

PROMOTING ACTIVE MOBILITY AND PUBLIC TRANSPORT WITHIN JURONG LAKE DISTRICT

CONTEXT

SMRT Corporation Ltd is a public transport service provider in Singapore, managing and operating train services on the North-South Line, the East-West Line, the Circle Line, the new Thomson-East Coast Line, and the Bukit Panjang Light Rail Transit. This is complemented by their bus, taxi and private hire vehicle services.

Green mobility is an essential priority for the Jurong Lake District (JLD). JLD will be served by four Mass Rapid Transit (MRT) lines in 2030, and Walk-Cycle-Ride (WCR) modes of transport are expected to account for at least 85% of trips by 2035.

SMRT is working towards contributing to this vision for JLD. SMRT operates three MRT stations along two MRT lines (Lakeside, Chinese Garden and Jurong East, along the North-South and East-West Lines) in the JLD, and is a potential operator of the upcoming Jurong Region Line. Through its business arm, Stellar Lifestyle, SMRT seeks to transform its MRT stations to provide more convenience and value (e.g. childcare centres, food and beverage options within stations), so that people will view them as not just transit nodes but also vibrant lifestyle destinations.

To help make JLD a car-lite district, SMRT is looking for innovative solutions to encourage commuters to use public transport and reduce reliance on private cars. While JLD already has a high rail and bus network density, as well as new lifestyle destination offerings, these do not present an attractive enough option to go car-lite, especially for long-time drivers. Hence, SMRT is looking for a solution to aggregate and recommend public transport and active mobility options to encourage more WCR uptake and make public transport more attractive for commuters within JLD.

This sector-wide challenge is supported by the Urban Redevelopment Authority (URA) and Smart Nation & Digital Government Office (SNDGO) as co-lead agencies in the development of sustainability and smart zone initiatives for the Jurong Lake District Innovation Challenge.

PROBLEM STATEMENT

How might we encourage drivers to go car-lite and promote more Walk-Cycle-Ride modes of transport for trips within the Jurong Lake District?

WHAT ARE WE LOOKING FOR?

SMRT is looking for a solution that aggregates information across the various public transport services and active mobility options in JLD. The solution targets to change car owners / frequent drivers' perception of public transport and offer commuters better interaction with SMRT's offerings.

The solution may consider the following:

- Aggregate and propose viable public transport and active mobility options. The solution pools together available public transport options and proposes suitable transport and WCR modalities to promote a car-lite JLD.
- Leverage third-party data. The solution integrates third-party data¹ from other transport providers (e.g. from bike-share and on-demand rideshare providers) to provide a single point

¹ Problem solvers should propose and explain what data (with respective sources) is needed for their proposed solutions.

of information for users to access public transport information and first / last mile options (e.g. fully covered walkways) within JLD which are often roadblocks to taking public transport.

- Personalised recommendations. The solution should be able to prompt suggested routes to users based on their usual travel patterns and departure time, taking into consideration the prevailing weather conditions and road traffic conditions, to help them make a more well-informed decision on the use of public transport and their first / last mile options.
- Provide new value to users. The solution should help make travel time more productive / meaningful, enabling better connections especially for people who must make multiple stops to get to their destinations (e.g. suggesting routes that pass through relevant MRT stations to help with access to popular essential services).
- Real-time monitoring for transport operations optimisation. Surges in real-time demand for public transport can be flagged to SMRT's operations control centres within JLD for better management of the bus fleet and train system. The solution integrates the actual ridership data from SMRT to provide better routing and active mobility / public transport options for users.

OVERALL PERFORMANCE REQUIREMENTS

- User acquisition and retention. The solution can easily acquire and onboard non-users of public transport with minimal cost for retention, while at the same time providing value to them.
- Cost-effective. The solution should be cost-effective and present an opportunity for revenue generation for SMRT. However, revenue generation should not come at the expense of providing users with good public transport services and a pleasant user experience.

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

Proposals that are non-digital or combine digital and non-digital components which address the challenge statement are welcome too and will be assessed accordingly.

POSSIBLE USE CASES

1. Deciding between public or private transport. Joe is a JLD resident who usually uses his car to ferry his children to childcare during peak hours before going to work. On a rainy day, the SMRT solution prompts Joe that the traffic conditions on his usual route are bad, which deters him from driving that day as he will arrive late at work. The solution suggests to him an alternative public transport route that includes fully covered walkways, and recommends that he bring along an umbrella to use during lunchtime, as the weather prediction indicates that it may be rainy all day at his office.
2. Travel planning and recommendation. While Joe has a good experience on the suggested public transport route, he worries if he will be able to manage should he give up his car. With the SMRT solution, Joe is able to plan a weekly routine based on his varying schedule and the time he needs to arrive at various stops. The solution also suggests that he try a childcare facility near an MRT station, which will reduce his travel time and make it convenient for him to pick his children up after work.
3. Integration with SMRT's lifestyle services in MRT stations. While travelling home via public transport, Joe uses the solution to make purchases in advance that he can pick up from the MRT stations in JLD. To Joe, this makes his last mile feel more productive, and reduces the hassle of having to stop at multiple places to fulfil his daily tasks.

WHAT'S IN IT FOR YOU

- SGD50,000 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 facility (e.g. hot-desking, project studios, ARVR, usability, 5G test labs) for prototyping and commercialisation
- Co-innovate with SMRT with access to their expertise, facilities, and human resources in developing the solution
- Contribute to JLD's sustainability efforts and towards the collective green ambitions of the district, with profiling opportunities and potential to scale successful solutions within the district

SUBMISSION GUIDELINES

The proposal should include the following:

- 1 deck of slides in ppt format explaining the proposed solution, how it addresses the problem statement and meets the desired performance requirements. To include information such as the proposed cost model, data inputs, system that the proposed solution will run on, potential benefits, and the team's implementation plan.
- Video or pictures of any prototype or simulation, if applicable.
- Track record of the company/ CV of the team.

EVALUATION CRITERIA

The evaluation process shall take place over two stages. Proposals shall be evaluated based on the evaluation criteria set out for the first stage. Thereafter, 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 the selection of 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 capacity to scale?
Solution Advantage (25%)	<u>Quality of Innovation</u> : Is the solution cost effective and truly innovative? Does it make use of new technologies in the market, and can it potentially generate new IP?
Company Profile (15%)	<u>Business Traction</u> : Does the product have user and revenue traction? <u>Team Experience</u> : Do the team members possess strong scientific/technical background?

AWARD MODEL

30% of the prize money will be awarded to each selected finalist at the start of the POC/prototype development process. The remaining 70% will be awarded after completion of the POC/prototype solution, based on milestones agreed 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 pertaining to the prototype development;

- Complete an application form with IMDA that will require more financial and other related documents for potential co-funding support.

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

DEADLINE

All submissions must be made by **21 Apr 2023, 1600 hours (SGT/GMT +8)**. Problem Owner(s) and IMDA may extend the deadline of the submission at their discretion. Late submissions on the OIP, or submissions via GeBIZ, will not be considered.

Please visit <https://www.openinnovation.sg/challenges> to sign up for this challenge.