

“Cardiff’s Refill Return Cup Scheme: Reducing Single-used Plastics Waste”

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Project Background



Disposable Cups are used for almost half of the purchased hot drinks



Only 0.25% of disposable cups are recycled



Over 2.5 billion cups are discarded annually in the UK



The transition to Circular Economy requires a **collective system-wide changes** (e.g., Amir et al., 2020)



Increased **circular ecosystem perspective** (e.g. Trevisan et al., 2022)



Limited empirical studies on transition from traditional to circular ecosystems and business models

The **Refill Return Cup Scheme** for Cardiff City Centre introduces a **circular business model for reusable coffee cups** in an effort to **reduce single-use plastic waste** and make Cardiff a more sustainable and greener city.

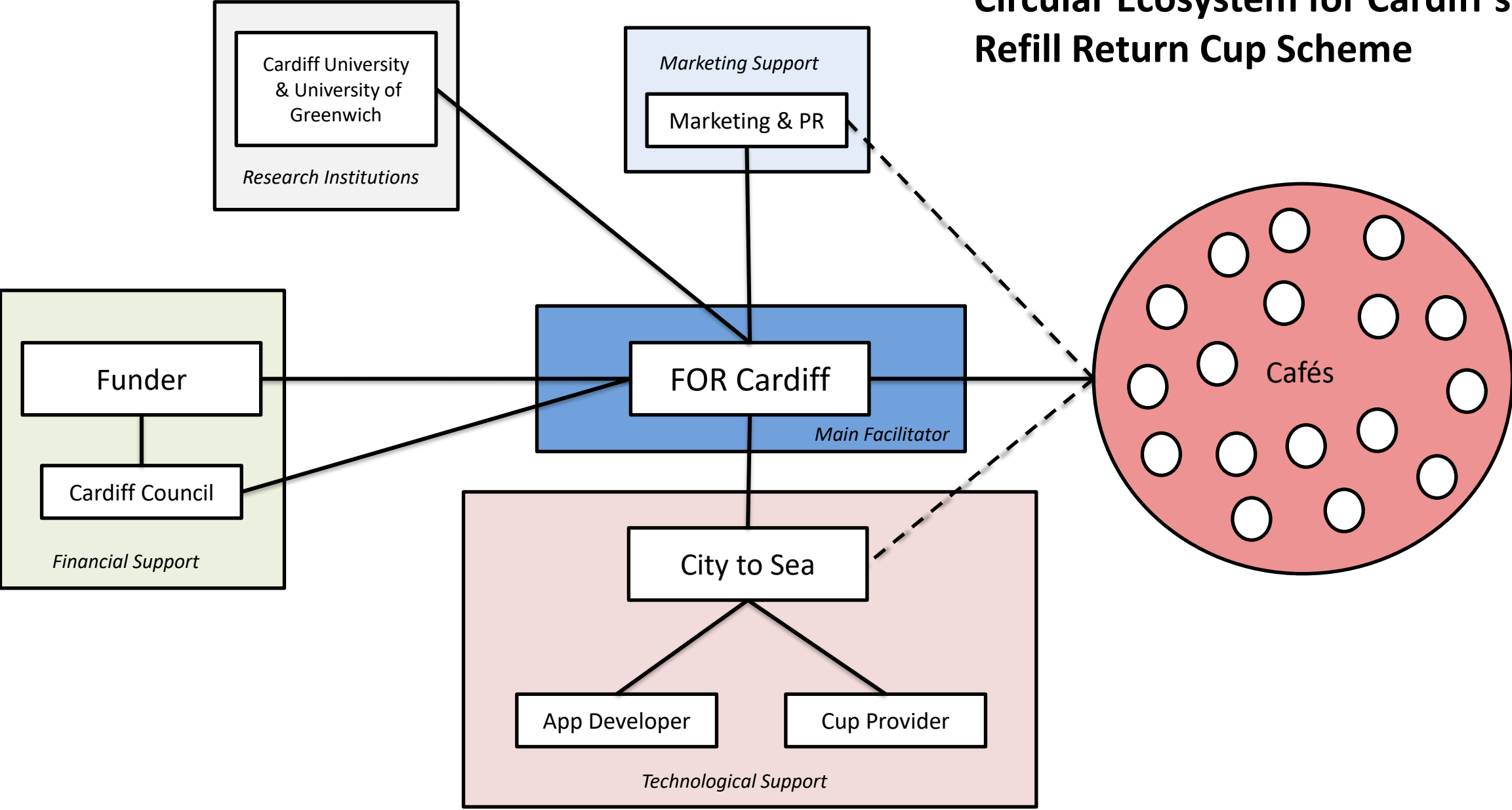


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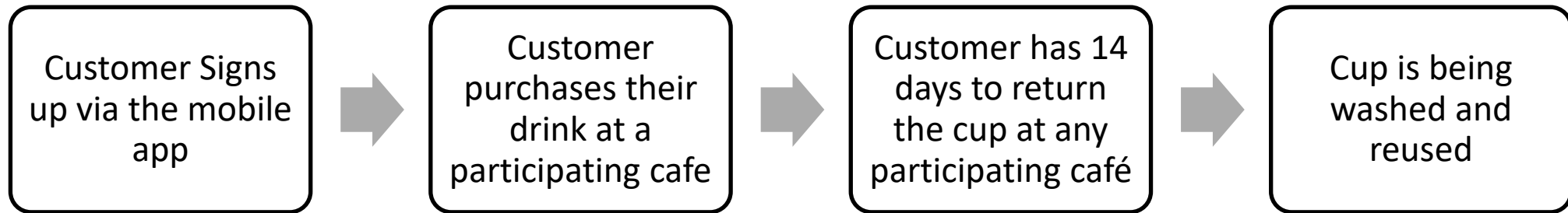


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Circular Ecosystem for Cardiff's Refill Return Cup Scheme



How does the Refill-Return Cup Scheme work?



Customer is only charged £3 if they do not return the cup (or if they return a broken/incomplete cup)

Research aims, question and objectives

Research Aim:

to explore the development of a circular ecosystem through the implementation of the Refill Return cup scheme in Cardiff

Research Question 1: How can a scalable Refill Return Cup Scheme be generated?

Objectives:

- To explore the foundational principles of establishing, implementing and launching a circular “Refill-Return Cup Scheme”
