

THE FUTURE IS RETURNABLE

A blueprint for setting up and running
a successful returnable cup scheme
for hot drinks.



This guide has been created in
collaboration between City to Sea and
Circular&Co, pioneers of circular design.





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1 INTRODUCTION

This guide has been designed and created to support anyone wanting to provide an alternative solution to disposable, single-use take-away coffee cups and explore circular, returnable systems - from café owners, to community groups, university campus managers, large employers, office caterers, tourist hotspots, local authority teams and everyone in between.

The need for change has never been more urgent. The overproduction and consumption of single-use packaging is creating an environmental and humanitarian crisis. In the UK alone, we use between 2.5 billion and 5 billion disposable coffee cups every year¹. Globally, this number rises to a reported 500 billion. Shockingly, it's estimated that just 1% of these cups are recycled² and the WWF forecasts that without urgent action, by 2030 the UK will use 33% more cups than it did in 2020³. The rest enter our waste stream or worse, end up polluting our streets, rivers and oceans. Single-use take-away packaging, including items like coffee cups, are consistently some of the most commonly found polluting items on our beaches and rivers⁴. Single-use packaging takes a huge amount of energy to produce and distribute... and dispose of too. We know that we urgently need to shift from our disposable single-use culture to a more sustainable, circular future, with reuse and refill at the centre. The good news is, we already have the tools we need to change the world. A reusable future is possible. And this guide sets out a roadmap for how we can help get there.

As longtime champions of refill and reuse, City to Sea is delighted to see the recent explosion of interest and innovation in returnable systems. Over the last year, new returnable schemes have launched across the country including our own pilot of a city-wide returnable cup scheme in Bristol, the Refill Return Cup. Working in collaboration with Circular&Co. the pioneers of circular design for 20 years, we wanted to be able to share what we've learnt along the way, from our own first-hand experience, and from the brilliant schemes that are already out there, leading the way. Together, we're on a mission to make circularity accessible for everyone.

It can be a challenging space to work in, and we know no one size fits all. But we hope this guide will give some clarity on the key considerations your organisation will need to think about to maximise its impact. Our goal is to support the transition to reuse systems at scale by enabling and empowering organisations to create impactful returnable cup schemes. To help your organisation, we've highlighted practical examples to help you understand what might work best for your organisation and outlined behaviour change and marketing recommendations to support with driving first time trial and crucially, return rates.

We've spoken to more than 20 industry experts, leading reuse brands and businesses. It's a testament to the willingness of those working within this space to unite and share their experiences to progress wider industry change. We're grateful to everyone who shared their time, learnings, insights and challenges to help us make this information available to other organisations.

Ultimately, for returnable systems to scale and become normalised we need industry collaboration, with schemes operating citywide, at events and within the workplace. In the UK, sales of hot drinks in reusable cups only make up around 5% of total sales⁵ but the good news is, our recent research revealed that 77% of Brits reported being open to borrowing and returning a cup⁶. And the more people get used to reuse systems, the quicker we'll see the much-needed cultural shift away from single-use.

So, if you're ready for change, read on for everything you need to know about getting started with your returnable cup scheme – from cups, washing and logistics, to payment mechanisms and tech solutions.

Together we can power the refill and reuse revolution.

1. https://www.wwf.org.uk/sites/default/files/2018-03/WWF_Plastics_Consumption_Report_Final.pdf

2. <https://publications.parliament.uk/pa/cm201719/cmselect/cmenvaud/657/657.pdf>

3. https://www.wwf.org.uk/sites/default/files/2018-03/WWF_Plastics_Consumption_Report_Final.pdf

4. <https://www.citytosea.org.uk/top-10-single-use-plastic-items-on-seashores/>

5. <https://www.circularonline.co.uk/news/push-to-double-the-uptake-of-reusable-cups/>

6. City to Sea 2023 Consumer Research



Imagine a high street with no more single-use coffee cups - the cleanliness, the carbon savings and the millions of consumers returning to their favourite cafés every day enjoying a tasty cuppa in circular packaging that doesn't cost the earth. This guide celebrates the many players trying to make this ambition a reality. We know how tough the challenge is first-hand, which is why we're sharing this deep dive into all things returnable cup related. Thanks to the innovators, the first movers, the grassroots changemakers and the social entrepreneurs for contributing to this study and driving the circular agenda.

JANE MARTIN, HEAD OF DEVELOPMENT, CITY TO SEA



There simply isn't a need for anything to be single-use in modern society. Under the principles of a circular economy, the reuse and re-circulation of resources is key, making them cheaper and profoundly better for the environment. But for the last four years, collectively as an industry, we have not been able to move the dial past 5-6% of takeaway coffee being consumed in a reusable cup. The fact is, we need a complementary mass market, mass habit-changing, mass engagement solution. After nearly two years of returnable development, using our Circular Returnable Cup in multiple global trials, and the in-depth work carried out in this blueprint, we're now in a position to shape the future. It's roll out time!

DAN DICKER, CEO AND FOUNDER, CIRCULAR&CO.

WE'RE HERE TO HELP

Wherever you operate, Circular&Co. and City to Sea are here to help.

City to Sea works with hundreds of local community groups, councils and independent cafés to drive lasting local and national change. We have first-hand experience of running a returnable scheme, and with our award-winning Refill app, have a tech solution that could work for your organisation. [Get in touch](#) to find out more about how we can help get your returnable scheme off the ground.

If you're looking for cups, support on delivering a full service, or a signpost for data partners, washing partners and future product development of returnables, [Circular&Co.](#) is on hand with the solution that could be right for your scheme. Following years of experience in this area, and two years of extensive R&D, they launched the first specifically designed [returnable cup](#) for the commercial market in early 2023.

Get in touch with the Circular&Co. Returnable Team, who can support and guide you on the best options for your Returnable scheme. circularandco.com/get-a-quote



HOW DO THEY WORK?

Like all reuse systems, returnable cup schemes provide an alternative, circular solution to the current linear, disposable models of consumption. Unlike customers being responsible for carrying their own reusable cups, in returnable systems, the product is served in a returnable cup owned by the business. The cup is collected, washed and reused after the drink is finished. And this can be done over and over again. There are a few different ways returnable systems can work, which we'll explore in more detail as we go through the guide.

A reusable is owned by the customer.

A returnable is owned by the business and borrowed by the customer.



WHAT ARE THE BENEFITS?

For consumers

A well-designed returnable cup scheme makes it easier for consumers to avoid single-use plastic. We know that motivation to do this is currently at its highest. But despite this, most people still don't bring a reusable cup when ordering a coffee on the go. This could be due to not owning one, forgetting it, or just not having it on-hand when needed. Ultimately, carrying a personal reusable cup can be inconvenient, messy, and requires an unrealistic level of pre-planning. Returnable cup schemes remove these barriers to reducing single-use plastic.

For businesses

There are multiple reasons why switching from single-use to reuse makes economic as well as environmental sense including:

- Reducing your carbon footprint.
- Reducing waste and pollution generated by single-use cups.
- Saving money spent on single-use cups and managing waste.
- Preparing for proposed legislation changes.
- Supporting wider sustainability targets.
- Aligning with business ethos.
- Keeping customers happy.
- Staying ahead of competitors.

CASE STUDIES

WHY DID YOUR BUSINESS ADOPT A RETURNABLE CUP SCHEME?



For me, I became really conscious of branded litter. Seeing my café's single-use cups littered in the local area was a major incentive to try returnables.

**JUSTIN DUERDEN,
51 DEGREES NORTH COFFEE**



The day-to-day momentum of our operations made it quite hard to imagine the change. The huge disruption brought about by the pandemic gave us the space to imagine doing things differently and we decided that we would capitalise on this to bring about the change.

**FINN ANDRES,
MONMOUTH COFFEE COMPANY LIMITED**



We'd tried charging for single-use cups and collecting them for recycling. We'd distributed reusable cups alongside discounts for using them, but they were barely used. Returnable cups were the next step.

