Reuse

Rethinking Packaging

ELLEN
MACARTHUR
FOUNDATION

NEW
PLASTICS
ECONOMY

Contents

READY FOR REUSE?

For feedback, input or news regarding your reuse efforts
get in touch via newplasticseconomy@ellenmacarthurfoundation.org

Executive summary

Reusable packaging is a USD 10+ billion innovation opportunity that can deliver significant user and business benefits. Reuse models are sometimes considered burdensome or a thing of the past. However, innovative reuse models can unlock significant benefits, enabled by digital technologies and shifting user preferences. Such models can help deliver a superior user experience, customise products to individual needs, gather user insights, build brand loyalty, optimise operations, and save costs. Imagine a luxurious, durable ice cream container that keeps the ice cream frozen for hours outside the fridge which is delivered and picked up in a subscription model. It's convenient, has a better look and feel, and keeps customers coming back.

Reusable packaging is a critical part of the solution to eliminate plastic pollution. As part of the New Plastics Economy Global Commitment, over 350 organisations have recognised that, wherever relevant, reuse business models should be explored to reduce the need for single-use plastic packaging.

This work provides a framework to understand reuse, identifies six major benefits of reuse, and maps 69 reuse examples. Based on an evaluation of more than 100 initiatives and interviews with over 50 experts, it aims to inspire and help structure thinking. It provides a basic description of how different reuse models work as well as typical implementation challenges. It is not intended to be a detailed how-to implementation guide.

The focus of this initial work is on packaging solutions in business-to-consumer (B2C) applications. While there certainly are many reuse opportunities in business-to-business (B2B) applications, these are generally better understood and adopted at scale already.[1]

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1   A few examples can be found on p.37 and more information on the B2B reuse opportunity can be found in The New Plastics Economy: catalysing action (2017) report.

The time for reuse is now

1 **UNTAPPED BUSINESS POTENTIAL**

Globally, replacing just 20% of single-use plastic packaging with reusable alternatives offers an opportunity worth at least USD 10 billion.[1] Reuse models can bring major user and business benefits including superior user experiences, user insights, brand loyalty, and cost savings.

2 **GLOBAL ALIGNMENT TO ACT ON PLASTIC POLLUTION**

The urgency to act on plastic pollution is now widely understood. Through the New Plastics Economy Global Commitment, over 350 organisations have signed up to the vision of building a circular economy for plastics, explicitly acknowledging that we cannot simply recycle our way out of this issue, and that rethinking how we bring products to people without relying on disposable packaging is a crucial part of the solution. The Global Commitment has also seen Over 100 business signatories of the Global Commitment have committed to move, where relevant, from single-use to reusable packaging by 2025.

3 **SHIFTING USER PREFERENCES**

Customer demands are more sophisticated than ever and include personalisation, quality, and positive environmental impacts. Reacting to user preferences, retail is now physical and digital.[2] Innovative reuse models can tap into these shifting preferences by, for example, delivering better-looking, more functional packaging that gathers valuable user intelligence and allows the user to customise the product.
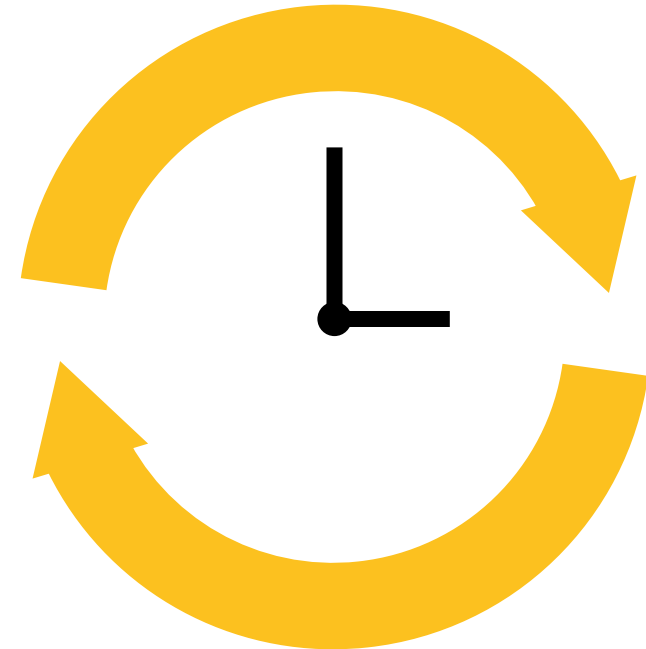
4 **CLIMATE AND OTHER ENVIRONMENTAL BENEFITS**

Moving from single-use to reuse not only helps eliminate plastic waste and pollution but also, if done well, offers significant reductions in greenhouse gas (GHG) emissions and other negative externalities.[3]

1   Ellen MacArthur Foundation, The New Plastics Economy: catalysing action (2017).
2   Kantar World Panel, The future of e-commerce in FMCG (2017).
3   Ellen MacArthur Foundation, Towards a circular economy vol.3: accelerating the scale-up across global supply chains (2014).

COMPACT PRODUCTS

DEPOSIT AND REWARD

CUSTOMISATION

SUPERIOR DESIGN

SHARED DESIGN

SMART SYSTEMS

Six benefits of reuse

Reuse presents an innovation opportunity to change the way we think about packaging from something that's simply as inexpensive and light as possible to viewing it as a high-value asset that can deliver significant benefits to users and businesses.

Reuse can...

Cut costs

Packaging and transportation costs can be reduced by supplying refills for reusable containers in compact form, such as in concentrates or solids e.g. as tablets.

photo: Replenish

1 Pod Makes 6 Bottles

COMPACT PRODUCTS

Build brand loyalty

Brand loyalty and customer retention can be achieved through deposit and reward schemes for reusable packaging.

photo: RECUP

return. reuse. recycle.

RECUP

DEPOSIT AND REWARD

Adapt to individual needs

Individual needs can be accommodated by reuse models that let users mix and match flavours, personalise packaging or choose desired quantities.

photo: PepsiCo

spire.
BE YOUR OWN MIXOLOGIST

CUSTOMISATION

Improve user experience

User experience can be improved by enhancing the look, feel or functionality of reusable packaging (which can be more high-end as its initial production cost is divided over many uses).

photo: Loop

Häagen-Dazs
STRAWBERRY

SUPERIOR DESIGN

SHARED DESIGN

SMART SYSTEMS

Optimise operations

Economies of scale for distribution and logistics can be achieved through sharing reusable packaging across brands, sectors or wider networks.

photo: The Coca-Cola Company

Coca-Cola
FANTA

Gather intelligence

Information on user preferences and system performance can be gathered by incorporating digital technologies such as RFID tags, sensors, and GPS tracking into the reusable packaging system.

photo: MIWA

BASMATI RICE
BASMATI RI
BEANS

The four reuse models

Business-to-consumer reuse models differ in terms of packaging 'ownership' and the requirement for the user to leave home to refill/return the packaging.

