

สำนักงานพัฒนาวิทยาศาสตร์และเทคโนโลยีแห่งชาติ

National Science and Technology Development Agency

Localization of Autonomous Vehicle Technology in Thailand

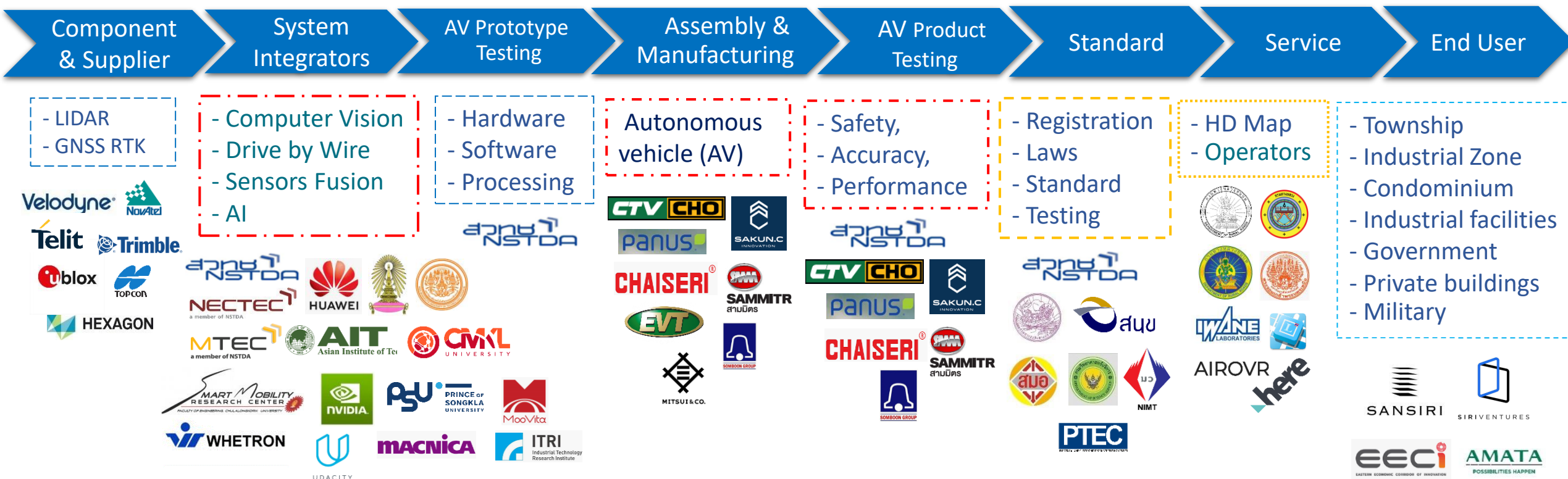


Jartuwat Rajruangrabin, PhD

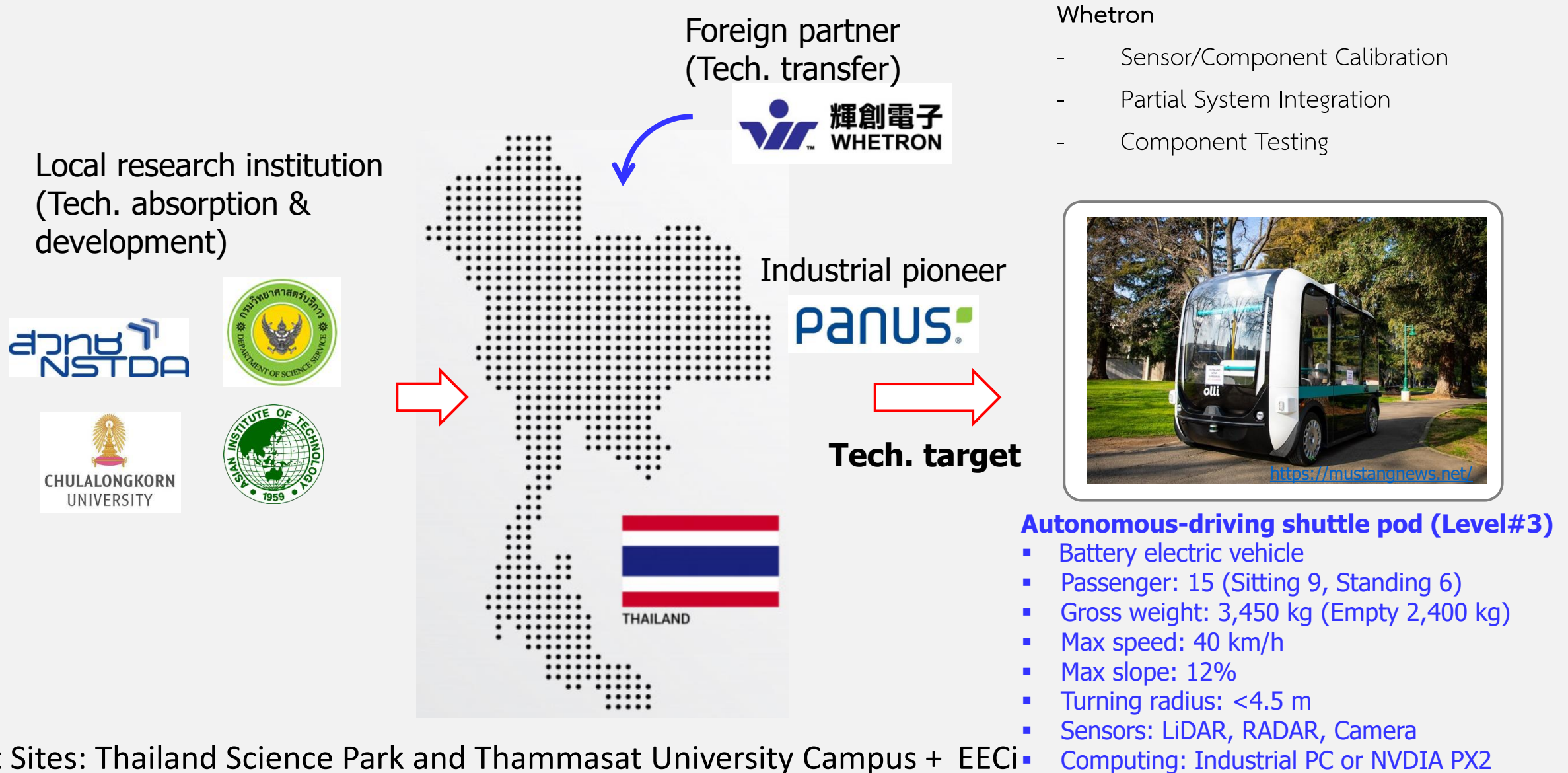
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VALUE CHAIN : Autonomous Vehicle (AV)



