

# A Visual Research Report

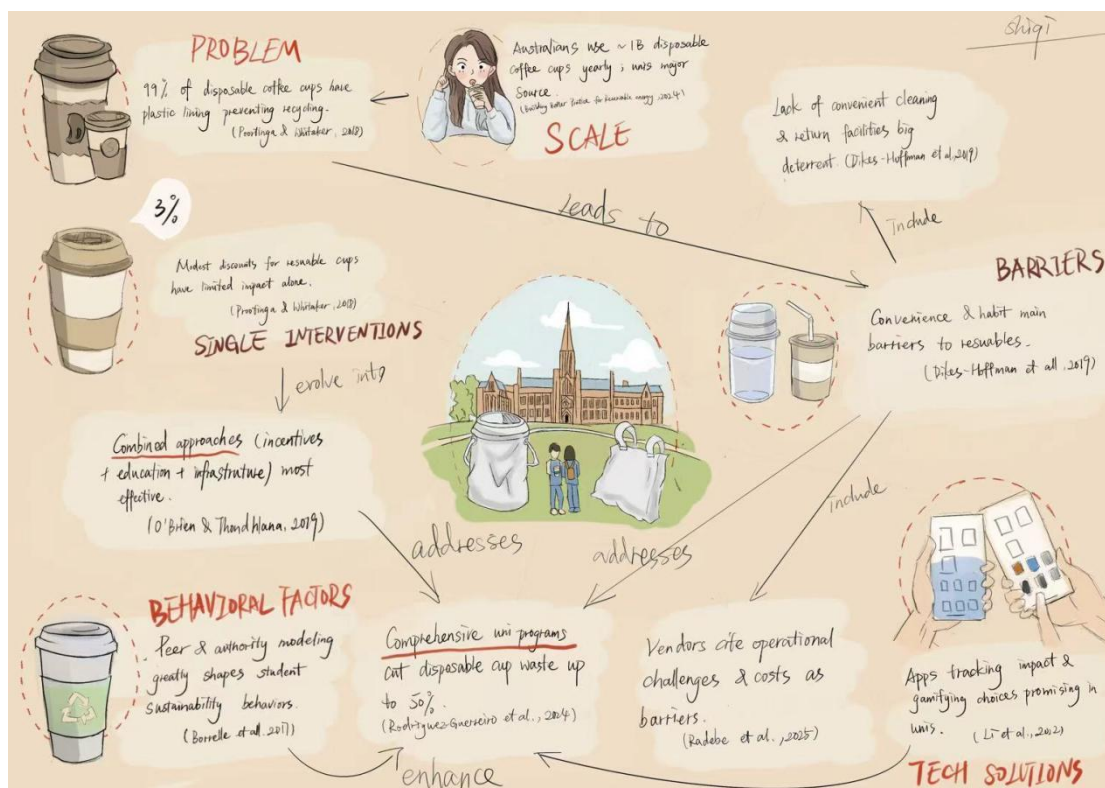
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## 1. Introduction: Project Context

Single-use drink containers represent a major sustainability challenge globally and on university campuses. The 2017 War on Waste campaign highlighted the "intractable problem" of disposable coffee cups (Sandhu et al., 2020). yet behavioral change has been limited. The 2024 UN Sustainable Development Goals report emphasized that progress on responsible consumption depends on "robust regulatory frameworks, financial incentives and public awareness campaigns" (United Nations, 2024).

This report explores sustainability issues around disposable drink containers at the University of Sydney, aiming to identify potential project areas to reduce or remove their consumption on campus. Secondary research and stakeholder analysis lay the groundwork for primary research to inform an interactive design solution addressing: How might consumption of single-use, disposable drink containers be reduced or removed at the University of Sydney?

