

MRV – Case of Electric Quads in the Philippines



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Integrated Urban Electric Mobility Solutions in the Context of the Paris Agreement, the Sustainable Development Goals and the New Urban Agenda
InCo flagship project on “Urban mobility and sustainable electrification in large urban areas in developing and emerging economies”

Contents

- Tojo Motors Corporation
- Project Objectives
- Project Overview
- Business Model
- Monitoring, Verification and Recording



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement no. 875041



Tojo Motors Corporation



Over-All Objective

Support the Electrification of Local Government Unit Services Mobility Needs through the development and introduction of an appropriate:

Vehicle, System and Business Model

The Project



Wupperta
Institut



Urban Living eMobility Lab

10 Living Labs: Kathmandu, **Manila/Pasig**, Hanoi, Montevideo, Quito, Kigali, Dar es Salam, Hamburg, Madrid and Nanjing (self-funded)



Business Model



Component	Service Arrangement	Vehicle Leasing	Battery Leasing	Acquisition
Vehicle	Supplier - Service Contract	Supplier - Leasing	LGU - Purchased	LGU - Purchased
Battery	Supplier - Service Contract	Supplier - Leasing	Supplier - Leasing	LGU - Purchased
System	Supplier - Service Fee	Supplier - Service Fee	Supplier - Service Fee	Supplier - Service Fee
Operations	Supplier - Service Contract	LGU	LGU	LGU

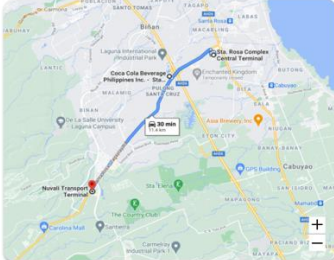
DASHBOARD

Battery: 80%

50 mins and 10 km left

12:10PM

Next Stop: Phoenix
Balibago → Nuvali
23 mins, 8 km



— 12 +

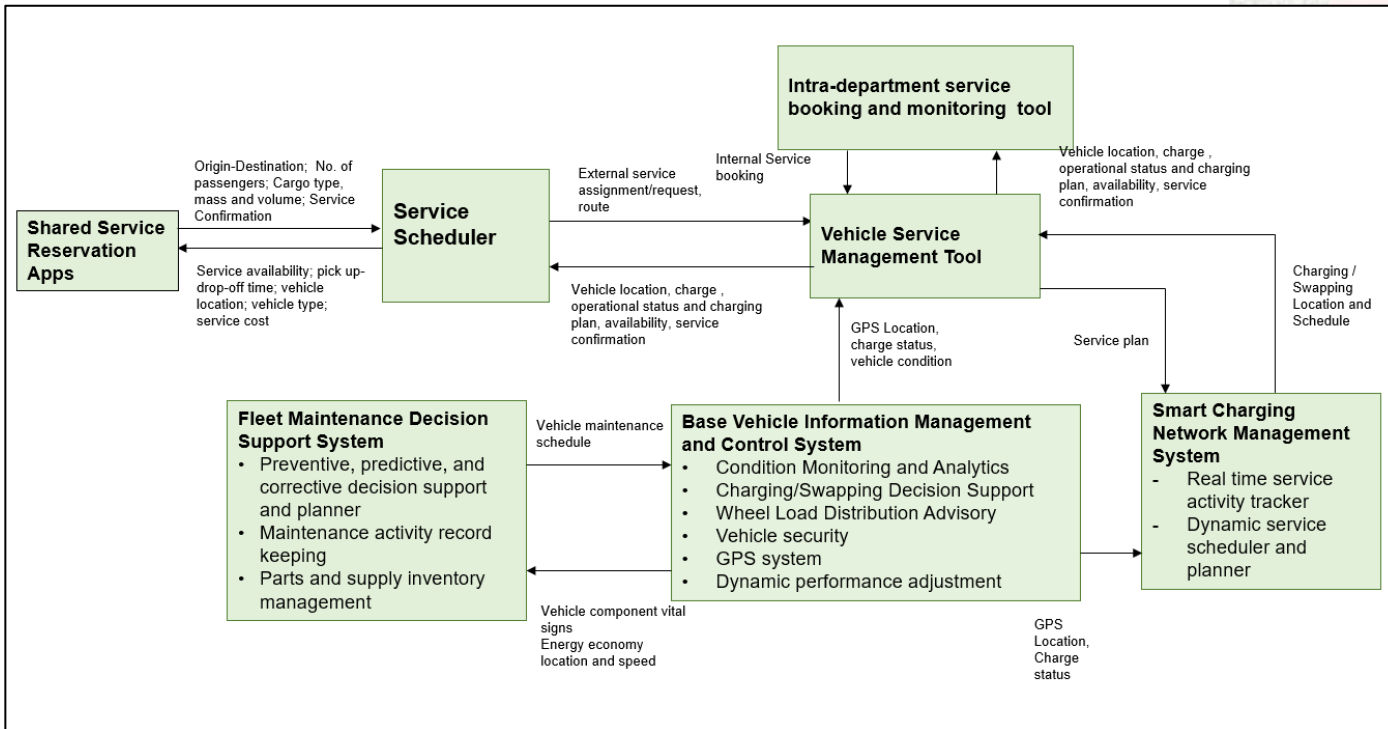
Emergency

32 km/h

Dashboard
Driver
Engine
Battery
Maintenance



Measurement, Verification and Reporting



Baseline Records

- Vehicle Mileage
- Fuel Consumption



- State of Charge/Battery Charge
- Vehicle Kilometer Travelled
- Charging Energy Consumption
- Location
- Speed
- Road Gradient
- Trip Purpose
- No. of passenger and cargo load
- Vehicle and Battery Condition
- Charger Status



GHG Mitigation



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