmented for years and so digital and green were not strictly connected through legislation. Worth also noticing that companies have been transforming supply chains to add greener and more sustainable features not necessarily in a way that consumers would appreciate or recognize.

As no common horizontal sustainability criteria currently exist under the EU framework, most sector/product specific legislation was developed separately resulting in inconsistencies across sectors.

Another evidence is that the digital twin revolution has not fully happened yet while we expect



consumers to have full access to green product data in one click and to be able to take decisions based on trusted data sources.

To address those challenges the EU is providing funding (not just a bunch of carrots!) including: the so-called “cohesion package” (the European Territorial Cooperation Goal, the European Regional Development Fund and Cohesion Fund, and the Common Provisions Regulation); the Next Generation EU Recovery Plan<sup>6</sup>; the Sustainable Finance Strategy<sup>7</sup>, the European Green Bond Standards<sup>8</sup>; and the Digital Europe programme<sup>9</sup>. All of them if coupled with the EU’s long-term budget represent the largest in Europe’s history, that will help rebuild “a greener, more digital and more resilient” post-COVID Europe.

## The future

Historically supply-chains have evolved and integrated around a linear economy system. The “take-make-use-disposal” paradigm of linear economy allows to identify dependencies among economic operators, which can establish cooperation with long terms agreements. But this model had limitations and today we can argue that it’s product data and digitalisation that drive circular supply chains.

<sup>5</sup> European Circular Economy Stakeholder Platform. « The circular economy: Going digital » report. European Policy Centre. <https://circulareconomy.europa.eu/platform/en/knowledge/circular-economy-going-digital>

<sup>6</sup> [https://ec.europa.eu/commission/presscorner/detail/en/ip\\_20\\_940](https://ec.europa.eu/commission/presscorner/detail/en/ip_20_940)

<sup>7</sup> [https://ec.europa.eu/info/topics/banking-and-finance\\_en](https://ec.europa.eu/info/topics/banking-and-finance_en)

<sup>8</sup> [https://ec.europa.eu/info/business-economy-euro/banking-and-finance/sustainable-finance/european-green-bond-standard\\_en](https://ec.europa.eu/info/business-economy-euro/banking-and-finance/sustainable-finance/european-green-bond-standard_en)

<sup>9</sup> <https://digital-strategy.ec.europa.eu/en/activities/digital-programme>

Product data structured around product passports, like e.g., CO2 emissions calculated per product will need to be shared across value chains, which means that interoperability and data portability become essentials and not just nice to have.

The new EU data act will be central in this discussion considering that it aims to introduce general conditions for consumers and businesses to access the data they generate when using a product or a service “in a fair, transparent, and non-discriminatory way”<sup>10</sup>.

Another piece of the puzzle, when it comes to digitalisation, retailing, product data and safety is the Digital Services Act<sup>11</sup> which is asking to online platforms to obtain precise economic operators’ identification, to be used for consumers safety issues and upon regulators demand, which implicitly means to reconcile locations, entities, and product data.

It has never been so clear that unique identification of products, actors and locations and open data sharing standards are fundamental to enable companies’ sound investments enabling digitalisation, circularity, and the right compliance with the new EU data rules.

Only 2D, a next generation of barcodes which can hold vastly more information, can enable exchange

of complex green and ethical data requirements together with master data and track and trace information. That’s why the 2D migration should be accelerated in Europe to minimise the disruption that companies will face once the EU product passport will be in place for the prioritised products, like electrical vehicles batteries, by 2026.

It is also becoming more and more evident that investing in digital solutions that would introduce bottlenecks or close the data somewhere in its journey from raw materials to products/components incineration or landfill (after having had several lives and having “generated” pieces for repair or other purposes and having passed through various consumers) instead of making it interoperable, portable and accessible to various categories of stakeholders won’t help meet the new EU requirements and that it would soon demand larger investments.

Retailers and manufacturers initiatives to support consumers’ green empowerment will represent a win-win situation for both circularity and digitalisation and ultimately, they will play a pivotal role in this transition.

Circularity and digitalisation are not just trendy, they are here to stay and will result in the changes we all want to happen.



<sup>10</sup> <https://www.euractiv.com/section/data-protection/news/leak-draft-impact-assessment-sheds-some-light-on-upcoming-data-act/>

<sup>11</sup> <https://digital-strategy.ec.europa.eu/en/policies/digital-services-act-package>



# Why Collaboration is the Only Way to Succeed in The Circular Economy

Teresa Mischek-Moritz,  
General Manager,  
ECR Austria



Collaboration has always been one of the key elements in the entire ECR movement – already back in the 1990ies when Walmart and P&G agreed to optimize their supply chain process in order to offer a better consumer experience.

Having arrived in the 21st century, collaboration between manufacturers and retailers is not going to be enough anymore to tackle the challenges of our times. So how to best extend collaboration?

When the EU Circular Economy Package was launched with clear waste collection targets a couple of years ago, it became evident that Austria was performing quite well in terms of recycling rates, except for plastic waste. This led to a clear call to action for ECR Austria together with the leading university institute of packaging technology to set up the “ECR Circular Packaging Initiative”.

Based on scientifically proven knowledge, the first “Design Guide for Recycling” was developed to help FMCG industry leaders to understand how to best create recyclable packaging for their daily innovations. Furthermore, a whole new industry was motivated to join in, namely various packaging manufacturers as well as





waste collection and recycling companies. Only this wide circle of different, important points of view and valuable, in-depth experiences enabled the entire ECR initiative to come up with a series of various guides, recommendations, calculations models, etc. and created strong commitment amongst all the different players.

To take this work to the next level, ECR Austria and the University of Applied Sciences looked for global partners that could spread its valuable insights to companies and countries from around the world.

To launch the global version of the "Design Guide for Recycling" it partnered with the World Packaging Organisation and ECR Community, which is another example of how collaboration can increase our reach and produce better results.

The guide has already been downloaded by ECR & WPO members in more than 30 countries around the world and it's

encouraging them to start their own packaging recycling initiatives with their respective partners on a local level. We strongly believe that this is the only way to gain critical mass on a global scale and start solving our common challenges together in the best possible way.

Download the Guide and watch the support webinars here. <https://www.ecr-community.org/global-recyclable-packaging-guide/>



# The Imperative to Drastically Reduce the Use of Plastic and Single-Use Products

Emilie Chalvignac,  
Director of Operations,  
Institut du Commerce  
(ECR in France)



## The context

In a 2021 report, for the first time, WWF has calculated the cost of plastics to society, the environment and the economy: **it is at least 10 times higher than its market price paid by primary plastic producers, generating significant external costs for countries.** “The failure of governments to better understand the real costs of plastic has led to poor management of this material, and growing ecological, social, and economic costs for countries. The cost of the plastic produced in 2019 will be at least US\$3.7 trillion (+/-US\$1 trillion) over its estimated lifetime. Unless urgent action is taken, the societal lifetime cost of the plastic produced in 2040 could reach US\$7.1 trillion (+/-US\$2.2 trillion), equivalent to approximately 85% of global spending on health in 2018 and greater than the gross domestic product (GDP) of Germany, Canada, and Australia in 2019 combined.”

Bulk and reusable packaging – these topics are gaining ground like never before in France, in 2021, in order to move away from single-use plastic by 2040:

- ▶ **The AGEC law** (the French Anti-Waste Law for a Circular Economy), in place since 2020, was reinforced by the **Climate and Resilience Law** in 2021. Retailers over 400 m<sup>2</sup> (around 4300 ft<sup>2</sup>) will have to devote 20% of their consumer good retail space to bulk products by 2030 (more than 11,000 outlets are concerned, according to Nielsen). And 5% of all packaging placed on the market in France must be reused in 2023 (10% in 2027). The draft decree<sup>1</sup> determining

the minimum share of reusable packaging to be put on the market annually was under public consultation until October 19, 2021.

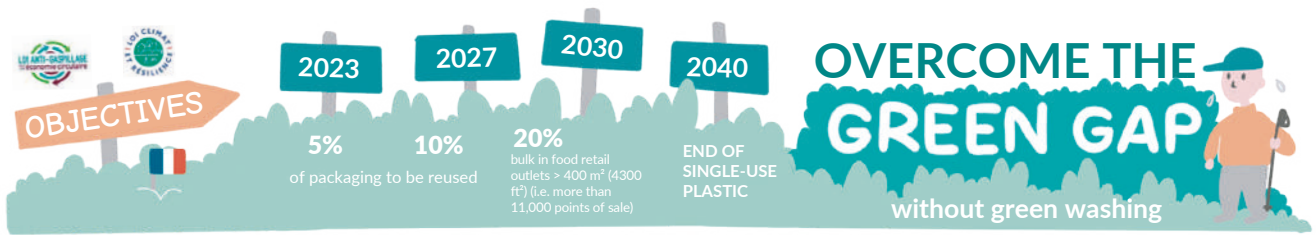
- ▶ **French retailers and brands** have never conducted so many tests. Which ones will succeed and scale up?
- ▶ We must, however, also beware of **so-called good ideas** that have a negative ecological impact. Which sources of information are available to carry out Life Cycle Assessments? Is the LCA tool sufficient? Under what conditions do bulk and reuse have a positive environmental and economic impact?
- ▶ The **“Green Gap”**<sup>2</sup> raises questions: citizens want less packaging but do they actually buy in bulk? Are they willing to bring containers back to the store?
- ▶ **What does the sales data reflect?** What can't we track yet? What are the different consumer typologies, their motivations and barriers?
- ▶ Finally, **how can we support all types of consumers in this transition?** How can we avoid **rebound effects** or shifting the impact to waste or to un-recyclable secondary containers?



<sup>1</sup> [http://www.consultations-publiques.developpement-durable.gouv.fr/IMG/pdf/projet\\_decret\\_reemploi\\_emballages.pdf](http://www.consultations-publiques.developpement-durable.gouv.fr/IMG/pdf/projet_decret_reemploi_emballages.pdf)

<sup>2</sup> Green gap: gap between the intention to sell or buy in an eco-responsible way and actual behaviors and attitudes

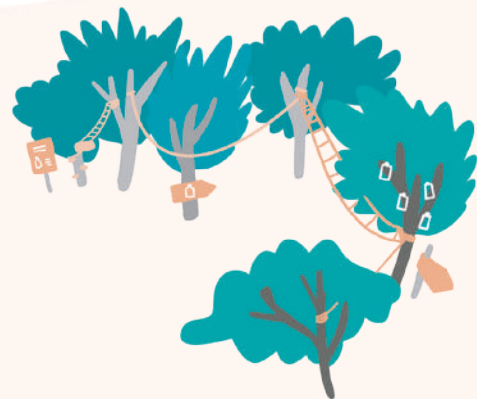
# Meeting the challenges of bulk and reuse



**Integrate eco-design** into all the company's processes: products, services and systems (while limiting single-use)



**Deeply rethink all marketing principles** to be consistent with circular economy challenges (4Ps, brand and retailer differentiation, communication etc.)



**Design a buying journey** to encourage consumers to turn to bulk and reusable containers



**Involve all stakeholders and train them:** intent, good practices, staff's role as ambassadors, etc.



**Build new business models** to support the ecological transition (competitive differentiation issues, P&L, new services, etc.)

**Choose an organizational model for the cleaning and refilling of returnable containers**



**Respect regulations and control the sanitary responsibility chain:** protocols, storage, preservation, welcoming the use of personal containers, etc.

**Mutualize the return logistics** (pick-up, transportation, storage, procurement of equipment, etc.)



**Make sure pricing policy is clear:** product selling price and price of the deposit must be visible

**Build a consumer approach based on trust** by guiding consumers towards more sustainable consumption choices



\*Green gap: gap between the intention to sell or buy in an eco-responsible way and actual behaviors and attitudes.

## To understand and meet the challenges of bulk and reuse

The *Institut du Commerce* started working on the circular economy as early as 2018 in order to:

- help trade players become aware of their responsibility to address the challenges at hand
- help the market to mature
- understand some of the keys to achieving this.

In 2021, the *Institut du Commerce* published its own guide, ***Bulk and Reuse: meet the challenges of moving away from single-use*** (in French “Vrac et réemploi : relever les défis de la sortie de l’usage unique”). We partnered with the Packaging-Free Network (Réseau Vrac), brands, retailers and a panel of experts in the circular economy, the buying journey and return logistics. The result is an unprecedented educational guide to help retailers make the necessary strategic and operational choices in the face of ecological, economic and regulatory challenges. This guide:

- **Provides a clear and up-to-date picture of regulatory issues, as ecological issues are already widely available and known.**
- **Defines the buying journey in favor of the circular economy** and good practices to implement it at all stages, in physical stores, online and out of home.
- **Clearly connects bulk sales and reuse**, two alternatives that work together to limit the production of packaging waste and preserve the planet’s resources, provided certain conditions are met.
- **Solves all consumer irritants**, whether or not consumers are committed to transition.
- **Removes strategic and operational obstacles** for brands and retailers.

## 10 keys to developing a qualitative bulk and reusable container offer

1. **Integrate eco-design into all the company’s processes:** the aim here is to preserve the planet’s resources, to avoid waste and pollution by limiting the use of single-use products, particularly plastics. If this foundation is not well understood, the obvious risk for the company is to be accused of greenwashing. Methods and tools (such as the LCA, guides on the use of environmental claims etc.) help to make the right decisions.

2. **Deeply rethink all marketing principles** to be consistent with the challenges of the circular economy (4Ps, differentiation, communication etc.).
3. **Design a buying journey that encourages consumers to turn to bulk and reusable containers.**
4. **Build new business models to support the ecological transition** (competitive differentiation issues, P&L, new services, etc.).
5. **Involve all stakeholders and train them** to the intent of the approach, to good operational practices, to the staff’s role as ambassadors to support and encourage consumers.
6. **Mutualize the return logistics** (pick-up, transportation, storage, procurement of equipment, etc.) and choose an organizational model for the cleaning and refilling of containers.
7. **Respect regulations and control the sanitary responsibility chain:** implement serious and certified protocols for cleaning, storage and preservation within the bulk distribution units. Adopt a positive approach to support consumers who wish to be served with their own containers.
8. **Ensure clarity and consistency of the pricing policy** and transparency on the amount of the deposit: the product’s selling price and the price of the deposit must be visible and understandable at the point of sale, whether it be on-shelf or online, as well as on the receipt.
9. **Measure supply and demand** (actual purchases, barriers, motivations, etc.) for bulk and reusable packaging.
10. **Build a consumer approach based on trust:** in order to avoid any form of greenwashing or the use of prohibited or false environmental claims, a catalog of tools is listed in our guide so that brands and retailers can help consumers make more sustainable consumption choices.



# Measurement as a Way of Improving Sustainability and Circularity



Silvia Scalia,  
ECR & Training Director, GS1 Italy

Carolina Gomez,  
ECR Project Manager, GS1 Italy



Sustainability is a course now charted by European legislation and international commitments to combat climate change. It is also a necessary approach to meet the requirements of increasingly discerning and environmentally aware consumers, who demand a similar commitment from companies as well as rewarding products and services originating from sustainable enterprises.

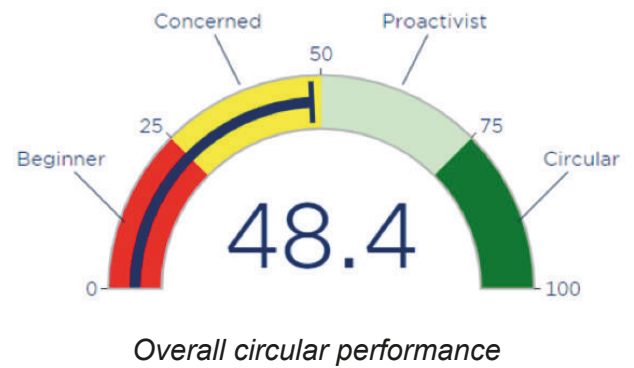
Companies' efforts towards increasingly sustainable practices are also reflected in product labels. The trends evidenced by the data of the **GS1 Italy Osservatorio Immagino**, which compares the information on consumer product labels with Nielsen data on sales in the large-scale retail trade, show that in 2020 there were more than 26,000 products claiming to be "green" (out of more than 120,000 products analysed) on their packaging, for a turnover of more than 10 billion euros, 7.6% more than in the previous 12 months. On the circular economy front, in particular, it emerges that compared to June 2020, the share of consumer products that indicate "how recyclable their packaging is" has increased by almost 3%, reaching 30.1% of the total products surveyed.

For sustainability to become a strategic driver of corporate action, it is essential to adopt measurement as the first step in planning sustainable business growth. In order to support FMCG companies in this process, ECR Italia, with the contribution of its member companies that have participated in dedicated working groups, has developed a series of tools over the years. These are Ecologistico<sub>2</sub>, a web tool for green logistics management, the guidelines Measuring corporate

climate impact: how to obtain structured and reliable data, to set up a structured measurement system that produces reliable data, and Circol-UP, the online self-assessment tool for measuring circularity within a company.



With **Ecologistico<sub>2</sub>**, any company can define its logistics network and calculate its CO<sub>2</sub> emissions from transport and warehousing activities by simulating different scenarios in order to understand which variables have the greatest influence on the environmental impact of logistics. For example, companies can use this web tool to calculate the effects of changing the energy mix and refrigerants used in warehouses and plants, the fleet, fuel, and various transport choices (road, ship, train). They can also draw inspiration from the best practices of companies that have reported on their key actions to reduce their climate impact and measured the resulting emissions and particulate matter savings.



The **Measuring Corporate Climate Impact: How to Obtain Structured and Reliable Data guidelines** were developed in response to

companies' needs to understand what data is needed, where to get it and what process to adopt to use it in measuring corporate climate impact in accordance with international regulations.

On the circular economy front, **Circol-UP** is available for CGP companies. It is a check-up tool that allows companies to measure circularity level and to identify possible improvement actions to be taken to minimise resource wastage and reuse the waste generated by the processes and products offered to the market.



The questionnaire, composed of 60 qualitative-quantitative questions, was customized to the specificities of the operators of three different sectors: Food and Beverage, Personal Care and Home Care, and Retail, and examines all phases of a product's life cycle: Procurement, Design, Production, Distribution, Consumption, and Waste Management.

After filling the questionnaire, the tool provides a performance assessment via an overall company circularity indicator and a circularity indicator for each phase of the life cycle.

Thanks to this set of indicators, the company can identify the areas in which it performs best and those in which it can make the necessary interventions to improve circularity performance while investing available resources more efficiently and effectively.



Circular performance for each product life cycle phase

The application of Circol-UP fosters a common vision and the development of a corporate culture in terms of circularity, thanks to the involvement of multiple corporate figures responsible for processes, and promotes collaboration and the application of circular economy principles by highlighting possible synergies with other stakeholders. It also promotes the development of innovative business models capable of making cyclical use of resources and contributing to the sustainability of the supply chain.

# Circular Economy Metrics at the Company Level: the Why and How



**Sant'Anna**  
School of Advanced Studies – Pisa

Fabio Iraldo, Professor of Economics and Business Management;

Natalia Marzia Gusmerotti, Assistant Professor;

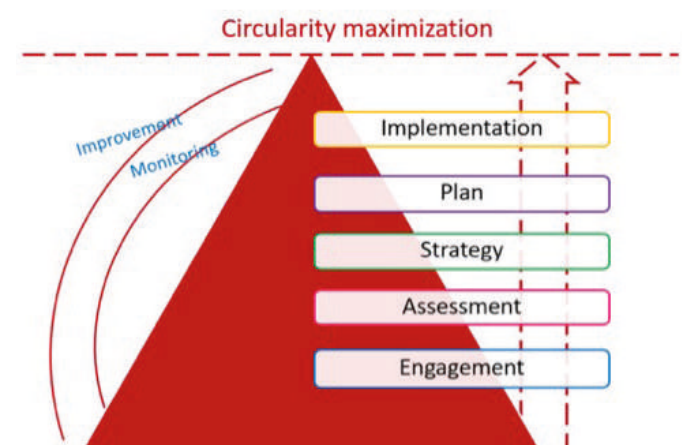
Serena Carlesi, Research Fellow

The transition to a circular economy requires change across all areas of business; energy, digital transformation & green innovation is key to this transition. These innovative processes will contribute to the achievement of **sustainable development goals**. To develop innovative and circular strategies, businesses need different types of reliable information. They must collect, track, analyse and disclose different kinds of data that are useful to different aims, such as **operations and technologies management, strategy development and non-financial accountability**. To properly address the challenging task of supporting the circular economy transition at the company level, the development and adoption of **specific metrics** capable of monitoring physical, economic, social, and organizational aspects represent a strategic and essential step. In the last few years, there has been increased interest in this topic and the number of tools and indicators for circular economy measurement have considerably increased. For example, about **400 different firm-level metrics have been developed**. Nevertheless, the vast majority of these are general and applicable in assessment procedures irrespective of the firm size, the geographic location, the industrial domain, and the selling strategy of the company.

