

OPTIMISING MARKETING EFFORTS THROUGH AUDIENCE SEGMENTATION AND PROFILING

CONTEXT

This challenge is organised by Stellar Lifestyle, a business arm of SMRT Corporation Limited, with their partner Japan East Railway Company (JR East) to address challenges faced by retail and transit operators in Singapore and Japan.

- Stellar Lifestyle is the largest managing agent of retail and advertising spaces in Singapore’s rail network, and its growing portfolio includes mall management and outdoor media & digital engagement platforms. They have invested in new businesses, such as co-working spaces, unmanned concepts and dark stores, with a vision to grow them into a new core.
- JR East is the operator for trains including Shinkansen (high speed bullet train) in eastern Japan. It is the largest passenger railway company in Japan, serving about 13 million passengers daily. JR East Group also operates a variety of lifestyle businesses such as shopping malls, retail shops, restaurants, hotels, as well as office building management. Outside Japan, JR East has a presence for its lifestyle business unit with the establishment of Japan Rail Cafe in Singapore and Taiwan.

Through this joint innovation programme, Stellar Lifestyle and JR East are seeking solutions to support online transformation, online-to-offline customer engagement, develop a vibrant environment inside train stations to improve commuter experiences, and introduce new last-mile robotics delivery platforms for retailers and F&B merchants, within SMRT and JR East-operated train stations.

Demographic data (e.g. age, gender, occupation, and interests) and insights are crucial for advertisers and marketers to better understand their target audience’s needs and preferences. Such data enables them to create more effective campaigns tailored to the audience’s interests. Currently, Stellar Lifestyle has different pockets of data collected from various sources but face the challenge of extracting meaningful and actionable insights from the fragmented data sources. They would like to better identify trends, patterns, and correlations in the data that shape their marketing strategies and campaigns. The lack of actionable insights from the scattered pockets of data also hampers their ability to optimise their marketing efforts, target their customers effectively, and drive meaningful engagement and sales. Stellar Lifestyle also faces the challenge of limited real-time insights and data analysis, which is needed to enhance their ability to respond to the changing customers’ needs and preferences and stay competitive in the market.

PROBLEM STATEMENT

How might we effectively capture and analyse the demographic, commuting, and location data of commuters in and around train stations and Out-of-Home media assets near roads, to gain deeper insights into commuters’ needs and preferences and optimise marketing efforts for targeted engagement?

WHAT ARE WE LOOKING FOR?

Stellar Lifestyle and JR East are looking for innovative start-ups whose solutions can leverage on existing data and capture new data sources, to create actionable insights on commuters travelling to and from train stations. Stellar Lifestyle aims to extract meaningful insights that can directly inform their marketing strategies and campaigns, optimise customer targeting, and drive tangible business outcomes.

The Problem Solver may propose their solutions that offer these possibilities, but not limited to:

- Data cleansing and preparation. Ability to clean and prepare data collected from different sources to address inconsistencies, missing values, and errors before analysis.
- Data validation. Ability to validate accuracy of data to ensure that data used for analysis is reliable and accurate.
- Data analysis. Use techniques such as exploratory, regression, and cluster analysis to gain insights into the target audience.
 - Exploratory data analysis helps identify patterns and trends
 - Regression analysis identifies factors influencing customer behaviour
 - Cluster analysis segments customers based on their characteristics
- Generate actionable insights. Use insights gathered from data analysis to build a customer profile summarising the key characteristics of the target audience, such as age, gender, income, education, interests, and purchasing behaviour.
- Data collection and integration. Ability to integrate with data from various sources, including first and third party data such as video analytics, customer surveys, social media profiles, web analytics, and customer databases, and create targeted and personalised campaigns that resonate with consumers.
- Ease of use. User-friendly user interface that is intuitive and accessible.
- Reliability. Ability to process and analyse data efficiently, with minimal delays or performance issues.

There are no restrictions on the geographical location of the problem solvers who may choose to apply to this challenge. However, the prototype must be demonstrated in Singapore.

