

Re-usable Packaging Research

Research into reusables has identified many schemes working in the takeaway food and drink sector. A common feature of the schemes is that they are dependent on the use of unique cups or containers - this maintains the integrity of the scheme where containers can be exchanged.

Characteristically, schemes are restricted to a limited product range maintaining the simplicity of the scheme and avoiding different deposit charges for different products.

The below research covers cups and containers, and the four main ways these are managed:

- Deposit schemes
- App membership schemes
- Serviced reusables, where cleaning and return is included in the scheme
- Direct sales

Cup deposit scheme

Tailored to the takeaway hot drink market, cup deposit schemes seek to address the challenge of single use cups by providing a reusable alternative where the cup can be washed and reused. To provide user convenience once a drink is finished, the cup can be returned at any participating outlet. The consumer simply pays an extra euro/ pound for the cup and then receives a refund when it is returned.

Outlets similarly pay the deposit value of each cup along with a joining fee and monthly service charge to the scheme administrator who retains ownership and replaces cups when they are worn or damaged. A benefit for retail outlets is the footfall of consumers with empty cups that creates the potential for additional sales.



2goCup1

Country - Ireland / UK

Number of outlets - circa 125

Years of operation - 2

The cup is made of polypropylene with a silicon band for heat protection and a slip in lid again with silicon insert for fit. With an estimated 3-year life the cup is ultimately recyclable although care is required to ensure the silicon is appropriately managed.

RECUP²

Country - Germany

Number of outlets - More than 4,700

(Shell is a major partner and pilots are running in both McDonalds and Starbucks)

Years of operation - 4

The cup is made of polypropylene and evaluated as dishwasher safe for at least 500 washes - light colour



¹ 2GoCup Available at: https://www.2gocup.ie/

² RECUP Available at https://recup.de/



supports inspection on return. Used across Germany there are several levels of customisation - cup colour, cup size, lid colour, city - through printing name and streetscape.

Cup app membership scheme

Cup app schemes do not require the consumer to pay a deposit - instead, before first using the scheme the consumer logs onto an app which holds their credit details.

On ordering a reusable cup, the user is matched to a unique cup ID (generally through RFID or QR code technology). When a cup is returned, the code is scanned again and removed from the users account - if a cup is not returned the user is charged for the cup. Similar to Cup deposit schemes above, retailers pay a joining and monthly service fee - like consumers they also are charged for any loss of inventory.



The cup app schemes have some identified advantages and challenges:

Advantages

- Cups can be returned to unmanned points.
- The one to one cup/ user relationship reduces the risk of theft.
- Not requiring a deposit to cover cup costs allows premium design and materials.

Challenges

- Need to use app at point of purchase (not always an easy time to be using an app).
- Submission of credit details which may limit users.

Vessel³

Country - USA

Number of outlets - 16 in Boulder and Berkley

Years of operation - 2

The cup is insulated stainless steel with a QR code.

Cups are not for purchase. Before filling the consumer scans the code & links to the app.

Lost cups are charged at \$15, lids charged at \$2.

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³ VESSEL. Available at: https://vesselworks.org/



OneCup4

Country - UK

Number of outlets - 3 universities plus festivals

Years of operation - 1

One Cup provides a tailored service where a variety of types of cup with the option for branding can be selected by the organisation.

A QR code unique to each cup is used for at point of purchase and return with the deposit managed on the app operated by One Cup who hold a £5 deposit



Serviced Reusables

The serviced reusable model can be operated either using a deposit scheme or a cup app scheme. Deposit schemes are more likely to be used in festival or arena events where there is the scale to support drop off or collection services. Cup app schemes work in urban environments where outlets are distributed and drop of points may not be resourced to support a deposit scheme. In the serviced reusable model where cups/ containers can be deposited and collected remotely from the retail outlet, the focus is on speedy collection, wash and return to use to avoid excessive inventory in the system and hygiene issues.

cupclub⁵

Country - UK

Number of outlets - unknown retail launch 2020

Years of operation - 5

Embracing "packaging as a service" the scheme provides cups and return crates supporting the full operating cycle. Cups have an embedded RFID tag which links the consumer to the cup allowing for a charge if the cup is not returned.





Country - UK

Number of Outlets - unknown

Years of operation - 7



Green Goblet Ltd

€COCUP #RefillNotLandfill



Specialising in festivals, events and sporting arenas Green Goblet offers serviced model for reuse of a broad range of cold cups as well as hot cups. Additionally, they provide a bespoke printing service for "souvenir cups" (this will reduce the likely level of reuse however).

⁴ One Cup. Available at: https://www.onecup.world/

⁵ cupclub. Available at: https://cupclub.com/

⁶ Green Goblet Ltd. Available at: http://www.green-goblet.com/products?gclid=EAIaIQobChMIkeWYr9rC6gIVCbrtCh0kLw2cEAAYASAAEgIXT D BwE



Serviced reusable vending machine scheme - only one example of this was identified where provision is for reusable cups that are compatible with vending machines.