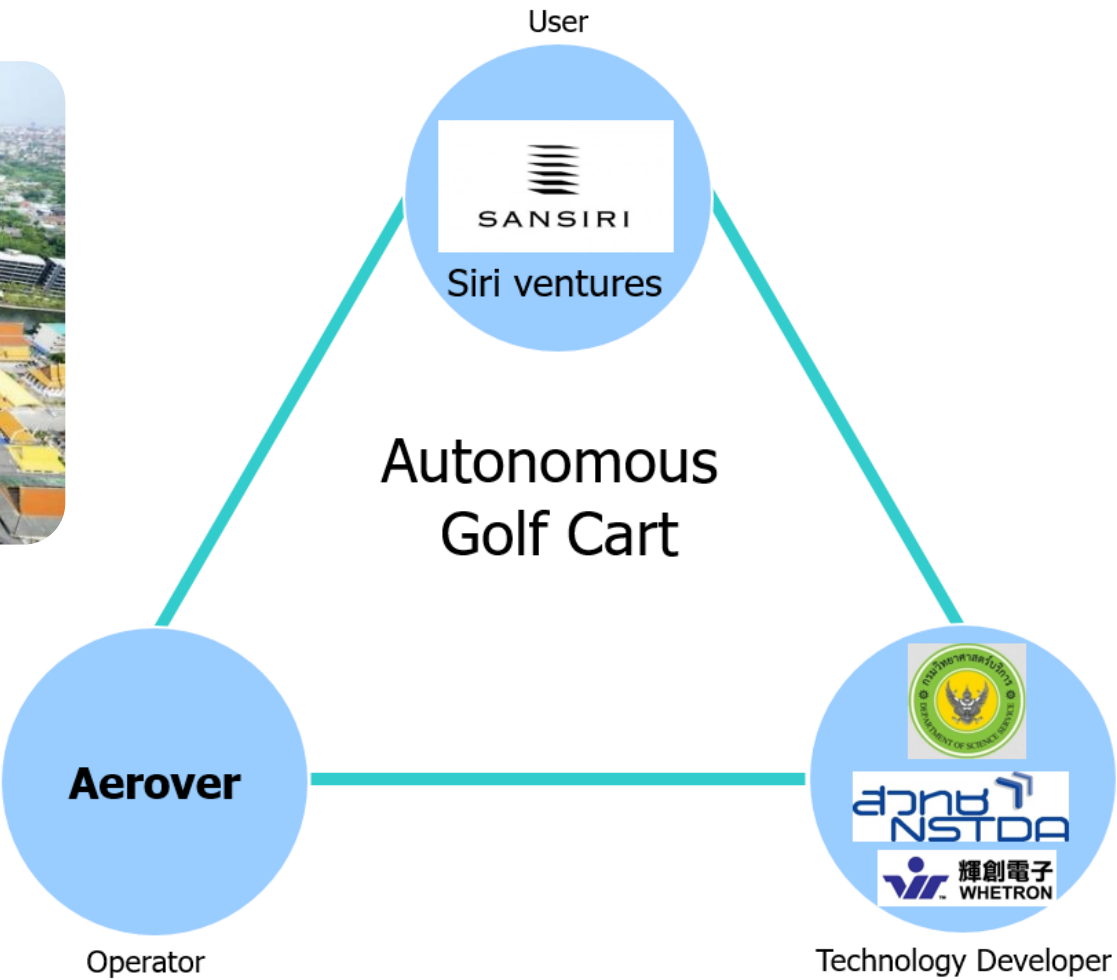
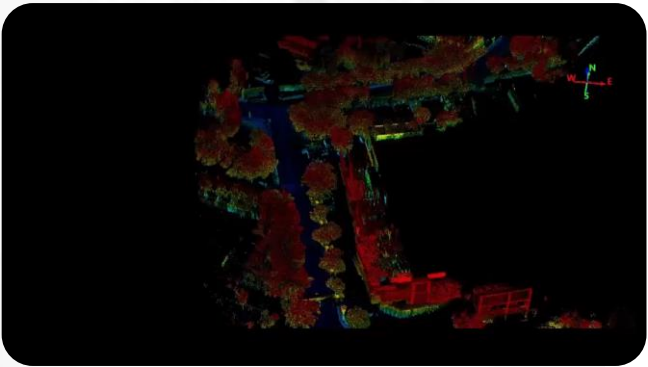
Technology-based Localization