REFILL
packaging refilled by user

RETURN
packaging returned to business

AT HOME

ON THE GO

Refill at home

Return from home

Refill on the go

Return on the go

Refill at home
users refill their reusable container at home (e.g. with refills delivered through a subscription service)
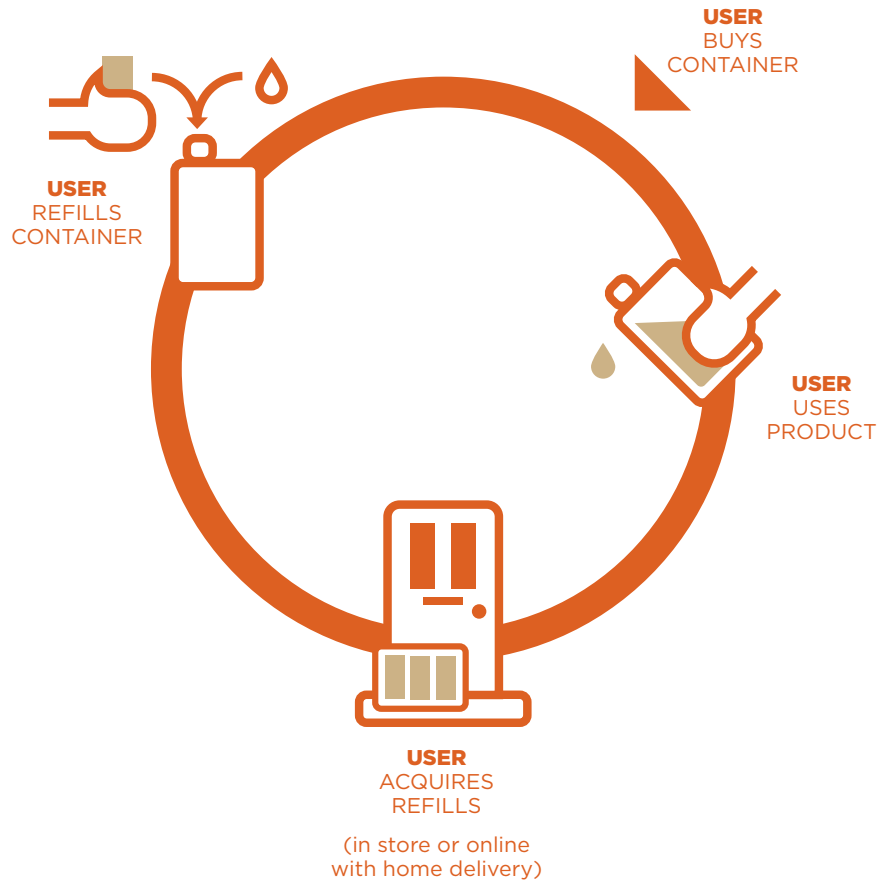
Return from home
packaging is picked up from home by a pick-up service (e.g. by a logistics company)

Refill on the go
users refill their reusable container away from home (e.g. at an in-store dispensing system)

Return on the go
users return the packaging at a store or drop-off point (e.g. in a deposit return machine or imailbox)

Note: B2B packaging and 'naked'/packaging-free products are not included in this framework.

Refill at home

USER
BUYS
CONTAINER

USER
REFILLS
CONTAINER

USER
USES
PRODUCT

USER
ACQUIRES
REFILLS

(in store or online
with home delivery)

WHERE IT WORKS

Refill at home can work in both traditional and online retail. The model works particularly well for e-commerce as the online interface enables communication of an integrated solution and at the same time there is no competition for shelf space from products sold in standard packaging.

Current examples of **Refill at home** include:

- E-commerce for compact refill products that are used at home or in office buildings on a regular basis, e.g. beverages, home care, and personal care products.

- Traditional retail outlets for standard-sized (non-compact) refills, e.g. for home care and personal care products.

TYPICAL BENEFITS

COMPACT PRODUCTS

Businesses can reduce transportation and packaging costs by supplying products as refills, concentrates, tablets, etc.
Users can benefit as refills can be cheaper to buy and easier to carry and/or store, compared to products sold in standard packaging.

CUSTOMISATION

Users' individual needs can be accommodated with refill systems that allow them to mix flavours, add a desired fragrance or personalise the main packaging.

Businesses can improve brand loyalty through refill subscriptions delivered directly to users.
Users can benefit from higher convenience with automatic reordering.

POTENTIAL CHALLENGES

- Attracting customers to the smaller or less impressive refill packs when placed next to normal full-sized products on shelves.

- Communicating to users the benefit of buying e.g. 6 in 1 in concentrate format.

- Ensuring that refills come in packaging that is either reusable, recyclable or compostable.

Refill on the go

USER
BUYS
CONTAINER

USER
USES
PRODUCT

USER
REFILLS
ON THE GO
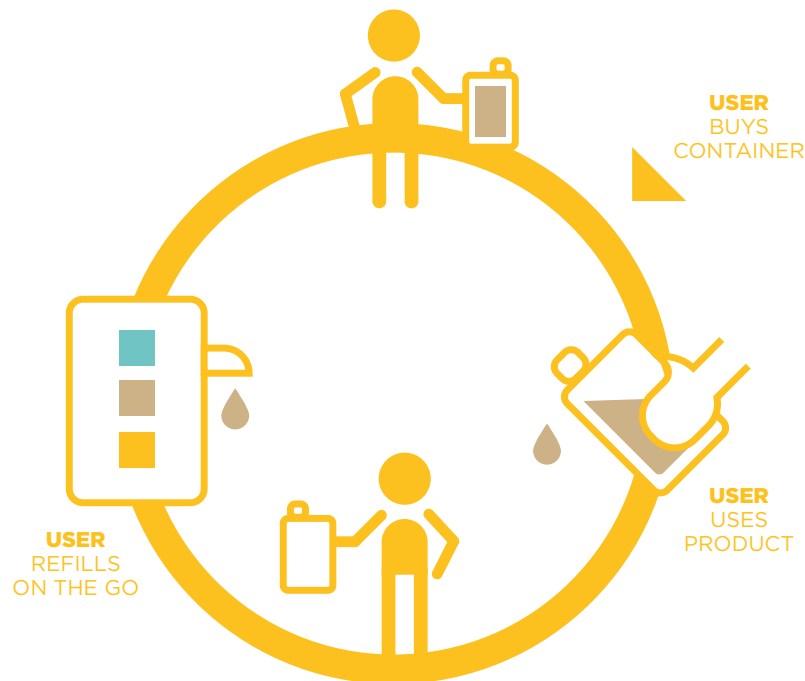
WHERE IT WORKS

Refill on the go requires a physical store or dispensing point, which makes it better suited to traditional retail outlets and urban environments. In low-income markets, the model can accommodate customers' needs for small quantities at affordable prices without relying on single-use sachets.

Current examples of **Refill on the go** include:

- Traditional retail outlets for products like beverages, cooking essentials (e.g. grains, flours, oils), personal care, and home care.
- Cities for coffee to go or water fountains.

TYPICAL BENEFITS

CUSTOMISATION Users' individual needs can be accommodated with dispensing systems that allow them to choose desired quantities and personalise content.

SMART SYSTEMS Businesses can obtain user intelligence through dispensing systems that recognise the user and collect data on preferences.

COMPACT PRODUCTS Businesses can reduce transportation and packaging costs by supplying products as concentrates to be mixed with water on the spot in the dispensing machine.
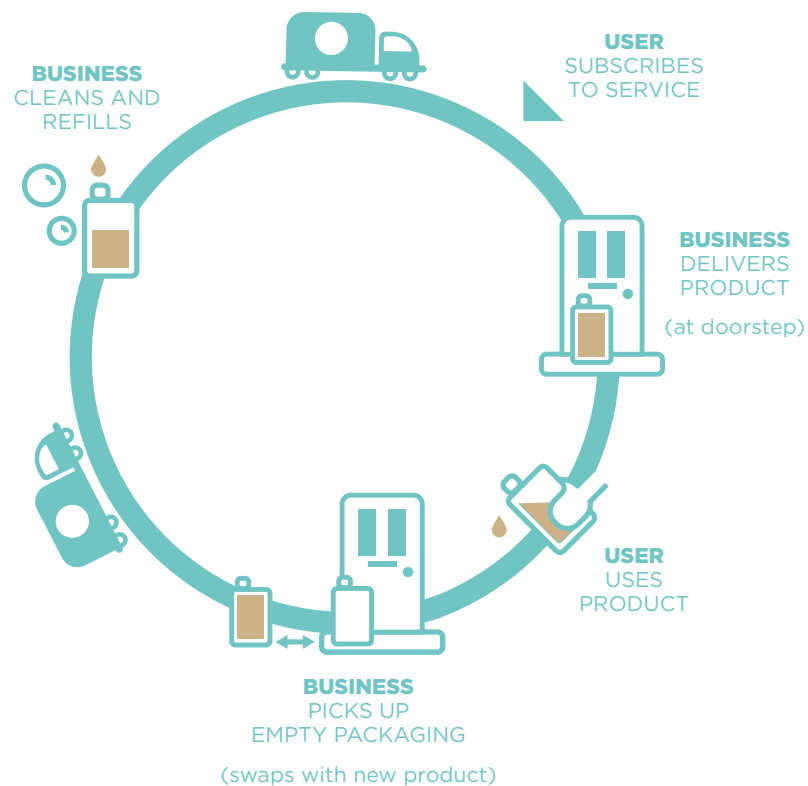
Users can benefit from improved access to products if dispensing systems are mobile or placed in public spaces.