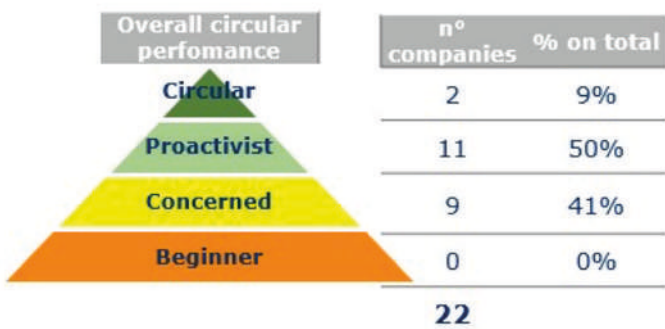
**Research activities and experimental projects** in the field of circular economy have been carried out in recent years in collaboration with companies/institutions in various industrial, sectoral, and territorial contexts. The **Sustainability Management (SuM) Laboratory of the Management Institute of Sant'Anna School of Advanced Studies** has gained extensive experience in the field of the circular economy measurement. From 2016, the

SuM research area has been involved in many national and international projects focused on circular economy assessment activities, to provide an **effective contribution** to circular transition of companies (as Start-up Toolkit: <https://www.confindustriafirenze.it/progetto-filiere-circolari/>) and territories (as Circular Tourism Self Assessment: <https://www.incircle-kp.eu/self-assessment/>). This experience has led to a series of tools aimed at measuring the **circularity performance levels** of territories, processes, products, and services. It has been developed and exploited to support both *engagement and circular economy management* activities of numerous Italian and international firms/institutions.

- ▶ A circular economy tool should focus on the **industry sector** to which it is related. This enables a company to efficiently identify areas of improvement and to establish **new priorities**.
- ▶ The development of effective circular economy assessment tools requires a **bi-**







**directional learning between Academics and practitioners.** Collaboration with the beneficiary companies helps to bridge the practitioners-researcher gap and provides useful solutions / tools capable to support transition towards circularity. The development process should always be based on a collaborative-iterative approach, involving the companies that will really use the metric itself (**co-creation**).

- ▶ The adoption of a research methodology that gives the opportunity to shape the final result step-by-step, following an iterative approach, is preferred i.e. the Action Research methodology (**robustness**).
- ▶ Focus on **both soft and hard dimensions** at the company level, where *soft* ones represent all actions that support the transition towards circularity at organizational, cultural, relational and supply chain level, and *hard* ones refer to processes and products, far beyond material flows. Do not select an excessive number of dimensions to be measured.
- ▶ Provide examples of the soft and hard dimensions, which provide inspiration for companies applying the tool itself (**ease of use**).
- ▶ The adoption of an approach structured by phases of production of goods & services (for example, including the six main life cycle stages, from procurement to end-of-life ones. This enables **the involvement of all key organizational figures** during the assessment process and the development of a circular awareness within the company itself).
- ▶ The implementation of an approach linked to the needs of the sector for which that specific tool is created and the possibility to further **customize the unit of analysis** to properly address the assessment itself.
- ▶ The **digitalization of the tool** on an online platform with effective functionalities capable to properly support the entire assessment process may be an additional important aspect should be considered (circular transformation increasingly enabled by a digital transformation).

- ▶ The transition toward Circular Economy is a **dynamic process**, so the tools aimed at assessing the path toward circularity need to be dynamic and updateable. Self-assessment tools should become true Decision Support Systems, able to assess the performance and to give customized insights, lines of actions and suitable resources to respondents.

Thanks to the use of a sectoral tool with all characteristics described above, it was possible to obtain a first picture of the Italian Fast-Moving Consumer Goods (FMCG) sector's circular transition. 22 Italian FMCG companies (10 belonging to the Food & Beverage industrial sector, 5 to Home & Personal Care, and 7 retailers) have been investigated. From this analysis it emerged that 9% of the companies investigated may be considered as "circular" (when based on a 0-100% scale, with an overall circular performance above 75%), whereas the other ones are structuring their own transition towards circularity. The Food & Beverage sector was found to have the best performance.

Analyzing the performance related to each one of six Life Cycle Stages, investigated by the circular economy tool adopted within this study, **design and use phases** were found to be the most performing, while **production phase showed the most room of improvement** and the major variability among the investigated companies. Companies belonging to the sample have fully understood the straight connection between circularity and competitiveness: indeed, the circular economy is identified as an important **opportunity to link economic and environmental dimensions**. The use of a circular economy tool specifically developed for FMCG sector showed that Circular Economy in practice is a lever for **resource efficiency** actions. In order to run the Circular Transition, Italian FMCG sector should adopt: "**Upstream actions**", involving its own supply chain, aimed to engage and also support suppliers to adopt circular economy principles, such as co-planning activities; "**Core actions**" addressed to build a culture of circularity and to raise awareness within the organization itself towards this topic such as organizational activities, training courses, adoption of circular economy measurement tools, implementation of circular innovative solutions, transformation of corporate processes under the lens of the circular perspective; "**Downstream actions**" that engage and involve consumers to become effective actors of the circular transition itself, for example, promoting the importance of reuse/re-value, implementing take-back schemes to collect used products or materials and reintroduce them within the value chain, and so on.

# Case Studies



# Circular Packaging



### Summary:

The Pingo Doce supermarket chain offers to its customers a simple, safe and cost-effective solution to refill reusable water plastic bottles. The ECO water service, created in partnership with the New Water Project (NWP), uses regular tap water, which undergoes a purification process in stations installed in the stores.

### THE CHALLENGE

According to the European Commission, each inhabitant generated 174 kg of packaging waste in 2018.

To counteract this trend, and within the scope of the European Ecological Pact, the Circular Economy Action Plan aims to make all packaging placed on the European Union market reusable or recyclable by 2030.

This objective is in line with the European Commission's definition of circular economy, according to which products must remain in the economy for as long as possible, use of natural resources and production of waste must be reduced to a minimum, and products must be reused to continue to generate value even at the end of their useful life.

Single-use plastic has been highlighted as one of the issues that the European Commissions' circular economy package must address. Single-use plastic bottles are among the top-10 litter objects most found on European beaches.

The ECO water project was born from Pingo Doce's pioneering desire to provide its clients with a sustainable solution for the essential consumer good - water. It is a flag project, so it was assumed as a Company project, cutting across different functional areas of Pingo Doce...

### THE SOLUTION

The Pingo Doce supermarket chain offers to its customers a simple, safe and cost-effective solution to refill reusable water plastic bottles. The ECO water service, created in partnership with New Water Project (NWP), uses regular tap water, which undergoes a purification process in filling stations installed inside stores.

This innovative solution for the Portuguese market encompasses reusable water plastic bottles and



self-service filtered water stations, intending to promote more conscious consumer habits – starting with something as essential as drinkable water.

After the first reusable bottle purchase, the consumer can head to a refill station and fill up the bottle. The water flows through a set of carbon and sediment filters, along with a UV sterilising light, to ensure the quality and safety of the process.

The ECO water project was launched in 2018 and, within two years, it reached over 140 stores. The reusable bottles are available in three different formats: 1.5, 3 and 6 litres.

**Main Driver for project:**

The ECO water project was born from Pingo Doce’s pioneering desire to provide its clients with a sustainable solution for the essential consumer good - water. It is a flag project, so it was assumed as a Company project, cutting across different functional areas of Pingo Doce, including marketing, operations and commercial departments. Each one endowed the project with the attributes considered essential to be valued by clients.

**Why is this project circular?**

The ECO Water project aims to eliminate the need

to buy disposable water bottles or jugs every time a customer enters a store to buy water by reusing specially designed resistant plastic bottles. It aims to reduce disposable plastic packaging usage and waste.

**Collaboration Effort:**

Pingo Doce has a partnership with New Water Project (NWP).

**Circular Economy Measurement (KPIs):**

1. Reduction of the use of disposable packaging in tonnes.
2. Amount of carbon emissions avoided linked to transporting the bottled water to the stores.

**Economic Viability:**

The project is still in the investment phase. In the long term, reducing single-use plastic is also associated with gains from operational efficiency in stores and logistics (e.g., less handled volumes, in-store restocking, linear space).

**Project Timeline**

- ▶ Start: 2018
- ▶ Finish: ongoing.



## LESSONS LEARNED

### Main Barriers to Implementation:

Good visibility of the refilling stations by customers is essential. Given the nature of proximity and small areas that characterise the Pingo Doce network, the challenge is to find the most appropriate location for placing the ECO station without interfering with the proper flow of customers.

### Reaction to the Project:

#### Consumers:

The project targets consumers. And from the early stage, it has been achieving positive KPIs, representing consumers' interest in the product. It has also received positive consumer feedback during the different test phases: pilot and monitorisation in-store. The conclusion is that customers embraced the project, recognising it as a differentiating initiative available in the market. However, it is essential to focus on communication to scale up the project by raising clients' awareness.

The launch of the 6-litre bottle, with a dispensing tap that enhances the convenience of use, is an example of the approach to one format highly valued by customers. It was indeed a feature often requested by clients.

#### Employees

The project was perceived by employees as a differentiated customer service that integrated convenience with environmental principles and meets the client's expectations.

### What advice would you offer to your peers starting a similar circular economy project?

Sustainability is a priority for society. Distribution, as a privileged point of contact, must have on its agenda the creation and communication of solutions that allow clients, in all conscience, to make environmentally sustainable choices.

### What are you most proud of about this project?

It was a pioneering project in Portugal and changed the way that bottled water is consumed. It is a successful example of a reuse model that contributes to the reduction of single-use plastic.

## WHAT NEXT?

We aim to continue rolling out the project to more Pingo Doce stores and in Colombia, the Group local banner Ara is implementing a pilot project.



## CIRCULAR ECONOMY IN OUR BUSINESS

Reducing packaging materials and using sustainable materials, and incorporating circular economy principles are among the top-10 materiality issues defined for Jerónimo Martins. The “Respecting the Environment” Corporate Responsibility pillar of action includes both topics.

Jerónimo Martins’ Sustainable Sourcing Policy also states that “it is important to activate and support the Group’s environmental policy, namely through consistent encouragement for the adoption of good environmental practices by its suppliers”. The Supplier Code of Conduct also defines that “Jerónimo Martins Group suppliers and other business partners are committed to making every effort to reduce, eliminate or prevent the production of emissions and waste”.

The Group has publicly committed to several time-bound targets under its strategy to promote the circular economy.

It includes reducing food waste and the amount of virgin plastic used, increasing the incorporation of recycled plastic, packaging recyclability and/or reusability, promoting sustainability certification of paper-based packaging, and ensuring a minimum waste recovery rate.

To promote cooperation among the transition to a more circular economy, the Group joined the Portuguese Plastics Pact, the Polish Plastics Pact and The Consumer Goods Forum’s Plastic Waste Coalition of Action. The Group is also a signatory of the New Plastics Economy Global Commitment.

### Percentage of our business that is circular:

The ECO water project is implemented in the Jerónimo Martins Group’s Pingo Doce banner, which represents 20% of the Group’s consolidated sales.



## COMPANY BACKGROUND

**Country:** Poland, Portugal and Colombia

### Our Business:

Jerónimo Martins operates in the Food Distribution and Specialised Retail sectors in Europe & South America. Food distribution is the core business and represents over 95% of total sales. The Group is committed to developing high-quality food products and convenient meal solutions at competitive prices.

### Our People:

100,000+ employees.

### Submission by:

Fernando Ventura, Head of Efficiency and Innovation Environmental Projects

“ In partnership with Pingo Doce, we’ve made available a new way of drinking water. In practice, what do we know? That the water we filter is excellent, which gives us a great guarantee for what our final product is. On the other hand, we also know that the consumer is prepared to go to a commercial surface to buy pre-bottled water and we provided an innovative and sustainable way of consuming, as opposed to what is the disposal of a water bottle.”

*André Paiva, Cofounder of New Water Project, partner of the ECO initiative with Pingo Doce*



## Closing the Loop: 100% rPET Bottles with Sustainable Sleeves

### Summary:

This project increased recycled content of detergent PET bottles by up to 100% rPET: improvement of rPET material quality for high application (rPET preform quality requirements for near food products). We also worked to achieve full recyclability for detergent packaging with our sustainable sleeve solution: development of detectable sleeve for automatic sorting of waste by decreasing density of sleeve material.

### THE CHALLENGE

This project addressed the general issue of how to reduce the negative environmental impact of plastic while maintaining its benefits for our Laundry Home Care (LHC) product category. This dilemma can be solved with a transition from linear to circular material usage for our packaged goods.

Indeed, there is a big challenge regarding the development of a certain material stream in the PET fraction for non/near food business (laundry and dishwashing detergents). It is difficult to reach a granulate material quality which can be converted in a high application approach, like bottle-to-bottle concept in the PET beverage industry.

During the project development the economical aspect significantly increased due to the strong increase of raw material prices on one hand and less amount of qualified recycled PET material available for non-food fast moving consumer goods on the other hand.

As the bottles with transparent recycling PET (above 50%) are sold with full body sleeves, the recyclability of empty packaging depends on detection in several sorting and converter facilities across the country. Henkel printed tear-off line and introduced a symbol to educate consumers to remove the sleeve before discarding their empty bottle in plastic recycling containers, as many consumers did not know to do this. This lack of recycling results in lost material quantities in the near food transparent rPET fraction stream.



### THE SOLUTION

Reaching a better quality and the needed quantity of recycled PET for the Vienna detergent factory enabled the progressive switch to higher rPET content in various brands & formats within 3 years.

Improving the collection and investment in sorting approach for several material fractions is a key success factor to establish a common material stream.

Additionally, this has the positive side effect of a reduced CO<sup>2</sup> footprint.

For this transition to more circular packaging in our pre-forms for PET detergents bottle we had to:

- ▶ use a smart packaging design to close the loop, develop material requirements in order to include material from sustainable sources.
- ▶ make active use of Design for Recycling methodology & tools in the development phase of product to optimize the recyclability approach of detergent product packaging.



- ▶ develop partnerships with all stakeholders in the economic value chain in a complex network: circular economy requires close cooperation of different structures in other industries, with associations and the local chamber of economy.

In parallel the packaging team developed a lighthouse project to implement a sustainable sleeve film which is detectable and sortable in the recycling infrastructures. This new sleeve material leads to a higher quote of PET material in sorting and converting stream.

### Main Driver for project:

As responsible R&D experts, the objectives of packaging team was

1. to develop a sustainable sleeve film which is detectable and sortable in the recycling stream and
2. to develop a certain PET material stream to get qualified rPET which can be used in high application like PET bottles for Laundry.

### Why is this project circular?

1. Closing the loop in using rPET from a qualitative PET Material stream is an upgrade of recycling-PET and enables several rounds of use.
2. Creation of synergies with reduction of CO2 emission while lowering the usage of fossil based virgin material.

Henkel uses the design for recyclability assessment tool to qualify the product packaging for better recyclability approach: EasyDesign4R was created by Henkel, it has been acknowledged by the external partner Fraunhofer-Institut für Umwelt-, Sicherheits- und Energietechnik UMSICHT and is available for other companies on Henkel website.

This project is a strong contribution to overall development of circular economy practices with a range of stakeholders.

### Collaboration Effort:

Collaboration with more than 3 external project partners including several **Henkel departments (Marketing, Production, R&D, Purchasing) & external partners, Waste management Reclay, Recycling Kruschitz, Converter Varioform, Sleeve CCL.**

### Circular Economy Measurement (KPIs):

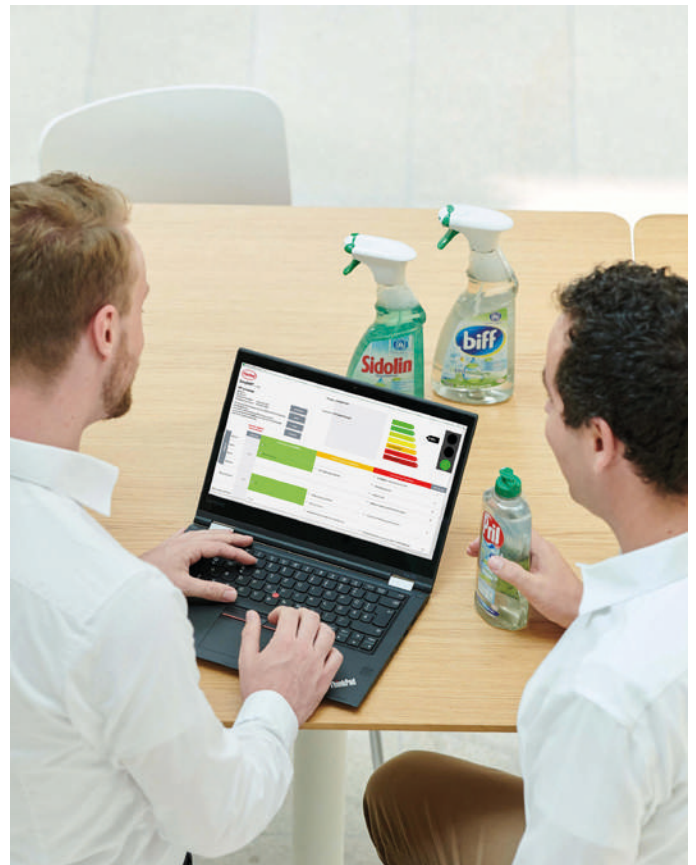
1. The recyclability of all packaging materials
2. The percentage of rPET, or other recycling material, used from the total packaging generated
3. Share of rPET in pre-form: increased from 25% up to 100%

### Economic Viability:

Yes, and this project is a lighthouse achievement within Henkel supply chain as well as within detergent industry.

### Project Timeline

- ▶ 2018 – project start
- ▶ 2019 – implementation of first milestone to use up to 100% rPET in the PET product portfolio.
- ▶ 2020 – implementation of 25% - 50% rPET in selected brands and countries & completed the qualification of sustainable sleeve.
- ▶ 2021 – 100% rPET in the entire PET portfolio in Laundry business in Austrian market.
- ▶ 2022 – 100% rPET + sustainable sleeve for selected product categories.



## LESSONS LEARNED

### Main Barriers to Implementation:

There were three main challenges to overcome:

1. the economic aspect; rPET material means higher costs and is subject to significant price increases
2. quality of recycled material
3. the investment required in technology to use the recycled material on the production line.

### Reaction to the Project:

#### Consumers:

Plastic waste is one of the top 5 sustainability concerns for consumers in Europe, being ranked as a top 1 by 22% of Austrian and 25% of German consumers (Source: Who cares? Who does? 2019 Europanel, GfK & Kantar study). European consumers expect producers and retailers to focus on avoiding plastic waste and to make it circular. According to Henkel market research 25% of shoppers claim to not buy a product because the packaging was not recyclable.

The communication of the rPET share on front of the pack was very well received by trade partners and consumers. The 100% rPET packaging contributes to overall success and positive image of Austrian market leader brands like special detergent Fewa, softener Silan, dishwashing Pril as well as Clin window cleaner.

Additionally, the rPET bottle range was promoted through an online campaign in the Austrian market with very positive results.

The engagement and positive comments of consumers in our social media channels confirms the relevance of this circular plastic solution.

#### Employees

Henkel employees are very committed to Henkel sustainability efforts and achievements overall.

This project and the implementation of 100% rPET on the market contribute to higher satisfaction and motivation of employees as it shows them that Henkel walks the talk. It is a perfect example of the global company purpose: pioneers at heart for the good of generations.



### What advice would you offer to your peers starting a similar circular economy project?

The key success factors we identified for the transition to circular packaging of liquid detergents are:

1. the implementation of a clear packaging strategy, adopting a smart design approach, and defining the needed technical criteria for recyclable material and integration of recycled content
2. strong collaboration with all stakeholders in the value chain in a network of institutions and business associations within and outside of the own business area
3. establish the processes to use recycled material in the bottles: pilot molding, test series and module analysis.

### What are you most proud of about this project?

Circular economy and climate action are sector topics which need to be discussed and tackled together. A modern circular economy avoids significant greenhouse gases emissions. We need new solutions in order to decouple our economy and our lifestyle from the consumption of resources. The circular economy is one of the alternative



Closing the Loop:  
100% rPET Bottles with  
Sustainable Sleeves

concepts to reducing our energy and resource consumption as well as enabling the switch to renewable resources.

This lighthouse project sets an example for other businesses and partners like retailers & CPG companies.

## WHAT NEXT?

The increase of rPET material up to 100% is fully implemented on Austrian detergent market and will be rolled out successively to other countries provided the required material quantities are available.

The development of the sustainable sleeve film which is detectable and sortable in the recycling stream is ready to be implemented on market. This new solution will be successively rolled out starting 2022.

## CIRCULAR ECONOMY IN OUR BUSINESS

Circular economy is one the 5 strategic pillars in Henkel sustainability framework, next to ingredient transparency & traceability, social impact, integration into business and climate positivity.