Self-driving Feeder

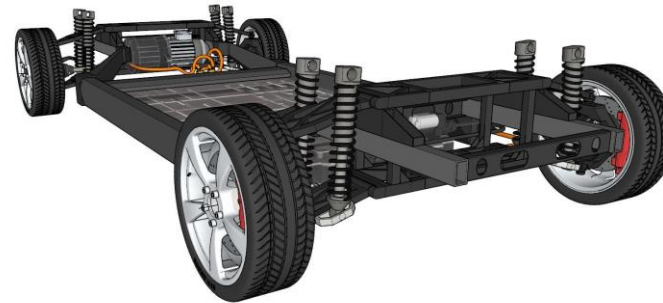
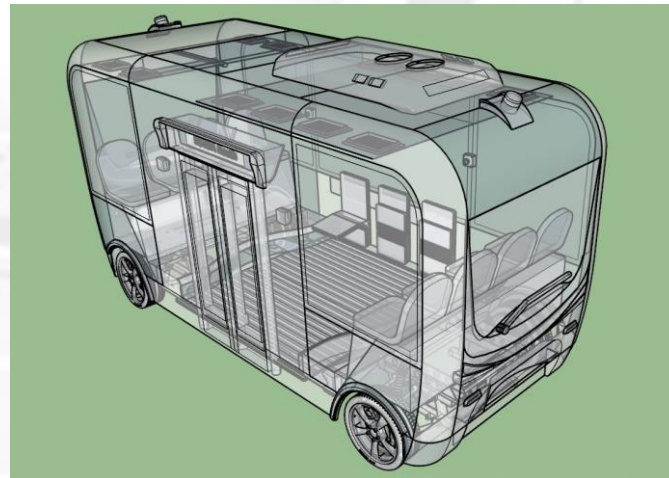
Phase#1 Feasibility study of autonomous vehicle technology employed in closed areas

August 2019 – June 2020



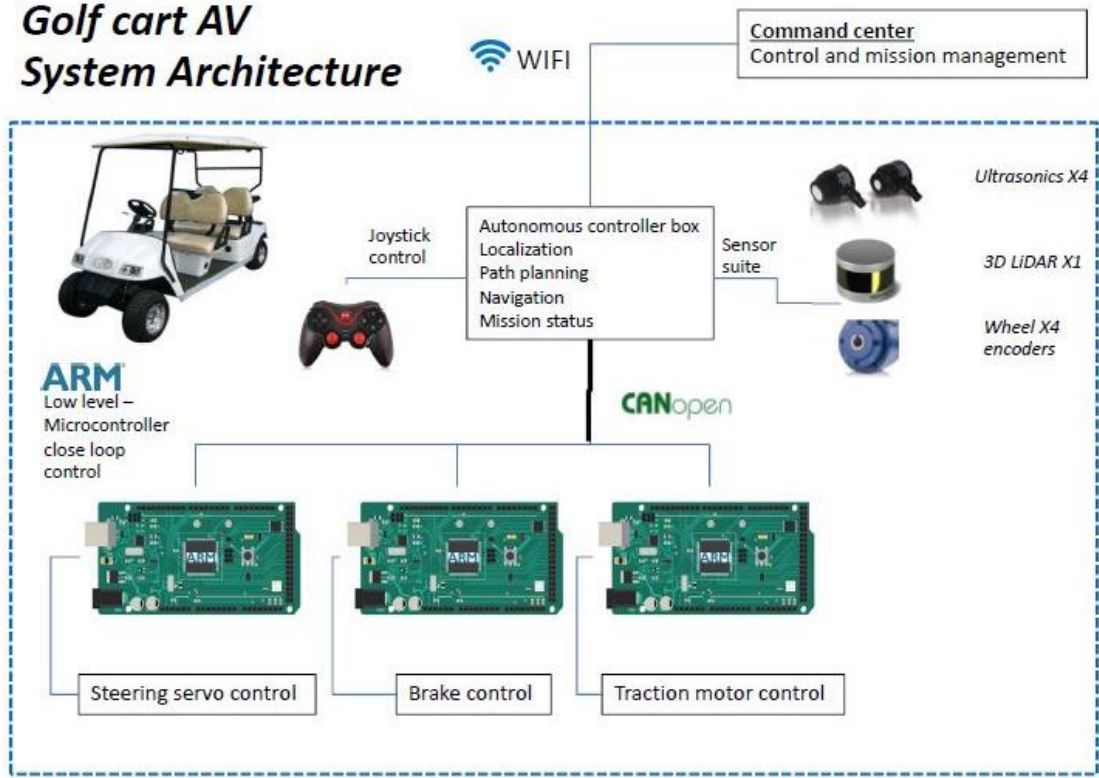
Future Modern Transport Activity – Autonomous Feeder Project