## 2. Knowledge Map: Secondary Research Insights

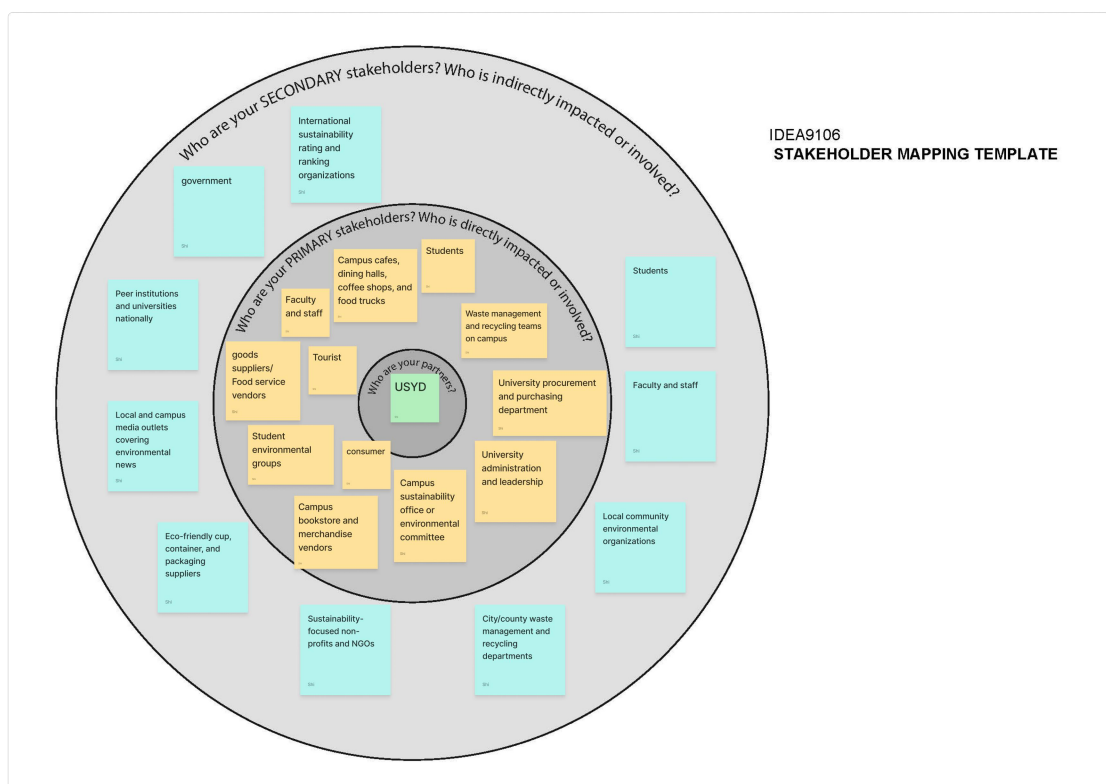


Key insights:

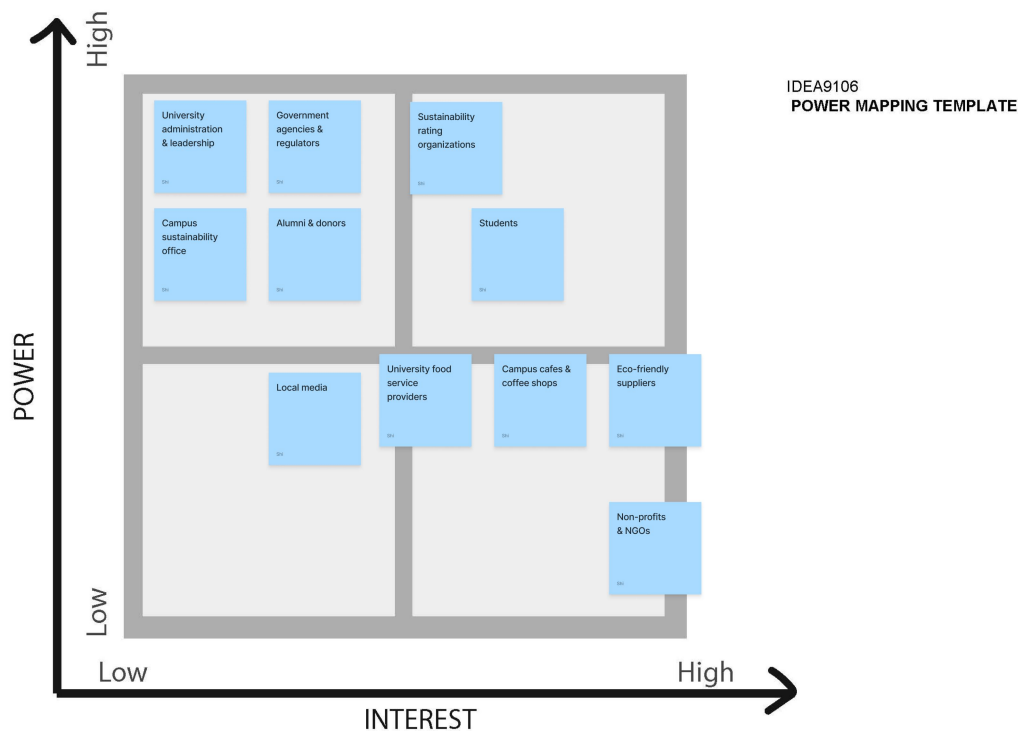
- 99% of disposable coffee cups have plastic lining preventing recycling (Poortinga & Whitaker, 2018)

- Australians use ~1B disposable coffee cups yearly; unis major source (Building Better Practice for Renewable Energy: Six Ways to Improve Ecosystem Outcomes Prepared for WWF Institute for Sustainable Futures, 2024)
- Convenience & habit main barriers to reusables (Dilkes-Hoffman et al., 2019)
- Modest discounts for reusable cups have limited impact alone (Poortinga & Whitaker, 2018)
- Combined approaches (incentives+education+infrastructure) most effective (O'Brien & Thondhlana, 2019)
- Comprehensive uni programs cut disposable cup waste up to 50% (Rodríguez-Guerreiro et al., 2024)
- Peer & authority modeling greatly shapes student sustainability behaviors (Borrelle et al., 2017)
- Lack of convenient cleaning & return facilities big deterrent(Dilkes-Hoffman et al., 2019)
- Vendors cite operational challenges & costs as barriers (Radebe et al., 2025)
- Apps tracking impact & gamifying choices promising in unis (Li et al., 2022)

### 3. Stakeholder Map



#### 4. Power Matrix



## 5. Proposed Project Area

**Problem space:** High volume of single-use drink containers used daily across USYD campus. Despite some awareness, change is hindered by convenience factors, limited incentives, and fragmented infrastructure. Need an integrated approach.

