#GreenHacks: Design Innovation Workshop #2
Session details: 13 January 2024, 9.30am – 5.00pm, Hullet Room

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S/N	Summary of Discussion	Action by

1	**#PanelHomework**
	    a. Consolidate what the panel has covered over the break.
	    b. Identify stakeholder groups involved in the areas they have consolidated.	

1.1	<u>Outline of Workshop Session</u>
	Lee Kiang (Lead) covered the intended outcomes for the day:
	    i. To explore potential topics for the panel to address (e.g., sustainable consumption and food security).
	    ii. To decide on specific subtopics by the end of the session.
	    iii. Decide on the responsibilities of panel subgroups.
	    iv. Decide on tentative schedule for monthly meetings.	

1.2	<u>Q&A</u> A member asked if the leads envisioned the subgroups to work simultaneously or sequentially. Lead said that the subgroups would have to work simultaneously, but that some subgroups might have to begin their activities sooner (e.g., secondary research would have to begin first to inform the panel's primary research design).	

2	**#CapBuilding: Crafting the Opportunity Statement**
	    a. Crafting an opportunity statement with a clear goal and agenda.
	    b. Converging the efforts of the whole panel into one (or two) directed and specific problem areas to focus on.	

2.1	<u>Subtopic Breakout Discussion</u> The #GreenHacks panel split into three groups to individually identify a subtopic of interest, later reconvening to present their chosen subtopics and opportunity statements.	
2.2	<u>Group 1's Opportunity Statement</u> "Group 1 would like to address the issue of e-commerce packaging amongst consumers and merchants within e-commerce platforms, because there has been a rise in ecommerce during COVID, and other areas such as carbon taxing and e-waste have already been worked on substantially by the Government." a. Group 1 shared that there may be a need to also evaluate if there was a substantial difference in net-carbon produced between e-commerce packaging and general retail packaging.	

	b. Group 1 said that there would be an opportunity down the logistics chain as ecommerce volume was high, whereas the policy surrounding it was underdeveloped. Response and Q&A A member said that some products come in recyclable cardboard boxes and asked if consumers or merchants should be targeted for potential policy interventions. Group 1 explained that it would be decided later during solutioning, but responded to the cardboard example with the caveat that recycling in general incurs more process costs than reuse.	
2.3	Group 2's Opportunity Statement "Group 2 would like to address the lack of infrastructure supporting the collection and segregation of multiple waste streams in Singapore; as recyclable waste contamination inhibits proper recycling, which seems to be a root cause for many other waste stream problems such as textiles, plastics and e-waste." Response and Q&A A lead asked if the group was evaluating infrastructural interventions or evaluating educating consumers to overcome infrastructural limitations. Group 2 clarified that they were evaluating point-source collection of recyclables, focussing on creating an improved infrastructure to promote an uptake in recycling. A member said that culture might play a big role in recycling, giving his opinion that Japan's recycling efforts were possible solely because of its cultivated recycling culture. Group 2 disagreed, saying that another crucial factor was that Japan had the infrastructure to handle more finely segregated recycling streams which Singapore does not have. Another member said that improving infrastructure to enhance the convenience of recycling could also help the development of a pro-recycling culture. A member said that some segments of society would be harder to incentivise recycling (e.g., it would be hard to beat the convenience of being able to dispose of rubbish through in-house rubbish chutes). The member suggested that research for this subtopic should not exclude consumer research to keep target stakeholders in mind. A lead asked about the types of infrastructures and stakeholders the group had in mind, and if there were examples or models from other countries to follow. Group 2 said that HDB could have more finely segregated bins rather than just blue and green bins, which	

	would allow companies to create value from more finely segregated recyclables.	
2.4	<u>Group 3's Opportunity Statement</u> "Group 3 would like to address the issue of plastic bag overconsumption amongst grocery shoppers within supermarkets from 2025, as the National Environmental Agency aims to reduce daily per capita waste generated by 30% by 2030." The group saw the potential for a vending machine to handle the distribution and return of reusable shopping bags, which could potentially be integrated with the Beverage Container Return Scheme slated for 2025. A lead asked about how consumers could be incentivised to return the bags in serviceable conditions. A member asked which stakeholder should bear the implementation costs. Group 3 said supermarkets could bear the cost as offering this service may constitute a competitive advantage and that it need not be implemented in vending machine form. Group 3 said that accountability issues could be avoided if returns were done manually. A member said that this might be a logistical nightmare in Singapore because of religious considerations for the Muslim community (e.g., Non-Halal food possibly contaminating the bags). Khairul said that the logistical issues could be foreseen but could only be solved at a later phase with more inputs.	
3	**#CapBuilding: Research Process and #PanelBreakout Hands-on Activity** a. Social / Policy Research Process. b. Hands-on: Crafting a Research Plan to refine opportunity statement	
3.1	<u>#CapBuilding: Research Process</u> Khairul explained and elaborated on the research process and its aspects.	
3.2	<u>#PanelBreakout Hands-on Activity</u> Groups were tasked with identifying and justifying a research method and research target for their previously chosen subtopics. Group 1 looking at mixed-methods research on consumers for e-commerce packaging. a. Quantitative surveys for identifying patterns of use and focused group discussions (FGD) to understand identified patterns.	