Phase#2 (March 2021 – December 2022)



Autonomous Driving Technology – Sansiri T77 Sandbox

Golf cart AV System Architecture



Golfcart AV Prototype – System Architecture



T77 Sandbox Testing - partnering with Sansiri

Autonomous Driving Technology – Sansiri T77 Sandbox



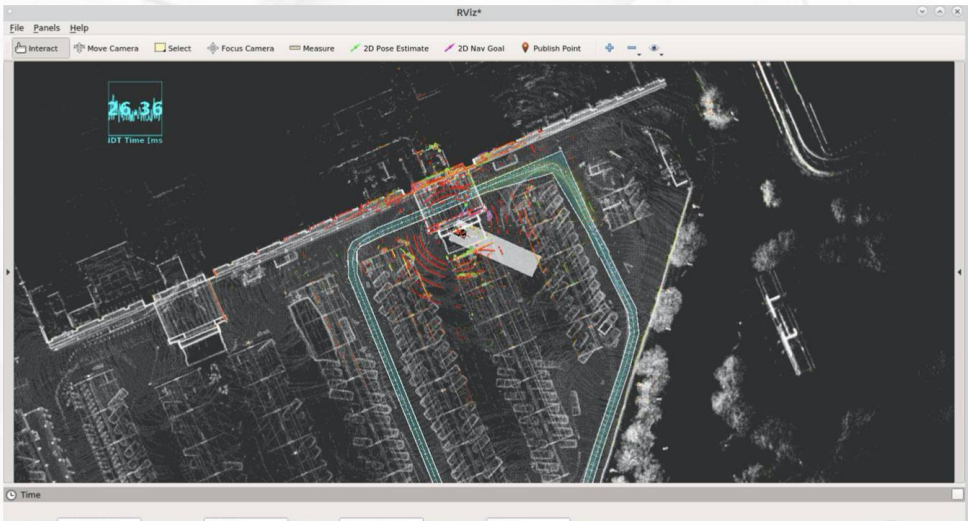
Autonomous Golf Cart Field Test at T77 (Sansiri Gated Community)

Autonomous Golf Cart – Field Test



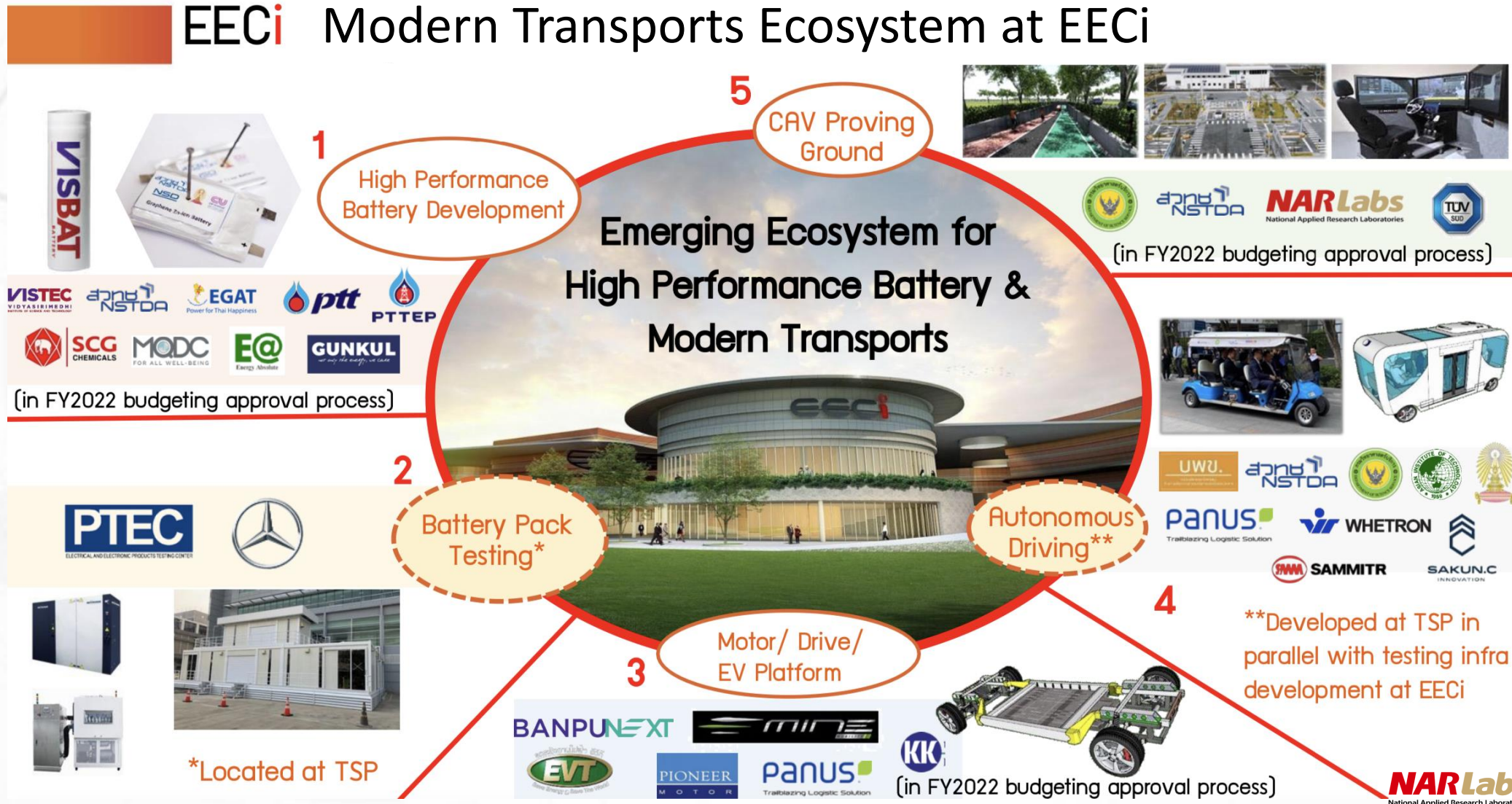
Autonomous Golf Cart Field Test at Thailand Science Park (NSTDA Headquarter)