**LIZ RUSSELL,
WASTE, RECYCLING AND ENVIRONMENT
MANAGER, UNIVERSITY OF BATH**

LEGISLATION

Governments around the world have already imposed, or have plans to impose, legislation banning or taxing single-use items like disposable cups. In the future, it will be unlawful or simply uneconomical to offer drinks in a single-use solution.

According to Louisa Goodfellow, Policy Manager at Ecosurety, while UK reuse and refill packaging policy is still in its infancy, developing Extended Producer Responsibility (EPR) legislation shows signs that regulatory incentivisation may become more apparent in the coming years. Those

offering reusable and refillable solutions can offset their compliance costs. Alongside self-managed consumer waste, producers managing 'reusable packaging waste from an operation re-use system' could offset these tonnages in the future, and further exemptions may also be considered. Louisa also anticipates that reuse targets will be set, and policy around reusable and refillable drinks containers in Deposit Return Schemes (DRS) will be defined. New EPR regulations will allow producers to identify opportunities and commercial incentives to scale up the use of refillable and reusable packaging.



Image credit: Circular&Co. / Eden Project

WHAT DOES AN EFFECTIVE SCHEME LOOK LIKE?

- ✓ **Environmentally viable.** The environmental impact of returnables must be less than the impact of using single-use cups for the scheme to be justified. The most important aim for any returnable cup scheme is to ensure cups are being returned to the system and remain circulating within the system.
- ✓ **Convenient for users.** The popularity of single-use cups is almost entirely down to convenience. Devising a system that is convenient for the customer is crucial to participation. The challenge being that people may interpret convenience differently. Adopting an approach that is most convenient for your users is important.
- ✓ **Convenient for staff.** Designing a system that staff can support is vital to any scheme's success. Staff are effectively responsible for selling the returnable system to customers so without their buy-in the scheme will not work.
- ✓ **Cost effective.** The purchasing and disposal of single-use cups are a significant expense, especially for many outlets who rely on the take-away market. Eliminating single-use and switching to returnables can be an effective way to save money in the long term.
- ✓ **Consistent.** In the longer term we are aiming for normalisation of returnables. Behaviour change takes time. It's important for schemes to run consistently and for pilots and trials to be rolled out and delivered at scale for a longer period to truly enable the normalisation of returnables. This includes consistent communication.

MAKING IT WORK IN DIFFERENT SETTINGS

Working out how to deliver an effective scheme for your specific setting is an important first step, as there are a number of ways to set up a scheme and the context makes a huge difference when it comes to what will work best!

The more closed an environment is, the more straightforward it is to manage, and cup collection is much more achievable. In open environments, customers have the choice to participate in cup return schemes or not. They could refuse to return the cup, or simply take their custom elsewhere. Here, vendors need to work harder to shift consumer attitudes and encourage them to participate.



CASE STUDY - OPEN-LOOP



CLUBZERØ, a returnable packaging service provider, has found retail uptake to be too low to be commercially viable. They consider lack of public awareness to be a major barrier to this, including consumer assumptions around assumed sustainability of single-use options.

SAFIA QURESHI, CLUBZERØ



CASE STUDY - CLOSED-LOOP



We ran a very successful returnable cup scheme at Blue Earth summit, a large event with 3000+ attendees. Having multiple bins placed around the event and the closed nature of the venue meant we had very high return rates.

ASHLEIGH SMITH, CIRCULAR&CO.

Closed-loop environments are controlled spaces where movement away is prevented. These include ticketed events like tourism destinations, conferences and festivals, and inside office buildings.

Open-loop environments refer to the wider world, where consumers travel away from the place where the returnable is issued. They include locations like cafés on high streets and in public spaces.

CHOOSING THE RIGHT SYSTEM

There are several types of returnable cup schemes. Choosing the right one depends on the size of your business and the environment it operates in. The following section outlines the key stages and different ways of running a deposit system



DEPOSIT SYSTEM

Deposit systems are widely used and whilst they can be straightforward to set up and manage (especially in a closed loop environment), it's crucial to get the deposit amount right.

1 A deposit – typically £1 to £5 is paid in exchange for borrowing a cup

PROS

- The most familiar and easily understood mechanism for consumers.
- The upfront financial commitment is likely to encourage consumers to return the cup.
- For closed-loop ticketed events, the cost could be built into the ticket price (as we have seen for bar cup systems).
- Deposits can be cash or card payments.

CONS

- Can be off-putting to consumers by appearing to increase the upfront cost of a hot drink (despite being able to redeem it later).

2 The deposit is refunded when the cup is returned.

PROS

- Customers can 'cash out' when they've finished their drink
- They can quickly see the system didn't cost them anything.

CONS

- Managing cash deposits can be a challenge.
- Customers having to queue again in a busy cafe to return their cup and get their deposit back will slow down service and put people off wanting to use the system.
- In an open system, it can get complicated if multiple traders are involved. Customers can pay a deposit and borrow a cup in one café and then return the cup to another participating café. There needs to be sufficient cash float to ensure this can happen, and a system to rebalance the finances across the traders.

- When deposit payments are made using card, the charge associated with a refund may be a barrier to some organisations.

3 The deposit can be floating

PROS

- Users can simply swap their used cup for a fresh one with their next drink. The cup itself becomes the deposit token.
- The deposit can be offered as an alternative, like a discount or donation.

CONS

- A system needs to be in place to manage the financials for a floating deposit.

4 Can be delivered as a manual system

PROS

- A very simple, low-cost approach, especially in closed-loop and controlled environments.

CONS

- There's no way to trace users or send reminders for the cup to be returned.
- Cash only deposits will inevitably have a limited lifespan/restricted audience as we move to a more cashless society.

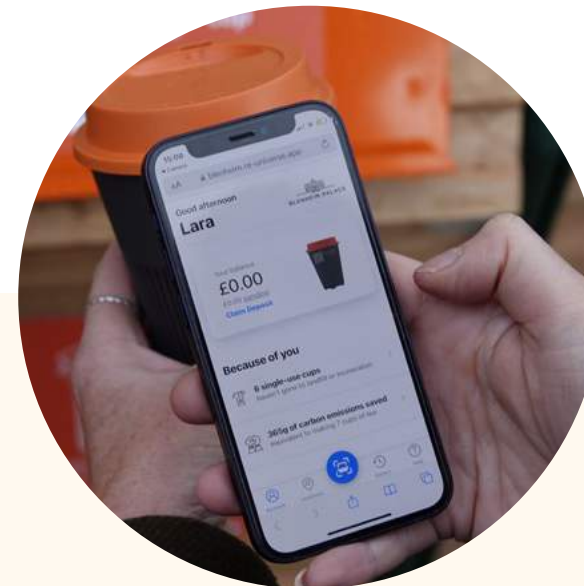
5 Can be delivered as a digital system

PROS

- Can be used to measure impact and communicate with customers.

CONS

- Requires more customer input upfront, either downloading an app, registering personal details or visiting a website.



CASESTUDY

Visitors pay a £2 deposit on a returnable cup when they buy a hot drink at Blenheim Palace and get their money refunded into their bank account when they return the cup. Visitors can also transfer the deposit money to charity and will have the option to keep it floating to use again in the future.



Following our initial trial, the most striking learnings were the need for a deposit refund model. Despite the rewards offered, without a deposit, users were not incentivised enough to return the cup.

DAVID GREEN, HEAD OF INNOVATION, BLENHEIM PALACE

GETTING THE PRICE RIGHT

Getting the price right for your setting and customers is really important. If a deposit or penalty is set too low, people may consider not bothering to return the cup, instead choosing to keep it, thinking they have essentially bought a cheap reusable cup for them to take home. If the price is too high, this may put people off altogether from even using the scheme.

CASE STUDY



A pioneering community focused returnable cup scheme, the Shrewsbury Cup is currently a manual, non-tech scheme with a £1 deposit.



We are introducing an app to overcome issues with charges for refunds on cards and reliance on cash for refunds. The app will run alongside the existing deposit scheme and we hope the new approach will appeal to a broader range of demographics.