POTENTIAL CHALLENGES

- Motivating users to carry and clean their own containers.
- Ensuring that the dispensing system is easy, safe, and mess-free to use, and that it lives up to the expected brand experience.
- Ensuring brand protection, e.g. that branded dispensers are filled with the right products.
- Building up the required distribution network, including integrating dispensing systems at retailers.
- Complying with product safety standards, policies, and regulations specific to bulk sales.

Return from home

BUSINESS CLEANS AND REFILLS

USER SUBSCRIBES TO SERVICE

BUSINESS DELIVERS PRODUCT

(at doorstep)

USER USES PRODUCT

BUSINESS PICKS UP EMPTY PACKAGING

(swaps with new product)

WHERE IT WORKS

Return from home is suitable for e-commerce as the pickup of empty packaging can be combined with the delivery of new products. It is particularly well suited for urban areas with reduced travel distances between deliveries.

Current examples of **Return from home** include:

- E-commerce for products such as groceries, meal delivery, personal care, home care, and beauty.

TYPICAL BENEFITS

Users can get a better experience through improved functionality and/or aesthetics of the packaging.

Businesses can improve brand loyalty by incentivising the return of the packaging through deposit and reward schemes.

Businesses can optimise operations through the standardisation of packaging or shared logistics and cleaning facilities across brands, sectors or wider networks, e.g. in combination with a third-party packaging/service provider.
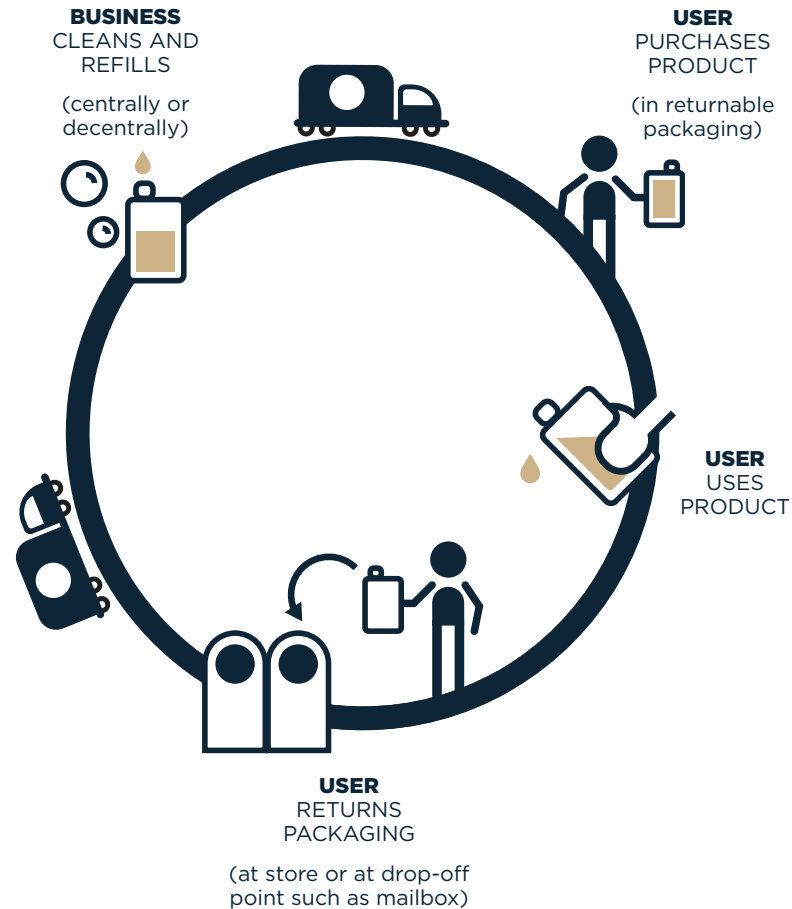
Businesses can improve brand loyalty and obtain user insights through subscription to auto-replenishment services.
Users don't need to worry about keeping track of stock and reordering in a subscription service.

POTENTIAL CHALLENGES

- Establishing a local reverse logistics, cleaning, and refilling infrastructure to ensure economic and environmental feasibility.
- Developing the right deposit and reward scheme. The scheme needs to incentivise the return of packaging without scaring customers away with a very high initial deposit.
- Developing a system to keep track of deposits and handle payouts.
- Reducing the risk of theft of high-value packaging when sitting on the doorstep upon delivery or return.
- Scaling quickly to maintain affordable prices for customers.

Return on the go

BUSINESS
CLEANS AND REFILLS

(centrally or decentrally)

USER
PURCHASES PRODUCT

(in returnable packaging)

USER
USES PRODUCT

USER
RETURNS PACKAGING

(at store or at drop-off point such as mailbox)

WHERE IT WORKS

Return on the go is widely applicable as it can substitute most single-use packaging without changing the fundamental purchase situation.

Current examples of **Return on the go** include:

- Traditional retail outlets for beverages where the model has been proven to work at scale in several geographies (e.g. Latin America, Japan, and Europe).

- Cities and events for products on-the-go such as takeaway coffee, beverages, and food.

TYPICAL BENEFITS

Businesses can improve brand loyalty by incentivising the return of the packaging through deposit and reward schemes.

Businesses can optimise operations through the standardisation of packaging or shared drop-off points, logistics, and cleaning facilities across brands, sectors or wider networks, e.g. in combination with a third-party packaging/service provider.
Users can benefit from improved convenience as a higher density of drop-off points can be obtained through network collaboration.

Businesses can gather intelligence via smart packaging and drop-off points that recognise the user and collect data on preferences.

Users can have a better experience through improved functionality and/or aesthetics of the packaging.

POTENTIAL CHALLENGES

- Developing the right deposit and reward scheme. The scheme needs to incentivise the return of packaging without scaring customers away with a very high initial deposit.

- Ensuring ease of return for users - e.g. by increasing number and density of drop-off points

- Establishing a take-back infrastructure and storage of empties, e.g. retailers need to buy into this from the outset.

- Establishing a local reverse logistics, cleaning, and refilling infrastructure to ensure economic and environmental feasibility.

- Developing a system to keep track of deposits and handle payouts.

69 Reuse examples

This section contains 69 examples of reuse solutions that provide significant benefits to users and businesses. The selected examples in this case library have been chosen because they contain innovative elements, have reached significant scale, or both. The list of examples is not intended to be exhaustive.

BEVERAGES

SodaStream
12-13 million households • Worldwide

Home appliance that allows users to make sparkling water at home in a reusable bottle. Flavours can be added as desired to make a range of fizzy beverages.

Bought by PepsiCo for USD 3.2 billion in 2018.

DASANI PureFill
Pilots • US

Refill stations offering free filtered water with the option to add flavour and carbonation for a small fee.

Custom-built app allows for cashless payment and provides info on user preferences and habits.

Danone Water Jugs
Scaled • Latin America, Asia

Drinking water in reusable water jugs, which are delivered to a subscriber's home/office. Water coolers and empty jugs are picked up for reuse. Particularly useful in regions with limited access to tap water.

50% (by volume) of Danone's water is sold in reusable jugs.

Coca-Cola Brazil Universal Bottle
7% (by volume) of Coca-Cola products sold in Latin America • Latin America

Reusable PET bottles standardised across Coca-Cola's brands save operational costs and reduce carbon emissions.

The reusable model replaces 200 million single-use bottles per year in Brazil and was Coca-Cola's fastest growing packaging format in 2018 in Latin America.

