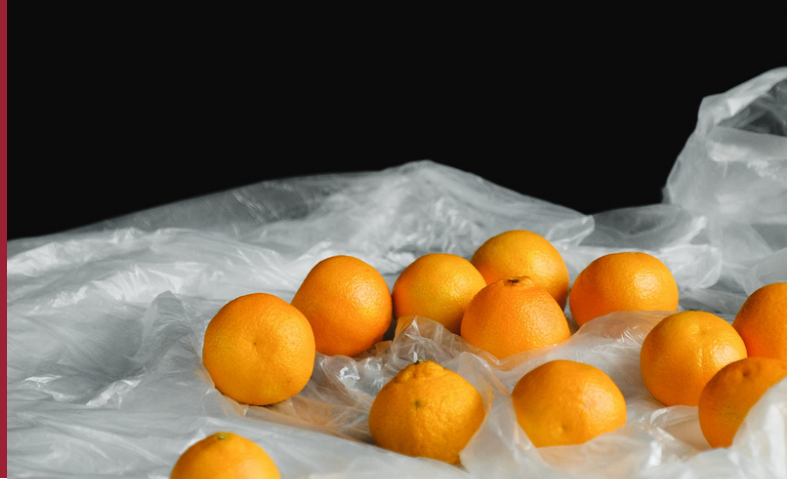
Investigating Innovative Waste Economies: redrawing the circular economy



Reviving reuse: reducing single use plastic with reusable container systems

Anisah Madden and Gay Hawkins

Research context and aims: reuse in the food and beverage retail sector

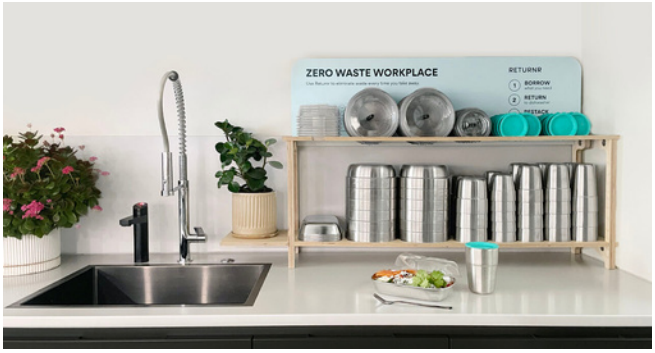
Single use plastics resist circularity. Each year, Australians throw away one million tonnes of single-use plastic, including 70 billion pieces of soft plastics like food wrappers, and 1.8 billion single-use, hot beverage cups [1] [2]. Coffee cups, embedded with hidden plastics, are estimated to be the second-largest contributor to litter waste after plastic bottles, and as the collapse of REDcycle showed, soft plastic is not easy to recycle.

While efforts are being made to reduce the manufacture and use of 'problematic' single use plastic and develop alternatives like bioplastic packaging, others are interested in shifting away from a culture of disposability to one of reuse. Reusable packaging systems point to a different strategy: upstream innovation that eliminates single use plastics across the whole supply chain.

As part of a wider Australian Research Council-funded project 'Investigating Innovative Waste Economies: Redrawing the circular economy' this research looked at Returnr.

The Melbourne based business has designed a range of reusable stainless-steel packaging for grocery home delivery (Returnr Marketplace) and for workplace lunch and coffee takeaway (Returnr Workplace Micropool).

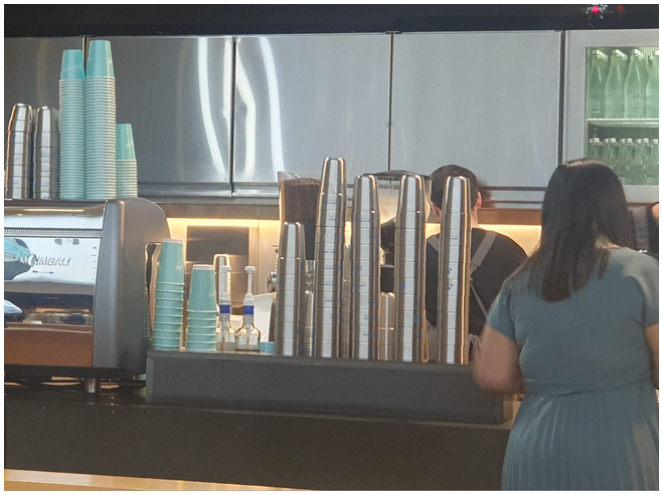
This research focused on Returnr Workplace Micropool to better understand the opportunities and barriers to uptake of reusable packaging in workplaces, a major site of coffee cup and takeaway food packaging consumption and disposal. Returnr estimates that if an office of 20 people took up reusable containers, it would eliminate 1,840 single use cups and lids, and 480 single use bowls, lids and other containers being wasted & disposed of each year.