ALISON THOMAS, CO-FOUNDER, SHREWSBURY CUP

CASE STUDY



For a £1 deposit, customers can borrow a Circular Returnable Cup and bring it back next time for a refill or a refund. The roll-out of the scheme has been a huge success, and will be launching at our kiosk and cafe in St Ives over the next few months. It was important for us that the scheme was easy to communicate to our café customers and staff, and at an accessible price point.

MARNIE PILLINGER, YALLAH COFFEE

CASE STUDY



This amount of £5 was chosen for two reasons. Firstly, it covers our costs for the production/storage of the cups themselves. Secondly, we arrived at this figure as we thought it was high enough to encourage people to remember their cups. We worried that if we set the deposit amount too low people would essentially treat the re-usable cups as they would a disposable cup. We didn't wish to go any higher than £5 however as we thought that after this it may become prohibitive.

FINN ANDRES, MONMOUTH COFFEE COMPANY

PENALTY SYSTEM

Unlike a deposit, a penalty system only charges a customer if they don't return the cup. This removes the potential barrier of an increased cost at the point of purchase, and also removes the complications around who manages the repayment of a deposit if operating in an open environment. However, it does require tech, for example a customer to download an app. It's crucial the penalty price is set at the optimal level, or you risk the fee being too low so not motivating people to return, or too high so it puts them off using the system again.

1 A cup is borrowed with no charge

PROS

- No additional upfront cost may drive uptake, especially when people are borrowing multiple cups at once.

CONS

- Customers can only borrow a cup if they're willing to sign up to an app or register for a digital account.

2 A fee or penalty is then charged if the cup isn't returned within the designated timeframe. Penalties usually range from £4 to £5

PROS

- Often likened to the library book system, this is a familiar approach that's easy for customers to understand.

CONS

- With a potential time lag for customers between drinking their hot drink and returning their cup, the impetus for action may diminish.
- Penalties are typically set higher than deposits to minimise cup loss. This may feel off-putting to customers.

3 Tech is used to ensure a penalty charge can be processed.

PROS

- Tech systems can be used to communicate with customers.
- Return reminders can be sent.
- Measuring uptake, return and loss is possible.

- Sign-up to the app or website can be done outside of the café to ensure customers are ready to go at the point of purchase.

CONS

- Scheme registration requires consumer time upfront.
- The café counter needs to have the app available when the barista is responsible for scanning out the cup.



CASE STUDY

Keep Scotland Beautiful's Cup Movement® in the Highlands, which is linked to the route of the iconic NC500, chose the Vytal app and cup system.



Once we decided to use Vytal as the delivery partner, we accepted their standard non-return charge for cups. Vytal charge £4 per cup and £10 per bowl if the items are not returned to a participating business within 14 days. Notifications are sent to customers through the Vytal app to remind them to return borrowed cups to avoid the charge.

EMMA GLENCROSS, CAMPAIGNS OFFICER, KEEP SCOTLAND BEAUTIFUL



Image credit: The University of Bath

NON-REFUNDABLE SYSTEMS

An infrequently used approach, the levy system is an upfront, non-refundable payment for borrowing a cup. Essentially it's a charge for hiring the returnable cup and only really works in an environment where single-use has been removed entirely removing the choice.

1 An upfront non-refundable levy, or fee, is paid for borrowing the cup. Typically seen in quite specific closed- or semi-closed-loop settings like events or on university campuses.

PROS

- Essentially means customers pay to borrow a cup which is better than single-use.
- Getting consumers to use the system is straightforward (it's typically delivered in a setting where there are no alternatives).

CONS

- Capturing returns without the incentive of a returned fee may be challenging.
- Users must remember and carry their cup each time they want to use it. The same obstacles are in place as owning your own reusable cup.

CASE STUDY

THE UNIVERSITY OF BATH

The University of Bath runs a levy scheme with a twist across its campus. A £3 fee is paid in exchange for a returnable cup.

After use, the cup can be exchanged for a token. Or if they want another drink, the cup is returned for washing and a different cup is provided.

A cashless (token) system saves staff time, as refunds require a supervisor and the University of Bath outlets are cashless.

Despite not offering a refund, the staff plan to encourage cups to be returned by University leavers.

FREE SYSTEM

A free returnable system is ideal for closed-loop environments where the risk of cup loss is low. This is a great way to completely eliminate single-use and get people used to borrowing and returning cups.

1 No payment needed to borrow a cup

PROS

- Getting consumers to use the system is straightforward as it's typically delivered in a closed setting where there are no alternatives.

CONS

- Capturing cup returns without the incentive of a return fee may be challenging, so it's important to track return rates.

CASE STUDY

NATIONAL TRUST

By the end of 2023, National Trust's free returnable cup scheme will be rolled out across 85 of its sites. Having tried a £2 deposit system with limited uptake, it decided to remove the barriers created by a deposit or needing an app. This system will be used in closed settings only. Disposables cups will only be available on request for a 15p charge.

CASE STUDY

REUSER

Reuser rolled out its free returnable cups in the café at Peckham Levels, a multi-disciplinary converted building in South London. The café is at the top of the building where customers, employees and members of the co-working spaces could borrow Reuser coffee cups freely. Because the building is largely closed loop, loss rates were low.





3 MANUAL AND DIGITAL SYSTEMS: HIGH TECH, LOW TECH OR NO TECH?

There is a lot of jargon around the various 'tech' approaches to returnable cup schemes. We have tried to clarify and simplify here. Essentially there are three levels of tech integration that are currently being used across the schemes we have spoken to.

1 Manual systems (non tech).

2 Digital systems (via an app or web-based platform/website/web app).

3 Smart systems (smart-enabled/trackable cups).

1 MANUAL SYSTEMS

A simple, low-cost solution.

PROS

- Inclusive, simple to explain and easy to understand.
- The fastest way for customers to participate in a return scheme at checkout.
- Cheap and straightforward to set up.

CONS

- Measuring impact (return rates) is reliant on till users recording and pressing relevant till buttons.
- Unless relying on cash, there will be EPOS charges for refunds onto cards.

2 DIGITAL SYSTEMS

These use either apps (also known as a native applications) or web-based platforms. They help manage schemes by tracking and measuring returns and impact, taking and refunding payments and connecting with cups. Digital systems can be perceived as a friction point by customers.

PROS

- Digital data (native app or web-based) means return rates are easily recorded alongside other information like customer demographics, frequency of returns and location of returns.
- An app can provide a communication channel to users for reminders, notifications, incentives, top tips, etc.
- Can provide alternative options to refunds like vouchers/coupons for further purchases.
- Can incorporate systems that allow customers to cash out a deposit to a nominated bank account without incurring fees (like refunding onto a bank card).

CONS

- For some people (like those without smart phones), digital solutions are a barrier to use.
- Lack of Wi-Fi connectivity is a barrier to downloading apps and using web platforms.
- Download/sign-up can be a friction point.
- Digital systems may be either an upfront investment cost or an ongoing monthly expense (membership fees), depending on the delivery setting.

In the food and drinks industry, items like cups are usually already distributed using Stock Keeping Units (SKUs). These are barcodes that identify a particular product line, for example 12oz coffee cups. The tech needed to identify individual cups in returnable schemes offers valuable information but requires extra cost and staff training. With new technology like Circular&Co.'s Circular Returnable Cup, cups have a unique identity (UID) and become trackable smart-enabled assets. This means each one can be assigned to a user, giving businesses a deeper understanding of where their assets are and insights into consumer behaviour.

3 SMART ENABLED DIGITAL SYSTEMS

With innovative reuse systems emerging, more digital technologies and reuse platforms can help drive behavioural change by delivering a more seamless and superior user experience, delivering digital deposit return schemes and providing traceability and transparency with rich data and insights. Assets can be tracked through a unique identity which can become more intelligent and advanced, depending on the level of technology used. This includes elements from QR codes through to NFC and RFID chips. Take the Circular Returnable Cup as an example; each cup can have a unique identity (UID) and become a trackable smart-enabled asset through a uniquely etched QR code or an NFC or RFID embedded in the base of the cup.

"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." Ellen MacArthur Foundation, Reuse – rethinking packaging (2019)

There are three main cup tracking options.