			COMPACT PRODUCTS	SUPERIOR DESIGN	CUSTOMI-SATION	SMART SYSTEMS	SHARED DESIGN	DEPOSIT & REWARD
REFILL AT HOME	**Bevi** customised beverage dispenser system for offices	Start-up • North America	◻		☺	📶		
	Drinkfinity blend-it-yourself pod drinks on subscription	Pepsico start-up • US, EU, Brazil	◻	🏅	☺			
	SodaStream home appliance that allows users to make sparkling water at home	12–13 million households • Worldwide	◻		☺			❤$
REFILL ON THE GO	**Coca-Cola Freestyle** smart-powered touch screen soda fountain for customised drinks	Scaled • Worldwide	◻		☺	📶		
	DASANI PureFill smart-powered water dispenser to create customised drinks	Pilots • US	◻		☺	📶		
	Pepsi Spire smart-powered touch screen soda fountain to create customised drinks	Scaled • Worldwide			☺	📶		
	PepsiCo Hydration Platform smart-powered water dispenser to create customised drinks	Pilot • US	◻		☺	📶		
	Refill app mapping publicly accessible water taps	16,000 refill stations • UK			☺			
	The Milk Station Company milk vending machines with fresh local milk that can work both inside and outdoors	Start-up • UK			☺			
RETURN FROM HOME	**Danone water jugs** home/office delivery of water jugs for water coolers	Scaled • Latin America, Asia			☺			❤$
RETURN ON THE GO	**Coca-Cola Brazil Universal Bottle** reusable PET bottles standardised across Coca-Cola brands	7% (by volume) of Coca-Cola products sold in Latin America • Latin America					✥	❤$
	Jean Bouteille liquid dispensers and returnable bottle systems for stores	Start-up • France			☺			❤$

photo: The Coca-Cola Company

Costa Clever Cup

Available across Costa coffee shops • UK

Reusable coffee cup with contactless payment capability.

Powered by Barclaycard's bPay technology, the new Clever Cup allows users to pay for their brew without having to reach for their wallet or phone.

photo: Hans Vivek on Unsplash

Disposable Cup Charge Trial

Pilot in 35 Starbucks • London

A three-month trial introducing a 5p charge on single-use cups combined with a 25p discount for customers bringing their own reusable cup.

Before the introduction of the 5p charge, 2.2% of all coffee was served in reusable cups. During the pilot, this number rose to 5.8%.

photo: RECUP

RECUP

2,500+ cafés • Germany

Shared reuse coffee cup scheme growing across Germany. Partners can register easily on the platform and users can find all participating cafés on the app/website in order to return the cup and get their deposit back.

More info on page 68

photo: revolv

revolv

Start-up • Bali, Hong Kong, Singapore

Logistics platform for RFID-tagged takeaway cups for events, corporate offices, campuses, and city-wide networks. Smart drop-off stations enabled through IoT and app integration.

More info on page 72

		COMPACT PRODUCTS	SUPERIOR DESIGN	CUSTOMI-SATION	SMART SYSTEMS	SHARED DESIGN	DEPOSIT & REWARD
REFILL ON THE GO	**Boston Tea Party** — coffeehouse chain that only serves coffee in customers' reusable cups — 22 branches • UK			✓			
	Costa Clever Cup — reusable coffee cup with contactless payment capability — Available across Costa coffee shops • UK		✓		✓		
	Disposable Cup Charge Trial — trial with 5p charge on single-use cups to promote reusable cups — Pilot in 35 Starbucks cafés • London			✓			✓
RETURN ON THE GO	**CupClub** — service for shared trackable coffee cups with central distribution and cleaning — Start-up • London				✓	✓	✓
	Freiburg Cup — shared reuse coffee cup scheme initiated by the city of Freiburg — 100+ cafés, bakeries, and cafeterias • Freiburg, Germany					✓	✓
	Globelet — Reusable cup and serveware service with smart-enabled drop-off system for large events, stadiums etc. — 300 B2B clients annually • Australia, New Zealand				✓	✓	✓
	Meu Copo Eco — reusable cups for beer and other beverages for events and sport stadiums — 3,000+ customers in 2018 • Brazil						✓
	Newcy — reusable cups for vending machines and water coolers — Start-up • France					✓	
	P-LUX — reusable beer cups shared among cafés around a city square — Start-up • Brussels					✓	✓
	RECUP — shared reuse coffee cup scheme for cafés and restaurants — 2,500+ cafés • Germany					✓	✓
	revolv — logistics platform for RFID-tagged takeaway cups — Start-up • Bali, Hong Kong, Singapore		✓		✓	✓	✓
	Shrewsbury Cup — shared cup service using Bockatech cups — 20 cafés • UK		✓			✓	✓
	Stack Cup — reusable beer cups designed to allow users to easily carry multiple full cups at events — Start-up • Copenhagen		✓				✓

GROCERY SHOPPING

photo: Algramõ

Algramõ 1.0
2,000+ stores, 350,000+ customers • Chile

Vending machine that enables customers to purchase household essentials in desired quantities from bulk into reusable containers.

Customers save up to 40% by buying products in small quantities at bulk prices.

photo: MIWA

MIWA
Pilots during 2019 • Prague

MIWA creates a business ecosystem for packaging-free sales.

RFID-enabled monitoring of inventory, automatic reordering of stock, and real-time data on flow of goods, improves the supply-chain efficiency and operational convenience.
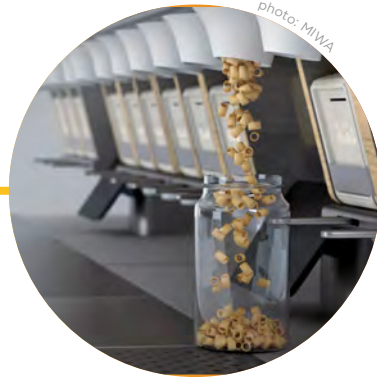
More info on page 50

photo: Loop

Loop
Pilots • N.E. US, France, UK

Loop is an online and physical store shopping facility developed by TerraCycle that features redesigned products from brandowners such as P&G, Nestlé, PepsiCo, Unilever, as well as start-ups, in superior reusable packaging. All packaging is picked up, cleaned, and refilled.

More info on page 56

The Wally Shop
Start-up • NYC

Provides a shopping service and home delivery of bulk and farmers' market products, all in reusable packaging secured with deposits.

Universal, no-branded packaging is used across different bulk shops and farmers to optimise packaging operations.

More info on page 58

photo: The Wally Shop

			COMPACT PRODUCTS	SUPERIOR DESIGN	CUSTOMI-SATION	SMART SYSTEMS	SHARED DESIGN	DEPOSIT & REWARD
REFILL ON THE GO	**Algramõ 1.0** vending machine for basic commodities	2,000+ stores, 350,000+ customers • Chile			🙂			💲
	Carrefour Bio "Bulk Wall" piloting bulk sales in a traditional grocery shopping setting	Pilot • France			🙂			
	MIWA a complete business ecosystem for smart-powered reusable packaging	Pilots during 2019 • Prague			🙂	📶	✴	💲
	Waitrose "Unpacked" store trial with bulk sales, bring your own and refill stations for detergent and wine/beer	Pilot • UK			🙂			💲
RETURN FROM HOME	**ALLGoods** bike delivery of bulk shopping in reusable packaging	Start-up • Copenhagen			🙂		✴	
	Loop (e-commerce) products in premium reusable packaging with home delivery service	Pilots • N.E. US, France, UK	🎖					💲
	The Wally Shop last-mile delivery infrastructure to make zero-waste shopping convenient	Start-up • NYC			🙂		✴	💲
RETURN ON THE GO	**Loop (in store)** products in premium reusable packaging sold in traditional supermarkets	Pilots • N.E. US, France, UK	🎖					💲

28

29

HOME CARE

photo: Blueland

Blueland
Start-up • US

Detergent delivered as tablets to be mixed with water in a reusable spray bottle to make the final product.

One tablet, weighing just a couple of grams makes more than half a litre of detergent which significantly reduces shipping and packaging costs.

PRESS   FILL
photo: Replenish

Replenish
250,000 users • Worldwide

Refillable spray bottle with cleaning products in concentrate format bought separately in pods. Attach the pod, add water and the cleaning product is ready to use. One refill pod makes six bottles.

Packaging system can be pooled across brands.

photo: Algramõ

Algramõ 2.0
Pilot • Chile

Electric tricycles with smart-powered dispensing machines allow users to dispense Unilever and Nestlé home care favourites on their doorstep.

Customer loyalty rewards are managed in an app that stores data on product preferences and allows for cashless payment.

Hepi Circle
Pilot • Indonesia

Household goods like detergent sold in small-format reusable bottles to replace single-use sachets.