Henkel is committed to ambitious packaging targets supporting the circular economy. Our progress is based on three packaging targets for 2025:

- ▶ 100% recyclable or reusable product packaging until 2025.
- ▶ 50% cut fossil plastics by reduced fossil based virgin plastic.
- ▶ 0% Zero waste meaning no plastic waste littering into nature.

### Percentage of our business that is circular:

The circular economy solution presented here is based on PET material for detergent & cleaner bottles – which has a share of 65% of total packaging material quantities needed in our Vienna production facility. Recycling PET covers 80% of the PET quantities used in these detergent business operations in 2021.

## COMPANY BACKGROUND

**Country:** Austria

### Our Business:

Henkel operates worldwide with leading innovations, brands, and technologies in three business areas: Adhesive Technologies, Beauty Care and Laundry & Home Care. The company holds leading positions with its three business units in both industrial and consumer businesses thanks to strong brands, innovations and technologies. In its Laundry & Home Care and Beauty Care businesses, Henkel holds leading positions in many markets and categories around the world. Founded in 1876, Henkel looks back on more than 140 years of success.

### Our People:

50,000+ employees from more than 120 countries around the world.

### Submission by:

Erich Schlenz, Head of Packaging Implementation CEE Laundry & Home Care CEE.

Isabelle Haslinger, Sustainability Manager Laundry & Home Care Austria.



### Summary:

In the latest extension of the 17-year-old brand's deep commitment to sustainability, pioneering natural beauty brand, SUSANNE KAUFMANN™ have partnered with ALPLA, a leader in the development and manufacturing of sustainable plastic packaging solutions to launch a refill program for top-selling products in their skin and body care range.

The innovative refill packaging has been developed to reduce packaging waste and leave a lighter footprint on the planet. Each refill helps to prolong the shelf life of the glass bottles and lowering our environmental impact.

Based on years of knowledge and expertise, the Refill bottle is comprised of 75% recycled high-density polyethylene (rHDPE.) Both the rHDPE bottle, as well as the FSC certified paper sleeve that wraps the refill, are 100% recyclable. This is ahead of the curve for the beauty industry, as there are currently no other refills available that are fully, 100% recyclable.

### THE CHALLENGE

The world's ecosystems are under increased pressure. It is therefore our mission to constantly expand our efforts and minimise our footprint on the earth.

We are committed to providing our customers with sustainable packaging solutions that leave a lighter footprint. We know our customers love our recyclable glass bottles, and we are excited to now offer a refill solution that empowers them to reuse their existing bottles, reducing their carbon footprint and helping us in the fight to protect our planet.

For many years, the refill project has been particularly close to founder Susanne's heart:

*"This project has been a labour of love. We know our customers love our recyclable glass bottles, and so we are excited to offer a refill solution that empowers them to reuse their existing bottles, reduce their carbon footprint and help us in the fight to protect our planet."*

The Refill bottle is comprised of 75% recycled high-density polyethylene (rHDPE.) and the FSC certified paper sleeve that wraps the refill are 100% recyclable.

### THE SOLUTION

The Refill bottle, which is comprised of 75% recycled high-density polyethylene (rHDPE) and the FSC certified paper sleeve that wraps the refill are 100% recyclable. This is ahead of the curve for the beauty industry, as there are currently no other refills available that are fully, 100% recyclable.

The paper sleeve must be removed before use of the Refill bottle to ensure both paper sleeve and the Refill bottle can be recycled correctly. This was a key consideration during the design phase. By packaging the bottle this way, it encourages users to recycle the components correctly. The packaging has no cap and has to be opened by cutting the spout. This means no small plastic items (such as lids, caps etc.) are used which are a hazard to young children & animals and can also leak into the environment.

Glass bottles, while relatively clean to produce, are notoriously heavy to transport. The SUSANNE KAUFMANN™ Refill bottle is up to 60% lighter than standard HDPE bottles and offers a reduction in CO2 emissions during production, transport, and the post-consumer recycling process. Not only will the lightweight new refill provide a substantial reduction in carbon footprint, it will also extend the life of the glass bottle far beyond its original single use design.

The challenge was to develop packaging using the highest percentage of post-consumer material



possible. Since the packaging is so thin and light, SUSANNE KAUFMANN™ worked hard with ALPLA to ensure that the highest standards of quality for the packaging could still be achieved despite using recycled plastic. ALPLA run their own recycling plants to guarantee their exacting standards. They can transform recycled plastics into high-quality packaging, such as with the new SUSANNE KAUFMANN™ Refills.

#### Main Driver for project:

The ambition to design packaging that focused on what was necessary to get the product safely from the manufacturer to the consumer. We wanted to take away everything that wasn't needed.

#### Why is this project circular?

We have conducted a Life Cycle Assessment (by c7 consult), which confirms that purchasing a Susanne Kaufmann™ product in a glass bottle and refilling it four times with a Susanne Kaufmann™ Refill bottle has 50% less overall environmental impact.

#### Collaboration Effort:

Collaboration between **Susanne Kaufmann™** and **ALPLA**.

#### Circular Economy Measurement (KPIs):

1. Reduces greenhouse gas emissions\* by 55%
2. Reduces water use by 37.5%
3. Reduces the environmental impact of land use by around 50%
4. Reduces contribution to smog by around 56%

\*The results are based on a customer purchasing in Hamburg, Germany. For countries further afield, the results are impacted by transportation emissions.

#### Economic Viability:

Yes.

#### Project Timeline

▶ Start: 2019 ▶ Finish: 2021



## LESSONS LEARNED

### Main Barriers to Implementation:

Finding the right partner to bring the product to the market.

### Reaction to the Project:

#### Consumers:

The feedback so far has been amazing. When we launched them on our brand website, we had customer sales within minutes of going live. The demand was clearly there. It's wonderful to see that our customers care about their carbon footprints as much as we do.

#### Employees

As far as we could tell, the feedback was positive throughout. The packaging certainly takes some getting used to at first but we were all surprised how well this lightweight bottle performs.

### What advice would you offer to your peers starting a similar circular economy project?

Just start doing it. There will be a lot of obstacles along the way that you don't think about at first. Processes or products will need to be tested and reworked. And finally, it's a lot more fun to work together.

### What are you most proud of about this project?

After years of development and improvements, the collaboration between Susanne Kaufmann™ and ALPLA turned the idea into a product. This collaboration has once again pushed the boundaries of what is possible. We are delighted the refills are now well received by both consumers and professionals.

The feedback so far has been amazing. When we launched them on our brand website, we had customer sales within minutes of going live. The demand was clearly there.

## WHAT NEXT?

At the moment, three products (Cleansing Gel, Shower/Shampoo and Hand Soap) are available as refills. We are committed to providing our customers with sustainable packaging solutions that leave a smaller footprint and will therefore expand the refill range in the coming months.

## CIRCULAR ECONOMY IN OUR BUSINESS

### For ALPLA:

The sustainable, environmentally conscious use of resources is the basis of our business activities, ensuring that future generations can also live in a healthy environment.

### For Susanne Kaufmann:

Having grown up surrounded by nature in Bregenzerwald in Austria, sustainability is more than just a fashionable word to founder Susanne Kaufmann. From the careful selection of only the finest plant and botanical ingredients to the implementation of the most eco-friendly production technologies and processes (with local partner Ingo Metzler), sustainability has been at the core of the brand for almost two decades and is imperative to everything Susanne creates and pursues.

## COMPANY BACKGROUND

**Country:** Austria

### Our Business:

ALPLA is a world leader in the development and production of innovative plastic packaging solutions. Headquartered in Austria, it has 178 production facilities across 45 countries & 4 continents.

### Our People:

21,000+ employees on a global scale, with 800 employees in Austria.

### Submission by:

Oliver Unterlechner, Innovation Manager



## Summary:

Coop started its circular economy journey in 2018 and has used the Pledging Campaign and the Circular Plastics Alliance to reach the goal of 10 million tons of recycled plastics by 2025 in Europe. Our plan focuses on the reduction & elimination of plastic from all branded products, elimination of micro-plastics from branded cosmetics and detergents, redesign of packaging to be recyclable, and use of compostable or reusable packaging.

## THE CHALLENGE

The overconsumption of natural resources has been increasingly highlighted, both at a global and EU level. The need to move to more responsible consumption and production patterns can be addressed by transitioning to a more circular economy and providing consumers with “circular” choices.

## THE SOLUTION

1. We need to reduce the amount of plastic used for all products - both elimination, where suitable, and by shifting to the use of recycled plastic. Coop has an ambition to use of 6,400 tons of recycled plastic per year instead of virgin plastic in successive steps in 2025, with an estimated saving of 9,000 tons of CO2 eq. Through the Pledges we have committed to:
  - ▶ all Coop branded fruit and veg will use at least 80% recycled plastic
  - ▶ all Coop branded Home Cleaning and Textile bottles will use between 25-50% recycled plastic by 2025
  - ▶ all Coop-branded water will use a minimum of 50% recycled plastic by 2023
  - ▶ all non-Coop-branded water will use a minimum of 30% recycled plastic by 2025
  - ▶ CPR System reusable cassettes will use a minimum of 60% recycled plastic by 2025





2. Coop is shifting to recyclable, compostable or re-useable packaging where possible. In 2019, it moved its green living line products away from single-use packaging and it will do so for all the Coop branded products by the end of 2022.
3. Coop has eliminated Microplastics in Cosmetics & Detergents in its products.
4. Coop have relaunched their packaging policy to simplify it, provide guidance around the reduction of the absolute quantity of material used, and the pack v product weight ratio.

**Main Driver for project:**

This project was initiated after the EU published its “European strategy for plastics in the circular economy” in 2018.

**Why is this project circular?**

This project focuses on the reduction of natural resources and the use of recycled materials.

Coop has an ambition to use of 6,400 tons of recycled plastic per year instead of virgin plastic in successive steps in 2025, with an estimated saving of 9,000 tons of CO2 eq.

**Collaboration Effort:**

Collaboration with all suppliers of branded products and other stakeholders in our supply chains.

**Circular Economy Measurement (KPIs):**

We have internal KPIs as well as the external pledge commitments. .

**Economic Viability:**

It is economically feasible if considered from a multi-year perspective.

**Project Timeline**

- ▶ Start: 2018
- ▶ Finish: our current targets are for 2025 but we won't stop there.



## LESSONS LEARNED

### Main Barriers to Implementation:

Availability of recycled raw materials, cost technologies.

### Reaction to the Project:

Consumers, Coop Members, and employees appreciate these initiatives.

### What advice would you offer to your peers starting a similar circular economy project?

Its important to involve all areas of the business and to also make a significant investment to carry out the project.

### What are you most proud of about this project?

Coop was the first Italian distributor to take this approach.

## WHAT NEXT?

To continue working to meet our targets on packaging & plastics.



# IL VENTALOGO DELLA SOSTENIBILITÀ

*Fai crescere la tua spesa responsabile*



## CIRCULAR ECONOMY IN OUR BUSINESS

Environmental protection is the basis of food safety and people's health. Safeguarding the environment also means guaranteeing the well-being and quality of life to us and to future generations. This is why Coop has always been committed to protecting the environment with concrete actions on Coop branded products, managing points of sale and transporting goods by reducing polluting emissions, reducing waste and involving the stakeholders of the production chains. An important part of Coop's activities concerns the choices relating to packaging and plastics.

### Percentage of our business that is circular:

The scope of this project covers all Private Label products with main focus on same categories.

Safeguarding the environment also means guaranteeing the well-being and quality of life to us and to future generations.

## COMPANY BACKGROUND

**Country:** Italy

### Our Business:

Coop is one of the largest retail chain in Italy, with a market share of 13,7% (hypermarkets+super-markets+discount). Our multi-format structure includes 1.645 stores (hypermarkets, supermarkets, convenience stores) located throughout Italy. Coop Italia is the Marketing and Buying Consortium of Consumer Cooperatives, in charge of negotiation with industry and producers, development and production of Private Label, quality and safety policies and marketing strategy. The Coop Private Label is designed according to Coop's values and mission, to provide consumers with safe, good value, tasty and ethical products.

### Our People:

55,000+ employees on a global scale, 500+ employees at Coop Italia.

### Submission by:

Chiara Faenza, Sustainability and Values Innovation at Coop Italia





### Summary:

The Jerónimo Martins Group works with its suppliers to improve the eco-efficiency of its Private Brand products' packaging to reduce the environmental impact related to the packaging of the articles sold in its stores and optimise the production, transport and packaging waste management costs.

## THE CHALLENGE

According to the European Commission, each inhabitant generated 174 kg of packaging waste in 2018.

To counteract this trend, and within the scope of the European Ecological Pact, the Circular Economy Action Plan aims to make all packaging placed on the European Union market reusable or recyclable by 2030.

This objective is in line with the European Commission's definition of circular economy, according to which products must remain in the economy for as long as possible, use of natural resources and production of waste must be reduced to a minimum, and products must be reused to continue to generate value even at the end of their useful life.

Single-use plastic has been highlighted as one of the issues that the European Commissions' circular economy package must address. Single-use plastic bottles are among the top-10 litter objects most found on European beaches.

## THE SOLUTION

In 2010, Jerónimo Martins launched the packaging Ecodesign project. It aims to improve the eco-efficiency of the Group's Private Brand products packaging by reducing the environmental impact related to the packaging of the articles sold in our stores and optimising the production, transport and packaging waste management costs. Since then, the Group's banners have been redesigning the packaging of its Private Brand products.

The Ecodesign programme, which has a perspective on the packaging life cycle, is based on six strategies: promote reuse, eliminate superfluous components, minimise the weight of components, favour materials that are more environmentally appropriate, encourage recycling, and reduce product losses.

The ecodesign programme includes Jerónimo Martins' Companies in Poland (Biedronka and Hebe), Portugal (Pingo Doce, Recheio and Hüssel) and Colombia (Ara).

In line with these principles, the Group is committed to ensuring that all Private Brand packaging will be 100% recyclable or reusable by 2025. Jerónimo Martins has also set a goal to progressively include its Private Brand products in its packaging Ecodesign project.

The Group is also a signatory of the New Plastics Economy Global Commitment, led by the Ellen MacArthur Foundation, and has several pledges to be achieved by 2025: (i) eliminating the problematic components of Private Brand plastic packaging; (ii) incorporating at least 25% of recycled content in Private Brand plastic packaging; (iii) reducing specific plastic consumption by 10%, compared to 2018, measured in tonnes of plastic packaging for every million euros of turnover; and iv) reduce total virgin plastic in Private Brand packaging, service packaging, pallet wrapping film and carrier bags by 15%, compared to 2018, by 2025.

### Main Driver for project:

The Group's environment department launched the project in cooperation with suppliers of private brand products, aiming to have more eco-efficient packaging, saving materials, energy and reducing air emissions.

**Why is this project circular?**

The Ecodesign programme has six strategies: promote reuse, eliminate superfluous components, minimise the weight of components, favour materials that are more environmentally appropriate, encourage recycling and reduce product losses. All these strategies are aligned with the circular economy principles.

**Collaboration Effort:**

This project involved collaboration between the employees working in the Group’s environment, commercial, quality and safety, private brand & marketing departments and the suppliers of the Groups’ Private Brands.

**Circular Economy Measurement (KPIs):**

1. Reduction of the use of materials in tonnes (that amounted to about 27,500 tonnes between 2011 and 2020).
2. Number of external certifications (143 products with FSC® certification between 2011 and 2020).
3. Amount of avoided carbon emissions linked to transporting the products (around 4,500 tonnes between 2011 and 2020).

**Economic Viability:**

Yes.

**Project Timeline**

- ▶ Start: 2018
- ▶ Finish: ongoing.

**HOW A SMALL CHANGE CAN MAKE A BIG DIFFERENCE**

*NECTARÍSSIMO  
FRUIT JUICE*

The 1-litre bottle diameter was narrowed down from 90mm to 85mm, turning it into a more cylindrical rather than conical shape. The new bottle has allowed a 10% reduction in primary packaging weight – 2,661 kg/year – and done away with the need for a cardboard pallet stabiliser. The changes have avoided transporting 6 thousand pallets each year and the emission of 345 tonnes of CO2. Aiming for continuous improvement at the packaging redesign of this particular product, Jerónimo Martins is preparing a new reformulation.



- 5 mm in diameter
- 345 tonnes of CO2 emissions
- 10% reduction in primary packaging weight
- 6,000 Pallets used in transportation
- Elimination of the cardboard pallet stabilisers



*FROZEN READY  
MEALS*

The packages have been replaced by a flowpack format, resulting in a reduction of 60% in primary packaging weight – 12,186 kg/year – and a 5% reduction in secondary packaging weight – 1,784 kg/year.



*POLARIS WATER*

**-155 230 KG  
OF PLASTIC PER YEAR**

The change of shape and thickness of the bottle of water Polaris 1,5 l (sparkling and still) had a considerable decrease in plastic use.

## LESSONS LEARNED

### Main Barriers to Implementation:

1. Finding alternatives with the same operational performance;
2. Improving the environmental performance of packaging without compromising operational efficiency;
3. Application of recycled materials in food-contacting packaging;
4. Informing consumers of the implemented improvements;
5. Involving external stakeholders (e.g. recyclers) in development and improvement processes.

### Reaction to the Project:

#### Consumers:

There has been a growing engagement with customers on social media.

#### Employees

The project is aligned with Jerónimo Martins' commitment to sustainable development. It has been implemented with great motivation by teams across the Group's geographies, reflected in positive KPIs. At the beginning, the project was developed by the Environment Department directly with suppliers and now commercial, packaging and quality teams are significantly involved, and a relevant part of the projects are born in the interaction between the commercial department and suppliers.

### What advice would you offer to your peers starting a similar circular economy project?

- ▶ Establish partnerships with suppliers and create packaging Ecodesign principles;
- ▶ Incorporate ecodesign criteria in product development;
- ▶ Raise consumer awareness of reusable solutions and good practices for separating packaging at the end of its life.

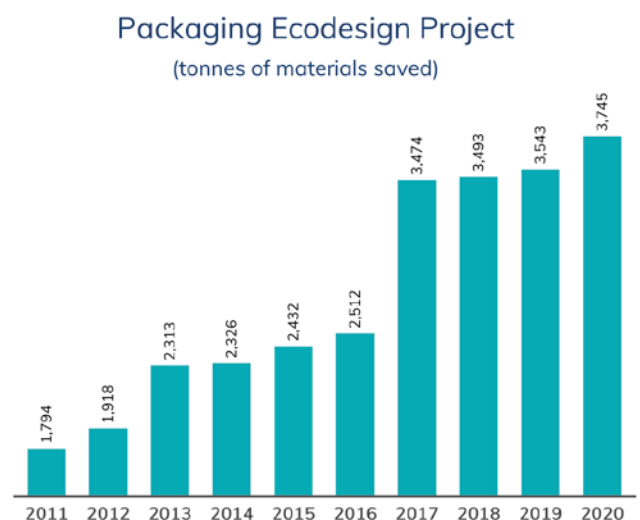
### What are you most proud of about this project?

What makes us proud of this project is its significant results, achieved thanks to the motivation of team members.

The project started in Portugal and scaled to Poland and Colombia. Internally, the project gets significant recognition with the increasing involvement of other departments.

## WHAT NEXT?

Motivated by the positive results from the previous triennium (2018-2020), the Group aims to ensure that at least 12% of the packaging in its Private Brand products are included in the Ecodesign project by 2023, comparing to the 2020 assortment.



## CIRCULAR ECONOMY IN OUR BUSINESS

Reducing packaging materials and using sustainable materials, and incorporating circular economy principles are among the top-10 materiality issues defined for Jerónimo Martins. The “Respecting the Environment” Corporate Responsibility pillar of action includes both topics.

Jerónimo Martins’ Sustainable Sourcing Policy also states that “it is important to activate and support the Group’s environmental policy, namely through consistent encouragement for the adoption of good environmental practices by its suppliers”. The Supplier Code of Conduct also defines that “Jerónimo Martins Group suppliers and other business partners are committed to making every effort to reduce, eliminate or prevent the production of emissions and waste”.

The Group has publicly committed to several time-bound targets under its strategy to promote the circular economy.

These include reducing food waste and the amount of virgin plastic used, increasing the incorporation of recycled plastic, packaging recyclability and/or reusability, promoting sustainability certification of paper-based packaging, and ensuring a minimum waste recovery rate.

To promote cooperation among the transition to a more circular economy, the Group joined the Portuguese Plastics Pact, the Polish Plastics Pact and The Consumer Goods Forum’s Plastic Waste Coalition of Action. The Group is also a signatory of the New Plastics Economy Global Commitment.

### Percentage of our business that is circular:

The project applies to over 99% of the Group’s business operations.

Safeguarding the environment also means guaranteeing the well-being and quality of life to us and to future generations.

## COMPANY BACKGROUND

**Country:** Poland, Portugal and Colombia

### Our Business:

Jerónimo Martins operates in the Food Distribution and Specialised Retail sectors in Europe & South America. Food distribution is the core business and represents over 95% of total sales. The Group is committed to developing high-quality food products and convenient meal solutions at competitive prices.

