



EcoLabs Centre of  
Innovation for Energy

# Case study – Future Mobility

Ryan Jin, Lead (Smart Cities & Future Mobility)

3 March 2020

Ryan Jin, [RyanJin@ntu.edu.sg](mailto:RyanJin@ntu.edu.sg)

<https://ecolabs.sg/>

**Energy Research Institute @ NTU (ERI@N)**

1 CleanTech Loop, #06-04 CleanTech One, Singapore 637141

Phone: (65) 6592 1786 / 2468 Fax: (65) 6694 6217



# **LIVING LAB CASE STUDY MOBILITY-AS-A-SERVICE TESTBED (NTU)**





# Partners



In Jan 17, SMRT presented its proposal for implementing MaaS on NTU campus

MoU Signed on 6 Feb 2017 to test-bed MaaS solutions



- Testbed an innovative car-lite EcoCampus
- Focus on R&D in mobility innovation
- Enhance campus livability and connectivity



- Master planner and developer of innovative industrial infrastructure
- Jurong Innovation District as large scale living lab for urban solutions

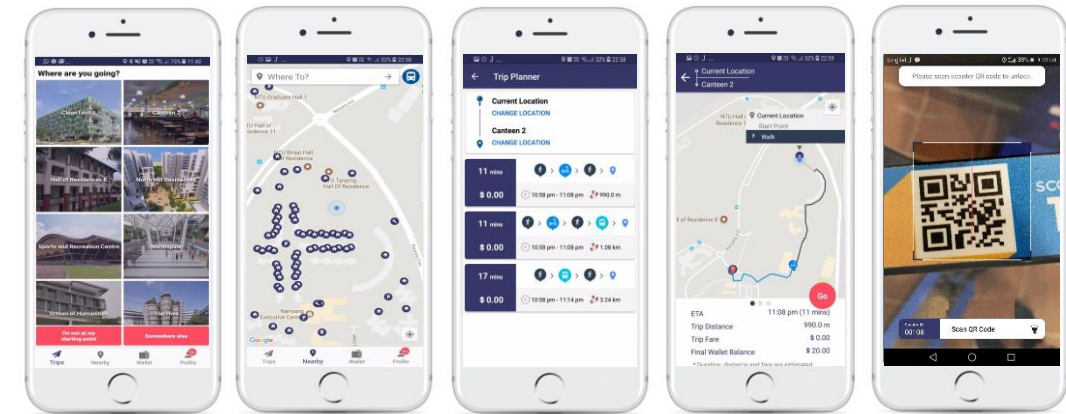
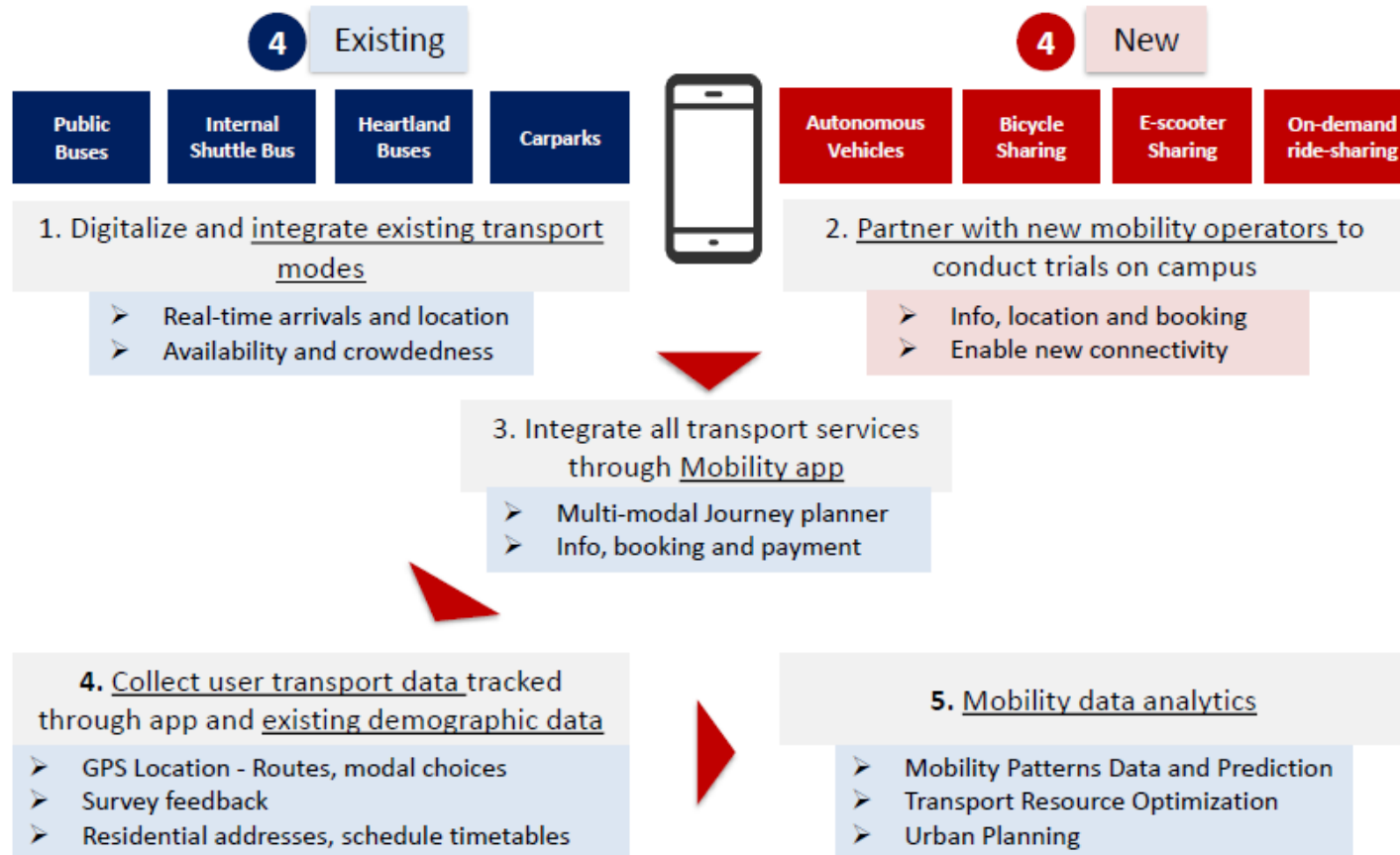