Every time a customer returns a Hepi Circle bottle they receive a Hepi point that can be used towards purchasing new products in reusable packaging or food.

photo: Hepi Circle

			COMPACT PRODUCTS	SUPERIOR DESIGN	CUSTOMI-SATION	SMART SYSTEMS	SHARED DESIGN	DEPOSIT & REWARD
REFILL AT HOME	**Blueland** detergent delivered in concentrate tablet format in compostable paper	Start-up • US	●	●				
	Dazz cleaning products in concentrate tablet format	Available at Amazon and Walmart • US	●					
	Replenish system for concentrate cleaning products in pods that attach to reuse spray bottles	250,000+ users on Replenish platform • Worldwide	●	●			●	
	Splosh cleaning products in concentrate format	Start-up • UK	●					
REFILL ON THE GO	**Algramõ 2.0** refill dispenser system mounted on electric tricycles with smart cashless distribution and payment system	Pilot • Chile			●	●		●
	Ecopod vending machines for retail and residential properties that dispense cleaning products into reusable containers	Start-up • US			●		●	
	Ecover refill machine with barcode printer and auto-refilling	Pilot • UK			●	●		●
RETURN ON THE GO	**Hepi Circle** detergent and other household goods in small-format reusable bottles	Pilot • Indonesia					●	●

PERSONAL CARE

photo: by Humankind

by Humankind
Start-up • US

by Humankind provides personal care products, which have been reinvented in a way that reduces the need for single-use plastic e.g. mouthwash in tablet form.

First purchase comes with a durable packaging with subsequent refills on subscription.

More info on page 40

All Things Hair Refillery
Pilot • Manila

Users can refill their empty shampoo and conditioner bottles in selected shopping malls for Unilever top-selling brands such as Dove, Sunsilk, and TRESemmé.

Users can dispense as much as they like and pay per gram.

photo: Unilever

Signal toothpaste tabs
Pilot • N.E, US, France, UK

Signal (Unilever) is supplying toothpaste in tablet format in a reusable jar that replaces the standard single-use non-recyclable tube.

Tablets can be purchased online with home delivery and auto-replenishment through the Loop platform.

More info on page 56

photo: Unilever

CoZie
335 points of sale • France

Cosmetic products, such as creams and lotions, dispensed in desired quantities in stores.

Customers acquire credits to refill containers with their next CoZie product when returning empty containers.

More info on page 62

photo: CoZie

			COMPACT PRODUCTS	SUPERIOR DESIGN	CUSTOMI-SATION	SMART SYSTEMS	SHARED DESIGN	DEPOSIT & REWARD
REFILL AT HOME	**Bite** toothpaste tablets delivered on subscription	Start-up • US, Australia, Canada	◻	✿				
	by Humankind mouthwash tablets delivered on subscription	Start-up • US	◻	✿				
	Replenish hand soap concentrate in pods that attach to reuse pump bottles	250,000+ users on Replenish platform • Worldwide	◻	✿			✜	
	Splosh shower gel and hand soap in concentrate format	Start-up • UK	◻					
REFILL ON THE GO	**All Things Hair Refillery** cost-attractive refill stations for Unilever top-selling hair products	Pilot • Manila			☺			
RETURN FROM HOME	**Signal toothpaste tabs** toothpaste tablets in a reusable jar with auto-replenishment service	Pilot • N.E, US, France, UK	◻	✿				💲
RETURN ON THE GO	**CoZie** bulk dispensing machine for cosmetic products	335 points of sale • France		✿	☺	📶		💲
	Plaine Products personal care products delivered in returnable, reusable aluminium bottles	20,000 users • US, Canada		✿				

TAKEAWAY AND READY MEALS

photo: DabbaDrop

DabbaDrop
Start-up • London

Subscription service for ready-made meals delivered to the doorstep in Indian-style, reusable tiffin boxes.

Boxes are swapped for new ones every time a meal is delivered.

More info on page 52

photo: vanilla bean

vanilla bean
Pilot late 2019 • Berlin

Digital platform with 300,000 users to test reusable serveware.

Users order through the restaurant guide. Food is delivered in reusable containers and previous containers are collected and returned to any of the participating restaurants. All packaging is tracked with QR.

photo: Fresh Bowl

Fresh Bowl
Pilot • NYC

Vending machine serving fresh meals stocked daily and sold in reusable glass jars.

The glass jars can be returned to the machine for a USD 2 credit towards next purchase.

To be integrated with the loop platform

photo: reCircle

reBOX
500+ participating vendors • Switzerland

Reusable packaging for on-the-go takeaway food.

Users receive takeaway food in a reBOX reusable container and then drops their empty off at any participating vendor.

		COMPACT PRODUCTS	SUPERIOR DESIGN	CUSTOMI-SATION	SMART SYSTEMS	SHARED DESIGN	DEPOSIT & REWARD
RETURN FROM HOME	**DabbaDrop** subscription service for ready-made meals delivered to the doorstep in reusable tiffin boxes — **Start-up • UK**		🎖				
	Dabbawala century-old lunch delivery service to offices in reusable tiffin boxes — **200,000+ deliveries per day • Mumbai**		🎖			●	●
	Deliveround takeout delivery food in reusable packaging — **Pilot • Belgium**					●	●
	Sharepack reusable packaging solution for meals ordered through online platforms — **Start-up • Amsterdam**					●	●
	vanilla bean digital platform for takeaway food to test reusable serveware — **Pilot late 2019 • Berlin**				📶	●	●
RETURN ON THE GO	**Fresh Bowl** vending machine serving fresh meals stocked daily and sold in reusable glass jars — **Pilot • NYC**						●
	GO Box reusable takeaway packaging-as-a-service — **Start-up • Portland**					●	●
	Less Mess reusable tableware for events — **Start-up • UK**					●	●
	Ozarka reusable takeaway packaging-as-a-service — **Start-up • Amsterdam**					●	●
	Ozzi reusable serveware for the food service industry with smart drop-off stations — **Implemented at 50+ campuses, hospitals etc. • US**				📶	●	●
	reBOX reusable serveware for on-the-go takeaway food — **500+ participating vendors • Switzerland**		🎖			●	●
	RETURNR reusable takeaway packaging for café/lunch food — **Start-up • Melbourne**					●	●

photo: Liviri

Liviri
Start-up • US

Reusable boxes with enhanced design for delivery of fresh food online orders.

Ideal for meal kit deliveries, fresh food, and perishables.

More info on page 54

photo: LimeLoop

LimeLoop
20,000+ round-trip shipments • US

Reusable packaging for web store orders with integrated tracking system.

Tracking and mobile app allow web stores to gather valuable customer insights.
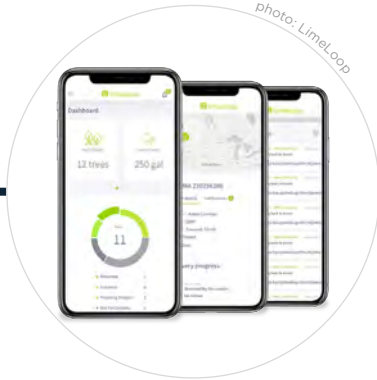
More info on page 66

photo: RePack

RePack
50+ e-retailers, 50,000 end-users • Worldwide

Packaging service for online retailers and shoppers, whereby delivery packages can be conveniently and easily returned, and then reused.

Customer return is incentivised through discounts on next order in web store.

More info on page 70

photo: Swedish Return System

Swedish Return System
1,500+ participating businesses • Sweden

System of reusable pallets and crates for grocery distribution.

The standardised packaging creates a better flow of goods and enhances efficiency throughout the supply chain (e.g. a medium store saves 160 man hours/year).

More info on page 74

		COMPACT PRODUCTS	SUPERIOR DESIGN	CUSTOMI-SATION	SMART SYSTEMS	SHARED DESIGN	DEPOSIT & REWARD
RETURN FROM HOME	**Liviri** reusable boxes for home delivery of fresh food online orders — **Start-up** • US		✓			✓	✓
RETURN ON THE GO	**LimeLoop** reusable packaging for web store orders with an integrated tracking system — **20,000+ round-trip shipments** • US		✓		✓	✓	
	RePack reusable packaging for web store orders with deposit reward mechanism — **50+ e-retailers, 50,000 end-users** • Worldwide		✓		✓	✓	✓
	Returnity custom-designed durable shipping bags and boxes for e-commerce — **Start-up** • US		✓				
B2B[1]	**Brambles** supply chain packaging-as-a-service — **500 million pallets, crates, and containers** • Worldwide					✓	
	Euro Pool Group supply chain packaging-as-a-service — **For 2017 over 83 million pallet movements and 1 billion tray movements in retail** • Europe					✓	
	Kegstar reusable shared trackable keg service for breweries — **Scaled** • Worldwide		✓		✓	✓	✓
	Swedish Return System system of reusable pallets and crates for B2B grocery distribution — **1,500+ participating businesses** • Sweden		✓			✓	✓

1   There are plenty of other examples of reusable B2B packaging systems. For more see The New Plastics Economy: catalysing action (2017) report.