### Our People:

100,000+ employees.

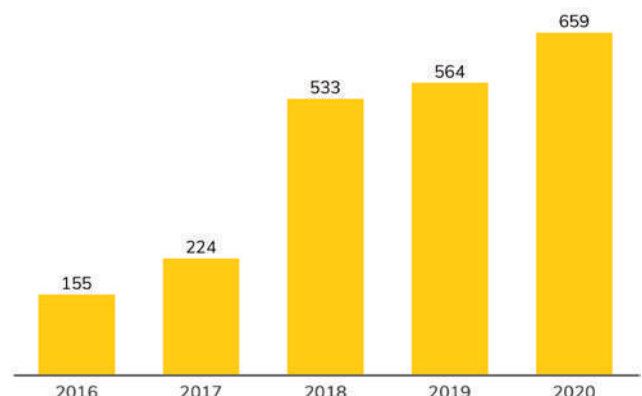
### Submission by:

Fernando Ventura, Head of Efficiency and Innovation Environmental Projects

“ We can safely say that the Ecodesign project promotes changes in attitudes and behavior, generating benefits for everyone.”

*Rita Manso  
Private Brand Commercial Director  
Pingo Doce*

Number of Products with Sustainability Certificates



Note: The total number of products with sustainability certificates considers that the same product may have more than one certification system and that there are products no longer available on the market.

### Summary:

Pandobac helped Transgourmet Fruits & Légumes and Transgourmet Seafood set up a reusable packaging solution to deliver fresh produces (fish and Fruits & Vegetables) to their Parisian customers without generating packaging waste.

The solution is threefold: rental of reusable plastic containers, tracking of the circulating containers, local washing of the containers. The containers replace Styrofoam and cardboard packaging usually used to transport and deliver fresh food to restaurants. The tracking system, developed by Pandobac, help Transgourmet's teams ensure that restaurants return the containers. Finally, Pandobac washes the containers minutes away from Transgourmet's warehouses.

### THE CHALLENGE

Today disposable packaging is king for goods transportation across all sectors; food, cosmetics, clothing... This packaging in France is mostly incinerated, without recycling and is used for B2B and B2C deliveries. In the Paris area, around 300,000 crates made of plastic, wood, or cardboard boxes, that are used in B2B food transportation, are incinerated every day.

On a worldwide scale, this means that a city as big as Edinburgh would disappear under thrown-away packaging in just one day. It is a big challenge for cities to cope with all this waste, because it is expensive, and it has a negative environmental impact.

Disposable packaging is king in all delivery logistics, because it is convenient, but the planet can't afford wasting natural resources anymore.

Pandobac has a direct impact on waste reduction. For each cycle of a crate, one piece of single-use packaging waste is suppressed. Since the beginning of our activity, we replaced over 500,000 disposable packaging with reusable crates, and have saved 400 tons of waste.





## THE SOLUTION

Pandobac has a direct impact on waste reduction. For each cycle of a crate, one piece of single-use packaging waste is suppressed. Since the beginning of our activity, we replaced over 500,000 disposable packaging with reusable crates, and have saved 400 tons of waste.

With our tracking app, we can easily calculate how many pieces of disposable packaging we have avoided with our service, and the weight of natural resources preserved.

### Main Driver for project:

The project started thanks to the production and site director at Transgourmet Seafood. Customers, i.e. restaurants, were more and more asking for less packaging in deliveries and Pandobac's solution was a good way to answer their queries.

### Why is this project circular?

The solution is threefold: rental of reusable plastic containers, tracking of the circulating containers, local washing of the containers. The containers replace Styrofoam and cardboard packaging

usually used to transport and deliver fresh food to restaurants. The tracking system, developed by Pandobac, help Transgourmet's teams ensure that restaurants return the containers. Finally, Pandobac washes the containers minutes away from Transgourmet's warehouses.

### Collaboration Effort:

Collaboration with Transgourmet Seafood, Transgourmet Fruits & Légumes and all the restaurants they work with.

### Circular Economy Measurement (KPIs):

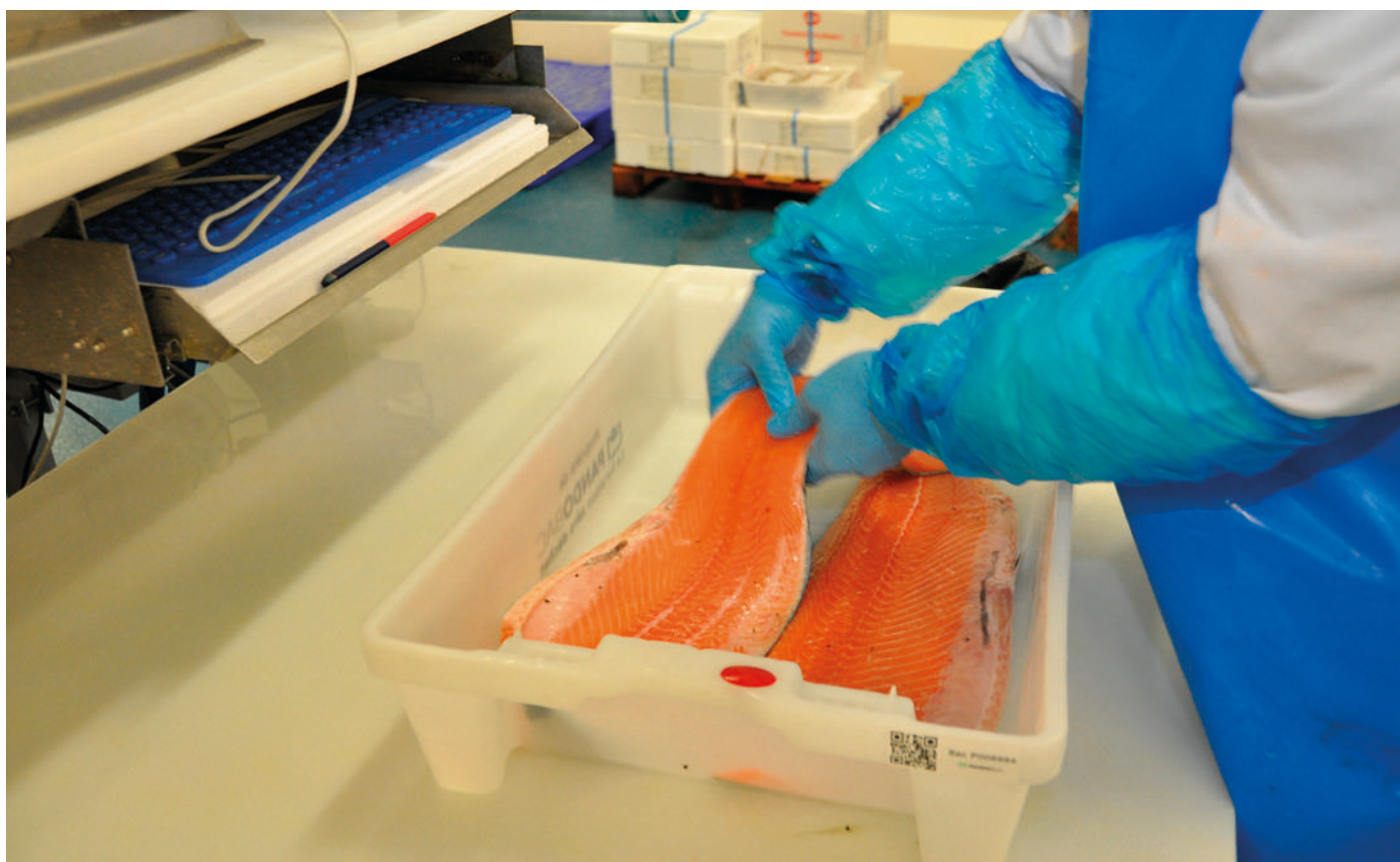
1. Number of disposable pieces of packaging replaced.
2. Reusability: Average number of time a reusable container is used within a month.

### Economic Viability:

It is economically viable to use this system rather than Styrofoam containers, and it should be viable for any type of packaging in a few months.

### Project Timeline

- ▶ Start: 2019
- ▶ Finish: Still running.



## LESSONS LEARNED

### Main Barriers to Implementation:

The main barriers are change management. The switch to reusable packaging is not just a change in packaging: it has to do with the whole logistics chain and it means that every player along the supply chain must be trained, informed and participate.

### Reaction to the Project:

#### Consumers:

Restaurants are mainly happy with the change, as they see a decrease in packaging waste and its less work for them to deal with the waste. Most of them are challenging their other suppliers to switch to reusable solutions as well, which is encouraging!

#### Employees

Pandobac trained Transgourmet's preparation teams to use the tracking platform in order to ensure that the containers are tracked and collected. Their main reaction was positive as they understood the purpose of the training: enabling a new packaging solution.

### What advice would you offer to your peers starting a similar circular economy project?

Testing is key. Start with a small-scale project and grow it by co-developing it with the user. This is how we started to work with Transgourmet.

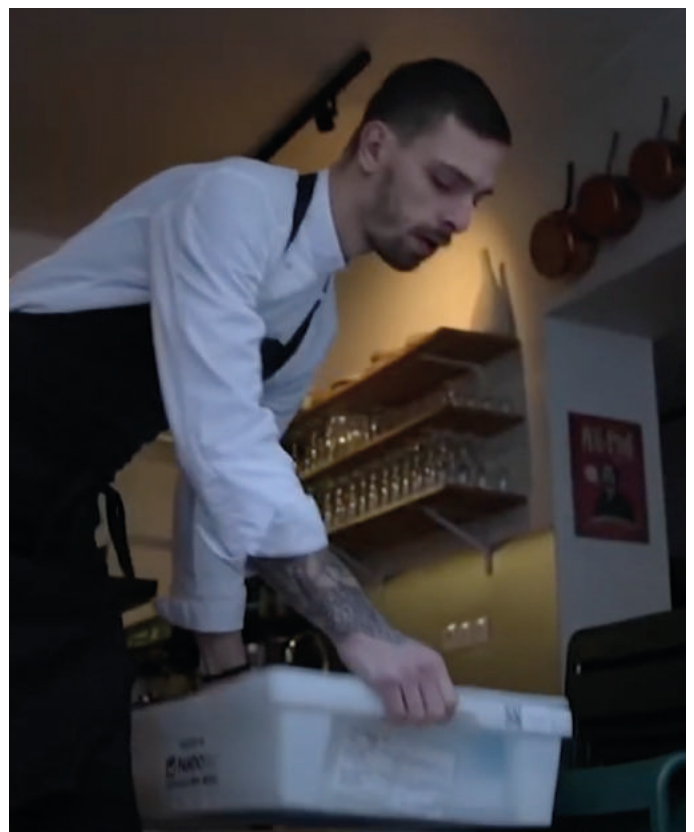
### What are you most proud of about this project?

We are proud that it first started with just the fish deliveries with Transgourmet Seafood in 2019, however has since expanded to Fruits & Vegetables in 2021. This was due to the great collaboration and trusting relationships we had established with the teams.

Restaurants are mainly happy with the change, as they see a decrease in packaging waste and it is less work for them to deal with the waste.

## WHAT NEXT?

We hope to expand the project further.



## CIRCULAR ECONOMY IN OUR BUSINESS

The circular economy is the cornerstone of Pandobac's business. Our aim is to eliminate all single-use packaging and set a new standard for food transport.

Our reusable plastic containers are used along the supply chain and namely between suppliers and restaurants. It enables them to avoid using single use packaging, as each reusable plastic container is tracked and returned in order to be used again. A Life Cycle Analysis demonstrated that after 40 uses, a reusable plastic container has less impact on the environment than single use packaging. This number is reached in just a few months.



## COMPANY BACKGROUND

**Country:** France

**Our Business:**

Pandobac are experts in reusable packaging solutions. We help companies and public organizations to implement reusable packaging systems. Every level of packaging is taken into account: primary (packaging for consumers), secondary and tertiary (transportation and warehousing, from suppliers to consumers). Our service offering includes consulting as well as operational services: containers rental, tracking and washing.

**Our People:**

10+ employees in France.

**Submission by:**

Anaïs Ryterband, CMO

“ Working with Pandobac enabled Transgourmet to test and learn about deliveries in reusable packaging. It is a great way to answer our customers demand for less packaging.”

*Marie Garat, CSR manager,  
Transgourmet,  
France*

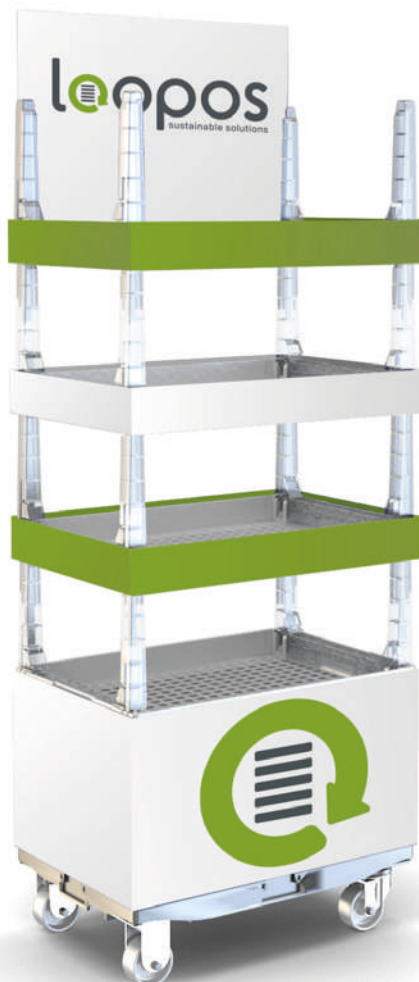


## Summary:

Displays for promotional or secondary placement in retail shops are mainly made out of carton. After about 2 weeks of use they generally end up in the recycling bin. A reusable display, can instead be used more than 50 times. This new system, LOOPOS, saves 60-80% CO2 compared to a single use display. The analysis of the carbon footprint, including the production of the plastic crates, shows clear advantages after the reusable system is used 10-14 times. In fact the reusable system is estimated to last more than 50 times.

## THE CHALLENGE

3 million displays are produced in Austria per year and are mainly made out of carton and only for single use. A display has a life of 4-5 weeks from production to the recycling bin. The average weight of the carton for a display is about 6 kg, so the amount of display cartons per year in Austria sums up to 18.000 tons of carbon.



## THE SOLUTION

Polymer Logistics has developed a system for a reusable display called LOOPOS. It consists of plastic trays with easy foldable pillars in 3 different heights. The crates can be individually branded, as well as the base and the crowner. A pooling system organises the distribution to the display assembling company and the collection from the retailers.

It is currently available in Austria, Germany and Belgium but could be used across Europe.

### Main Driver for project:

The main driver was a suggestion from a senior SPAR logistics manager to investigate reusable displays to increase environmental sustainability.

### Why is this project circular?

Compared to a single-use carton display a reusable plastic display can be used more than 50 times, instead of ending up in the recycling container after only one use.

### Collaboration Effort:

Collaboration with more than 3 external project partners including two retailers (**SPAR and REWE**) and **GS1 Austria, Polymer Logistics, Tosca, Packservice GmbH, and Pulswerk (the Austrian Institute for Ecology)**.

### Circular Economy Measurement (KPIs):

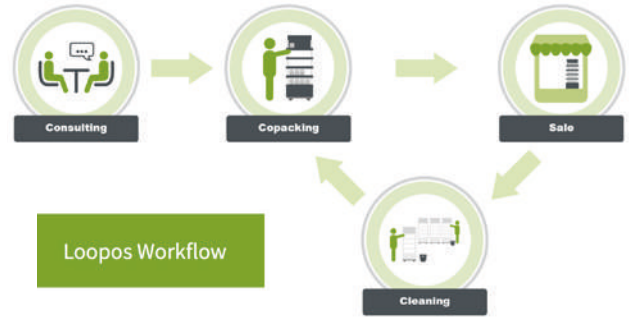
Saving of 60-80% CO2 compared to a single use display. The carbon footprint, which includes production, shows clear advantages after 10 to 14 uses (Source: Pulswerk / Austrian Institute for Ecology).

**Economic Viability:**

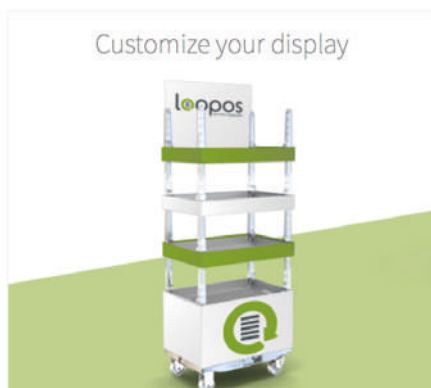
The price for a single use display is comparable to the rent for a reusable display.

**Project Timeline**

▶ Start: 2020 ▶ Finish: 2021



Polymer Logistics has developed a system for a reusable display called LOOPOS. It consists of plastic trays with easy foldable pillars in 3 different heights. The crates can be individually branded, as well as the base and the crowner.



## LESSONS LEARNED

### Main Barriers to Implementation:

The main barrier was the acceptance of the retailers, which was solved by organising test activities with the two main retailers in Austria, the results were:

1. No damages during transport
2. Acceptance from the staff
3. Easy folding pillars
4. Return to the warehouses of the retailers
5. Deposit system generated problems.

### Reaction to the Project:

#### Consumers:

Consumer don't see the difference between single-use and reusable displays.

#### Employees

Positive employee reaction as there are clear sustainability advantages and the appearance & stability of the reusable system were mentioned.

### What advice would you offer to your peers starting a similar circular economy project?

1. Use the best system in the market
2. Test it with manufacturers and retailers
3. Analyse the carbon impact with external institutes.

### What are you most proud of about this project?

To develop the market readiness for the first reusable display system in working groups together with system producers, display assembling companies, manufacturers and retailers.



## WHAT NEXT?

To start presenting the system to the manufacturers in the FMCG industry.



## CIRCULAR ECONOMY IN OUR BUSINESS

GS1 represents Lean & Green in Austria. Our L-MW division has working groups for reusable display, reusable beer trays and returnable bottles.

ECR Austria has started an industry wide working group, the “Circular Packaging Initiative”, aiming at a clear contribution to the EU Circularity goals, such as circular packaging design guidance, evaluation of recyclability, etc.

### Percentage of our business that is circular:

The circular economy solution presented here is based on PET material for detergent & cleaner bottles – which has a share of 65% of total packaging material quantities needed in our Vienna production facility. Recycling PET covers 80% of the PET quantities used in these detergent business operations in 2021.



## COMPANY BACKGROUND

**Country:** Austria

### Our Business:

GS1 Austria is the national organisation of GS1 for the development of international standards and processes and provides a globally unique identification system for standards, articles, shipping units and other. The GS1 system is the basis for the electronic exchange of business documents (EDI) and the standardisation of messages and business processes between partners. GS1 has almost 2 million members in more than 150 countries around the world. More than 5 billion barcodes are scanned on a day-to-day basis. GS1 Austria, a neutral non-profit organization, has been founded in 1977.

### Our People:

40+ employees in Austria.

### Submission by:

Nikolaus Hartig, Manager of the organisation of reusable transport items, L-MW

“ The cooperative development of the market ready reusable display is an important contribution to environmental sustainability.

*Martin Gleiss, Head of Logistics,  
SPAR Austria,  
ECR Board Member.*

The circular economy solution presented here is based on PET material for detergent & cleaner bottles – which has a share of 65% of total packaging material quantities needed in our Vienna production facility.

# Circular Product Design





## Summary:

The story of CYCLE begins in Budapest, at an engineering company that designs and builds technology to treat municipal and industrial wastewater. Sunny Bhasin, founder of reNEW Technologies Ltd. and owner of the CYCLE brand, was inspired by his cancer fighting sister's war on toxic cleaners and became determined to create safe and effective products from the only raw material he really understood - wastewater. He and his team at reNEW Technologies discovered the untapped potential of biomass – a seemingly worthless by-product of wastewater treatment plants – and, after years of research and innovation, began extracting rich, natural organic acids through fermentation and distillation, as well as pure recycled water to produce environmentally friendly and sustainable household cleaners that are efficacious, safe and planet-positive. These cleaners for all application areas in households are available as “Ready to Use” at retailers or as “10x Concentrates “ on-line.

## THE CHALLENGE

Household cleaning today is a dirty business! Consumers buy cleaners made from petrochemicals: Effective but toxic! Or they buy the so-called Eco-friendly cleaners: Safe but ineffective. People yearn for cleaners that are Safe AND Effective. And given that most all cleaners contain >80-90% fresh water, that's a lot of clean water

down the drain every day. Due to global warming a good part of the world will suffer from freshwater scarcity.

On the industrial front, the world produces more than 80 million tonnes of sewage sludge annually. And no one wants it in their backyard. Sewage sludge also contains valuable resources such as nutrients that are locked away forever when buried or burnt along with the sludge.