- To explore challenges and enablers for Refill-Return Cup Schemes

Research Question 2: How is a circular ecosystem impacting the scalability of a Refill-Return Cup Scheme?

Objectives:

- To identify the impact of “Refill-Return Cup Scheme” on circular ecosystems
- To develop a blueprint for Refill Return Cup Schemes.

Longitudinal approach (October'24 – March'25)

Three phases to evaluate and monitor the scheme's progress:

- Phase 1: Pre-Implementation
- Phase 2: Implementation
- Phase 3: Maintenance

Data Collection across the phases:

- Evaluation meetings / interviews with key facilitators at the end of each phase
- Survey for Café managers/ members of staff
- Survey with End-consumer
- Interviews with Café Managers/members of staff
- Focus Groups with Café Managers/members of staff

Data Collection & Pre-liminary Results: Phase 1: Pre-implementation

Data Collection:

- Survey with Café Managers/members of staff to understand the baseline
- Evaluation meetings with key facilitators

Pre-liminary results / learnings on Process Barriers & Enablers

- Training sessions are key (Group training vs. Individual training)
- Refill App
- Public Awareness of Refill App (e.g. soft launch)
- Café Recruitment and marketing activities
- Operational Support for Cafes (e.g. with display of reusable cups, support with app)
- One point of contact for cafes

Next Steps

- Evaluation of 2nd Phase
- Interviews with Cafes
- End-consumer survey
- Modelling of Coffee Cup flow
- Carbon Emission Reduction
- Display of a circular ecosystem including the activities
- Development of a scalable blueprint

Thank you very much
Any questions?

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