- Experienced multimodal transport operator
- Developing portfolio of new mobility modes



# Background

- Living Labs: Defined as a **user-centred, open innovation ecosystem** based on systematic user co-creation approach and **integrating research and innovation into real life communities and settings**



Landing Page  
Location-specific  
Booking

"Nearby"  
Mode-specific  
Booking

Multi-modal  
Trip Planner

Route Details

Full-integration





# Testbed and Solutions

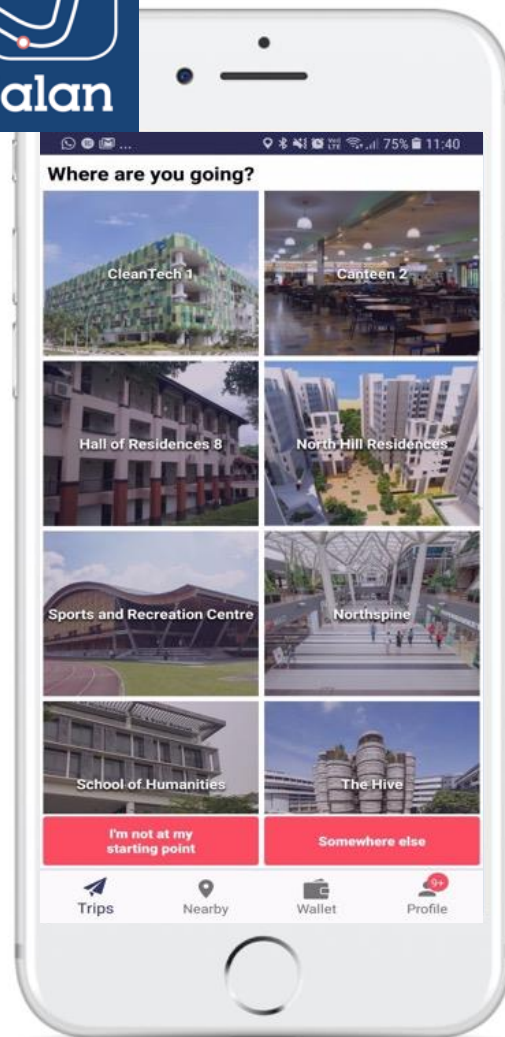


More than **10,000** unique registered app users

2get<sup>3</sup>there  
ASIA



**4000+** passengers on GRT AV Trial in NTU  
Aug '17 to May '18  
Hall 12 - 15



**1000** daily e-scooter trips are made, with an average distance of **1.3km**.

**900+** Obike Trips monthly

Continental

SWAT



Digitalization of Campus shuttle buses



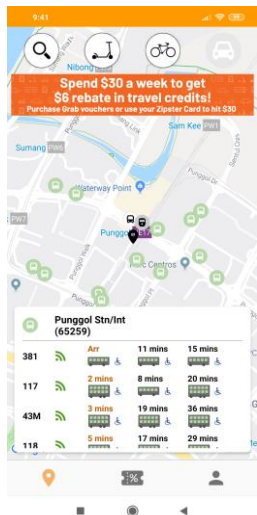
**2,000+** On-demand shuttle bus



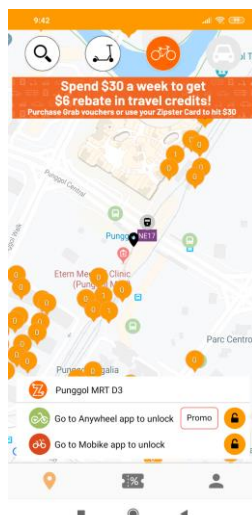
# Outcomes



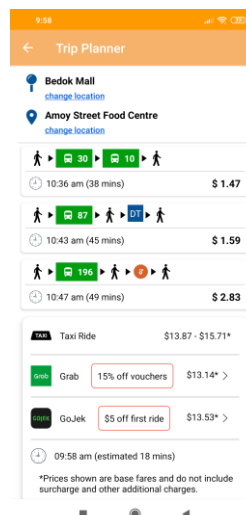
Bus Arrival Times



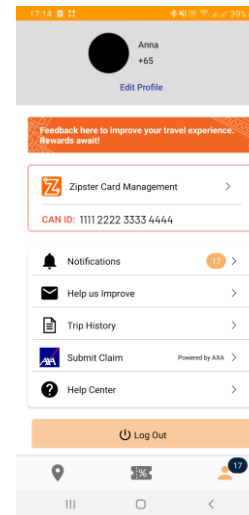
Bicycle Availability



Multi-modal Journey Planner



Personalisation







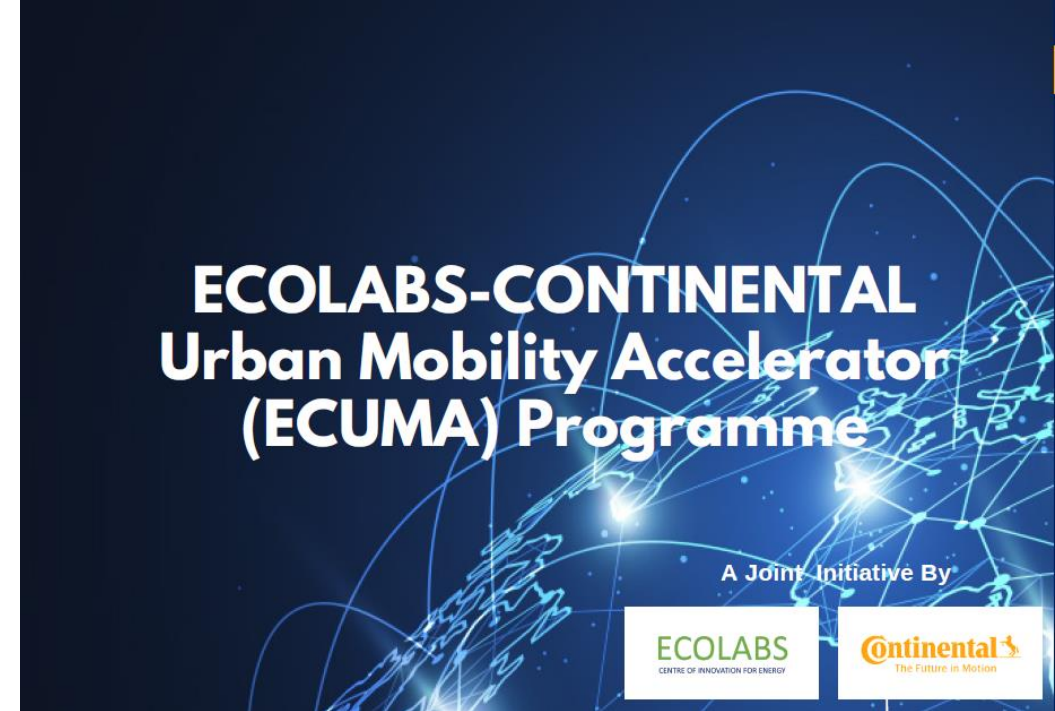