## THE SOLUTION

Unwaste sewage sludge!

Our patented technological solution recovers highly valuable fatty acids, including acetic, propionic, butyric and other acids together with reclaimed water and nutrients from sewage sludge. We start with sewage sludge from wastewater plants, brew it like beer, distill it like vodka, add a bit of soap, citric acid and some essential oils and voila – CYCLE - a product that benefits people and humanity is born.

The brand “CYCLE” offers two solutions to retailers and consumers. The “Ready to Use” products for 6 application areas bathroom, toilet, dishes, all purpose, glass and universal use are filled and sold in 500ml 100% rPET bottles by retailers. That saves over 450ml fresh water consumption per bottle in production and usage. The “10x Concentrates” are sold in light and small 50ml bottles to be filled up with water at home. 10x saves CO2 to a great extent as no water is shipped across the whole supply chain and also achieves >75% savings in plastic used.

CYCLE endeavours to imbibe sustainability to its core. Not only socially by creating a safe environment at home with using non-toxic, plant based and vegan materials, but also ecologically sustainable by recycling water and at the same time not wasting fresh water and using ingredients derived from waste.




### Main Driver for project:

Professional knowledge combined with a personal tragedy were the main drivers. A wastewater engineering background in resource recovery & water recycling resulted in the ability to bring a safe product to market mainly made from waste water.

### Why is this project circular?

More than 90% of “CYCLE” ready-to-use cleaners are made from reclaimed water and recovered organic acids from waste water. Sludge is an ever-recurring by-product of wastewater treatment. “CYCLE” products after use partly end up in the sewage system then subsequently end up as sludge where the recovery starts again. All cleaners are filled into 100% rPET bottles.

### Collaboration Effort:

Collaboration with more than 3 external project partners.

### Circular Economy Measurement (KPIs):

All recipes fulfil the internal requirement of 90% recycled and 100% recyclable content.

### Economic Viability:

The business is planned to break even in 3 years’ time, having been on the market for only 1+ years, discounting the Covid 2020 period. Technology & internal work processes are in constant development, with new and more efficient product recipes being developed to support our growth.

### Will this solution be scaled across different markets?

Yes. The plan is to reach out to DACH and later across all of Europe.

### Project Timeline

- ▶ Start: 2010
- ▶ Breakthrough: 2016
- ▶ Finish: 2019

## LESSONS LEARNED

### Main Barriers to Implementation:

Apart from the need for technological development, wastewater sludge as raw material has a negative reputation with consumers. We needed to make extra effort to prove that our technological process brings safe products to the market, by using the term “recycled water”. A second barrier is the fierce competition in the cleaning categories and to reach brand awareness via media and promotion spend.

### Reaction to the Project:

#### Consumers:

Absolutely positive. We have won an exclusive start-up listing with one of the major European drug store. Customers loved the fact that it is not only a circular and safe product, but it is also efficient.

#### Employees:

Everybody in our research team is highly devoted to resource recovery and making products that are sustainable and effective. Bringing these products to the market made a huge boost after years of only research and trials.

### What advice would you offer to your peers starting a similar circular economy project?

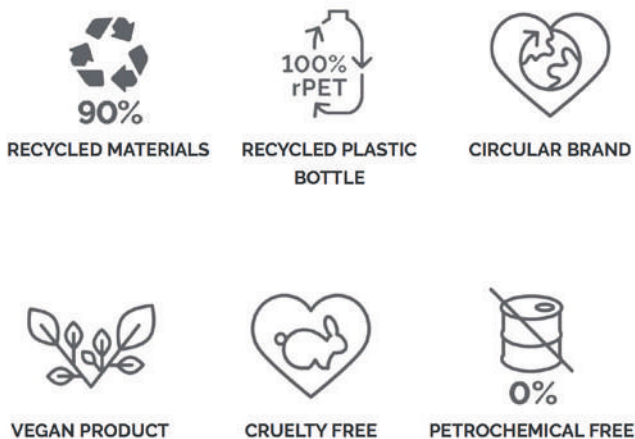
Don't give up and at the same time listen to what customers say.

### What are you most proud of about this project?

Seeing the products in the shops and the comments in social media.

## WHAT NEXT?

Fatty acids recovered from sewage sludge and other types of biomass waste are highly researched. These could be a solution into many new products, like bioplastics. So not only whats inside the bottle could be circular, but the packaging too.



## CIRCULAR ECONOMY IN OUR BUSINESS

Our main business model is based on circular economy principles.

### Percentage of our business that is circular:

100%



## Green Product Award



**Cruelty Free**  
INTERNATIONAL

## COMPANY BACKGROUND

**Country:** Hungary/UK

### Our Business:

Production of household cleaners by fermentation and distillation of sewage sludge to obtain volatile fatty acids and recycled water as the base for different cleaners. Sales under the brand "CYCLE" through retailers and on-line shops in Hungary, Austria and Germany.

### Our People:

10+ employees.

### Submission by:

Sunny Bhasin, Owner of Renew Technologies Hungary Kft.



# Circular Platforms



**Summary:**

The Camelion Group is launching a new range of eco-friendly nappies for babies under the LOTUS Baby brand. Essity France selected Cameleon Group to design, develop and manufacture the eco-designed shelf POS display (tray) that will ensure the product's visibility in stores. To go further, Cameleon Group proposed to set up the CAMELEON GREEN BOX, a recycling service for used POS materials, in relation with the CSR strategy of the LOTUS BABY brand.

**THE CHALLENGE**

**For the LOTUS BABY brand:** the challenge was to successfully launch its new product which requires a change of POS solution, while remaining an eco-responsible brand.

**For retailers:** the challenge is to reduce the volume of POS materials wastes thrown into store dumpsters.

**Example:** Carrefour has announced that in 2025, only cardboard POS materials can be thrown in the store's dumpsters. If the POS is not made of cardboard, then it must be reusable or recyclable, and each advertiser must set up an in-store collection system.

**For Cameleon Group:** the challenge was to create a new service for the collection and recycling of used POS materials. This is a major challenge to ensure the survival of the POS market and retail marketing.

This service; called **GREEN BOX**, allows brands continuing developing POS solutions while ensuring their end of life.



**THE SOLUTION**

To meet the challenges of brands and retailers, Cameleon Group has created a service called **GREEN BOX**, which collects used POS materials in stores.

The **CAMELEON GREEN BOX** won over **LOTUS BABY** and the retailers because it fulfills the promise of the **"ZERO WASTE POS Material"**.

Thanks to the **GREEN BOX**, used POS material is processed into new POS solutions.

Our partnership with **"La Poste"** offers 23,000

collection points in France (Post office and local stores).

In partnership with **Bureau Veritas**, we carried out the **Life Cycle Analysis** of the **GREEN BOX** which certified a reduction of -26% of CO2 emissions.

**Main Driver for project:**

Our common challenge: How to successfully launch my product which requires a change of plastic POS solutions, while remaining an eco-responsible brand?

### Why is this project circular?

This project is circular because used POS solution is transformed into new POS material. This is the notion of «Cradle to cradle». Thanks to the GREEN BOX, Cameleon Group offers a new generation of ZERO WASTE POS solutions.

### Collaboration Effort:

3+ partners including **Cameleon Group, La Poste, Bureau Veritas, Carrefour and others retailers**

### Circular Economy Measurement (KPIs):

The Life Cycle Analysis carried out by Bureau Veritas confirms that the CAMELEON GREEN BOX reduces CO2 emissions: **-26% CO2 emissions.**

The project met the objectives set out at the start.

### Economic Viability:

Yes, the project is economically viable! It allows autonomy and control over the raw materials prices. Thanks to the GREEN BOX, Cameleon Group generates its own recycled raw material, which avoids its scarcity.

### Project Timeline

► Start: 2020 ► Finish: 2021

We are proud of the implementation of the project, and that the initiative addresses a real business need and an environmental issue.

Retailer sends old POS stands to Cameleon Group through the Green Box Service



Cameleon Group processes old POS stands into new solutions



Cameleon Group transforms them into new POS stands



## LESSONS LEARNED

### Main Barriers to Implementation:

The main barrier was the time it took for the sales force to drop off the GREEN BOX at the nearest collection point.

But, this barrier was very quickly removed since Cameleon has a partnership with La Poste and offers 23,000 collection points in France (post offices or local shops).

### Reaction to the Project:

Consumers were not involved in this circular economy project. On the other hand, they appreciated the LOTUS BABY's CSR approach, which communicated on the new POS material the following message: "POS solution made in France, with recycled and recyclable plastic"!

The Essity sales force greatly appreciated the LOTUS BABY initiative, they are proud to work for a company that implements its CSR approach. Thanks to the GREEN BOX, the circular economy becomes a reality!

### What advice would you offer to your peers starting a similar circular economy project?

To succeed in a circular economy project, you have to think it until the managing of the POS material' end of life. Indeed, the treatment of used POS material must be part of the whole consideration process. Ideally; set up the «cradle to cradle».

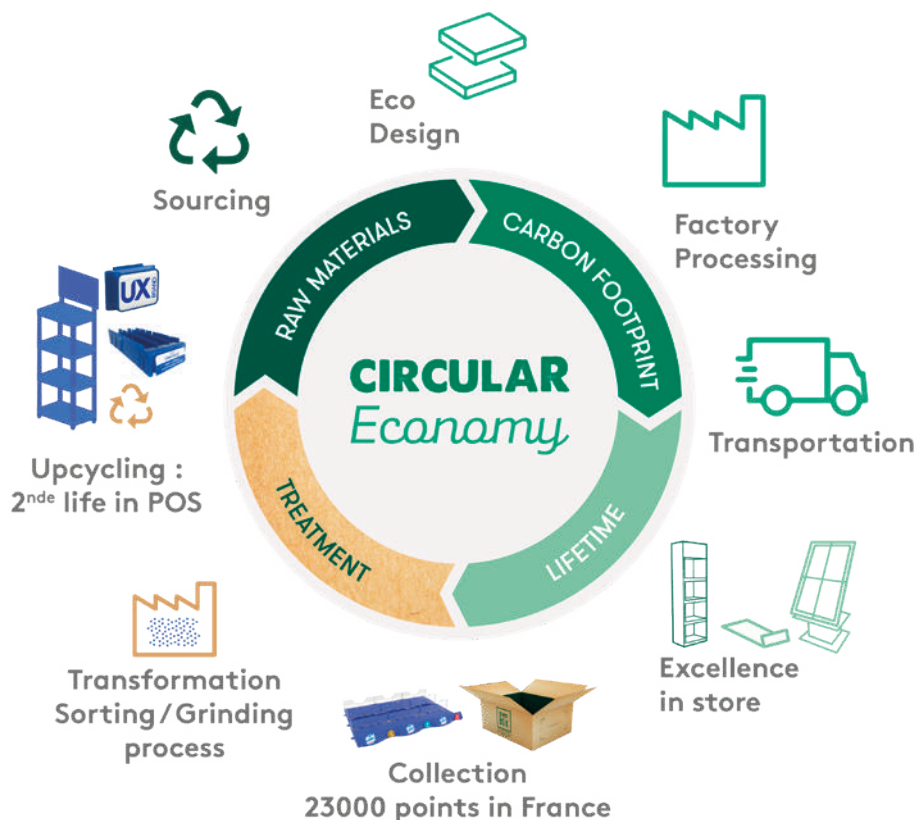
### What are you most proud of about this project?

We are proud to have implemented the 1<sup>st</sup> «ZERO WASTE» POS material project thanks to the GREEN BOX and our «cradle to cradle» process.

## WHAT NEXT?

The project is finished - we have achieved full circularity. On the strength of this success, we are going to repeat this operation for other brands.

This project will also be scaled across different markets.





## CIRCULAR ECONOMY IN OUR BUSINESS

Cameleon Group is keen on integrating the circular economy into each of its projects. On a daily basis, we challenge and analyze the 5 stages of the life cycle:

- The raw materials sourcing through the development and implementation of a responsible purchasing policy (selection of suppliers based on environmental criteria, support for suppliers in improving their practices)
- **Eco-design:** an approach which consists in reducing, from its design phase, the environmental impacts of a product (training of the Engineering dept to move towards single-material POS solutions, easier to recycle)
- **Local manufacturing** via our factory based in France and an ultra-modern machine park which allows us to greatly reduce our environmental impacts. We are members of the French Fab network and our factory is FSC - PEFC / Imprim Vert and Ecovadis certified.
- **Transport** and especially the optimization of packaging and palletization to limit our CO2 emissions
- **Lifetime:** the chosen material must be aligned with the lifetime of the POS.

To go further, Cameleon Group offers exclusive solutions to deal with the end of life of used POS materials :

- Collection of used POS solutions in stores
- Factory grinding processing
- The upcycling in recycled material, ready to manufacture new POS solution trends of the dairy category and to give solutions/ an understanding of these trends in order to implement good solutions afterwards. It is the starting point of every project we launch. Understanding the environment, consumer attitudes, what they are looking for, must be the first concern of any company in order to produce a sustainable growth.

### Percentage of our business that is circular:

20% of plastic shelf displays are recycled thanks to the CAMELEON GREEN BOX

## COMPANY BACKGROUND

**Country:** France

### Our Business:

Group specialised in point-of-sale marketing. We help brands and retailers increase sales and boost touch points throughout the entire customer journey. A group made up of 3 specialised & integrated units:

**Agency:** Market research, Strategy & Design.

**Production:** POS display & DIGITAL integration.

**Field Services:** Installation, Maintenance & recycling.

We operate in France, Europe & EMEA.

### Our People:

120 employees in France (Agency and Factory)

150 merchandisers/fitters in France and Europe (Field Services)

### Submission by:

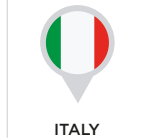
Virginie Berluteau, General Director

“ 91% of the sales force get involved while using GREEN BOXES.

Returning GREEN Boxes is very easy thanks to the pre-franked slips.

There is always a collection point near sales force's home or near the POS. There are 23,000 GREEN BOX collection points partners in France.”

*Category Manager in charge of the Lotus Baby launch*



## Peroni Beer and the Traceability of 100% Italian Malt in Blockchain

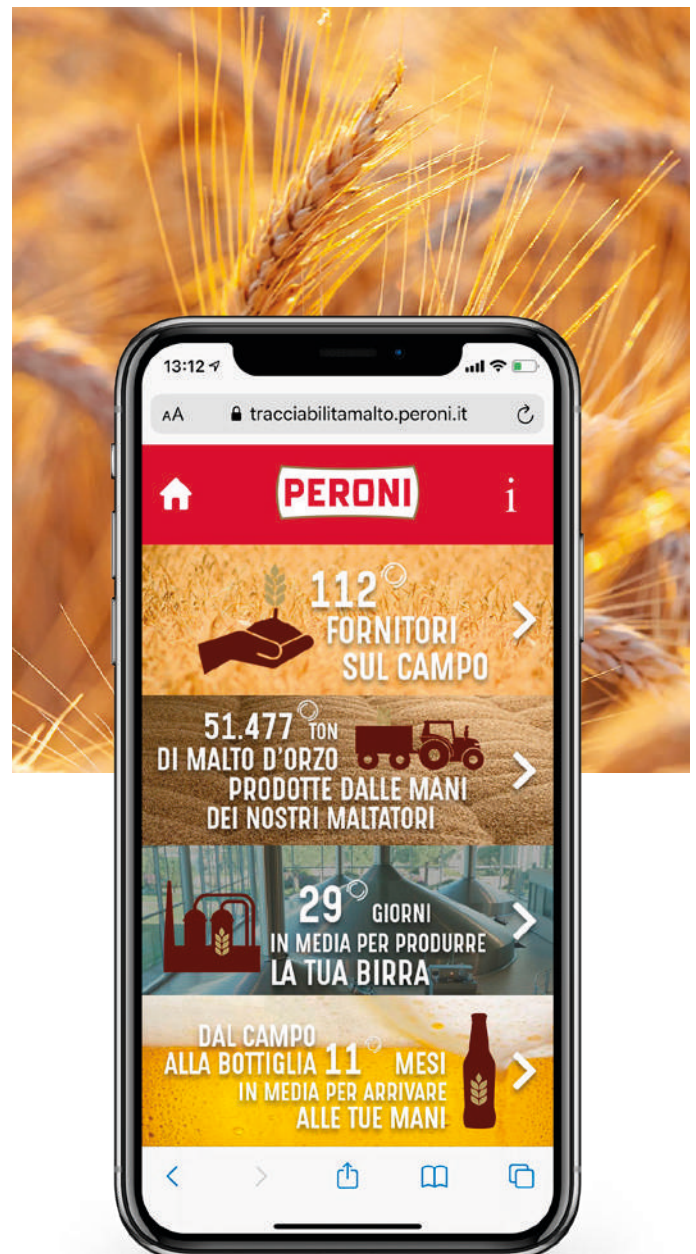
### Summary:

In 2021, Birra Peroni introduced blockchain traceability of their main ingredient (the 100% Italian malt) on all beers of the Peroni brand family. Using a QR code consumers can now follow the journey of the barley from the field to the bottle. The project has been developed together with pOsti, a digital start-up focused in enhancing the transparency of the agri-food industry through digital and personalized narrations, and EY which has made available the EY OpsChain Traceability technological solution that supports transactions on the public blockchain of Ethereum. The project is particularly strategic for Birra Peroni since it lays the foundations for monitoring and tracking, along the entire supply chain, key environmental and sustainability indicators that could help Birra Peroni achieving the challenging goals set by the Asahi Group Sustainability Agenda “Legacy 2030”.

### THE CHALLENGE

With global issues such as food safety, conscious consumption, and sustainability, Birra Peroni wants to promote the transparency and excellence of its agricultural value chain and strengthen the bond of trust with consumers allowing them to access in real time to secure, transparent and guaranteed information.

At the same time, to achieve the objective of becoming carbon neutral along the entire value chain by 2050, Birra Peroni is more and more committed in supporting its agricultural value chain in introducing precision farming tools and techniques to enhance sustainability. Traceability in fact makes it possible to collect and structure the most relevant information in the process that goes from the field to the consumer, not only those relating to the raw material, but also those relating to processing, logistics, transport and packaging used, including its elements of innovativeness and design and / or the presence of recycled content. This opens the possibility of exploiting the Blockchain to automate controls and reporting of sustainability initiatives, concretely supporting Birra Peroni's goal to use all raw materials obtained 100% in a sustainable way by 2030.



## THE SOLUTION



Peroni Beer and the  
Traceability of 100%  
Italian Malt in Blockchain



Birra Peroni has identified the actors of the 100% Italian malt supply chain and the data sources from which to acquire the information that constitute the key assets of the malting process and the beer production process. These assets were then acquired and notarized in blockchain: some information is made visible, others encrypted because they are commercially sensitive and therefore not to be made public. The acquired information, guaranteed through the Ethereum blockchain and represented through a multimedia storytelling, are accessible to the consumers thanks to a QR Code on the bottle label linked to a personalized landing page, with different features depending on where and when the code is scanned. The experience is immersive, also thanks to the use of virtual reality solutions, an experiential journey of great impact, enriched with images, texts and sounds to discover the journey of 100% Italian malt from field to glass.

In the future, this project will be scaled across different markets.

### Main Driver for project:

The project has been developed within the 'Campus Peroni project,' the innovation hub for a sustainable evolution of the cereal sector promoted by Birra Peroni and CREA, the National Council for Agricultural Research and Agricultural Economics Analysis. A project to which the departments of Agricultural Sciences of some of the most prestigious Italian universities have joined and which every year is enriched with new important collaborations and partnerships.

The main driver of the project was to enhance the link between Birra Peroni agricultural supply chain and the quality of 100% Italian malt, two fundamental strategic assets for Birra Peroni. We believe that the concept of sustainability is closely linked to respect for raw materials, and we wanted to transfer this value to our consumers, through an easy access to secure, tracked and certified information. To do this, it was necessary to open up to confrontation with other players with which to build together an ecosystem of innovation that would involve our entire supply chain.

### Why is this project circular?

Thanks to the knowledge of the origin of the raw material and to the guarantee that the data of the supply chain are certified, it is possible to build and consolidate the network with a circular economy approach. From the cultivation techniques adopted in the fields, to the energy saved inside the factories, it is gradually possible to highlight all those ethical behaviors that go to strengthen the values of sustainability of the supply chain.

### Collaboration Effort:

Collaboration with 3 or more partners including **pOsti (digital start-up), Campus Peroni (the innovation hub), and other stakeholders including 1,400 farmers, 112 providers, and 2 malting plants.**

### Circular Economy Measurement (KPIs):

- ▶ Recovery and reuse of beer bottles.
- ▶ reuse of water used in malt and beer processing processes.
- ▶ reuse of waste materials from malting and the brewing process. (e.g. after the germination phase, barley becomes a waste product that is destined for livestock farms).

### Economic Viability:

Yes.

### Will this solution be scaled across different markets?

There is a possibility for the solution to be scaled outside Italy in the future.