**Potential solution:** Develop a reusable cup system with convenient collection/washing stations, tracking app with rewards, and financial incentives. Partner with on-campus vendors, integrate with student/staff card systems.

**Justification:** Research shows multi-pronged interventions simultaneously addressing convenience, habit, and motivation barriers are most effective (O'Brien & Thondhlana, 2019). A unified system engaging all stakeholders can drive lasting change, contribute to sustainability goals. Builds on examples of successful uni cup-share programs (Gao et al., 2020)

## 6. Initial User Interview Research Plan

Name	<b>Shiqi Peng</b>
Tutorial number	<b>Tutorial 13</b>

<p><b>Project area</b></p> <p>Write a 150-word description of your proposed project area, including:</p> <ul style="list-style-type: none"> <li>• the broad problem space you have researched</li> <li>• any broad ideas you are considering as a solution space to investigate</li> <li>• justification for the choice of broad problem and solution spaces.</li> </ul>	<p><i>The project aims to reduce single-use drink container waste at the University of Sydney. While there is some awareness of the issue, change is hindered by factors like convenience, limited incentives, and fragmented infrastructure. A potential solution being considered is a reusable cup system featuring convenient collection and washing stations, a tracking app with rewards, and financial incentives. This would involve collaboration with on-campus vendors and integration with student and staff card systems. Research shows that multi-pronged interventions addressing barriers like convenience, habit, and motivation simultaneously are the most effective in driving sustainable behavior change. A unified system that engages all stakeholders can lead to lasting change, as seen in successful university cup-share programs elsewhere.</i></p>
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<p><b>Target users/ stakeholders (sample)</b></p> <p>Write a 100-word description of the proposed target group/s, including:</p> <ul style="list-style-type: none"> <li>• who are the target users</li> <li>• justification for the choice of the particular group/s.</li> </ul>	<p><i>To gain insights, interviews will be conducted with three undergraduates, one each from the Business, Engineering, and Arts &amp; Social Sciences faculties. These groups represent the main beverage consumers on campus with diverse academic backgrounds. Understanding their perspectives on single-use cup usage and waste reduction is vital for designing feasible solutions that cater to the needs and preferences of different campus communities.</i></p>
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<p><b>Recruitment</b></p> <p>Write a 150-word description of how participants from the target user group will be recruited for interviews, including:</p> <ul style="list-style-type: none"> <li>• recruitment method/s</li> <li>• justification for the</li> </ul>	<p><i>Participants will be recruited through flyers distributed at on-campus cafes, explaining the project and inviting participation, as well as through recruitment information and a sign-up link in the student newsletter. Informed consent will be obtained, and a small stipend will be provided before the interviews. These methods ensure coverage of different student groups, with flyers targeting cafe customers directly and the newsletter disseminating information more broadly, while</i></p>
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choice of recruitment method/s.	<i>respecting participants' rights and time.</i>
<b>Ethical considerations</b> Write a 150-word description of any ethical issues associated with interviewing the research participants, including: <ul style="list-style-type: none"> <li>• a risk analysis (see risk assessment form on canvas)</li> <li>• a plan to mitigate any potential discomfort or harm.</li> </ul>	<i>Potential ethical issues include discomfort discussing personal consumption habits, students feeling coerced due to their status, and identifiable opinions in the report raising privacy concerns. To mitigate these risks, participation will be emphasized as voluntary, with the option to skip questions or withdraw without affecting campus services. All data will be anonymized, with identifying details redacted and no identifying information presented. Raw data will be promptly destroyed after the project and not used for other purposes. Emotional support will be provided if needed, and interviews will be stopped if necessary.</i>

<b>Draft interview questions</b> Write five open-ended interview questions that you will ask your interview participants	<p><i>Q1. Do you usually buy drinks on campus? Do you use single-use cups or bring your own?</i></p> <p><i>Q2. What ' s the biggest reason you don ' t bring your own cup or container?</i></p> <p><i>Q3. What would make you bring your own cup or container more often?</i></p> <p><i>Q4. Would you use a borrow-and-return system for reusable cups or containers?</i></p> <p><i>Q5. What ' s one thing the university could do to reduce single-use cup or container waste?</i></p>
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