- **Unique QR codes.** A UID is printed or etched onto the cup, giving it a unique identity that allows users to scan to unlock engagement, whether that be through an app or web-app. Whilst QR codes are the most cost-effective method, tracking the cup requires manual scanning and, if deposits or penalties are attached to the QR code, over-the-counter returns are also required. This technology is best suited for outlets with lower footfall or those that can provide a bespoke 'manned' returns area. For 'QR-code only' cups, without secondary tech (such as NFC or RFID), included, further manual backup identification like a serial number or distinctive words is recommended. This means you can still identify and track cups even if there's a system or technical failure.
- **Near Field Communication (NFC)** Unique NFC tags are designed for close-range scanning at the point of service, and require the cup to 'tap out' at the point of purchase and 'tap in' at the point of return. This point of return can be back at the counter, or at an NFC return point. This provides a quick and secure identification process and accurate validation of the returned cup. NFC can be used independently or with QR codes. NFC tags add more

expense than QR codes alone, but companies like Pragmatic are working to reduce this cost. NFC technology is best suited for small to medium-sized companies that can install NFC-enabled return points to validate returns. This technology also provides more accurate 'cups in' 'cups out' returns and reuse data than QR alone.

- **Radio Frequency Identification (RFID) technology.** RFID tags offer a long-range scanning solution that enables accurate validation of return and asset tracking and stock control of multiple items at the same time. Nowadays, most RFID tags are resistant to extreme hot and cold temperatures and suitable for use in microwave ovens and washing machines. RFID technology is best suited for large or more complex organisations/cities which require accurate stock control and secure validation of returns. Using RFID readers in return points mean they can automatically identify, scan and validate multiple cups at the same time without manual assistance.

RETURN STATION TECHNOLOGY

Non-technical return stations are low cost and don't require much maintenance or ongoing support. They may be the best choice for busy schemes where convenience is crucial. High-tech return stations that scan returned cups offer a secure way for customers to transfer liability for the cup back to the scheme operator. This can build confidence in the scheme, but means added cost for those running it.

POINT OF SALE TECHNOLOGY

Using smartphones is a cost-effective and well-supported way to scan UIDs. But in fast-paced environments, holding a device to scan QR codes while also making coffees can slow things down. And obviously this has to be done in the right order. Tilting a full cup to scan a code with a phone could get messy.

Using a specialised scanner can accelerate this process and is better for baristas and servers in high volume areas. Customised systems using external hardware like this need ongoing technical support. When both consumer and product UIDs are used in tandem, scanners or tag readers will be needed for both interactions.

CASE STUDY

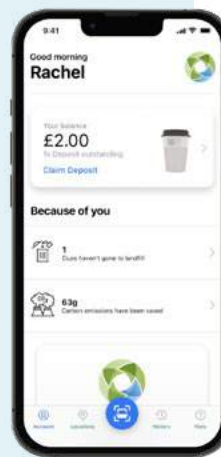
BLenheim PALACE

Blenheim Palace has adopted a pioneering RFID system with the digital returns platform by re-universe.

The returnable cups by Circular&Co. are uniquely etched using GS1 standard QR codes coupled with RFID technology embedded in the base of the cup.

To reduce friction, customers don't need to download an app or register before use. They scan the unique QR code which automatically opens the returns platform.

With RFID technology the cups return is validated by RFID readers, identifying multiple cups at the same time without manual scanning. RFID readers also allow Blenheim to manage inventory by location, with accurate real time returns and reuse data.



CASE STUDY

REUSER

Reuser is relaunching its consumer app for its 'open takeaway' system to avoid the need for users to scan anything to return a cup. They just drop it into a Reuser return bin, which will be collected and scanned by Reuser.

On the B2B side, Reuser's 'Reuse OS' software provides an automated and 100% traceable commercial and operational platform. Vendors can manage collections and deliveries, check inventory, access and pay invoices and see their carbon and waste savings



THE FUTURE IS RETURNABLE

Smart packaging incorporates RFID or NFC makes a returnable model cheaper, reduces carbon footprint and can make the public's experience more convenient than a single-use throwaway item. Through digitalisation we can map engagement, predict exact needs and wants, and start to deliver micro-personalisation for every customer. Smart-enabled Returnable cups are the start of a far deeper understanding of our packaging impact.

We firmly believe that over the next 2-5 years the world will see a phased transition to returnables. This has already started with the pioneers named in this Blueprint, and simple-to-implement returnable schemes in closed environments. This will move eventually to a mass Smart-enabled ecosystem where nothing is wasted. In this ecosystem, industry learns more about their customers, and their environmental impact than ever before. Finally, we the public, get a better and even more convenient experience.

ADAM TRETHEWY, COMMERCIAL & RETURNABLE SOLUTIONS LEAD, CIRCULAR&CO.





CITY TO SEA'S REFILL RETURN CUP: UNDER THE LID

This is a pilot run by City to Sea in Bristol. It allows customers to borrow and return a cup at participating coffee shops across the city. It launched in June 2023 and uses a time-based penalty system that's managed using the existing and free Refill app (which already has over 500,000 downloads and 11,000 active monthly users). Participants give their card details, but are only charged if they don't return their cup. This reduces the barrier of having to pay a deposit and makes it easier to manage across multiple traders.

City to Sea chose Circular&Co.'s Circular Returnable Cup for its premium look and feel, and smart, durable design. Each cup has a unique QR code so it can be scanned in and out when borrowed and returned. This combined with the use of the app means the system is fully trackable and enables effective communication with participants. They can be notified when their cup is due for return. Both City to Sea and customers can measure their individual and collective impact.

Participating cafés pay a monthly subscription fee. This covers the cost of the cups as well as the logistical support, training and marketing to promote the scheme along with all point-of-sale materials and collection bins. The launch was supported by an integrated awareness campaign which included targeted paid and organic social activity, out of home and print advertising and a media campaign.



Image credit: Refill Return Cup, City to Sea

CHANGING BEHAVIOUR

A core part of the project was the testing of behaviour change tactics and messaging. City to Sea ran focus groups at different stages to gain insights into initial perceptions, concerns, barriers and motivations. The initial findings were used to design the pilot scheme, informing everything from the name, messaging, branding and process.

KEY INSIGHTS

- Although the pilot was supported by a dedicated PR and marketing campaign, conversion from awareness to app downloads was lower than hoped. Incentives like half-price coffees boosted uptake.
- Reliance on tech and needing to sign up to an app can be a barrier to uptake. The user journey of app sign up and QR code scanning should be as straightforward and simple as possible.
- Lack of space and differing set ups in cafés restricted point of sale material. Working with each coffee shop to meet its individual needs is important for communicating at key user touchpoints.
- Engaged baristas who actively talk to customers about the scheme are key to its success. Training sessions and employee incentive schemes are recommended.
- During busy periods, baristas can't chat to customers. Having scheme ambassadors on the ground to talk to customers in the queue during these times is helpful.
- Getting the right scheme branding across all materials, and the correct cup design, is key.

Image credit: Refill Return Cup, City to Sea



EXAMPLES OF OFF-THE-SHELF TECH SOLUTIONS

Reuser: Customers use the Reuser web app to borrow and return packaging. Vendors can view and manage their usage, stock, sustainability metrics, scheduling and billing in a clean, user-friendly portal.

City to Sea's Refill Return Cup: The Refill Return system runs via the widely used Refill app. Customers use the app to borrow and return cups measuring their impact at the same time.

Vytal: The Vytal app allows customers to scan out packaging, and the Vytal Partner app giving vendors access to a range of metrics.

re-universe: Re-universe offers a consumer-centric, data-driven, scalable digital returns platform with a 'plug and play' solution and more bespoke options depending on client requirements. Their platform identifies QR, NFC and RFID enabled packaging.

CLUBZERØ: Provides a fully circular returnable packaging service for takeaway and delivery and is managed via the CLUBZERØ app.

4 CHOOSING THE RIGHT CUP

As popularity in returnable cup schemes increases, so too has innovation in this area. Returnable cups, unlike personal reusable cups, are to some extent designed to mimic single-use ones. They're lightweight, stackable and include a removable lid. There are lots of different things to consider when choosing your cup.