Autonomous Golf Cart Testing – Lotus’s Parking Lot

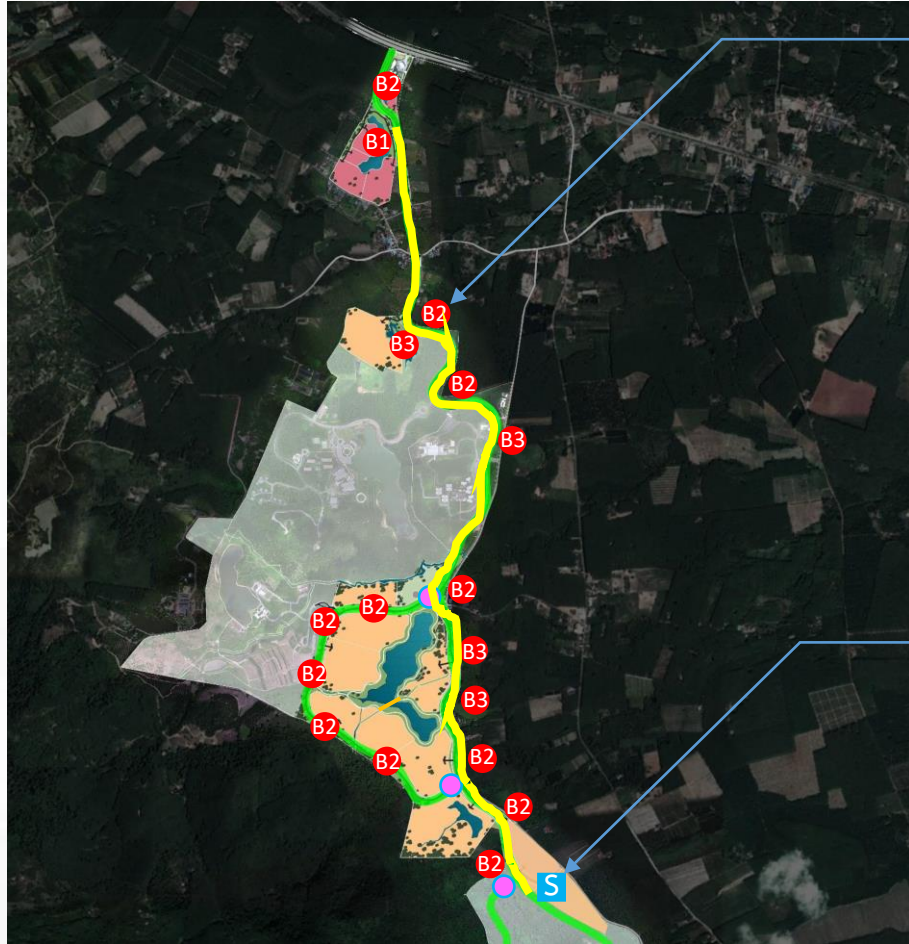


Autonomous Golf Cart Field Test at Lotus Shopping Center

EECi – Modern Transports Ecosystem



Living Lab at EECi – Autonomous Vehicle Testing



EV Bus Stop



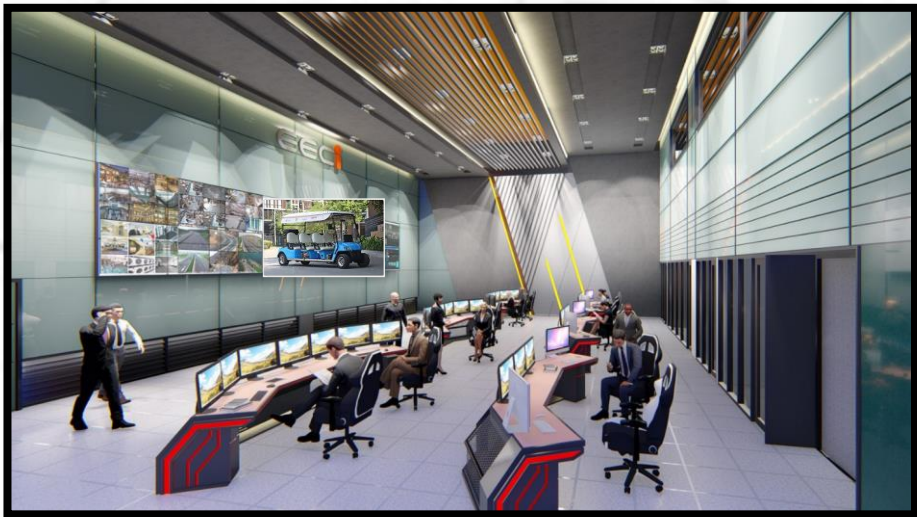
- **Yellow Line**; From Community Zone to PTT Intelligent Operating Center
- Distance **5 km** (One-way)
- **13** Bus Stops

S



Living Lab at EECi – Supported Infrastructures

Command Center: Monitoring and Supervising the AV operations



Solar Roof

Bus Stops: Signage and Hailing

CCTV



Environment
Sensors

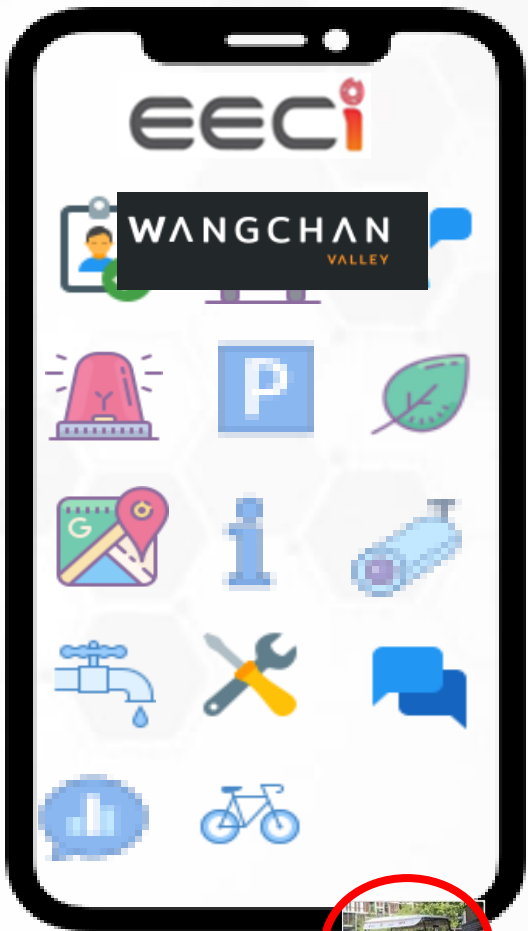
Fan

Mobile
Charging

TV Signage

Emergency Phone

Mobile Charging



User Application: Locating and Hailing

Digital Infrastructure at EECi – Virtual reality simulation (initiative)

Project: The Cooperation of Virtual Reality Simulation for Autonomous Vehicles in Taiwan and Thailand (NSTDA+NARLabs+DSS+EECi)