### Project Timeline

- ▶ Start: 2020
- ▶ Finish: Still ongoing

## LESSONS LEARNED

### Main Barriers to Implementation:

The assessment phase was very expensive in terms of efforts employed given the high number of stakeholders involved in the project.

### Reaction to the Project:

#### Consumers:

The project represented a tool that is easily usable by consumers, who are increasingly aware and declare that food traceability is precious and necessary to guarantee the authenticity of products.

#### Employees:

After a first and complex phase of planning and defining the objectives, a real value process has been established, and it has been perfectly internalized within the supply chain.

### What advice would you offer to your peers starting a similar circular economy project?

We would recommend to:

- ▶ structure as much as possible and better consolidate the information assets that must be traced through blockchain technology and define the requirements about the information assets.
- ▶ effectively orchestrate the various players in the supply chain with each other, to proceed aligned in each phase of project development.



### What are you most proud of about this project?

To provide our customers with trustable and transparent information about our ingredients, our value chain and engage them in our sustainability journey.

## WHAT NEXT?

- ▶ Extension of the project to other products or ingredients.
- ▶ Integration of additional data sources to acquire further information on the supply chain that can increase transparency.
- ▶ Use of blockchain traceability to optimize and automate internal supply chain processes like logistics and transport, processing and packaging, in order to completely reconvert them in a circular economy perspective.
- ▶ Improvement of the tools generated in the first phase.



## CIRCULAR ECONOMY IN OUR BUSINESS

Birra Peroni has always been committed to defining standards of excellence for sustainable production & growth and conscious-use of raw materials. It is committed to the 2030 UN Sustainable Development Goals which help engage all the Group's companies to reach targets on carbon neutrality, sustainable sourcing, inclusion and diversity, and conscious use of raw materials. These targets include:

Becoming carbon neutral within our breweries and working with all our partners to reduce our carbon footprint by 30% along the entire supply chain → aiming to make our entire supply chain carbon neutral by 2050.

- ▶ Use only sustainable water supply sources.
- ▶ Use only “circular” packaging (reuse, recycling, etc.), cutting plastic packaging by 15%, as early as 2025.
- ▶ Use only sustainably grown raw materials.
- ▶ Achieve an equal share of women and men in leadership positions.
- ▶ Achieve a 20% share of the non-alcoholic products in our portfolio.

### Percentage of our business that is circular:

This project covers all brands belonging to the “Peroni family” and Nastro Azzurro, the best-selling brand of Italian premium beer in the world (70% of total bottles produced).



## COMPANY BACKGROUND

**Country:** Italy

### Our Business:

Birra Peroni is an Italian brewing company, founded in Vigevano in 1846, now part of the Asahi group. Strongly connected to the history of the country, Birra Peroni represents one of the symbols of Made in Italy in the world. With more than 750 employees distributed in 3 production plants - Rome, Bari and Padua - and the Saplo malting factory in Pomezia. Birra Peroni has an annual production that exceeds 6 million hectoliters, over 2 million of those are exported.

### Our People:

750+ employees in Italy

### Submission by:

Federico Sannella, Director of External Relations and Institutional Affairs of Birra Peroni

“A fully automated traceability process was implemented, starting from the acquisition of information, from their registration in the blockchain, and from the processing and presentation on the Landing Page of significant data of the 100% Italian malt supply chain. With a future view to the integration of data from multiple sources, we have also successfully tested the collaboration with the xFarm platform, which led to the availability of further information relating to the barley cultivation process.”

*Federico Sannella, Director of External Relations and Institutional Affairs of Birra Peroni*



## Industrial Solutions for Packaging Reuse

### Summary:

**Uzaje develops industrial and logistic solutions to reuse packaging. In this project it has helped French food service company, Daily Pic, to transition from single use plastic packaging to reusable glass containers through an efficient cleaning process.**

### THE CHALLENGE

The project is addressing single use plastic packaging. Packaging reuse is a virtuous environmental practice that avoids the production of unnecessary packaging and complex end-of-life management. We are about to publish an impact study, economic and social on reuse models to show the positive impact and limits of reuse vs single use with high recycled material content.

### THE SOLUTION

Uzaje, a company of the social and solidarity economy (SSE), develops industrial cleaning infrastructures to promote the reuse of packaging among actors in the food industry: restaurants, central kitchens, food distribution and food industry. We opened our first industrial center in the Ile-de-France region in December 2020, our second one in October 2021, and plan to open 8 packaging cleaning centers across France in 2022.

This project involves our work with DailyPic, a high end French Fast food created by the starred chef Anne Sophie Pic. It provides customers with a healthy, balanced and quality meals. Daily Pic offers various modes of consumption: on site, take away or directly delivered to companies.

#### Main Driver for project:

DailyPic, a highend French fast food company, wanted to provide their consumers with a zero-waste meal. Uzaje was able to help them reuse their packaging (glass jars, glass bottles and stainless steel cutlery) by organising an efficient method of cleaning and reuse.

#### Why is this project circular?

The dirty glass jars are stored in the stores' storerooms in storage boxes adapted for the collection of the dirty and the delivery of the clean; different boxes are used for the bottles.

Uzaje collects the boxes in each store (mutualization of flows) and sends them to the nearest cleaning center. The cleaned glass jars are delivered to the Valence Central Kitchen to be packaged and distributed to the stores.

#### Collaboration Effort:

Uzaje works with clients in the food service and food retail who want to be able to offer their customers reusable packaging solutions.



### Circular Economy Measurement (KPIs):

1. Cost reduction as the number of new glass jars purchased has reduced.
2. For the secondary packaging, we are using reusable storage boxes, avoiding 20 to 30 thousand cardboard storage boxes.
3. 600 thousand glass jars are used each year by DailyPic. With an objective of reusing 50% of the jars, using Uzaje cleaning and reuse services, we will be able to save up to 100 tons of glass each year.
4. Up to 25% water savings and a 75% reduction in energy use due to washing v recycling (ADEME data)
5. Reduction in kilometers traveled: Producer of new glassware was located in Germany, compared to the cleaning centres located near the restaurants.
6. Pasteurized glass jars allow for a longer shelf life which prevents food waste.
7. Creating of jobs following Social and Solidarity Economy SSE structures.

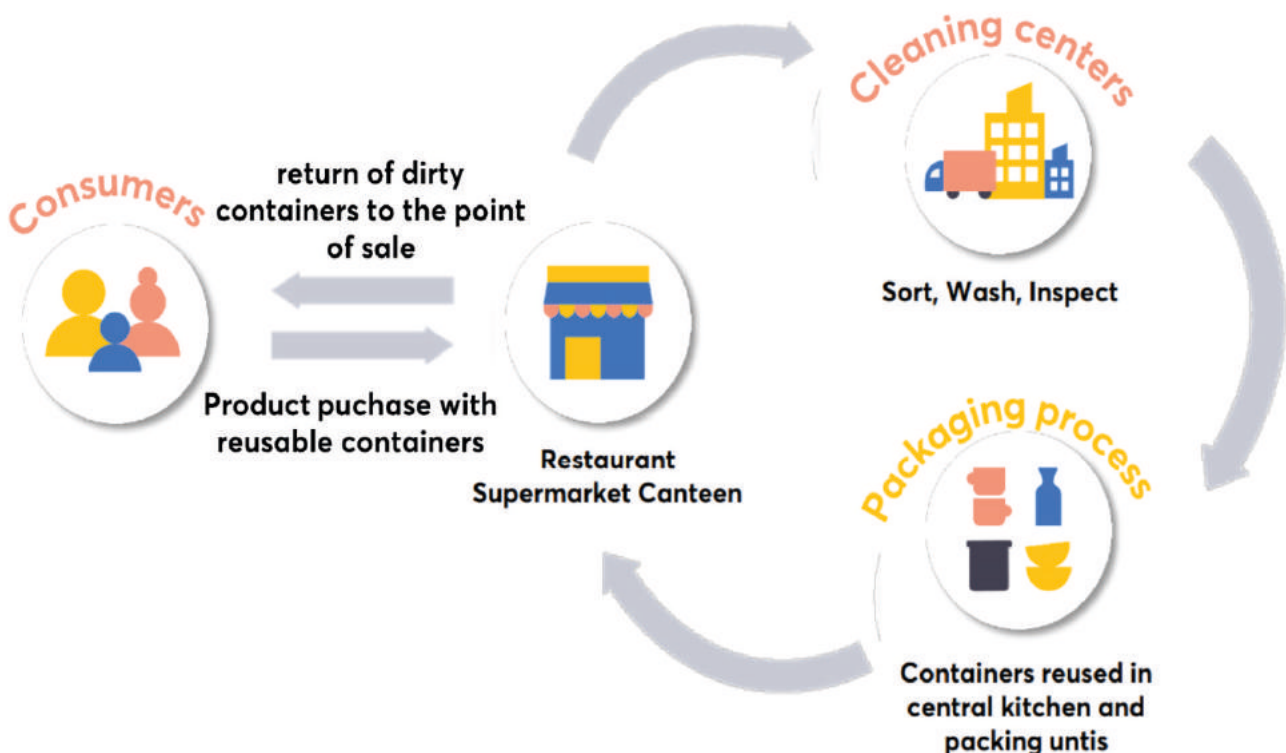
### Economic Viability:

Yes.

### Project Timeline

- ▶ Start: September 2019
- ▶ Finish: Ongoing, the aim of the project is to move from single use to reusable containers

This project involves our work with DailyPic, a high end French Fast food created by the starred chef Anne Sophie Pic. It provides customers with a healthy, balanced and quality meals. Daily Pic offers various modes of consumption: on site, take away or directly delivered to companies.



## LESSONS LEARNED

### Main Barriers to Implementation:

The main barrier to overcome is how to standardise the containers, while in the long term incorporate outsourced transportation (cyclo-logistics and electric vehicles).

### Reaction to the Project:

#### Consumers:

The consumers are glad to take part of this new approach, because they can contribute in preserving the environment by the simple act of bringing back the used glass jars to the collecting points.

#### Employees:

Employees are aware of the environmental cause and are proud to contribute to the preservation of the environment through their work.

### What advice would you offer to your peers starting a similar circular economy project?

To launch a circular economy project in packaging reuse, we strongly recommend project leaders to be accompanied by expert firms in the field so that they can guide them in the various stages necessary for their transition towards reusable packaging.

This important step will ensure their transition to circularity in less time and for lower cost while having the best environmental impact.



L'ESPRIT FRENCH TOQUE  
PAR ANNE-SOPHIE PIC

### What are you most proud of about this project?

We are delighted to see that our project is set up in many restaurants and is truly contributing to the preservation of natural resources while generating other positive environmental impacts.

## WHAT NEXT?

For this project, Uzaje is planning to extend the collaboration by cleaning more than 500,000 glass jars in the different DailyPic stores per year.

For Uzaje, our vision is to have 8 regional eco-efficient industrial cleaning infrastructures across France in 2022. Our system is also easily scalable in other European countries.





## CIRCULAR ECONOMY IN OUR BUSINESS

Uzaje had the status of “Entreprise à Mission”, created by the French “Pacte” law in 2019.

An “Entreprise à Mission” is defined as a company whose objectives in the social, societal, and environmental fields are aligned with this mission.

Our mission is to facilitate the transition to sustainable packaging in order to preserve the planet’s resources and reduce waste.

Uzaje aims to achieve its mission through a circular model by moving from single use to zero waste in the catering and food distribution.

### Percentage of our business that is circular:

Our business is 100% circular.



## COMPANY BACKGROUND

**Country:** France

### Our Business:

Uzaje’s business model is based on the cleaning service, complemented by consulting services related to the implementation process of the reuse schemes (furniture, cash registers, traceability, and deposit management software). In its first year, the company invoiced nearly 300,000 € in consulting.

Uzaje operates in France. We currently have two industrial cleaning centers located in Paris and Avignon. The project will be soon creating an impact in other French regions because Uzaje plans to open 8 packaging cleaning centers to cover all of France by 2022.

### Our People:

20+ employees

### Submission by:

Emmanuel Auberger, Founder & CEO

“ Reuse was an obvious choice for our company, which is totally committed to zero waste; it is beneficial for the environment and for our costs: it allows us to save money compared to the purchase of new glass jars and to manage supplies more regularly (reduction of the safety stock)”

*Lilian Etienne,  
Daily Pic Business Unit Director*



**Summary:**

**Dove lo Butto? is the new digital platform for waste disposal powered by Nestlé, created with the aim of informing and helping consumers, in a quick and intuitive way, to correctly dispose packaging waste, in whatever part of Italy they are.**

**In a context like Italy, characterized by heterogeneous rules on waste disposal, Dove Lo Butto? helps consumers to comply with the various local regulations. This is an innovative digital platform characterized by two functions: the barcode scanning for a correct waste disposal and the geo-localization that links to the rules on waste management of each municipality.**

**Users can download for free on their smartphone Dove lo Butto? a Progressive Web App that, by scanning the barcode, can immediately recognize the product and give indications about the different packaging disposal according to the rules of the town in which they are, identified thanks to the geo-localization.**

**Consumers can also use this site, both on smartphone and on computer, to find the information they need. On [www.dovelobutto.nestle.it](http://www.dovelobutto.nestle.it) it is possible to do manual research, through key words, to find a product, and the preferred municipality.**

**THE CHALLENGE**

This project aims to an improvement of waste recycling, by helping consumers to properly perform separate collection. In Italy, every municipality has different rules for waste disposal because of the various technical and operational requirements that the local municipal companies have to comply with. In addition, consumers are not always

sure about the material of which the product packaging is made. In fact, the results of a survey commissioned by Nestlé showed that for 74% of the Italians the different rules on waste disposal adopted in the different municipalities create confusion and difficulties in recycling.

**Fai la differenza  
con la differenziata!**

È arrivata la piattaforma digitale che ti aiuta a conferire gli imballaggi nel modo giusto.

Scaricala gratuitamente su  
[www.dovelobutto.nestle.it](http://www.dovelobutto.nestle.it)



## THE SOLUTION

In the Italian context, characterized by heterogeneous rules on waste disposal, Dove lo Butto? has the main purpose of helping consumers to comply with the various local regulations and raising consumers awareness to properly perform separate collection.

This innovative digital platform is characterized by two functions: the barcode reading system, that allows customers to know the packaging materials that constitute the pack for a correct waste disposal, and the geo-localization that links to the rules on waste management of each municipality in which they are.

The platform Dove lo Butto? was therefore created in order to help people to better recycle waste, wherever they are. It is a basic step in the journey that Nestlé Italiana started within the Nestlé Plastic Commitment, to make consumers aware about the correct ways on packaging sorting.

During the first stage of the project, the database included Nestlé products and the site was open to collect feedbacks and tips from consumers, in order to improve the user experience.

In a second stage the site was also enriched with the latest news relating to recycling and waste management, so that users can always be up to date.

As third stage, the database was opened to the collaboration with other stakeholders, to include in the platform also products of other brands and Companies. Nowadays the database already includes some Lactalis products. Finally, thanks to the collaboration with Too Good To Go, the platform will shortly provide information to correctly interpret the Date of Minimum Durability (DMD) of the different products, thus actively contributing to fight against food waste.

Users, after entering the site [www.dovelobutto.nestle.it](http://www.dovelobutto.nestle.it), can download for free on their smartphone an innovative digital tool (progressive web app) that, by scanning the barcode, can immediately recognize the product and give indications about the different packaging disposal according to the rules of the town in which they are. Consumers can also use this site, both on smartphone and on computer, to find the information they need. On [www.dovelobutto.nestle.it](http://www.dovelobutto.nestle.it) it is possible to

do manual research, through key words, to find a product (for example: name of the product, brand and category), and the preferred municipality.

### Main Driver for project:

To offer consumers a solution to different waste disposal regulations and improve awareness on packaging materials.

### Why is this project circular?

Dove Lo Butto? is a circular economy project as it supports consumers in their daily separate collection activities, encouraging them not only to question the right destination of the different packaging components. It is also a circular economy project because it creates a bridge between consumers and municipalities, helping consumers in understanding and following the different waste disposal rules that can be found across Italy.

### Collaboration Effort:

Collaboration with more than 3 external project partners including **Too Good To Go, Althesys, LNPF - Gruppo Lactalis, and Pastificio Rana.**

### Circular Economy Measurement (KPIs):

Number of single sessions on the website (KPI: 2,500 single sessions by end of 2021)

- ▶ At least 1 category of products with Too Good To Go information on TMC interpretation (Nescafé Dolce Gusto with Too Good To Go information)
- ▶ At least 1 external partner involved in the products database (2 external partners involved, LNPF & Giovanni Rana)
- ▶ Number of Nestlé products in the database (more than 1,000 Nestlé products in the database)

### Economic Viability:

Yes.

### Will this solution be scaled across different markets?

There is a possibility for the solution to be scaled outside Italy in the future. .

### Project Timeline

- ▶ Start: 2020
- ▶ Finish: Still ongoing

## LESSONS LEARNED

### Main Barriers to Implementation:

A main barrier to implementing this project was the cooperation with external stakeholders to collect complete information for all the products of the Nestlé Group.

### Reaction to the Project:

#### Consumers:

Positive. More than 20.000 single sessions complete by the end of August 2021.

#### Employees:

Positive reaction, followed by internal communication campaign involving both HQ and factories. Great engagement from the marketing teams in updating the platform. Involvement of Dove Lo Butto? In the “etichettatura ambientale” topic in order to make it a supporting tool for marketing teams. Recognized as a tool to boost company reputation.

### What advice would you offer to your peers starting a similar circular economy project?

Assess available budget and teams. Involve all the technical functions (IT, RSA) from the very beginning and develop together the project. Scout for available tools in order to avoid duplications. Test and learn approach: ensure enough time is given to testing before launch.

### What are you most proud of about this project?

One of the major features of the platform is that it has almost a full coverage of the Italian territory, allowing more than 90% of Italian consumers to have access to correct information for the disposal of wastes.

The platform Dove lo Butto? was therefore created in order to help people to better recycle waste, wherever they are.

## WHAT NEXT?

A goal for the future is to increase the of the number of products present on the platform.

Dove lo Butto? is officially open to collaboration with other companies.

Althesys has contributed to the development of the app (upgrade common databases). Dove lo Butto? contains also Lactalis products. Nestlé is ready to cooperate to include in the platform database also products of other brands and companies.

Another challenge for the future is to continue fighting against food waste: thanks to the collaboration with Too Good To Go, the platform Dove lo Butto? will provide shortly information to correctly interpret the Date of Minimum Durability (DMD) of the different products. In particular, in the tabs relative to the products subject to DMD, the consumers will be invited to verify with their own senses if the products can still be consumed after the date of minimum durability, thus contributing to reduce waste.



Scan the barcode

## CIRCULAR ECONOMY IN OUR BUSINESS

Sustainable packaging management is the basis of our circular economy model. In Nestlé we have been working on this issue as part of the Nestlé Sustainable Packaging Commitment, an international initiative that aims to make all our packaging recyclable or reusable by 2025. Moreover, one of the main objectives for Nestlé, in view of sustainability improvements, is the help for the education of people and conscious consumers.

### Percentage of our business that is circular:

Dove lo Butto? Covers the totality of the Nestlé products present in the Italian market. The project is now being extended to some co-manufacturers working with Nestlé.

## COMPANY BACKGROUND

**Country:** Italy

### Our Business:

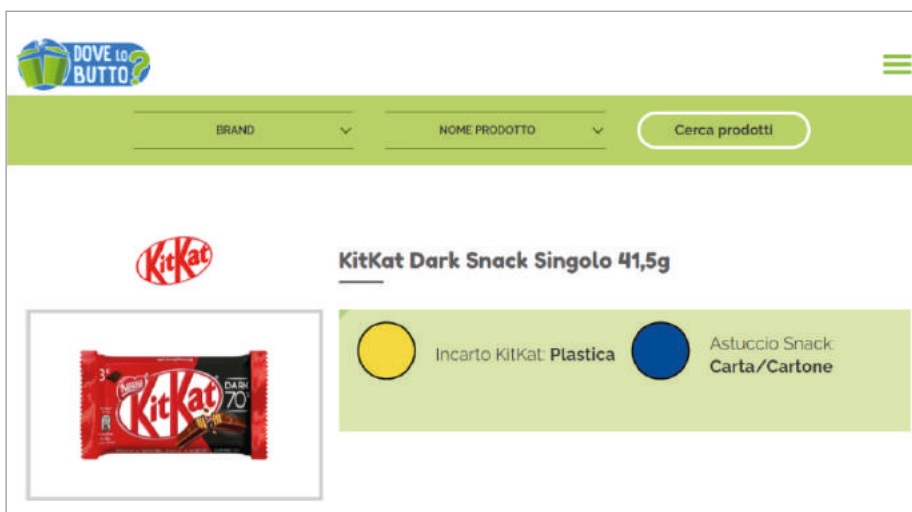
The Nestlé Group is the world's leading food company, active since 1866 for the production and distribution of products for Nutrition, Health and Well-being of people. It is present in 187 countries across the globe.