DESIGN

The challenge is to strike a balance between cups looking attractive enough to borrow, but not so good that customers want to keep them. There are many different options available that will appeal to different markets. One thing that applies across all settings is that stained cups are always deemed unattractive, so choosing one that will not stain is crucial.

BRANDING

Disposable cups are often branded and used for marketing purposes. Moving away from this can be challenging, so there are many branded returnable cups out there too. But this can be problematic because:

- 1 It limits collaboration with other organisations so avoid limiting branding to your logo.
- 2 It can make cups too attractive, so customers keep them.
- 3 It creates a finite lifespan e.g. if you include a partner's logo and you're only going to work with them for a short period, what happens to the cups at the end of the partnership? This is notably relevant at annual events/festivals where sponsors want branding.

Keeping cups non-branded, with clear messaging around ownership/ reuse is best. Simple, functional messaging like 'I am a returnable cup', or 'Please return me for reuse' is effective. If a partner or sponsor is requesting branding it can be helpful to remind them that they will essentially have their name on branded litter. If branding is non-negotiable, having branded lids only is preferable in systems where cups are borrowed but lids are owned. Alternatively, sales of branded BYO reusable cups could sit alongside neutrally labelled or unbranded returnable cups.

WHAT IT'S MADE OF

Most returnable cups are made from a plastic called polypropylene (PP) with a few plant-based alternative materials also available. There may be misconceptions around plastic returnable cups. Messaging must articulate that returnable cups are reusable, and the main issue with plastic is when it's single use.

WHAT ITS BREAK-EVEN USE POINT IS

A cup's break-even use point describes how many times it needs to be used to break even from a CO2 equivalent perspective. It shows how many uses it takes for a returnable cup to have a lower environmental impact than a single-use one. A good returnable cup scheme will see cups being returned way beyond their break-even use point.

Break-even use points can be found by looking at cup's Life Cycle Assessment (LCA). This is the process of evaluating the effects that a product has on the environment over the entire period of its life. LCAs typically cover five stages: 1. Raw material extraction, 2. Manufacturing and processing, 3. Transportation, 4. Usage and retail and 5. Waste and recycling. It's possible to review the LCA for some returnable cups on the vendor website or on request. Because there are so many variables in each type of cup, manufacturers approach LCAs in different ways, which means they aren't always directly comparable⁷.



SINGLE-USE CUP
paper (PE)



RETURNABLE CIRCULAR CUP
polypropylene**



SINGLE-USE CUP
compostable (PLA)



RETURNABLE CIRCULAR CUP
Recycled polypropylene**

7. Further reading: Eunomia (2023) Assessing Climate Impact: Reusable Systems Vs Single-use Takeaway Packaging, <https://www.eunomia.co.uk/reports-tools/assessing-climate-impact-reusable-systems-vs-single-use-takeaway-packaging>
8. <https://frugalpac.com/new-coffee-cup-study-reveals/>
9. University of Exeter, Environment and Sustainability Institute, Prof Xiaoyo Yan: Carbon Footprint of the Circular Returnable Cup: A Preliminary Life Cycle Assessment, Jan 2023 (available on request)

DURABILITY

Break-even use points are a bare minimum aim. The more cycles a product can be used, the smaller its environmental impact. Cup lifespan may not feel like an immediate concern for a new scheme, but it's vital to overall scheme sustainability.

WHAT SIZE TO USE

Hot drinks usually come in a range of sizes (e.g., 8oz, 12oz 16oz). Returnable cups should offer this choice too. Some baristas need a specific cup size to fit under the coffee machine so this needs to be considered as well.

THERMAL BANDS

Some cups need a band around them to protect customers' hands from the heat. This need can be avoided with the right cup design. Circular&Co.'s Circular Returnable Cup uses a novel, patent-pending rib design that takes the surface temperature down to a comfortable 34°C. This makes it inherently more sustainable than cups that need thermal bands.

LIDS

Lids also need to be accounted for in returnable systems. In a returnable system, lids create another item that needs to be accounted for when someone borrows the cup.

Some schemes provide returnable lids, and some provide disposable lids to go with borrowed cups if requested.

Typically, lids for returnable cups stop spills but not leaks, and are not as secure as ones for reusable cups. Feedback has shown that returnable cup lids were often placed in normal refuse bins. They can also be harder to capture in a smart enabled system because only the cup is tech enabled, not the lid. Because of this, communication around lids shouldn't be overlooked.

COST

Buying single-use cups is literally money in the bin. You will make financial savings with a reduced reliance on them.

Using Circular&Co.'s Cup Cost Calculator (circularandco.com/cup-calculator) will help you estimate the number of cups you will need to set up your scheme, work out your CO2 savings, and calculate how much money you will save by switching. The calculator considers things like how much sales increase in busy periods, what kind of return rate you can expect, how many days a week you open.

It's worth considering how your chosen system (e.g. deposit or penalty) will cover your wholesale returnable cup costs.



CASE STUDY

BLenheim PALACE

During its cup trial, Blenheim Palace initially found its neutral toned returnable lids were being thrown in the rubbish bin.

This could have been because they were being confused with its disposable lids, which were a similar colour.

The scheme has now chosen a distinctive bright orange colour for its returnable lids, and plans to use stronger communications to educate users.

THE ULTIMATE SOLUTION TO THE SINGLE-USE COFFEE CUP PROBLEM.

The Circular Returnable Cup was specifically designed to meet the commercial demands of the hot drinks industry. After two years of development and a year of field testing, the design and innovation team considered each detail of the cup's journey from the bottom up. Everything was taken into consideration, from drying time and stackability, to what a barista needs for the perfect latté pour, and user drinking experience.

- A cost-effective, affordable solution to replace single-use cups.
- Highly durable, built to last for over 1,000 commercial washes.
- Tracking and tagging options (QR code, RFID tag, NFC chip) provide visibility of product lifecycle to analyse return and recycling rates and prevent leakage from the system.



5 LOGISTICS & INFRASTRUCTURE



There are many factors to consider in the day-to-day logistics of how a scheme functions.

WASHING

There's no getting away from the fact that returnables generate a greater volume of washing than disposables. This may require investing in (additional) dishwashers, creating space for them, allocating more shift time to dishwashing, giving staff advance warning of these changes, or using an off-site dishwashing service. Other considerations include:

- Planning for longer drying times. Because plastic doesn't retain heat after washing, returnable cups take longer to dry than ceramics, glasses or metals.
- Sourcing the correct detergent. Contact suppliers to find a dishwasher detergent/rinse aid combination formulated for plastic that also works well with other materials if needed.
- Choosing the right energy supplier. Reduce the impact of increased energy usage caused by washing by opting for a renewable energy.
- Using the right dishwasher trays. Some manufacturers provide special dishwasher trays for returnables that avoid water pooling.

STOCK LEVELS & REDISTRIBUTION

Several stakeholders we spoke to explained how café managers participating in a returnable scheme are typically (and understandably) concerned about having the right amount of cups. What is enough, and what is too many? Where cups may be handed out in one venue and returned to another, it's easy to see how stock levels could become unevenly distributed. But in practice, this didn't seem to be an issue. As seen across several schemes including City to Sea's Refill Return Cup, most people tend to return cups to the same venue where they bought their hot drink. That said, it's important to be prepared to manage stock levels across sites, especially at the outset of a scheme. Digital systems help here as they can provide intelligent stock control and cup traceability.

STORAGE

Cup storage is a consideration, especially for smaller sites. Cups that stack tightly (nest) will minimise storage space, but it's important that they have de-nest properties so that they don't get stuck together.

CASE STUDY

NATIONAL TRUST

Having recognised the increased drying time for returnable cups, National Trust is trialling a drying system that harnesses heat from the dishwashing process.

CASE STUDY

REUSER AT PECKHAM LEVELS

The office space initially employed Reuser for its 'full-service' reuse system which includes Reuser's packaging, return bins, software, collections and off-site washing. But over time, the washing process felt less overwhelming, so they decided to purchase Reuser's packaging and return bins and invested in new dishwashing facilities to allow them to wash in-house instead.