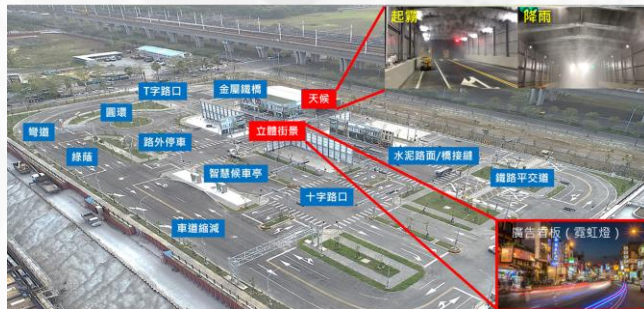
Drive in Virtual Environment



Research testbed



Local traffic scenarios



NARLabs
National Applied Research Laboratories



NSTDA
National Science and Technology Development Agency

EECi
EASTERN ECONOMIC CORRIDOR OF INNOVATION



Computer Simulation



Laboratory Tests

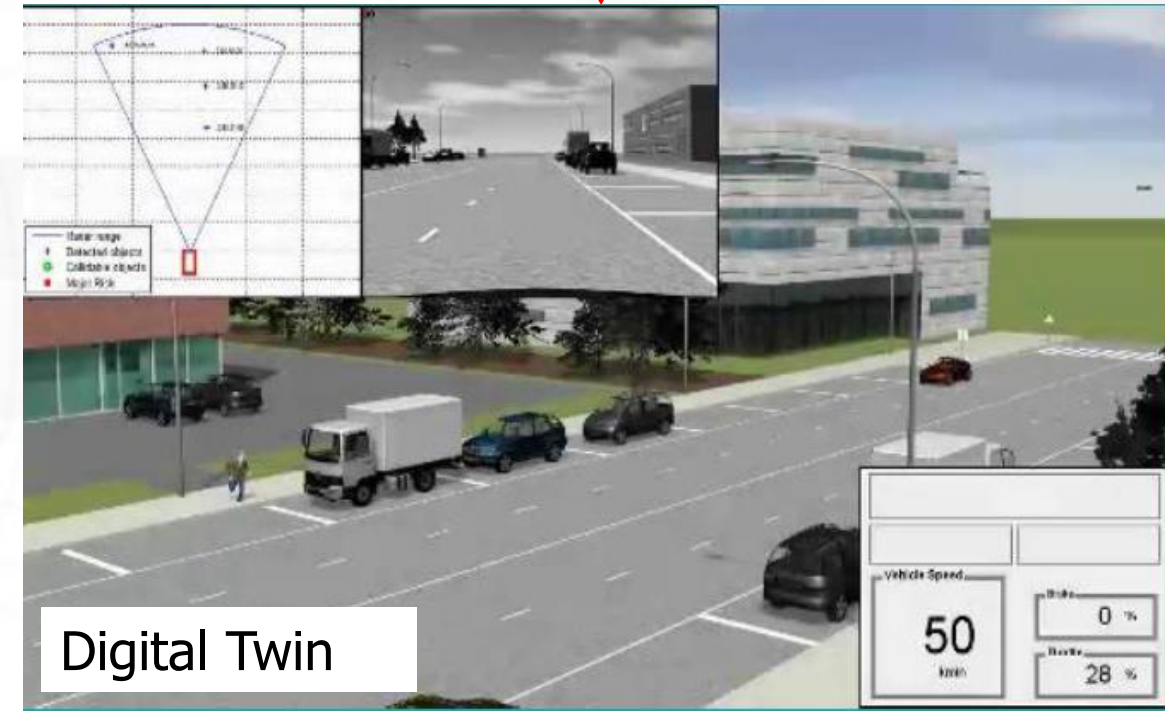
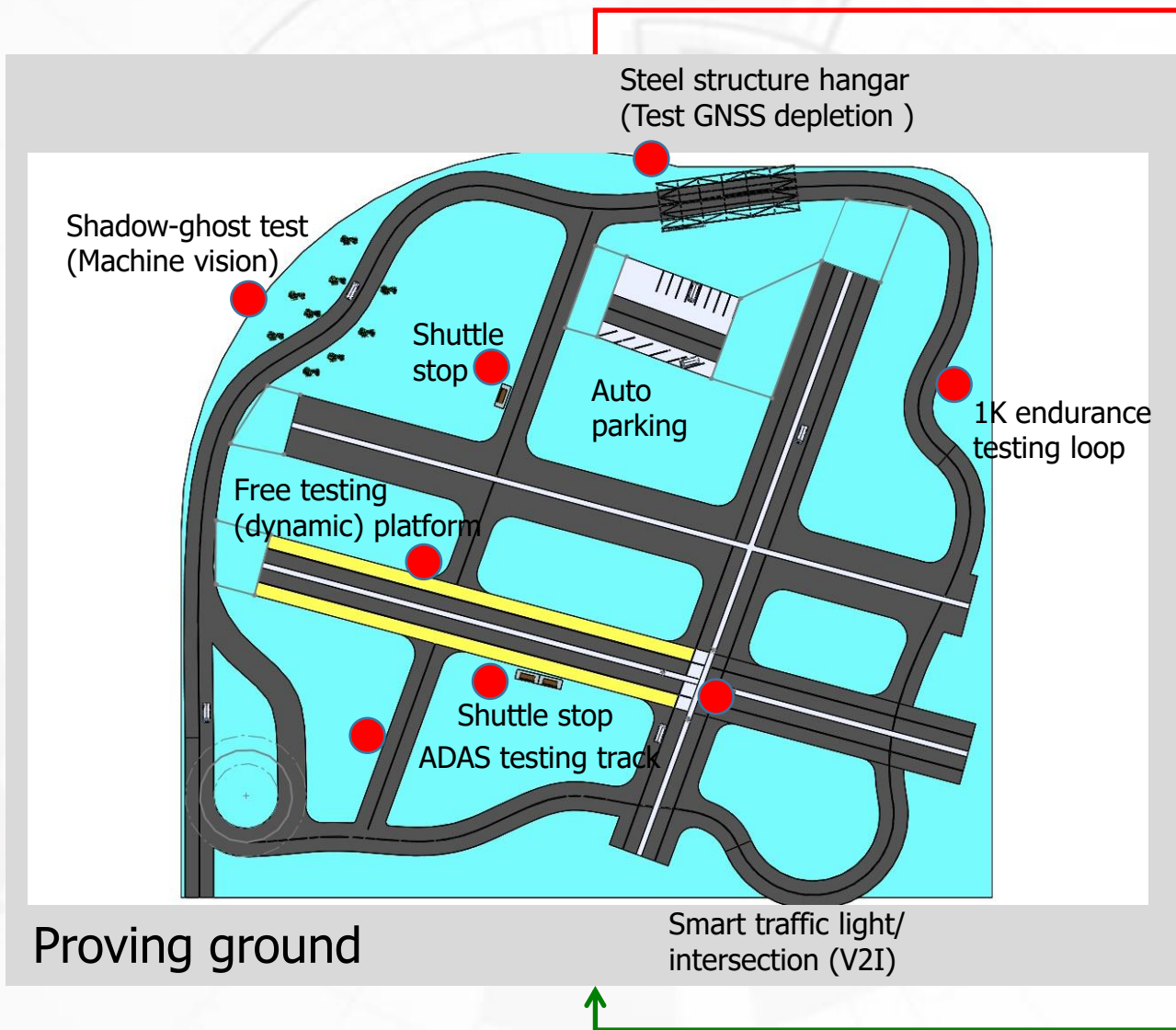