# **ECOLABS-CONTINENTAL URBAN MOBILITY ACCELERATOR (ECUMA) PROGRAMME**



# About

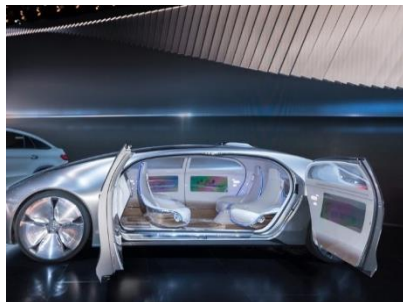
The EcoLabs-Continental Urban Mobility Accelerator (ECUMA) Programme is jointly established by *EcoLabs Centre of Innovation for Energy* and *Continental Automotive Singapore*.

It aims to build a pipeline of products and services that are co-created by startups, SMEs and our industry partner Continental.

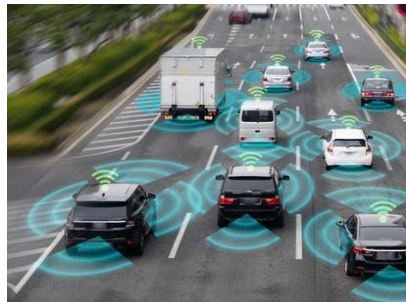


## Focus Area

Autonomous



Connected



Electric



Shared



Aerial







## CO-INNOVATION SUPPORT

**stand to obtain up to**

**SGD\$175K**

**in cash and startup support,  
including access to lab spaces, equipment,  
testbeds, training, pitching sessions  
and more!**



# ECOLABS

CENTRE OF INNOVATION FOR ENERGY

Your one-stop eco-system partner in Open  
Innovation and  
Technology Co-development in the energy  
industry



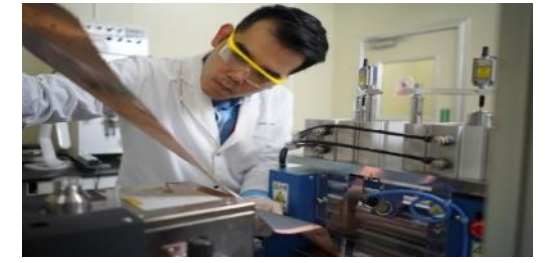
THANK YOU



LinkedIn

[RyanJin@ntu.edu.sg](mailto:RyanJin@ntu.edu.sg)





# Thank you!

<https://ecolabs.sg>

For further information please contact:

**Executive-Director ERI@N**

Email: [D-ERIAN@ntu.edu.sg](mailto:D-ERIAN@ntu.edu.sg)