### Our People:

270,000+ employees globally, with 4,500+ employees in Italy

### Submission by:

Marta Schiraldi, Italy & Malta Sustainability & SHE Manager



How to recycle

Where to recycle

**Verifica di seguito le disposizioni del tuo comune!**

LOMBARDIA x MILANO x MILANO x

SCOPRI TUTTI I RISULTATI

**Milano**

Materiale	Modalità	Destinazione	Colore
Metallo	Porta a Porta	Contenitore	Giallo
Carta/Cartone	Porta a Porta	Contenitore	Bianco
Plastica	Porta a Porta	Contenitore	Giallo

# Waste Management



### Summary:

The closing the loop (CL) is a circular economy program based on the collaboration between INDITEX and a local Charity to collect clothes, footwear and accessories and give them a second life. The project aims to support the development of projects with social and environmental purposes.

### THE CHALLENGE

The global problem addressed is the high environmental impact of postconsumer textile. The main causes of the problem that the project aims to tackle are:

- The overflow of postconsumer textile waste.
- The diversion of garments to the landfill. The lack of separate disposal of textiles, and the absence of a widespread systems to collect and sort textiles, contributes to increase the amount of garment sent to landfill, what is the less desirable method for waste management.

The discarded textile issue is amplified because of the absence of a strong and widespread postconsumer textile transformation industry. Therefore, usually there is not an optimum management of the postconsumer textiles at the end of their life cycle, what means the misuse of postconsumer textile value.

### THE SOLUTION

The Closing the Loop programme is an Inditex initiative aimed at collecting used products or materials from consumers to provide an alternative to landfill (donation, reintroduction into the initial processing and manufacturing cycle, etc.). The project has established a channel for a separate collection of postconsumer textiles and a created a system to give a second life to the garments collected.

On the other hand, the Closing the Loop project, and projects alike, contribute to build up the ground to develop the postconsumer textile industry. The reasons are listed below:

- The availability of containers for a separate textile collection in all the shops contributes to engage society about the importance of a separate collection. Besides, it increases the quality of the input for the postconsumer textile industry.



The development of a functional postconsumer textile transformation business with industrial capacity will represent a turning point to decrease the high environmental impact of textile waste and optimize the value of the postconsumer textiles.

Along with the environmental goals, the take back program has a strong social commitment, since the project is run in collaboration with a different local NGO in every market. The NGO'S partners are in charge of the management of the postconsumer textiles, what provides social and economic revenue for their local communities' through to the garment's donation to people in need and the creation of jobs for people in risk of social exclusion.

### Why is this project circular?

The circularity lies in the project's aim for providing a second life to discarded textiles. This aim follows the Circular Economy principle of keep products and materials in use. Therefore, the project represents an alternative to the lineal model take-use-waste, providing a channel to collect clothes after using them and habilitating a system that keep the product and materials in use and moreover divert them from landfill. Besides it is consequent with the company's responsibility to provide the best end of the life to the products released to the market.

### Collaboration Effort:

At the end of 2020, the programme was operational in 94 markets in collaboration with 95 different social organisations.

### Circular Economy Measurement (KPIs):

1. Tons of clothes collected.
2. Tons of clothes allocated to each destination.
3. % Shops with project implemented

The project achieves its main objective, to implement the project in every market where Inditex is operating. The clothing collection service is also available for online orders, whereby customers can request the collection of articles through the home delivery service. This service is already operational in Spain and several cities in China, Paris, London, and New York. Meanwhile, the company is working to roll out the online program in other key markets.

### Economic Viability:

The value of this project lies on the social and economic revenues to the communities. The CL has articulated a network that enable an economic and resources flow among the social stakeholders.

### Project Timeline

- ▶ Start: 2015
- ▶ Finish: The implementation phase was finished in FY 2020, but the project is ongoing.





## LESSONS LEARNED

### Main Barriers to Implementation:

1. The different legal regulations in all the markets where the project is implemented.
2. The different cultures and consumer behaviour of the markets where the program is implemented.
3. To find reliable partners in the different markets able to assure an optimal management of the postconsumer textiles.

### Reaction to the Project:

#### Consumers:

The reaction depends on the market behaviour regarding reuse & recycle, being mostly the European, north American, and north Asian costumers the ones more active in the project. The reaction is measured depending on the amount of donation in each market..

#### Employees:

There is overall positive feedback among structural employees. They have shown gratitude and commitment to the project. They value the social side of the program and the opportunity of creating a positive impact in their local communities.

### What advice would you offer to your peers starting a similar circular economy project?

1. Create a solid and reliable structure for the system.
2. Create a traceable and transparent system to enable tracking of the items collected.
3. Develop functional tools to measure and registered the collections and the different steps through the chain value.

### What are you most proud of about this project?

The positive social impact created among all the local communities involved.

## WHAT NEXT?

1. To leverage this voluntary program linked to new EPR for textiles in different member states and beyond.
2. Link collection and sorting capabilities to textile to textile recycling pilots.
3. Create synergies with our partners for innovation purposes.

## COMPANY BACKGROUND

**Country:** Spain

#### Our Business:

Inditex comprises of eight brands: Zara, Pull&Bear, Massimo Dutti, Bershka, Stradivarius, Oysho, Zara Home and Uterqüe. The company sells its products through online platforms in 215 markets and in over 6,000 stores across 95 markets.

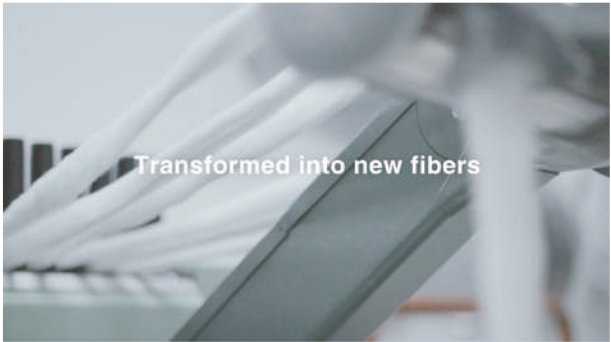
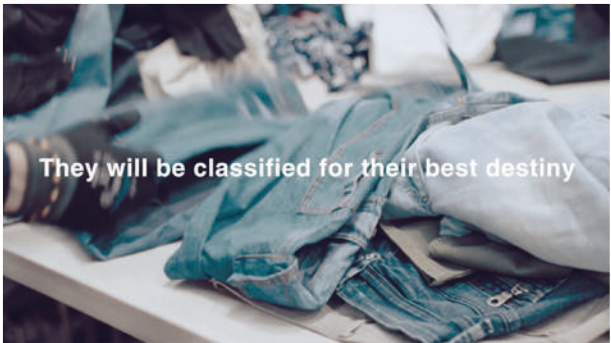
#### Our People:

140,000+ employees.

#### Submission by:

Iria Mouzo Lestón, Head of Circularity & Global Sustainability Public Affairs Manager







## Recycling of Coffee Pods

### Summary:

More than 300 Pingo Doce stores have bins where customers can drop their used coffee pods, which are then sent for recycling. This network was established when Pingo Doce launched its Private Brand coffee pods. Although it aimed to reduce the environmental impacts of Pingo Doce Private Brand pods, the recycling bins were designed to collect pods of all existing brands on the market. By collecting waste not considered packaging and, therefore, not covered by the current municipal collection and recycling schemes, the project contributes to the circularity of materials, adding value to society.

### THE CHALLENGE

According to the European Commission, each inhabitant generated 174 kg of packaging waste in 2018.

To counteract this trend, and within the scope of the European Ecological Pact, the Circular Economy Action Plan aims to make all packaging placed on the European Union market reusable or recyclable by 2030.

This objective is in line with the European Commission's definition of circular economy, according to which products must remain in the economy for as long as possible, use of natural

resources and production of waste must be reduced to a minimum, and products must be reused to continue to generate value even at the end of their useful life.

In Portugal, espresso coffee is a very appreciated drink, and coffee pod-run espresso machines for the domestic consumer are popular household items. This created pressure in municipal waste streams as only a few players placing these machines in the market had take-back systems for used coffee pods, and when they did it was exclusive to their brands, which put the circular economy principles at risk.





## THE SOLUTION

Pingo Doce was the first food retail chain in Portugal to establish a network to collect used coffee pods with no distinction between manufacturers. In eight years, the banner has collected more than 50 million coffee pods.

The coffee grounds are sent for composting to produce eco-friendly fertiliser, and the plastic and aluminium are forwarded for recycling and other recovery operations. Finally, the revenues obtained from the valorisation are given to charities.

Several constraints had to be overcome, including the selection of waste operators. In addition to a waste management licence, they would have to accept the fertiliser fees. As this type of waste requires handling to be correctly discarded, the operators would have to meet the logistical conditions necessary for efficient collection at a national level, ensuring transport, storage and treatment of the coffee grounds.

To ensure a suitable bin for customers to put their used coffee capsules, a container adapted to the stores was designed. Procedures were developed so that, whenever necessary, store employees could ask the operator to collect the container, avoiding the accumulation of waste.

The digital marketing teams were also involved, publishing periodic posts on social media about the project. The store operational teams received appropriate and regular training to manage waste and clarify the customer whenever necessary.

The Pingo Doce website was adapted to make it possible to search by type of recycling container and its location, indicating which stores have equipment for collecting used coffee capsules, regardless of the brand.

### Main Driver for project:

The main driver of the project was to conceive and develop a system that collects used coffee pods of any brand in Pingo Doce stores, allowing the waste to be sent for recovery and recycling. Pingo Doce's Environment Department led the project and conceived the whole system.

### Why is this project circular?

This project allows for the collection of used coffee pods, regardless of their manufacturer. The pods

are collected and sent to a waste recovery facility that ensures that coffee grounds are sent to composting and then incorporated into fertilisers. The materials used in the pods are sorted and sent to recycling facilities.

In the end, the project ensures the circularity of both organic and inorganic materials resulting from a comforting espresso.

### Collaboration Effort:

Collaboration with waste management company.

### Circular Economy Measurement (KPIs):

1. Tonnes of coffee pods collected.
2. Tonnes of coffee grounds sent for composting.
3. Money collected for social causes.

### Economic Viability:

The project is not evaluated in this perspective as the total proceedings generated are donated to charities.

### Project Timeline

- ▶ Start: July 2013
- ▶ Finish: Ongoing



## LESSONS LEARNED

### Main Barriers to Implementation:

The main barrier was ensuring the operational efficiency in terms of the required store space, employee's time needed for the correct running of the project and the logistics of collecting the pods from the stores.

### Reaction to the Project:

#### Consumers:

The project is consumer-oriented, and its positive KPIs are related to the consumer's engagement and active participation in the project which has translated in the collection of over 50 million used coffee pods.

#### Employees:

Employees recognize the importance of this project in terms of customer satisfaction and contribution to recycling. However, they also consider that this project presents challenges which can be overcome by improving practices of waste disposal by consumers and increase operational efficiency by, for example, implementing in all stores regular scheduled pick-ups of the coffee pods instead of the current by-demand pick-up in some stores.

### What advice would you offer to your peers starting a similar circular economy project?

It is important to create a multidisciplinary team to ensure all the steps needed to achieve success. Namely, the development of specific equipment for disposal by customers and handling by operational teams in stores and waste operators (to minimize odours/leakage and guarantee the quality of the waste), selection of the right partners with high logistic/infrastructure/operational capacity and guaranteed forwarding for recycling, training of the operational teams (relevance of the project and procedures to be followed to optimize it), disclosure of KPI's internally and externally to communicate the results achieved, and dissemination of the project (consumer awareness campaigns and others).

### What are you most proud of about this project?

It has been a pioneering project in Portugal and a successful example of a circular economy with a social nature (revenues are entirely given to charities) with national coverage (mainland Portugal) and allows to collect pods of all existing brands on the market.

## WHAT NEXT?

Pingo Doce is evaluating the possibility of expanding the collection of used coffee pods to more stores, including the development of a bin adapted for smaller stores. On the other hand, the marketing department will promote the communication of the project in stores. In terms of operational efficiency, the integration of the collection of used coffee pods into other collection circuits has been approved, guaranteeing a more efficient collection circuit and contributing towards the reduction of emissions at the collection logistics level.

The solution has the potential to be scaled to other markets.





## CIRCULAR ECONOMY IN OUR BUSINESS

Reducing packaging materials and using sustainable materials, and incorporating circular economy principles are among the top-10 materiality issues defined for Jerónimo Martins. The “Respecting the Environment” Corporate Responsibility pillar of action includes both topics.

Jerónimo Martins’ Sustainable Sourcing Policy also states that “it is important to activate and support the Group’s environmental policy, namely through consistent encouragement for the adoption of good environmental practices by its suppliers”.

The Supplier Code of Conduct also defines that “Jerónimo Martins Group suppliers and other business partners are committed to making every effort to reduce, eliminate or prevent the production of emissions and waste”.

The Group has publicly committed to several time-bound targets under its strategy to promote the circular economy.

It includes reducing food waste and the amount of virgin plastic used, increasing the incorporation of recycled plastic, packaging recyclability and/or reusability, promoting sustainability certification of paper-based packaging, and ensuring a minimum waste recovery rate.

To promote cooperation among the transition to a more circular economy, the Group joined the Portuguese Plastics Pact, the Polish Plastics Pact and The Consumer Goods Forum’s Plastic Waste Coalition of Action. The Group is also a signatory of the New Plastics Economy Global Commitment.

### Percentage of our business that is circular:

This project applies to around 70% of the Pingo Doce’s store network, the Group’s supermarket banner in Portugal.

It has been a pioneering project in Portugal and a successful example of a circular economy with a social nature...

## COMPANY BACKGROUND

**Country:** Portugal

### Our Business:

Jerónimo Martins operates in the Food Distribution and Specialised Retail sectors in Europe & South America. Food distribution is the core business and represents over 95% of total sales. The Group is committed to developing high-quality food products and convenient meal solutions at competitive prices. Pingo Doce is the Group’s supermarket banner in Portugal.

### Our People:

100,000+ employees.

### Submission by:

Fernando Ventura, Head of Efficiency and Innovation Environmental Projects

“ This was an important challenge for Gintegral, enhancing the capacity for innovation in solutions, with a view to environmental sustainability and focused on consumer satisfaction, which includes this project and the creation of a new innovative packaging format for organic correction that incorporates coffee grounds in a 1.5 kg bag to be sold, among other places, in Jerónimo Martins stores. This kind of project promotes the circular economy, in which the consumer becomes aware that recycling their used coffee pods generates new products that can be acquired for other purposes.”

*Patrícia C. Gonçalves,  
Administrator Gintegral, SA.  
External partner in this project*



## Dixan Clean in Depth

### Summary:

Holistic environmental approach that tackles the plastic pollution problem in water resources around Greece and introduces the model of circular economy. A campaign with environmental, educational & social impact.

### THE CHALLENGE

The problem of ocean/sea plastic waste is dominant around the globe. According to “Plastic Consumption Statistics” plastic is the largest source of ocean waste. Enough plastic is thrown away each year to circle the earth 4 times.

On a national level, the problem is also dominant. According to WWF Hellas, each year in Greece we produce 700.000 tons of plastic waste where only 8% of it is being recycled. Around 11.500 tons end up to the Greek seas, a very important water resource for our country.

Henkel Laundry & Home Care Division in Greece trades products of which more than 70%. Water is an essential resource to ensure proper product performance.

Combining all of the above we took action & responsibility and launched the programme Dixan “Clean in Depth”.



# Dixan



## THE SOLUTION

Dixan “Clean in Depth” environmental program was launched in July 2020 and is under the auspices of the Ministry of Environment & Energy. It concerns not only the waste retrieval from the seabed as well as the coastline, but it goes one step further, managing plastic waste according to circular economy model. Dixan “Clean in Depth” supports young Odysseas Lambrou, a young student that dives from a very young age to decongest the sea from waste & plastic. Together with him and his volunteer team “Beach Cleaning” we strengthen the value of individual responsibility while promoting healthy role models to the society. We are cleaning up the water resources all around Greece and up to now we have extracted more than 20 tons of waste, of which 4.6 tons are plastic.

During 2020, the 1st year of the initiative, 3tn of waste was being extracted from the sea out of which 0,7tn were plastic. Plastic waste was being forwarded for further processing by Circular Economy & Eco Innovation Institute (CEEII), a strategic partner of Dixan Clean In-Depth programme. The institute has been awarded as “Best plastics recycling company” in Scandinavia in 2020 by BUILD magazine. Plastic waste was being recycled, further processed into microgranules and turned into recycled plastic benches and bins. These objects were donated to local societies that were part of the clean ups of the programme as a permanent educative reminder of the benefits of circular economy & our contribution to the protection of environment.

The waste retrieved during the second year of the program rises to more than 17ton out of which 4tn is plastic. Similarly, the loop will be closed through circular economy model.

In parallel we are increasing the awareness of recyclability, circular economy & environmental awareness to students and to younger generation with many different educational programmes.

### Main Driver for project:

This project was initiated by the local marketing Department as sustainability is integrated in the marketing strategy of the division. It is under the bigger local sustainability programme of Henkel Laundry & Home Care Greece “gia kalo”/ “doing good”.



### Why is this project circular?

The Environmental Program Dixan “Clean in Depth” provides a holistic solution for plastic waste management. Plastic waste retrieved from the sea is processed, turned into microgranules and then into useful recycled plastic objects, which helps to close the plastic loop.

### Collaboration Effort:

Collaboration with more than 3 external project partners including **volunteer team beach cleaning, CEEII (Circular Economy & Eco Innovation Institute): Plastic Waste management (processing and closing the loop), Ministry of the Environment & Energy: Auspices and Continuous support.**

### Circular Economy Measurement (KPIs):

1. Tons of waste / plastic collected from the clean ups - registration according to European Guidelines.
2. Development of further recycling process with the cooperation of Circular Economy & Eco Innovation Institute.
3. Social impact: number of rest areas created with materials from the waste retrieved (7 in total).

### Economic Viability:

Yes, and is a pillar we will continue to build upon in the long run.

### Project Timeline

- ▶ Start: July 2020
- ▶ Finish: On going



## LESSONS LEARNED

### Main Barriers to Implementation:

Main barrier was how to incorporate the model of circular economy in the clean ups and close the loop of plastic retrieved. We managed to start our strategic partnership with the Circular Economy & Eco Innovation institute.

### Reaction to the Project:

#### Consumers:

Positive consumer behaviour in all KPI's , significantly increasing awareness for circular economy & sustainability.

#### Employees:

We have received positive feedback and also the active participation of our employees in the clean ups.

### What advice would you offer to your peers starting a similar circular economy project?

These kind of initiatives require consistency and very careful planning in the long run, to identify the correct & trustful partners while year by year bringing the programme one scale up.



### What are you most proud of about this project?

The fact that this is a holistic sustainability programme designed for Greece tackling the problem of plastic pollution in our country through the circular economy model.

## WHAT NEXT?

Clean in-Depth project is a long-term journey so we will continue to build on the pillars of clean ups, circular economy, education & social impact as it is very important to be consistent to the consumer.



## CIRCULAR ECONOMY IN OUR BUSINESS

Sustainability was always part of the DNA of Henkel. Concrete targets were set since 2010 and up to 2040 the goal is to become a climate positive company. The sustainability strategy is based on a 5-pillar approach one of them being the circular economy where the goal is to be pioneers & support further the model of circular economy with our products and our partnerships. Up to 2025 we commit on a global level to have 100% recyclable or reusable product packagings, 50% cut fossil plastics by reduced fossil based virgin plastic, 0% Zero waste meaning no plastic waste into nature.

For Henkel Greece up to 2025 we commit to 100% recyclable packagings while 70% of our products in plastic to be at least from 25% recycled content. In addition we commit to do 100 clean ups and to further process more than 5tons of plastic through the model of circular economy.

### Percentage of our business that is circular:

15% recycled plastics\* in the packaging of all our consumer goods products (\*in 2020 on a global scale).

## COMPANY BACKGROUND

**Country:** Greece

### Our Business:

Henkel operates worldwide with leading innovations, brands and technologies in 3 different business areas: Adhesive Technologies, Beauty Care and Laundry & Home Care. The company holds leading positions with its three business units in both industrial and consumer businesses thanks to strong brands, innovations & technologies. Henkel holds leading positions in many markets and categories around the world. Founded in 1876, Henkel looks back on more than 140 years of success.

### Our People:

50,000+ employees on a global scale, with 200 in Greece.

### Submission by:

Rania Filippakopoulou, Marketing & Trade Marketing Director GR/CY



# Food Waste



### Summary:

FoodCloud is a not for profit, social enterprise working to tackle the twin issues of food waste and food security. We do this by redistributing surplus food from the food industry to a network of charity and community partners in Ireland and internationally. Supported by funding from the Ireland Environmental Protection Agency’s (EPA) National Waste Prevention Programme, the Feeding Kindness case study initiative saw FoodCloud partnering with some of their food industry and charity partners to create a series of web films that capture the full service for redistribution of surplus in the food supply chain. This work was important to demonstrate how collaboration through supply chains is key to identifying drivers of surplus and taking action to reduce waste whilst delivering environmental and social benefits. Films for each partnership were created to share best practice and challenges with the wider industry.