Image credit: Blenheim Palace

CUP COLLECTION

Capturing cup returns is the true measure of a scheme's success. Deciding where to place cup collection points and how to signpost them is crucial. People don't want to (and will not) queue twice to find out what to do with their cup. So, collection points should be visible and easy to access. And they should be clearly labelled to show customers exactly what they need to do. Good return point placement can also help avoid contamination. They should be placed with recycling and waste bins, but clearly signposted to encourage separation of waste streams. To minimise potential confusion, avoid using the word 'bin' altogether to describe a collection point. You ideally want customers to be able to separate cups by size and lids, and stack them.

CASE STUDY

NATIONAL TRUST

To support the segregation of returnable cups, Unisan provided branded bins for collecting cups, lids and liquids separately.

These are placed in high traffic areas like exits to car parks where people are likely to end their day.

CASE STUDY

BLENHEIM PALACE

Having recognised the importance of bin design, the Blenheim Palace team produced a bespoke collection system that aligns with their waste and recycling bins and is colour coded to match lids and the use of iconography.

STAFF TRAINING & ENGAGEMENT

Engaging staff is a critical part of running a successful returnable cup scheme. They are responsible for explaining and effectively selling the scheme to customers. It's important to leave enough time to engage and train them ahead of launch. Make sure they appreciate the benefits of the system and feel confident using it and explaining it to customers. Training should be inspirational and leave them feeling motivated.

To make sure staff embrace the new system, they need to know what's expected of them, that there's accountability (their actions are being monitored), and that there's recognition (through verbal and written praise). You can show them that their actions are making a difference by setting sign-up and usage targets for your café and reporting figures on a weekly basis.

Training should be ongoing after the initial phase. This accommodates any potential staff turnover and also helps reinforce the messaging and address any concerns.

CASE STUDY

REUSER

Reuser provides a quick reference resource for the staff at vendor sites. It covers frequently asked questions and some useful facts, and can be kept behind the till for easy access.



Image credit: Reuser

6 FINANCES

There are many elements to the finances of schemes which need to be considered. Costs and savings will vary considerably from setting-to-setting, and in relation to the approach being taken. As many schemes are currently being trialled and tested, with some in receipt of funding, it can be challenging to work out overall financial viability of each of the options.



COST CONSIDERATIONS

POTENTIAL COSTS	CONSIDERATIONS
Returnable cups	<ul style="list-style-type: none">• An initial outlay to cover the cost of returnable cups is needed, followed by ongoing cup purchases to replenish stock.• A deposit system passes this cost on to customers (and could even generate revenue, depending on the level of the deposit).• A penalty system covers the costs of any cups that are removed from the system, depending on the level of the penalty set.
Digital user interface	<ul style="list-style-type: none">• Developing a digital system is a significant expense and effort, not to be undertaken lightly. There are a range of solutions on the market that may work in your setting, with varying costs according to the technology used.
Cup washing	<ul style="list-style-type: none">• With greater quantities of cups to wash, cleaning costs will increase. You may need to increase existing washing capacity or look for off-site washing.
Staff time	<ul style="list-style-type: none">• There may be costs associated with increased staff time. This could include scheme set up, marketing, training, ongoing customer engagement, cup collection and additional washing.
Marketing and advertising	<ul style="list-style-type: none">• Public engagement is crucial, so it's essential to consider any marketing and advertising costs, including signage and point-of-sale (POS) materials.
VAT	<ul style="list-style-type: none">• A refundable deposit at the point of purchase is not VAT chargeable. But a penalty charged for non-return of cup is VAT chargeable.¹⁰
Membership fees	<ul style="list-style-type: none">• Monthly membership fees are typical for a collective scheme.

COST SAVINGS

POTENTIAL SAVINGS	DESCRIPTION
Disposable cups	<ul style="list-style-type: none">• Reducing or eliminating the need to buy disposable cups will save money. For some larger organisations this cost is considerable.⁷
Waste Management	<ul style="list-style-type: none">• Organisations that collect disposable cups will save money in waste management by using returnable ones
Legislative	<ul style="list-style-type: none">• There is potential for a reduction in EPR costs.

COST

Buying single-use cups is literally money in the bin. You will make financial savings with a reduced reliance on them.

Using Circular&Co.'s Cup Cost Calculator will help you estimate the number of cups you will need to set up your scheme, work out your CO₂ savings, and calculate how much money you will save by switching. The calculator considers things like how much sales increase in busy periods, what kind of return rate you can expect, how many days a week you open.

It's worth considering how your chosen system (e.g. deposit or penalty) will cover your wholesale returnable cup costs.

10. <https://re-universe.com/guides-and-papers>

7 BEHAVIOUR CHANGE



Changing habits takes time, and single-use consumption is ingrained in our culture. Launching a returnable cup scheme means thinking about behaviour change. This includes not just customers, but staff members too, especially baristas and café managers.

Before we can change a behaviour, we need to think about what it is, what the barriers are that might prevent it from changing, and the motivations that will encourage it to change. The consumer behaviours we're trying to influence and change when it comes to a returnable cup scheme are:

- 1 **First time trial** – this is the first step. You need to get a customer to make the decision not to choose a single-use cup and instead opt to trial the returnable option.
- 2 **Returning the cup** – this is key and is ultimately what will determine if your scheme is successful or not. You need to be able to get customers to return their cup after use.
- 3 **Becoming a return customer** – once they've trialled the system, enjoyed their drink and returned their cup, you're going to want them to come back again and again, changing their habits and moving away from single-use for good!

Developing a returnable cup scheme which doesn't address these, is ultimately unlikely to succeed and could end up being a waste of time and resources.

CURRENT SYSTEMS

Grabbing a coffee in a single-use cup and throwing it in the bin is a habitual behaviour that requires no pre-planning or effort. And it's a social norm. Many people think pro-environmental behaviour change is about raising awareness of the problem. But caring about the environment doesn't automatically mean people will change their behaviour to protect it. City to Sea's own research demonstrates this knowledge/action gap: whilst almost two thirds of people report having a reusable cup, their refill behaviour isn't always consistent with four in ten reporting they forget their cup when they buy a hot drink.¹¹ The barriers to using a reusable cup, like forgetting it or not wanting/being able to carry it round can be prevented with a well-designed returnable cup scheme.

11. City to Sea Consumer Research 2023

CHALLENGES & MOTIVATIONS: RETURNABLE CUP SCHEMES

CHALLENGES:

City to Sea's own research shows that people have preconceptions around returnable cup schemes. These include them not being relevant to out-of-town visitors, or thinking they have to buy the reusable cup. Others include additional charges or deposits, having to return the cup after use, in some cases having to download an app or input card details, or service being slower because baristas have to explain the system.

MOTIVATIONS:

Motivations and drivers will depend on user demographics, so you may want to consider all or a combination of these things.

- 1 **Environmental awareness.** We know that people are concerned about plastic pollution and waste, and want to take action to reduce their impact.
- 2 **Financial incentives.** People don't want to lose money. They will feel compelled to return a cup if they will lose their deposit (if taken) or be charged or fined for not returning it.
- 3 **Social inclusion.** Feeling part of a community that's making a difference is powerful.
- 4 **Individual progress:** Environmental motivations, a personal drive to have an impact, and trying something new are all individual motivators. Early adopters like being the first to try something new.

Using the Behavioural Insights Team's EAST model¹² any new behaviour needs to be:

- **Easy** as possible, removing the friction points and barriers.
- **Attractive** to the target audience, playing into their motivations and drivers.
- **Socially** acceptable and the norm within those environments, with trusted messengers communicating it.
- **Timely**, communicated at the points that people need to take action.

TRYING IT OUT FOR THE FIRST TIME

CHALLENGES:

- 1 **Changing habits.** Humans like routine and changing it can be challenging especially if it involves additional steps or is less convenient.
- 2 **Fear and uncertainty of something different.**
- 3 **Having to download an app/register for an account.**

SOLUTIONS:

- People don't like making snap decisions, so prime them before they need to act. Make your scheme and cups visible with messaging and signage so people have time to absorb the information rather than have it sprung on them.
- Make the returnable option the default. Remove single-use cups from view and make people ask for one if they want it.
- Use trusted messengers like baristas and coffee aficionados to boost confidence in the scheme.
- Incentivise first time trial so people give it a go.
- If using an app or tech solution, make the sign-up process as simple as possible. Also link apps with Google, Apple Pay or other systems that add in people's credit card details for them to reduce friction. Or, recommend people try a returnable cup the next time they come for a coffee. Put a sticker on single-use cups with a QR code to the app download so people can do it when they leave.