POSSIBLE USE CASES

1. Personalised advertisements. Lisa is a busy mother who commutes daily from the west to Raffles Place for work. During her commute, she uses her mobile device to search for meal recipes and planning for dinner. She also browses online for household items and fashion wear. Based on Lisa's commuting and browsing behaviour, Lisa receives targeted ads that are relevant to her interests and needs on her mobile device during her commuting schedule.
2. Location-based advertising. Lisa fetches her kids from their enrichment programme and runs errands on weekdays after work. On weekends, Lisa takes her kids to the heartland mall and sometimes indulges in personal grooming sessions. With the insights generated by the solution on Lisa, Stellar Lifestyle is able to deliver display ads for deals at retail outlets or malls near her location. These location-based ads prompt Lisa to take advantage of nearby offers, resulting in increased footfall to the retail outlet and potential sales.

WHAT'S IN IT FOR YOU

- Up to SGD55,000 of prize money for each winner of this challenge (see Award Model)
- Access to IMDA's innovation consultancies (e.g. Design Thinking, Digital Storytelling, UI/UX) and PIXEL corporate innovation hub (e.g. hot-desking, project studios, ARVR, usability, 5G test labs) for prototyping and commercialisation
- Aside from grants, shortlisted innovators will be provided with the Innovation Support and Resource Package comprising of mentors, consultants, workshops, labs, co-working offices, incubation platforms and more provided by SMRT, Singapore University of Technology and Design (SUTD), and East Japan Railway Company (JR East) detailed below

Call 18 - May 2023

Figure 1: SMRT – HIVE by Stellar Lifestyle @ Esplanade & Staytion Co-working Spaces



Incubation Hub to help innovators validate, commercialize and scale

- Corporate Mentors
- Subsidized Rent
- HIVE Studio & Kitchen
- Free & Extensive PR / Marketing



Co-working Space as Office Solutions

2023 Locations: Marsiling, Paya Lebar, Dhoby Ghaut, Woodlands, Jurong East

Includes POC validation and commercialization opportunities



Figure 2: SUTD Innovation & Entrepreneurship Programmes

Shortlisted innovators will be invited to participate in the SUTD ARISE Program and SUTD ESG Impact Lab. The ARISE Program consists of workshops that facilitate innovators to bring their technology to venture creation. During the workshops, participants will develop business strategies, operation plans, financial projections, and pitching strategies. The SUTD ESG Impact Lab is a series of masterclasses to develop the awareness of innovators on developments and opportunities in ESG and how they can achieve their corporate social responsibility goals.



Figure 3: JR East – Opportunities and Support to expand into the Japan Market



Language Barrier Support



Travel & Accommodation



Mentorship for integration into the Japan Market



POC Validation Platforms in the Japan Rail Club ecosystem



Co-working Spaces in SG and JP



Demo Day in Japan

EVALUATION CRITERIA

The evaluation process shall take place over two stages. Proposals shall be evaluated based on the criteria set out for the first stage. After that, shortlisted proposals shall be subjected to a second stage evaluation in the form of an interview/pitch, and the scoring shall be based on a re-defined assessment criteria for selecting the challenge finalist(s).

Solution Fit (30%)	<u>Relevance</u> : To what extent does the proposed solution address the problem statement effectively?
Solution Readiness (30%)	<u>Maturity</u> : How ready is the proposed solution to go to the market? <u>Scalability</u> : Is there any evidence to suggest the capacity to scale?
Solution Advantage (20%)	<u>Quality of Innovation</u> : Is the solution cost-effective and truly innovative? Does it use new technologies in the market, and can it generate new IP?
Company Profile (20%)	<u>Business Traction</u> : Does the product have user and revenue traction? <u>Team Experience</u> : Do the team members possess strong scientific/technical backgrounds?

AWARD MODEL

The prize money will be awarded to each selected finalist based on milestones agreed upon between Problem Owner(s) and the solver. Prize money will be inclusive of any applicable taxes and duties that any of the parties may incur.

Note that a finalist who is selected to undertake the prototype development process will be required to:

- Enter into an agreement with Problem Owner(s) that will include more detailed conditions about the prototype development;
- Complete grant application form(s) with Stellar Lifestyle and/or its partners that will require more financial and other related documents for potential co-funding support.

Teams with public research performers must seek an endorsement from their respective Innovation and Enterprise Office (IEO) and submit the IEO form with the proposal.

DEADLINE

All submissions must be made by **9 June 2023, 1600 hours (SGT/GMT +8)**. Problem Owner(s) and IMDA may extend the submission deadline at their discretion. Late submissions on the OIP, or submissions via GeBIZ will not be considered.