Returnr Workplace Micropool countertop station. Source: Returnr

[1] www.dcceew.gov.au/sites/default/files/documents/national-plastics-plan-summay-fs.pdf

[2] www.dcceew.gov.au/environment/protection/waste/publications/australian-plastic-flows-and-fates-report



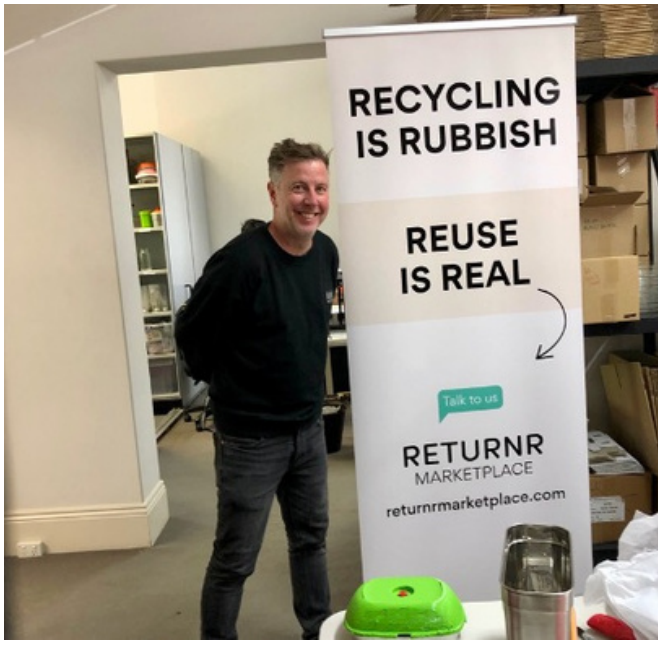
Staff order coffee in Returnr's stainless steel cups at an internal café at a large corporate office in Melbourne. Source: research team

***'With single use the value of packaging is lost and becomes an "externality". Reuse keeps the initial value of the container inside the system and keeps on reactivating that value every time it's used and reused.'* Returnr co-founder and CEO Jamie Forsyth**

Research Methods: Following the container

We worked with Returnr's co-founders Jamie Forsyth and Brett Capron to identify several Workplace Micropool clients in Melbourne CBD and in Sandringham Village, a bayside suburb 16km south of Melbourne. We selected a mix of smaller workplaces (10-50 employees) and larger workplaces (400 – 4000 employees).

Interviews and site visits were conducted to understand how Returnr had been brought into the workplace, how the system was working, and staff perceptions and use of the containers. We also observed several local food and beverage retailers where Returnr containers were being used.



Returnr co-founder and CEO Jamie Forsyth at Returnr office. Source: research team

Research Findings: Workplace implementation and use of circular packaging systems

Implementing Returnr in **smaller workspaces** was relatively simple. The system is usually brought in by a senior staff member who 'champions' the initiative. Fewer staff members make it easier to introduce a new practice, resulting in higher uptake amongst staff.

Having one physical space with a central kitchen means the containers are convenient to grab on the way out the door, wash and replace.

Implements in **larger workspaces** in corporate buildings may face several challenges:

- **Decision making:** Large businesses want to meet sustainability targets, a key aspect of which is reducing waste to landfill.

But corporate ‘green teams’ often consist of junior employees who must make a 'business case' to decision makers. Returnr provides a range of sustainability statistics, but uncertainty about how the system will work (will staff use it? Will cafes accept it?) causes friction.

- **Flow through:** Large workplaces often occupy one large floor or several floors of a large building but may only have one kitchen with Micropool stations. Staff who walk through the main kitchen may grab a container on their way out the door, but staff in other areas will rarely take a detour to grab a container. Putting the containers on a stand-alone station in a central area could address this but requires permission from building management – a tricky proposition. One workaround is to **enroll private cleaning companies in the circulation of containers to and from offices and kitchens** to support the system – a solution that several offices have found helpful.

- **Kitchen design:** Workplace kitchens may have little cupboard and counter space. To address this, Returnr now offers new slimmer stations that sit at the back of the counter.

- **New norms:** Some staff were reluctant to take a container to their favourite lunch spot and ask cafes to do something "different". But observations and reports from users showed that cafe staff are happy to fill a Returnr container. Returnr is developing cross-promotions with retailers to encourage them to switch to reusable packaging. Getting retailers on board could make people feel more comfortable and help to "normalise" reuse.

No matter the size of the workplace, one factor remains challenging. **Many food and beverage retailers prepack lunch items in disposable containers.**

Food and beverage retailers often pre-pack lunch foods in disposable containers. Source: research team

One of Returnr’s Micropool customers Today Design introduced the full range of Returnr packaging in their new office. A Today staff member noted ‘our staff all love it, but many cafes prepack foods like sushi and bento boxes’. We heard similar comments from all Micropool clients. Doing a cost analysis of disposable packaging with retailers could support a shift. Forsyth estimates an average independent café might save $80,000 per year on disposable packaging by encouraging its customers to shift to reusable containers.

Reusable packaging challenges wasteful economies built on a linear model of make > use > discard. Our research showed that creating circular systems for reusable packaging depends on new infrastructure and practices to support the collection, cleaning and reuse of containers. Returnr is prototyping circular packaging systems and testing them in the field with workplace decision-makers, staff, cleaning companies, building management, and food and beverage retailers to revive a culture of reuse.

Research team: Anisah Madden (Institute for Culture and Society, WSU) and Professor Gay Hawkins.

This case study is a part of a federally-funded ARC Discovery research project led by Western Sydney University in collaboration with University of Technology Sydney (UTS) and Monash University titled Investigating Innovative Waste Economies: redrawing the circular economy.

This research project explores cases of economic and social innovation in 3 key waste streams: organics, single use plastics and bedding. A key focus of the study is understanding exactly how more circular practices are created.
https://www.westernsydney.edu.au/ics/projects/investigating_innovative_waste_economies_redrawing_the_circular_economy

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