## THE CHALLENGE

Surplus food occurs all across the supply chain for a variety of reasons, and over 33% of food is wasted and is responsible for 8-10% of human emitted GHGs globally. At the same time it is ranked as the number one solution for reversing climate change, according to Project Drawdown.

As studies by the WWF and Tesco published in 2021 highlight, food waste globally is likely to be higher than previous research indicated. In particular, losses in agriculture and supply chains is likely to account for a greater proportion of the overall total, with 1.2billion tonnes wasted each year on farms alone.

Food supply chains (stages before Retail and Public & Household consumption) are naturally complex and involve multiple partners. Decisions or actions made at a point in a chain can often result in food surplus elsewhere. Processes, systems and plans between retailers, manufacturers and producers can be drivers of food surplus but are also the key areas that can address this challenge.

Food businesses are increasingly looking for solutions to be more sustainable and lessen their impact on the planet. Collaboration across and chain and with external solutions like FoodCloud could be key to accelerating the food industry’s progress to achieve SDG targets, including 12.3 by 2030.



## THE SOLUTION

FoodCloud's redistribution service has been developed since 2016, identifying surplus in food chains and redistributing to charities at scale through 3 warehouses. By bringing together retailers, manufacturers and producers in the Irish food industry we tried to outline opportunities to integrate redistribution into complex operations.

In each case study, a retail partner, operations lead from the supplier and FoodCloud supply chain expert walked the production in question to firstly gain knowledge of the operation and scale, before identifying areas of surplus food and why it occurs. The 3 representatives then were able to highlight any changes that could be made to prevent the surplus before looking at what could be safely redistributed at scale. The output for each supply chain review was an agreed process for redistributing surplus that could not be prevented; this was done by integrating the redistribution process (offer of food, packing, transport etc) into existing processes within the operation.

Walking operations together allowed all participants to understand the drivers and to reach a solution to redistribute that could be absorbed within the existing operations. This meant looking at opportunities to improve how food can be redistributed including linking up existing transport routes (i.e. utilising retailer transport to redistribute surplus from a supplier) and laying the groundwork for future technology improvements; can a supplier redistribute food using technology as they would in delivering an order.

This was also a good opportunity to address common misconceptions and perceived barriers that may exist amongst donors who do not yet redistribute. It also demonstrated the positive environmental and social impacts of surplus redistribution, but also on colleague morale within the retailer or supplier that is taking the action to reduce food waste and support local communities.

Example projects include

- ▶ Hilton Meats, Tesco and FoodCloud  
[Watch movie here](#)
- ▶ Meade Potato Company, Lidl and FoodCloud  
[Watch movie here](#)
- ▶ Aldi, Arrabawn and FoodCloud  
[Watch movie here](#)

### Main Driver for project:

FoodCloud's food team highlighted the challenge and opportunity of greater collaboration. This team works directly with retailers on in store redistribution through FoodCloud's technology and with retailers and suppliers across the Irish food industry. They saw the opportunity to identify and reduce waste by bringing retailers and suppliers together.

### Why is this project circular?

The aim of the project was to do all we can to fully utilise raw ingredients and finished goods - if surplus can't be prevented, redistribute to avoid the environmental impact of waste. Surplus food redistribution is a win-win solution for people and our planet and offers an opportunity to build a better, more sustainable and food secure future for us all. By prioritising the food waste hierarchy, food businesses are helping FoodCloud work towards our vision of a world where no good food goes to waste while also working towards Sustainable Development Goal 12.3 of halving global food waste by 2030.

### Collaboration Effort:

Collaboration with more than 3 external project partners including **Environmental Protection Agency (EPA), Meade, Tesco, Lidl, Hilton Meats, Aldi, Arrabawn**. Collaboration was key to the success of the project and the processes which have since been embedded.

### Circular Economy Measurement (KPIs):

On each supply chain operation reviewed we measured the tonnage of food rescued, the environmental impact of this through equivalent tonnes of CO2 avoided and the social benefits through equivalent meals provided (1meal = 0.42kg of food) and estimated cost of food (1kg of food = €3 value to charities).

FoodCloud and partners are always looking to improve our measurement and impact reporting and in future there may be opportunities to look at the % of edible food waste rescued, more detailed environmental measures (water use, CO2 by product type) and further social benefits (economic benefits in communities).

### Economic Viability:

Yes - we have established efficient and economically viable solutions to redistribute food with the food industry partners in these studies and with over 200 businesses across Ireland.

FoodCloud, food businesses and governments in Ireland and abroad are always aiming to go further - there is food surplus that occurs at the moment where the cost is too great to redistribute to human consumption. This can often be down to labour or transport costs. It can be more economically beneficial to use outlets further down the waste hierarchy that lead to waste - AD, composting or landfill. Solutions across the food waste hierarchy are required and it's important that outlets at the top of the hierarchy - prevention and redistribution to people or animals are incentivised and economically viable for food businesses.

### Project Timeline

Project work was completed over the calendar year 2019

## LESSONS LEARNED

### Main Barriers to Implementation:

Redistribution can be thought of as being complicated or an additional cost to an individual food business or food supply chain. By walking the operation together with retail and supplier partners we were able to implement redistribution processes that could be embedded into operations at minimal cost and ensure operations remain efficient. The environmental and social benefits to the organisations drastically outweighed any initial or ongoing cost of redistributing.

### Reaction to the Project:

#### Consumers:

Consumer engagement is often a key driver to food business taking sustainability actions. Consumers are increasingly factoring sustainability and circularity into their shopping and lifestyle choices. FoodCloud was able to support food businesses in reducing food waste and creating a more sustainable operation. The added bonus for the business and their consumers was that the

solutions put in place directly supported charities in local communities.

### Employees:

As evidenced by feedback from all partners involved in embedding a redistribution solution was key to employee engagement. Colleagues were more engaged in strategic objectives when they could see the direct work each organisation was doing in reducing waste and supporting charities. They valued that their organisation was taking steps to be more sustainable, to be kinder to the planet and to support people in need in their communities. Studies outside of this work have highlighted the economic and business benefits of such increases in colleague engagement.

### What advice would you offer to your peers starting a similar circular economy project?

Individual operations and partners in a supply chain are increasingly looking for opportunities to become more sustainable, to work towards a more circular model - it's difficult in isolation though. All businesses involved highlighted the benefit of walking an operation together - from the processes through systems to data and insights. A fresh set of eyes, ideally from another stage or partner in the food system, were so valuable to understanding why surplus may occur and how to prevent or redistribute to avoid waste.

### What are you most proud of about this project?

Highlighting the benefits of collaboration. No matter the stage in the chain or role - retailer, manufacturer, producer or service provider - we all have similar challenges but importantly similar aims. We're all hungry for a kinder world and designing and implementing change together is an effective way to achieve this at scale.



## WHAT NEXT?

The project highlighted that collaboration can create change and embed solutions. It's now about extending those solutions to additional partners in Ireland and international markets, and importantly using technology development to make this happen. Taking learnings from this project and the benefits of technology in FoodCloud's in store solution should help to develop technology enabled redistribution in the supply chain - this will ensure processes are fully integrated in an operation and improve traceability and impact measurement.

## CIRCULAR ECONOMY IN OUR BUSINESS

Circular economy plays a key role in the design and development of FoodCloud services. Surplus food redistribution is a win-win solution for people and our planet and offers an opportunity to build a better, more sustainable and food secure future for us all. By donating their surplus food to FoodCloud, food businesses are helping us work towards our vision of a world where no good food goes to waste while also working towards Sustainable Development Goal 12.3 of halving global food waste by 2030.

FoodCloud's core services and wider work with industry, charities and government aims to create a fairer, more sustainable food system.

### Percentage of our business that is circular:

>90%.

Alongside services to tackle food waste, FoodCloud is the national delivery partner for the Fund for European Aid to the Most Deprived (FEAD) in Ireland. This EU and Irish government initiative involves the procurement and distribution of food products. These items are not surplus but are key to helping people in need across Ireland.

## COMPANY BACKGROUND

**Country:** Ireland

### Our Business:

FoodCloud is an Irish not for profit social enterprise working to tackle the twin issues of food waste and food security by redistributing surplus food from the food industry to a network of charity and community partners.

### Our People:

70+ employees.

### Submission by:

Christopher Hill, Operations Director



“ At Tesco, we are proud to have been the first national retail partner of FoodCloud and to launch a ground-breaking partnership to donate surplus food from our business in 2014. To date, with the help of FoodCloud, we've donated a total of over 14 million meals for over 400 community groups across Ireland, diverting perfectly edible surplus food from our stores to help those in need. We are proud to partner with FoodCloud on our journey to ensure no good food goes to waste from our stores and distribution centres in Ireland.”

*Kari Daniels, CEO of Tesco Ireland*



**Summary:**

In 2019 AB Vassilopoulos decided to act on the issue of Food Waste and Plastics, aiming to reduce both by 50% by 2025, five years in advance of the 2030 SDGs.

To achieve our 50% target by 2025 on food waste, it was important to put together the resources, knowledge, and expertise of different stakeholders.

One of our initiatives involved a with an 18-month partnership with one of the major Greek Universities, the Harokopio University, to set a baseline and measure food waste across our entire supply chain. Our goal was to measure food waste created by our main suppliers, our own organization, and our customers. Its the first time a Greek retailer has aimed to answer the question 'How much food do we waste across our supply chain?'

**THE CHALLENGE**

Food waste is a huge global issue, for both the economy and the environment. Currently over a third of produced food goes to waste on a global scale, harming the environment, when at the same time millions of people in the world are facing hunger and food insecurity.

In Greece the issue is no different, with over 12% of Greeks facing hunger and food insecurity. There are limited studies available in Greece focusing on where the biggest amount of food waste and food loss is made in the supply chain.

**THE SOLUTION**

We take food loss and food waste very seriously and it is only through strong and mutually beneficial partnerships that we will be able to achieve our 50% goal on food waste reduction.

We chose partners who share the same vision and willingness for change. We have set concrete goals and targets.

The study of food waste across our entire supply chain has created a baseline of where we are today, to fully understand what we need to change in our supply chain, so we can achieve our 50% goal. As a company, we already report on food waste, but studies on waste created by suppliers and customers did not exist in Greece.

The results from our food waste study, which launched on the International Day of Awareness of Food Loss and Waste (September 29th) are as follows:

- ▶ Households are the biggest challenge. The study showed that every year, Greek households throw away more than 1,000,000 tons of food, about half (44.3%) of which could be safely consumed (avoidable food waste). Every citizen in Greece, young or old, throws away 98.2 kilos of food every year.
- ▶ Suppliers more in-depth collaboration is required.
- ▶ Primary Production proved difficult to quantify food loss & waste.

From an AB operations perspective, our operations were found to be efficient with few new opportunities identified apart from further food donation programmes. Fruit & vegetables and our dairy & bakery department contribute to 78% of waste. The full results will be presented in 2022.

**Main Driver for project:**

The issue of Food Waste is part of the company's strategic goal.

**Why is this project circular?**

Reduction of food waste and increase of food donations is part of the circular economy. In 2013, AB Vassilopoulos started one of the most effective Food Donation programs for products close to expiration date. By studying the key stakeholders



involved in the supply chain and making solid changes and finding new solutions, we can further reduce food waste, while at the same time increase food donations that would otherwise end up in the landfill.

#### Collaboration Effort:

Collaboration with 1 external project partner,  
**Harokopio University.**

#### Circular Economy Measurement (KPIs):

- ▶ Food waste in tonnes
- ▶ Food Waste per Food Sales
- ▶ Tonnes of Food Waste donated

#### Economic Viability:

Yes.

#### Project Timeline

- ▶ Start: December 2019
- ▶ Finish: September 2021



## LESSONS LEARNED

### Main Barriers to Implementation:

The main barriers included

- establishing the methodology for the study and our company, in collaboration with the University.
- getting suppliers involved in the study
- engaging customers to complete a food waste diary for 7-days
- making the measurement process understandable to all stakeholders
- Covid 19 restrictions also created a small delay.

### Reaction to the Project:

#### Consumers:

The initial reactions from focus groups conducted in collaboration with WWF, show that Greek consumers need to first tackle food waste inertia, before giving solid solutions to reduce food waste. And having a baseline for this journey, is of vital importance. The consumer reaction is expected to be positive, when we announce the results, which is just the begging of a long journey to reduce food waste across all our supply chain.

#### Employees:

All teams and departments that got involved in the project had a positive reaction to the project and were willing to help. The project would not be implemented if it wasn't a team effort, aiming to reach the end goal and complete the study. Many departments were involved, including Operations, Buying Department, Loyalty, Marketing and more. And employees realised and acknowledged the great importance of the project and what we were tackling with. In a survey sent out to all AB associates, 93% accept that food waste reduction is important for AB Vasilopoulos.

We strive to be sustainable in everything we do, for the people that we support, for the products that we offer and for the planet which we support.

### What advice would you offer to your peers starting a similar circular economy project?

It is important for all involved departments and teams to be on the same page, have a common end goal, and a specific agreed deadline. Furthermore, if a company decides to tackle such a project, they will need to be flexible and pragmatic. But if there is a will for change and food waste reduction, then focus on starting with where food waste is initially created today, to have knowledge of what changes need to be made from tomorrow.

### What are you most proud of about this project?

We take food loss and food waste very seriously and it is only through strong and mutually beneficial partnerships that we will be able to achieve our 50% goal. This is a project we are very proud of, and we have also presented it with great success to the Greek Alliance for the reduction of Food Waste, which we are part of.

## WHAT NEXT?

In September 2021 the household results from our 18-month food waste study were announced publicly. We are now starting the journey of finding solutions and changes so that we have a concrete plan for food waste reduction by 2025. In the following months the full results will be presented (papers and conferences).

In collaboration with WWF in Greece we will make customer awareness campaigns, interactive webinars, and best practices booklets for suppliers, as well as internal operational changes to reduce food waste internally.



## CIRCULAR ECONOMY IN OUR BUSINESS

AB Vassilopoulos aims to be the most sustainable retailer in Greece. We strive to be sustainable in everything we do, for the people that we support, for the products that we offer and for the planet which we support. Circular economy is part of our strategy and decision making. In 2019 we decided to act on the issue of Food Waste and Plastics, aiming to reduce both by 50% by 2025, which is five years ahead of the 2030 SDGs.



## COMPANY BACKGROUND

**Country:** Greece

**Our Business:**

AB Vassilopoulos is a Greek Food Retailer with non-negotiable quality, exceptional service, and unique variety, that has rightfully earned a place at the table of every Greek household. Guided by our purpose, to “give our best to make a difference in people’s lives”, we are always by the side of our over 2.2 million customers with courage, integrity, teamwork, care, and humor. Through our network of more than 500 stores across the country & AB E-shop, we are present in every neighborhood across Greece.

AB Vassilopoulos is part of Ahold Delhaize Group

**Our People:**

70+ employees

**Submission by:**

Angelina May Sapounaki, Sustainable Retail Associate



### Summary:

The project introduces composting for fruits and vegetables, not suitable for sale, in our grocery stores. In cooperation with the Hellenic Mediterranean University (HMU), we have implemented this initiative in a sample of 14 stores. We have installed tailor-made compost bins and / or special cold stores in our stores where we daily dispose of all the grocery waste. The process of composting starts in our stores, and then is finalized at the premises of the HMU. The final outcome of the process is compost of great quality, which is used for the plants in the gardens of our stores. Moreover, using this process, we have managed to reduce the tonnage of our garbage disposed in the trash bins by 242 tons per year (estimate based on 6 months implementation). The initiative is in line with our long term commitment of reducing our foot print and total waste to zero tons.

## THE CHALLENGE

The innovative programme “Nothing Gets Wasted!” aims to reduce the total volume of the waste from our grocery stores that cannot be recycled. Currently, supermarkets in Greece do recycle most of their waste like stretch films, cartons, plastic packages, paper, animal by-products etc. The only waste that is currently not recycled, and is significant in volume is the green waste from our groceries stores (i.e. fruits and vegetables). So this initiative gives an environmental way of dealing with the organic green waste of our groceries by composting. This green waste then becomes a useful compost for our plants.

We have managed to produce an excellent compost to be used by our plants, with a low cost and totally environmentally friendly process. With the use of the tailor-made compost bins in our stores and the cold stores, we managed to decrease the total volume of our non recycled waste to nearly zero.



## THE SOLUTION

By using the composting technology, and the expertise of Hellenic Mediterranean University, we managed to recycle all the organic green waste of our groceries. We have managed to produce an excellent compost to be used by our plants, with a low cost and totally environmentally friendly process. With the use of the tailor-made compost bins in our stores and the cold stores, we managed to decrease the total volume of our non recycled waste to nearly zero.

### Main Driver for project:

The issue of minimizing Company's waste is strategic and we have achieved to recycle or manage more than 95% of our waste. The issue of Food Waste is part of the company's strategic goal. We aim at teaching the local society on the overall composting procedure, along with our partner, the Hellenic Mediterranean University. Unfortunately composting in Greece is less than 10% and is far below the EU Average (ie 23.92% - Eurostat 19) against the extremely high 80% landfill.

### Why is this project circular?

The initiative manages to transform the waste from the grocery store into raw material (ie high quality compost) that is used for the plants to

grow. Biowaste is a key waste system with a high potential for contributing to a more circular economy and one of the top EU sustainability priorities.

### Collaboration Effort:

Collaboration with 1 external project partner, **Hellenic Mediterranean University**.

### Circular Economy Measurement (KPIs):

Tonnage of the waste that was used in decomposing (instead of becoming waste)

Tonnage of the compost produced.

### Economic Viability:

Currently, the project is not economically viable, since we have to pay for the purchase of the compost bins, the leasing fee for the cold stores and the logistics costs. The project could be viable if the request for reducing our cleaning fees from the Municipal Authority was approved, since the tonnage of our waste would be significantly decreased. We hope that in the near future, the waste reduction will be explicit since the “Pay as you throw” methods will be gradually adopted..

### Project Timeline

► Start: March 2019    ► Finish: March 2022



## LESSONS LEARNED

### Main Barriers to Implementation:

Currently the financial cost and the logistics are our main barriers. We have requested from the Municipal Authority to reduce our cleaning fees imposed through municipality tax, so that the project could be viable. This is a valid request, since the tonnage of our waste has been significantly decreased.

### What was the main consumer reaction to this project?

Consumers were very interested in exploring the project and the feedback we received was very encouraging for our initiative. They were also willing to participate in our initiative by contributing through their households' biowaste, since individual composting system is not yet expanded in Greece.. Moreover we believe that we raised concern over composting among our fellow citizens.

### What was the main employee reaction to this project?

Employees embraced the initiative and were very keen in implementing the project. They were trained by the Hellenic Mediterranean University's

Academic personnel on how to operate the compost bins. Also, they were very interested in learning by the experts how to sort the appropriate green groceries waste.

### What advice would you offer to your peers starting a similar circular economy project?

It is important to measure the financial impact, along with the environmental one.

### What are you most proud of about this project?

We are proud of the implementation of the project, and that the initiative addresses a real business need and an environmental issue.

We are also excited that we have contributed in the Academic Research and Development by funding the development by Hellenic Mediterranean University (HMU) of an innovative and sophisticated composting system. We are finally proud of our local Academic Partners (HMU) that have managed to produce a high quality compost through a long-lasting research that is beneficial for the nature and our environment.



## CIRCULAR ECONOMY IN OUR BUSINESS

It is a long term goal and commitment to reduce our footprint by implementing processes of circular economy in our organization.

## WHAT NEXT?

We have already initiated a new green Pancretan project for plants and trees planting ,using the compost produced by our project, in collaboration with local authorities in major cities of Crete. The tree planting is both symbolic and substantial and we are proud of how local communities, families, young students and our employees have embraced it and actively participated in it. Young children are willing to come onboard with their parents paving the way for a new greener future. It is truly hopeful for the next generation sustainability and lifestyle.

In 2022 our goal is to enhance our bio waste circular management through our long collaboration with Sychem Crete Bioenergy – an innovative biogas plant in Crete. We have transformed all our food – waste (not only fruit and vegetables) into a high quality soil conditioner (compost). The first 4 tons of this product are about to be distributed for to our first 4 agricultural products suppliers under the strict specifications of our external scientific advisors. In that way our company not only doesn't pollute but we moreover contribute to the sustainability of our beautiful island – Crete.

## COMPANY BACKGROUND

**Country:** Greece

**Our Business:**

Chalkiadakis SA is a Greek Supermarket chain operating in Crete.

**Our People:**

1,400+ employees.

**Submission by:**


Michalis Tzagkarakis, Head of Marketing & Communications Department




# A Global Review of Circular Economy Case Studies from the Retail & CPG Sector



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