Appendix: case studies

by Humankind

What it is
Personal care products that reduce the need for single-use packaging

Scale
Start-up | US

How it works
by Humankind provides personal care products, which have been reinvented to reduce the need for single-use packaging. One of the products is a tablet mouthwash which the user puts into a glass of water to dissolve and use as regular mouthwash.

For the first purchases on the by Humankind webshop, products are delivered in refillable luxurious packaging designed to be kept for a lifetime. Refills e.g. for deodorant or mouthwash tablets are delivered in compostable packaging at the subscribers preferred frequency.

Benefits

COMPACT PRODUCTS
Mouthwash is supplied as a compact tablet format and shampoo in solid bars to reduce packaging and transportation costs.

SUPERIOR DESIGN
All personal care containers are designed in durable plastic with increased aesthetics to stay with the user for a lifetime.

+
Users subscribing to by Humankind deodorant, shampoo and mouthwash refills save, on average, 5 lbs of single-use plastic within the first year of use.

photo: by Humankind

Replenish

What it is
A customisable bottling platform for concentrates

Scale
250,000 users on the Replenish platform • Worldwide

How it works
Replenish has developed a reusable, durable spray bottle that attaches to pods with liquid concentrates, e.g. for cleaning and personal care. The user screws the pod to the base of the spray bottle and pushes down to release the concentrate to the fill line on a built-in measuring cup. Water is added to the top of the bottle and the product is ready to use.

Replenish has launched Clean Revolution – a brand created for Amazon that uses Replenish bottling technology and cleaning formulations. The Replenish bottling platform can be adapted to different product offerings, allowing companies to white label under their own brand without any development costs and get to market faster with a complete reusable, concentrate-based solution.

Benefits

COMPACT PRODUCTS
1 pod makes 6 bottles – cutting the volume of plastic packaging by 90% and reducing transport costs.

SHARED DESIGN
The Replenish system can power a vast array of different consumer products and work across brands to possibly reduce transport costs and shelf spaces for brandowners and retailers.

SUPERIOR DESIGN
Durable spray bottle that can be customised to personal preferences.

Users can save up to 15% if they sign up for auto-delivery of refill pods for Amazon Clean Revolution products.

photo: Replenish

SodaStream

What it is
Home appliance that makes sparkling water

Scale
12–13 million households • Worldwide

How it works
SodaStream allows customers to make sparkling water at home in reusable bottles. Flavours can be added as desired to make a range of fizzy beverages.

Customers make a one-time purchase of the SodaStream appliance including special reusable bottles. The recurring purchase of compressed CO_2 in returnable cylinders happens either in store or by ordering online. For the in-store purchase, which is the most common mode of exchanging the CO_2 cylinders, customers bring back empties and receive a discount on their next purchase. For the online purchase, a GBP 10 deposit is paid for the delivery of filled gas cylinders and return labels, and customers ship back empties in exchange for the deposit.

SodaStream was bought by PepsiCo for USD 3.2 billion in 2018.

Benefits

COMPACT PRODUCTS — The system eliminates the need to buy water in store, saves space in the fridge, and avoids half full bottles of flat sparkling water being discarded.

CUSTOMISATION — The in-home appliance allows customers to make fresh sparkling water on the spot in the desired quantity and flavour.

+ Having a device at home ensures brand loyalty.

+ One SodaStream bottle can help the average family reduce more than 3,700 bottles and cans from our planet.

photo: PepsiCo

Algramõ 2.0

What it is
Intelligent dispensing system on wheels

Scale
Pilot • Chile

How it works
In partnership with Unilever and Nestlé, Algramõ is transforming their Algramõ 1.0 in-store vending machines into smart-powered mobile electric tricycles that deliver directly to users' doorsteps. Users buy reusable containers and create an online account, which manages credits for refilling and stores rewards for reusing packaging that can be recouped from the dispensing machines. Users can arrange the visit of a tricycle via the Algramõ app, available on Android and Apple, free of charge.

The first pilot will offer refill options for Unilever Omo and Quix homecare products and Nestlé Purina pet food. Algramõ is open to adding new brands to the system, and adapting the technology to suit established stores such as warehouses, mini-markets, and supermarkets.

Benefits

CUSTOMISATION — Customers dispense the desired amount and pay per weight.

SMART SYSTEMS — App platform and intelligent packaging enables customer insights, easy payment, and tracking of credits.

DEPOSIT AND REWARD — $ — After end-use, customers can return Algramõ containers and receive credits in the app towards their next purchase.

+ — The mobile dispensing system offers a cost-effective and convenient refill alternative to the single-use sachets.

photo: Algramõ

DASANI PureFill

What it is
Self-serve water station with flavours and bubbles

Scale
Pilots • US

How it works
Tapping into the growing popularity of reusable water bottles and water fountains, Coca-Cola has developed a vending machine for water refills with the option of adding flavours and/or carbonation for a small fee.

The machine is built using existing Coca-Cola technology for dispensing, chilling and bag-in-box flavours combined with a user-friendly touch screen and a custom-built smartphone app for tracking DASANI PureFill locations and cashless payment.

After an initial pilot on the Georgia Institue of Technology campus in 2017, DASANI PureFill stations are now in the process of being rolled out to several other university campuses, schools, hospitals and at-work locations.

Benefits

CUSTOMISATION
Users can tap filtered water as preferred with the option of adding carbonation and flavour.

SMART SYSTEMS
The app, combined with the digital interface of the vending machine, allows users to easily locate water refill stations and track their water intake, which also gives Coca-Cola insights on customer hydration habits and preferences.

COMPACT PRODUCTS
Machines equipped with flavours in concentrate bags reduce product volume during shipping to save packaging and fuel costs.

photo: The Coca-Cola Company

MIWA

What it is
Complete business ecosystem for smart-powered reuse packaging

Scale
Pilots during 2019 • Prague

How it works
The MIWA concept is based on two reuse loops – delivery and consumer. Within the delivery loop, MIWA provides standardised, smart-powered reusable capsules to producers who fill the capsules and send these through the supply chain for direct instalment at retailers. The reusable capsules work in tandem with intelligent dispensing equipment, which ensures high product safety of in-store dispensing and facilitates the collection of product tracking information. Empty capsules are shipped back to MIWA for cleaning and redistribution to producers.

The reuse system for the customer loop is currently under development. One option is that products are dispensed into reusable packaging that customers bring to the store.

Benefits

CUSTOMISATION
Customers buy what they need which provides a more autonomous user experience.

SHARED DESIGN
The standardised capsules allows brandowners to outsource cleaning to MIWA while reducing packaging and the cost of logistics.

SMART SYSTEMS
RFID/NFC tags and readers, an information system, and a shopping app ensure all participants get the information they need about products while enabling full control over the flow of packaging and materials.

DEPOSIT AND REWARD
Deposits on all packaging provide a higher likelihood of retailers, brands, and customers adhering to the MIWA concept.

Enables large retailers to offer a shopping experience based on reusable packaging while maintaining the required hygiene and product safety standards.

photo: MIWA

DabbaDrop

What it is
Ready-made meal service using reusable packaging

Scale
Start-up • London

How it works
DabbaDrop is inspired by the century-old lunch delivery and return system in Mumbai, where more than 200,000 meals are delivered each day in tiffin boxes, which are then collected, washed, and returned empty to households and restaurants in the evening. Similarly, DabbaDrop transports ready-made meals to the doorstep in reusable packaging, according to the original Indian tiffin box design.

Users subscribe to receive a DabbaDrop either once or twice a month. A one-time GBP 15 fee for the DabbaDrop container is added to the first purchase. At the next delivery, the empty container is picked up, washed, and reused by DabbaDrop. Deliveries and pickups are carried out by bike, and charged at a flat rate of GBP 3 per drop.