Country - France

Number of Outlets - 50

Years of operation - 4

Cups for vending machines and water coolers. The scheme operates primarily with large office and councils. The business model is also inclusive, having partnered

with social enterprise to provide the wash facility



Cups for sale

In addition to managed schemes there are products on the market simply for sale, enabling businesses and campuses to set up their own schemes without contracting to a 3rd party. A risk for any outlet using a generic product is that cups from other sources could be used to claim a deposit - either deposit and cost prices would need to be equivalent or cups would need to be printed with outlet branding to prevent this

AMARAY8

Corretto cup

The cup is made from polypropylene with EcoCore foam wall - retaining heat and preventing scalding. It can be disposed of for recycling in council collection schemes.

It should be noted that some reusable schemes also sell their products e.g. Green Goblet and reCIRCLE - below. In the reCIRCLE model it is noteworthy that for sale products are priced higher than the deposit value - this underwrites the impact of old or damaged purchased products being replaced by returning them to the deposit scheme.

Takeaway food containers

Fewer models for reusable containers have been seen but the business models follow a similar one to cups with deposit schemes, container app schemes enabled and serviced reusables.

Deposit scheme

Like cup schemes, the obvious difference is that with larger items the deposit fee is higher, creating a bigger barrier to consumer adoption. As with the cup scheme, the deposit is paid by both retailer and consumer with the retailer paying an additional monthly administration fee. Participating retailers are required to clean, and reuse returned containers.

⁷ NEWCy. Available at: https://newcy.fr/

⁸ AMARAY. Available at: http://www.amaray.com/case-studies/corretto-cup



reCIRCLE9

Country - Switzerland

Outlets - more than 1000

Years of operation - 4

reCIRCLE is a bespoke product range designed and manufactured for reuse both by consumers and restaurants. Additionally, ReCIRCLE works with partner organisations in other countries.



App enabled / serviced scheme

The App enabled solution as in the coffee cup model is used to match the container to the consumer - returning the container to a collection point and again scanning box and location removes the relationship. The system has some dependence on honesty as remote returns could be scanned without depositing the box.

GO BOX¹⁰

Country - USA

Outlets - over 100 Portland

Years of operation - 9

Consumer subscription service where users check out and return containers based on a monthly subscription. GO BOX tracks how many containers have been delivered to a location and invoices a stocking fee.



Naked Takeaways Mold (Wales)

https://moldplasticreduction.org/join-the-reuse-revolution/

⁹ reCIRCLE. Available at https://www.reCIRCLE.ch/

¹⁰ GO BOX. Available at; https://goboxpdx.com/





Country - Wales

Outlets - 7 across Mold & Caerwys (as at 2nd March 2022)

Years of operation - since 2019

Choose reusable Naked Takeaway tiffin tins to take your food home in and say goodbye to single-use throwaway containers. Return the washed tiffin tins when you pick up your next order. Businesses in the scheme will reuse a sparkling clean set from their stock for your order, so cutting down on their use of plastic and foil single-use containers and helping to protect the environment. Choose to use Naked Takeaway containers when you place your order at a number of listed venues.

International – delivery of takeaway food

https://vlaanderen-circulair.be/en/cases/detail/deliveround

Washable cup services - International

https://www.wash-it.be/

Reusable cup services

http://www.shrewsburycup.co.uk/11

A community-led reusable cup scheme with a £1 cash deposit, operating in 30+ independent cafes across Shrewsbury.

• Staff engaging customers with the scheme is pivotal, but there's a risk of putting off

¹¹ https://issuu.com/hubbubuk/docs/bunzl reuse report bunzl a4 no cp v7?fr=sYmMwMzQ4ODM3OTk



customers through repetition, so it's important to have other routes of communication about the scheme.

- It uses a cash-based deposit system, which is good for accessibility as it doesn't require a customer-facing app or technology.
- Society is moving away from cash, so cashless cafes are less likely to join up to the system. However, having to pay merchant fees for deposit refunds by card could be problematic for smaller businesses.

https://www.reuserclub.com/our-story¹¹

A reusable cup scheme operating across independent coffee shops in East London plus corporate events and offices.

- This free-to-use system with a fee for not returning the cup, which is monitored through an app, incentivises returns without adding a cost barrier. Deposits and refunds can slow down service, which is a challenge in busy cafes.
- They're speaking with councils to offer more on-street collection points. In future, they see potential for the collection and washing for reuse systems to be gradually integrated with existing waste management systems.

Festival reuse

https://www.refill.org.uk/refill-guide-for-events/?utm_source=City+to+Sea+Supporters+Mailing+List&utm_campaign=ae11f9b7b4-July+2022+PFJ_COPY_01&utm_medium=email&utm_term=0_c6c7b3e552-ae11f9b7b4-233644321&mc_cid=ae11f9b7b4&mc_eid=39129c0e3d

Others

https://moldplasticreduction.org/join-the-reuse-revolution/