12. www.bi.team/publications/east-four-simple-ways-to-apply-behavioural-insights

INCENTIVES

Where disposables are still in use, incentives to use returnables become even more important. As well as choosing the right scheme mechanism (deposits, bans, levies, no charges) there are some other approaches to try.

- A disposable cup charge to make it more expensive (or the deposit for the returnable more palatable).
- A free coffee the first time a returnable cup is used.
- Reward points.
- Environmental and individual motivations like seeing the impact they're having via a score/leader board.

Image credit: Refill Return Cup, City to Sea

MAKING REUSE THE DEFAULT

There's no doubt that having disposable cups available, especially as the default option, reduces uptake of returnables. Removing disposables altogether can feel daunting. But simply removing them from view and making people request them can be effective.

CASE STUDY

E5 BAKEHOUSE AND REUSER:

e5 Bakehouse made the decision to go disposable free in January 2022. Reuser delivered a lot of cups for the first six months. But as customers adjusted, they began bringing their own cups (either purchased Reuser cups or another reusable cup) the number of cups Reuser delivered decreased by around 26%.



Reuser's data shows that if a café eliminates disposables altogether, then their overall packaging costs will decrease over time as customers become accustomed to the disposable free policy, and bring their own reusable cups.

ANDREW MATTHEWS OF REUSER

RETURNING THE CUP

CHALLENGES:

- 1 Remembering to return the cup. This not typically part of customers' routines and is unlikely to be a priority. It requires additional effort and inconvenience.
- 2 Having to return to the same location is inconvenient and may not align with their routine.
- 3 The drop-off process being complicated or slow (e.g., having to queue at the counter, use an app, or wait to scan the cup).

SOLUTIONS:

- Consider offering alternative drop-off points. This a good reason for coffee shops to collaborate on a scheme.
- Make drop off really simple and easy so people don't have to queue up.
- If using a penalty system, provide a clear deadline for when the cup needs to be returned. Create a sense of urgency and make sure customers are aware of the rules.
- Use prompts and reminders like text messages or app messages (this requires a level of tech to implement).
- If you're using tech to manage the process, make sure you communicate with people so they know their cup has been received.
- Thank people either via tech platforms or in person, so they're left with a positive feeling. This will make them more likely to use the scheme again.

BECOMING A RETURN CUSTOMER

CHALLENGE:

People will only repeat a behaviour if they had a positive experience with it first time round.

SOLUTION:

- Create encouraging experiences with positive memories so customers want to repeat them.
- Share regular feedback on the benefits and impacts of the scheme. These could be in relation to the customer, the environment or their local community. Different people will be motivated by different messages.
- Make people feel like they're part of something. Share social messages about their community and the number of other people taking action.
- Incentivise multiple purchases. If you provide a reward system, consider how long it will take for people to get a reward. If this takes too long it can be demotivating.

8 MARKETING & COMMUNICATIONS

RAISING AWARENESS BEFORE THE LAUNCH

Effective communication across the entire user journey is key to your scheme's success.

Make sure people know your returnable scheme exists and how it works in advance of their purchase. Giving them time to consider the switch and download an app or sign up for an account (if needed) will drive uptake. The more prior knowledge people have about your scheme, the less you will need to rely on busy staff to communicate the concept.

Run a pre-launch campaign and use any channels you have available to engage regular customers who are most likely to be interested in trying the scheme.

MESSAGING LOCATIONS

Where can you communicate best with potential users? Which touchpoints will be more effective? Countertop wobblers or posters and a board outside are good places to start.

Make the most of any unused and relevant spaces for more messaging. For example, messaging on general waste bins can raise awareness of the issues of throwing away single-use cups.

Think about where there's dwell time and people might absorb information, like in a queue or on the toilet. Stickers can also work... on windows, bins and even single-use cups.

People take notice of novel things that are relevant to them. So make sure your promotional material is eye-catching, draws people in and conveys that your scheme is something new.

If you're using the Circular&Co. cup there are a range of promotional materials available free of charge.

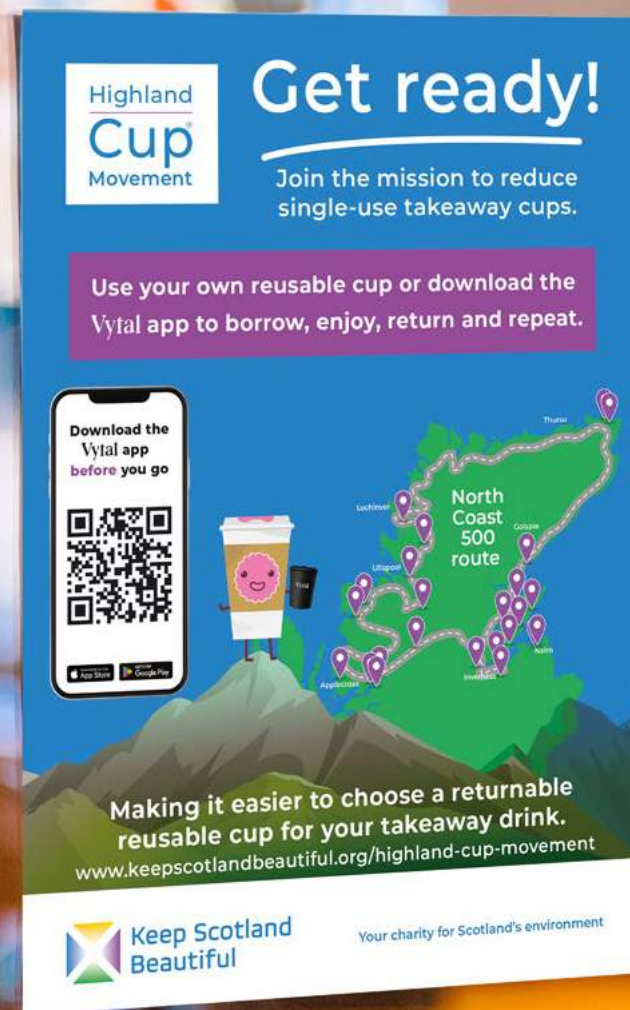


Image credit: Highland Cup Movement



Image credit: Blonde Beet

RETURN POINTS

Messaging here should be functional but also eye catching. It's a good place to communicate the scheme and reinforce the behaviour you want to happen: cup return. Use clear instructions, arrows and messaging that make it clear that the return point is not a general bin.

WHAT TO SAY AND HOW TO SAY IT

- Consider customer motivations and barriers. Present your scheme as the solution to a problem they have, like forgetting their reusable cup or litter concerns in their local area. Barriers may be based around convenience, so use language that highlights how easy and simple your scheme is to use.
- In pre-launch comms, consider the most effective way to communicate the 'what' and 'how' of the scheme. People are busy so keep explanations short and succinct. Consider breaking it down into three or four clear steps and use simple language.

- Keep it positive. Our actions can be shaped by our emotional associations, so use language that evokes positive feelings. People are more likely to respond to messaging that focuses on pride, hope, optimism and love than to guilt, warnings and negativity. Emphasise reducing waste, litter, and carbon emissions, and saving money.
- Hope and optimism can come from knowing that others are taking action (social proof). It's encouraging to feel part of something bigger that's doing good things. So emphasise the collective movement in your scheme. Make your messaging inclusive. www.campaignsthatwork.org
- Use personalisation in reminder messages. Individual names and information about the cup show that it's a considered message and not generic.
- Reward people with positive experiences. Congratulate them for being part of the scheme or returning cups through feedback messages.
- Don't shy away from possible hygiene concerns. Embrace them head on.

9 MEASURING IMPACT

Measuring the impact of your returnable system is critical to understand its benefits as well as to identify areas for further improvement.