	Group 2 decided on one-on-one qualitative interviews with businesses to understand recycling business models and their pain points. They also considered FGDs with the general population or student demographic to understand their recycling awareness, knowledge, and habits. Group 3 thought of conducting surveys outside supermarkets, targeting people who had just shopped, as well as interviewing CEOs for supermarkets' perspectives. Khairul said that members should be strategic when recruiting research participants, elaborating that they should not shy away from leveraging their networks and that sometimes going through MCCY or NYC would be the more reliable option.	Panel to note

4	**#PanelBreakout: Panel Time / Consultations**
	Panel Leads to:
	    a. Lead the panel in deliberating what the roles and responsibilities of the panel subgroups should be.
	    b. Decide on the official meeting schedule for the next few months.
	
	Panel Members to:
	    a. Explore the proposed roles and responsibilities so that all members and leads are aligned.	

4.1	<u>Updated Proposed Structure</u>
	
	Leads proposed to have 4 subgroups/teams, comprising of:
	    i. Research
	    ii. Policy writing
	    iii. Stakeholder engagement
	    iv. Policy deliberation and analysis
	
	Each team is to have a panel lead I/C and 2I/C, as well as a member I/C and member core-team. Members are expected to assist in the work of other teams regardless of their core team, to gain a holistic experiential understanding of the work process.
	
	Each team is to maintain an online change log for their Google Drives to facilitate knowledge management.
	
	I/Cs of each group are to surface unforeseen/ad hoc responsibilities as they arise, so that they can be distributed more fairly by the leadership.	

4.2	Finalised Roles and Responsibilities – Research
	    a. Lead, coordinate and compile secondary research.
	    b. Data visualisation and synthesising the total body of research to be more comprehensible.
	    c. Thematise research findings, identifying potential problem statements and stakeholders.
	    d. Analyse secondary research to inform the design of primary research.
	    e. Highlight tried, tested, and attempted solutions from other countries and/or time periods.
	    f. To provide frequent summaries of new research to facilitate the panel's information uptake.
	    g. Set expectations/suggest a format for how members should submit secondary research for processing.
		Research team to note

4.3	Finalised Roles and Responsibilities – Stakeholder Engagement
	    a. Design primary research based on the findings from the Research team's secondary research.
	    b. Engage stakeholders, strategically reaching target audiences.
	    c. Communicate policy recommendations to various stakeholders for their inputs/support.
	    d. Seek repeated input/mentoring from CEOs, finding potential tangible returns for their time and commitment.
	    e. Develop partnerships with organisational stakeholders.
	        i. Panel leads to handle ongoing conversations with partner ministries to ensure that the panel aligns with government agencies.
	    f. Conduct initial data analysis for panel's primary research.
	    g. Advise the policy writing team on crafting of policy recommendations.
	    h. Summarise the findings of primary information to facilitate the panel's research database.
	    i. Participant recruitment and primary research implementation.
		Stakeholder engagement team to note

4.4	Finalised Roles and Responsibilities – Policy Deliberation and Analysis
	    a. Brainstorm and analyse potential solutions based on primary and secondary research findings.
	    b. Evaluate proposed solutions' negative externalities, trade-offs, scope, timeframe etc.
		Policy deliberation and analysis team to note

4.5	Finalised Roles and Responsibilities – Policy Writing
	    a. To condense panel knowledge into a clear and concise brief.
	    b. Monitor other teams' work to stay abreast of information,
		Policy writing team to note

		identify gaps to be filled, and ensure a cohesive panel direction. c. Evaluate past policy papers to better understand the requirements/factors to be avoided and guide the other teams accordingly. d. Prepare the presentation materials for the delivery of the final paper if necessary. e. Deliver the final presentation unless the leads are required to do it.	
4.6		<u>Panel Follow-ups</u> Members are to submit their 1st and 2nd choice for the core team they would like to be part of; members interested in being part of multiple core teams are to indicate a preferred primary and secondary team. Members and leads to decide on the meeting schedule using When2Meet. Leads to set up concurrent virtual meetings to facilitate monthly meetings to be accommodating and flexible.	Members Leads and members

Attendance

MCCY	Mr Aaron Tan (Assistant Manager, Youth Division)
NYC	Mr Song Chi (Assistant Manager, Youth Engagement/ Leadership) Mr Eugene Chia (Intern, Youth Engagement)
Verian	Mr Khairul Mohd Khair (Senior Consultant, Change Management & Public Participation)
Leads	Ms Ng Lee Kiang Ms Kimberly Quek Mr Preston Wong
Members	Ms Stacy Loo Shi Ting Ms Ling Jia Shin Ms Sivanisswary Manoharan Mr Neo Yi Chong Isaac Mr Darius Ng Wei Quan Mr Tay Zhe Qian Ms Liu Xinyi Mr Morier Adam Mr Muhammad Hilmi bin Abu Bakar Mr Aidan Ng (Huang Qirui) Ms Dana Cheng Mr Muhammad Firdaus Bin Kordi Ms Srivarshni Kasirajan Mr Muhamad Tassri Mubarak Ms Leandra Richard R Mr Sheik Abdul Hafidz Bin Sheik A Hamid Ms Cassandra Yip Mr Jason Lam
Absent with apologies	Advisors: Ms Melissa Low Ms Farah Sanwari Leads: Ms Kong Man Jing Members: Mr Tan Han Feng, Chester Matthias Mr Fong Jun Yi Ms Tan Bo Yan Mr Goh Jun Hui Ms Ng Sze Xuan Mr Daryl Lee Jia Jun Ms Soh Yan Xi Mr Dharma Halyn Deun Ms Hannah Batrisyia Binte Hamdi Hidayat Ms Yeo Shayne Ms Tan Ziyin Ilyna Mr Salwa Sanaullah Khan