CAV Proving Ground



NSTDA

Physical / Digital Infrastructure at EECi – On-going Projects

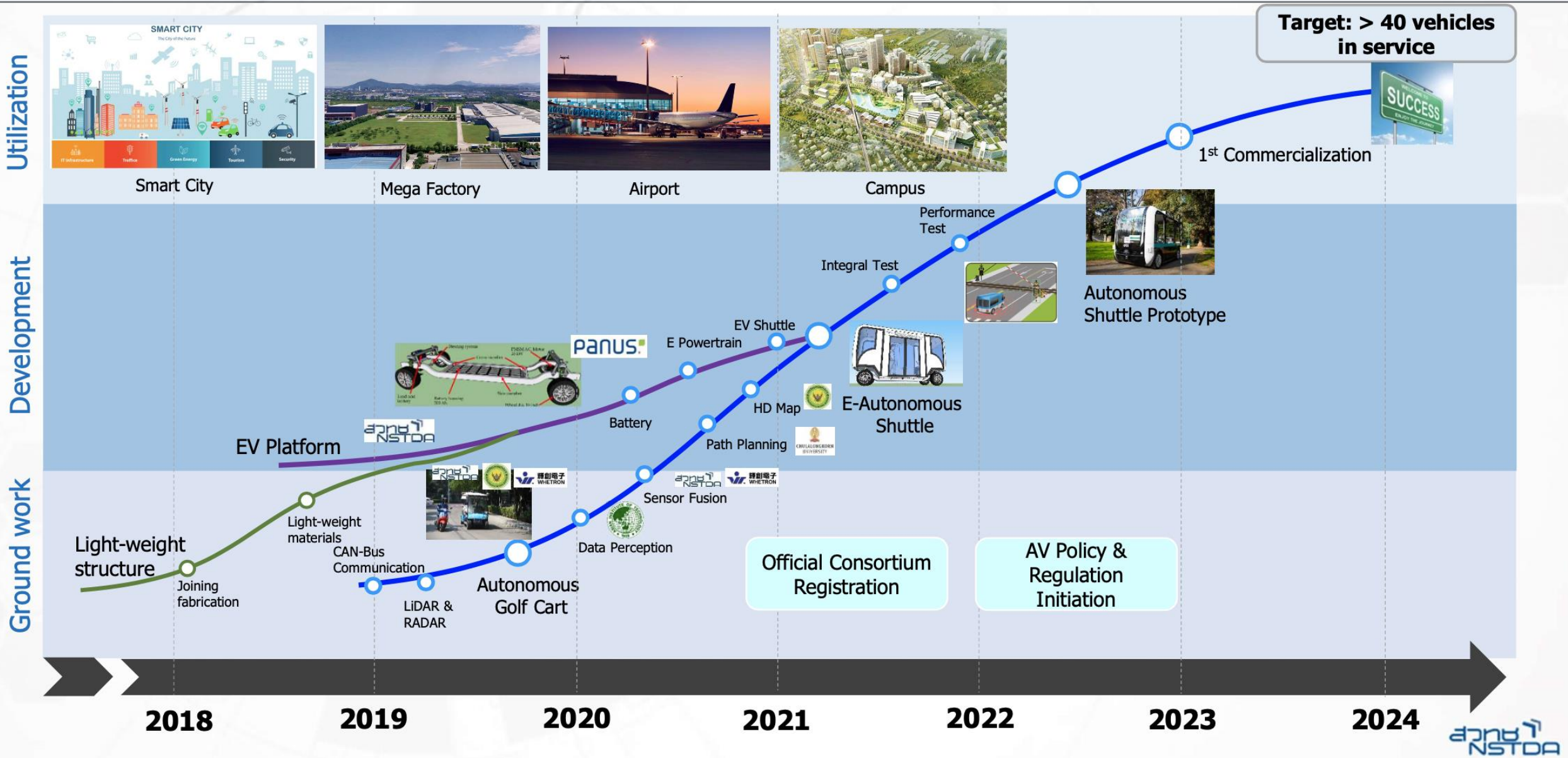


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Autonomous Driving Technology – NSTDA Vision





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Thank you for your kind attention...