CUP RETURN RATE

The fundamental measures that every scheme should know are:

- Number of cups distributed; and
- Number of cups swapped or returned

Reporting the number of cups distributed gives an idea of the scale of the scheme. But on its own it's not a particularly helpful measure as unless these cups are being used at least to their break-even use point, the scheme isn't having a positive environmental impact.

Measuring the number of cups distributed and returned gives your return rate, or the proportion of cups being returned to the system. This is the crucial measure to report. The reuse rate per cup is also a useful measure, but this can only be done with a system using uniquely labelled cups.

SCHEME UPTAKE RATE

Where returnable cups are still being used alongside disposables, it's useful to know the scheme uptake rate. For this, you need to know the number of disposable cups being used relative to the number of reusables and returnables.

Many schemes have found that an established returnable scheme encourages people to remember their own reusable cups. So you may find rates increase for reusables over time too. Our research showed that typical uptake rates in an open environment may be 2-10%.

Where only returnable cups are used, scheme success is not related to uptake. Reporting the number of walkouts (those refusing the system) is useful, but only relevant in open systems where there's an alternative option nearby.



Image credit: Reuser

LOSS RATE

The loss rate shows the number of cups dropping out of the system. This is based on how many have been distributed compared to regular stock take information. The number of cups needed to be ordered to maintain stock levels (reorder rate) are an indication of cup loss.

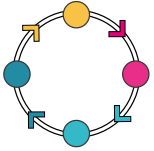
Unreturned cups could be repurposed by customers as their own reusable cups and are not necessarily going into the waste stream. But they're still out of the returnable system and need to be counted as a loss.

10 KEY TAKEAWAYS

As you are now aware when it comes to returnable cup schemes, there's a huge amount to consider and it can be complicated. Due to a combination of schemes being in their early days, as well as the challenges associated with measuring impact, it's still hard to make clear cut recommendations on

the specifics around price point and tech, however there are some very clear takeaways we'd encourage you to take on board as you embark on your journey from single-use to returnables.

TEN TOP TIPS FOR A SUCCESSFUL RETURNABLE CUP SCHEME



Find a system that works for you.

When it comes down to it, it's about your organisation and finding a solution that works for you will ultimately depend on your size, context, budget and team.



Think carefully about logistics.

Make sure you're geared up for buying, storing, cleaning and drying cups.



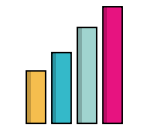
Focus on ensuring cups are returned.

Ultimately, it doesn't matter which way you decide to run your scheme, if cups aren't being returned it's not working. So always design your scheme with this goal in mind.



Make reuse the default.

If possible, eliminate single-use altogether.



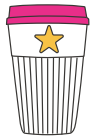
Measure your impact.

Calculating your return rate is key to knowing you're having a positive environmental impact.



Set the right price.

If a deposit or penalty is too low, people may not return the cup. If it's too high, they may be put off altogether.



Consider cup branding.

Focus on simple, functional messaging that reminds people what to do with the cup.



Embrace marketing and communications.

Promote your scheme, message across different stages of the customer journey, and make sure cup collection points are well signposted.



Make sure staff are engaged.

They're the front line for your scheme. Keep them motivated and invest in training.



Collaborate.

Collectively, we should be setting out to achieve mass participation, which in turn will create a strong demand for returnable solutions.



Ultimately to drive uptake of reuse systems we need to make them as convenient as possible and remove the barriers to uptake. To drive a meaningful societal shift, we need see schemes operating at scale, covering the whole consumer journey - across towns, cities, in offices, at venues and tourism attractions offering a similar solution that becomes accepted as the norm.

ADVICE FOR SPECIFIC LOCATIONS

INDEPENDENT CAFÉS

- Identifying takeaway vs. drink-in sales is a good indicator for the impact you could have.
- Collaboration is key. Maximise your impact by working with other local businesses to launch a community system. If this isn't feasible from the outset, consider future-proofing your scheme with cups that don't feature just your brand.
- Driving return rates is essential! Make sure you're not just providing customers with an affordable reusable cup they want to keep.
- Effectively impact measurement can be made easier with off-the-shelf digital schemes (deposit and penalty).
- Independent cafes leading their own schemes have typically chosen simple, manual deposit systems as the most cost-effective and straightforward option.
- Messaging and communication are essential to ensure people know about your scheme. As is staff training. Your customers may need a range of messages to understand the benefits.
- Feedback shows that removing single-use is not as scary as first thought, so consider making reuse the default to maximise your impact.



Image credit: Refill Return Cup, City to Sea

CLOSED-LOOP WORKPLACES (E.G. OFFICE BUILDINGS)

- In-house cafés have a great opportunity to maximise cup returns due to the more controlled environment. Place return points at all exits and within office workspaces in the building.
- Closed-loop venues are where commercial reuse organisations like Club Zero and Reuser are focusing their efforts and seeing the greatest impact.
- Simple, free systems that rely on a simple 'borrow a cup and bring it back' method can be very effective in these settings.

CLOSED-LOOP VENUES (E.G. TOURISM DESTINATIONS, FESTIVALS)

- You have the opportunity to remove single-use completely and switch to a fully returnable system. So make reuse the default.
- Simple systems can be effective and remove friction to uptake.
- Make sure you make cup returns as convenient as possible and have clear return points at exits.
- Don't make returnable cups too attractive by branding them or adding complex printed designs, otherwise visitors will see them as souvenirs and take them home.
- Use clear messaging on the cup to show that it belongs to the venue and is being loaned.
- Returnable bar cups work well in closed-loop settings, so this can hopefully work for hot drink cups too.

UNIVERSITIES

- Students are the future. If we can change their behaviour, we can have a huge impact.
- The right system will likely vary according to budget. Simple ones can be effective in these settings and remove some friction to uptake. But if resources are available, digital schemes can provide more data and way to communicate with scheme users.
- Do your research. Place cup return points based on observations of where the majority of people go with their coffee cups.



- Consider messaging based on your audiences. Where students are adjusting to a new culture and looking to others around them for social cues, highlighting how many others are participating (social norming) may be more powerful than environmental messages.

COUNCILS

- Consider how to 'walk the walk'. Pilot schemes within your organisation to get organisational buy-in (see info on workplace settings above).
- Lead the way by creating a town or city-wide returnable cup scheme, supporting local cafés.
- Facilitate discussions among key stakeholders within your authority to encourage collaborative schemes.
- Adopt a Plastic Free Charter to encourage a move away from single-use plastics at local authority run events and venues.
- Share findings with other local authorities to be as efficient as possible and avoid duplication of effort.
- Explore government grants available for setting up a scheme.

COMMUNITY GROUPS

- Budget and time constraints may be limiting factors and will need to be considered.
- Voluntary schemes typically choose simple, manual deposit systems. But an off-the-shelf digital scheme (deposit and penalty) is more effective in measuring impact. It will require investment and resources so consider who you could collaborate with. It's better to bring multiple traders or organisations together rather than go it alone.
- Avoid time restricted brand partnerships (e.g., logo on a cup for one year) as this results in cup wastage.
- If volunteer led, consider how you'll manage logistics.
- Get support or funding from your local council to ensure widespread adoption.

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Image credit: Refill Return Cup, City to Sea



City to Sea is an environmental charity and social enterprise on a mission to stop plastic pollution at source and make it easier for everyone to live with less waste. Our award-winning campaigns tackle the most polluting single-use plastic items, focusing on upstream solutions. From tech-powered solutions, and behaviour change campaigns, to grassroots community-led action and game-changing education programmes our award-winning initiatives are helping individuals and organisations reduce single-use plastic and have a measurable, lasting impact.

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Circular&Co. design and manufacture a range of award-winning, Circular Reusables and Returnables, leading the transition away from single-use forever. Since its origins 20 years ago, the business has been driven by the sustainable principles of Circular Design. Circular&Co. is leading the way towards a circular future through ground-breaking products such as the Circular Returnable Cup. They believe in the power of scale for good and work with major corporations and brands advising on circularity and designing circular products into their supply chains.

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