Benefits

SUPERIOR DESIGN

Indian-designed tiffin box allows for easy stacking of multiple boxes and separation of dishes. Boxes can go directly on the table or in the oven for reheating.

+ Continuous user engagement and retention through subscription service.

photo: DabbaDrop

Liviri

What it is
Enhanced design for reusable cold-shipping box

Scale
Start-up • US

How it works
Liviri has optimised and engineered reusable shipping boxes to keep meal kits and perishable items in ideal conditions. Insulation is built into the package, and reusable ice packs are returned with the package.

The operation runs on two models, either a company buys the boxes and handles the logistics themselves (e.g. picks up the previous box with the next meal delivery) or customers send the boxes back to Liviri, via a return shipping label, where they are cleaned and then redistributed.

Benefits

SUPERIOR DESIGN
Superior functionality of the box through built-in insulation, movable barriers, and the ability to keep different sections at different temperatures means that each food product is delivered in an optimal condition. It gives a better user experience and prevents food waste. In addition, the boxes are easily stackable which saves space in warehouses and distribution centres.

SHARED DESIGN
Shared packaging solution for all cold-shipping boxes saving each business from needing to develop their own.

DEPOSIT AND REWARD
Deposit incentivises return of the box.

photo: Liviri

Loop

What it is
Service providing superior reusable packaging for major brands

Scale
Pilot • N.E. US, France, and UK

How it works
Loop is an online and physical store shopping facility developed by TerraCycle that features products in premium reusable packaging from well-known brandowners such as P&G, Nestlé, PepsiCo, Unilever, etc. The Loop platform streamlines returns for the user by offering delivery and pickup of products and empty packaging, and removes hassle for the brandowner by taking care of reverse logistics, cleaning, sanitation, and redistribution.

Products can only appear on the Loop platform if they are reusable and can be recycled into the same products at their end-of-life. The Loop membership fee for brands is determined by the durability, washability, and LCA of the packaging. Packaging that is difficult to clean incurs a higher cost per cycle than easy-to-wash packaging.

Loop is to be piloted online in 2019 based on the RETURN FROM HOME model and in physical stores in collaboration with a range of retailers using the RETURN ON THE GO model.

Benefits

All products come in high-quality, durable packaging that improves the user experience.

All packaging is secured by a deposit that incentivises return or creates a revenue stream if packaging is not returned.

Subscription and pick-up services create brand loyalty and provide information about user needs.

photo: Loop

The Wally Shop

What it is
A last-mile delivery infrastructure to make zero-waste shopping convenient and accessible

Scale
Start-up • NYC

How it works
Customers order local, organic groceries and products online through The Wally Shop. The service's shoppers/couriers visit farmers' markets and bulk shops to acquire fresh produce and other household essentials, which are delivered on the same day directly to the customer, all via bicycle. Empty packaging is picked up on a subsequent delivery, and The Wally Shop cleans and reuses the packaging.

There are no price markups, so customers pay exactly the same price as in store. Service and delivery fees are added to underpin operations.

Benefits

CUSTOMISATION
Customers can choose their preferred quantity of fresh goods on the website.

SHARED DESIGN
Universal, no-branded packaging is used across different bulk shops and farmers to optimise packaging operations.

DEPOSIT AND REWARD
Customers can recoup a USD 1 deposit on each packaging item that is returned at the next delivery.

Farm-to-fork principle: all fresh produce is organic, Fairtrade, and/or sourced locally within a 250-mile radius.

photo: the Wally Shop

Coca-Cola Brazil

What it is
Universal reusable packaging across Coca-Cola brands

Scale
7% by volume of Coca-Cola products sold in Latin America • Latin America

How it works
In 2018, soda brands across Coca-Cola Brazil invested USD 25 million in unifying the design of their reusable PET bottles and USD 400 million in expanding their reuse infrastructure (bottle cleaning and refilling facilities) as part of their aspiration to significantly scale up their reusable packaging by 2030.

Customers pay an indirect deposit when purchasing soda in a refillable bottle by receiving a discount on their next purchase when they return the empty bottle to the store. This reward system ensures a high return rate of above 90%. Retailers store the empty bottles and give them back to Coca-Cola upon delivery of a new order. Coca-Cola brings the multi-branded mix of bottles back to a bottling facility where paper labels are washed off and bottles are cleaned, refilled, and rebranded with a fresh label.

The universal bottle initiative is a part of a greater strategy for Coca Cola Latin America to increase the share of reusable packaging (both glass and PET) which today represents 27% of sales.

Benefits

DEPOSIT AND REWARD — Discount on subsequent purchases incentivises return and creates a strong attachment to the brand and high likelihood of repurchase.

SHARED DESIGN — Creating a universal bottle design across all brands significantly reduces washing, filling, and cost of reverse logistics, while at the same time lowering carbon emissions.

+ — The reusable model replaces 200 million single-use bottles per year in Brazil and was Coca-Cola's fastest growing packaging format in 2018 in Latin America.

photo: The Coca-Cola Company

CoZie

What it is
Bulk dispensing machine for cosmetic products

Scale
335 points of sale | France

How it works
CoZie has developed a bulk dispensing machine for cosmetic products such as moisturisers and face creams that allows users to stock up to the nearest ml. The special design of the dispensing system stocks the cosmetic products in airless bags to maintain the product shelf life, and prevents contact between the formulas and the machine.

For the first purchase, users pay EUR 1.5 per container. The same amount is deducted from the user's next purchase when bringing back empty containers to a store selling CoZie cosmetics. CoZie takes care of washing all containers centrally and redistributes to vendors.

Until now, CoZie has only been using the technology for the company's own formulas, but external brands for shampoo and shower gel will be added in England this year.

Benefits

CUSTOMISATION
CoZie's dispensing technology allows customers to fill cosmetic products to the ml desired.

DEPOSIT AND REWARD
Customers receive discounts on refills of CoZie products when returning empty containers to CoZie. This indirect deposit structure creates brand loyalty and keeps customers coming back.

SMART SYSTEMS
The online dispensing system ensures traceability and enables automatically generated print-out labels with product name, date and batch number.

SUPERIOR DESIGN
All products come in high-quality, durable glass containers.

The dispensing system is designed to meet strict specifications for hygiene and traceability of cosmetic products.

photo: CoZie

Hepi Circle

What it is
Small-format reusable bottles for household goods

Scale
Pilot • Indonesia

How it works
With the aim of replacing hard-to-recycle sachets, Hepi Circle allows users to purchase small quantities of household products in reusable bottles.

Customers purchase a small refillable bottle with a household product (e.g. detergent) from Hepi Circle through a warung (local family-owned convenience store). Once they have used the product, the empty bottle is exchanged at the warung for the purchase of a full bottle. The empty bottle is cleaned and refilled at a central location, and then redistributed to the warungs, by bike, ready for the next customer.

Benefits

SHARED DESIGN
The same bottle is used across all warungs and products, facilitating scale, increasing efficiency, and reducing costs.

DEPOSIT AND REWARD
Every time a customer purchases through Hepi Circle they receive a Hepi point that can be used towards purchasing a range of products in reusable packaging or food.

+ Employment for local women in charge of the redistribution.

photo: Hepi Circle

LimeLoop

What it is
Reusable packaging for web store orders with an integrated tracking system

Scale
20,000+ round-trip shipments to date • US

How it works
LimeLoop rents out their smart shippers through a subscription service to web stores. Web stores deliver orders to customers in LimeLoop smart and returnable shippers. Upon receipt of the smart shipper, customers use a prepaid shipping label to return the shipper back to the nearest warehouse via UPS, enabling shippers to be reused for a new shipment.

To complement the shipper experience, the web stores, fulfilment centres, and end-customers can use an app to further engage with the shippers, simplify logistics, and gather data about the shipper journey. An upcoming next generation of shippers will allow down-to-the-minute location tracking, consumer-engagement monitoring, and streamlined logistics management.

Benefits

SUPERIOR DESIGN
Durable, lightweight, and waterproof smart shippers are made to fit standard mailbox slots, produced from recycled materials, feature secure zip closures, and can last more than 200 loops.

SMART SYSTEMS
Smart shippers are chipped and paired with a software platform to allow web stores to geolocate the shippers, gain feedback on the customer experience, and track accumulated environmental savings.

SHARED DESIGN
Universal shipper and outsourcing of reverse logistics lowers costs and limits hassle for online shop owners.

photo: LimeLoop

RECUP

What it is
Shared coffee cup scheme with user platform

Scale
2,500+ participating stores • Germany

How it works
RECUP offers a reuse scheme to cafés and coffee chains in Germany. Coffee drinkers pay a deposit when opting for the reusable cup and can return the empty cup to any RECUP partner in exchange for their original deposit. RECUP partners pay a membership service fee to finance the operation of the deposit scheme and have access to a mobile app. Partners pay a 1 EUR deposit per cup and can choose as many cups as desired. By transferring the deposit to coffee drinkers, businesses save money through replacing disposable cups with RECUPs. All RECUP partners are required to clean and reuse the cups returned to them.

RECUP is currently expanding the system by testing it with partners, such as McDonalds and Deutsche Bahn.

Benefits

SHARED DESIGN — Universal, no-branded cup design enables the pooling of cleaning logistics and optimises distribution among cafés, restaurants, and coffee chains.

DEPOSIT AND REWARD $ — User drop-off made easy with app showing all possible drop-off locations to retrieve 1 EUR deposit. The scheme is low risk for retail partners as cups remain the property of RECUP and deposits are paid back to retail partners when cups are returned at end-of-life.

+ — The durable cups are designed to be used up to 1,000 times.

photo: RECUP

RePack

What it is
Reuse shippers for web stores with deposit reward mechanism

Scale
Used by 50+ e-retailers, 50,000 end-users • Worldwide

How it works
RePack provides packaging-as-a-service for online retailers and web stores of known brands such as Filippa K, Ganni, Mud Jeans, etc.

When customers order from the web store they can opt for RePack's alternative reuse packaging. The order is then delivered to the customer in a RePack shipper with a prepaid return label. Subsequently, customers send the shipper back to RePack for a central quality check and redistribution.

Each shipper has a unique barcode that ensures individual shippers can be identified and linked to a specific shipment. This enables a reward for customers to be triggered when sending back the RePack.

Benefits

SHARED DESIGN
Shared packaging across e-retailers and outsourcing of the reverse logistics lowers cost and limits hassle for online shop owners.

SUPERIOR DESIGN
All products come in high-quality, waterproof, durable packaging that enables safe delivery and minimises the chance of damage.

DEPOSIT AND REWARD
Customers receive discount vouchers for a selection of participating stores when shipping back the RePack. This indirect deposit structure creates brand loyalty and increases customer retention.

SMART SYSTEMS
Each shipper has a unique barcode to track cycles and control deposit accounting.

photo: RePack

revolv

What it is
Smart-enabled reusable to go cups

Scale
Start-up • Bali, Singapore, Hong Kong

How it works
When ordering food or beverages to go, customers can opt for a reusable revolv cup. A deposit is placed on the cup, which will be paid back upon return at a drop-off station or to any participating café. Revolv provides users with incentives, including discounts, to opt for a revolv cup.

Revolv offers several modes of operation. The city-wide reusable systems work across cafés and larger chains, and rely on dedicated services for the pickup of cups from drop-off points, centralised cleaning stations, and redistribution. Closed-loop systems for festivals/events, corporate office buildings, and campuses utilise on-site cleaning facilities.

Benefits

SUPERIOR DESIGN
Cups are designed for a better drinking experience, increased stability, insulation, and easy stacking.

SHARED DESIGN
Revolv acts as a third-party supplier of software, packaging, and logistics, utilising local latent infrastructure (washing and distribution services) to optimise operations.

SMART SYSTEMS
Embedded RFID chips in all revolv cups and smart return stations automatically recognise users when cups are returned.

DEPOSIT AND REWARD
Mobile app gives users an overview of the nearest drop-off stations, acquired credits, and environmental savings to keep users engaged in the system.

photo: revolv

Swedish Return System

What it is
System of reusable pallets and crates for grocery distribution

Scale
1,500+ participating businesses • Sweden

How it works
Swedish Return System delivers reusable crates and pallets to the producer. The reusable units are filled and delivered to the wholesaler and then on to the retail outlet. The retailer empties the crates and pallets of goods, and returns them to the wholesaler. Swedish Return System then takes back the reusable crates and pallets for quality control and washing, after which they are ready to be used again.

Swedish Return System is a business-driven EPR model jointly owned by the Trade Association for Grocery of Sweden (SvHD) (50%) and the Swedish Food & Drinks Retailers Association (DLF) (50%). It has been operating since 1997 and is currently enabling reuse crates to be used for half of all fresh food deliveries in Sweden.

Benefits

SUPERIOR DESIGN — Crates are vented, do not attract moisture, and protect primary packaging to reduce product damage during transport.

SHARED DESIGN — Standardised design means producers and retailers know the exact measurements of crates and can calibrate packing systems accordingly.

DEPOSIT AND REWARD — Customers pay a user fee and deposit for crates and half-sized pallets, and a daily rent and user fee for full-sized pallets.

+ Optimised return logistics and lower transportation costs due to lightweight pallets weighing 10 kg less than a Euro-pallet.

+ Reusable crates reduce CO_2-equivalent emissions by 74% compared to similar disposable cardboard packaging.

+ Crates have a lifetime of 15 years. When worn out, the crates are recycled and used in the production of new crates.

photo: Swedish Return System

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Albéa

Algramõ

Bio-D

Blueland

Bockatech

Borealis

by Humankind

Colgate Palmolive

CoZie

CupClub

DabbaDrop

Danone

Drinkfill

Ecopod

Enviu

Fresh Bowl

Globelet

GoBOX

Hepi Circle

LimeLoop

Liviri

Loop

Meu Copo Eco

MIWA

Nestlé

Ozarka

PepsiCo

Plaine Products

PR3

ReCircle

RECUP

Recycling Netwerk Benelux

Refill, City to Sea

RePack

Replenish

revolv

Splosh

Swedish Return System

SYSTEMIQ

The Coca-Cola Company

The Reusable Packaging Association

The Wally Shop

Think Beyond Plastic

Tonic

Turny

Unilever

vanilla bean

Whirlpool

World Economic Forum

WRAP

Ellen MacArthur Foundation project team

Lead Authors

Annette Lendal, Senior Research Analyst

Sara Lindeblad Wingstrand, Project Manager

Contributors

Rob Opsomer, Systemic initiatives Lead

Sander Defruyt, New Plastics Economy Lead

Mats Linder, External Consultant

Leela Dilkes-Hoffman, Intern

Design

Sarah Churchill-Slough, Design & Branding Manager

Matthew Barber, Design Assistant

Piers Young, Multimedia Designer

Editorial

Ian Banks, Editorial Lead

Ross Findon, Media and Social Media Manager

About the Ellen MacArthur Foundation

Core Philanthropic Partners

Global Partners

The Ellen MacArthur Foundation was launched in 2010 with the aim of accelerating the transition to the circular economy. Since its creation, the charity has emerged as a global thought leader, putting the circular economy on the agenda of decision-makers around the world. The charity's work focuses on seven key areas: insight and analysis; business; institutions, governments, and cities; systemic initiatives; circular design; learning; and communications. With its Knowledge Partners (Arup, Dragon Rouge, IDEO, and SYSTEMIQ), the Foundation works to quantify the economic opportunity of a more circular model and to develop approaches for capturing its value. The Foundation collaborates with its Global Partners and its CE100 network (businesses, universities, emerging innovators, governments, cities, affiliate organisations), to build capacity, explore collaboration opportunities and to develop circular business initiatives.

Further information:
ellenmacarthurfoundation.org • @circulareconomy

About the New Plastics Economy Initiative

Lead Philanthropic Partner

Philanthropic Funders

Core Partners

Over the past four years, the Ellen MacArthur Foundation's New Plastics Economy initiative has rallied businesses and governments behind a positive vision of a circular economy for plastics. Its 2016 and 2017 New Plastics Economy reports captured worldwide headlines, revealing the financial and environmental costs of waste plastic and pollution. In the last year it has brought together 15 leading companies committed to work towards 100% reusable, recyclable, or compostable plastic packaging by 2025. The Global Commitment takes this work to the next level – creating a global coalition of leaders with the power to prevent plastic pollution at the source.

Furter information:
newplasticseconomy.org • @newplasticsecon