



Smart Mobility solutions

March 2018



Company Profile



Founded in **June 2014**



Current headcount:

130 employees

(**>50% R&D software staff**)



Headquartered in **Toulouse** (France), with offices in **Denver** (USA), **Berlin** (Germany), **Singapore** and **Australia**



Privately funded with **Alstom** and **Continental** as shareholders

ALSTOM

Continental

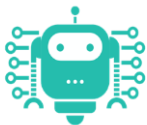
EasyMile's Core Business



Providing software systems powering autonomous vehicles



Develop Indoor / Outdoor / Road compatible driverless technologies



Integrate these technologies to different vehicles for different use-cases



Develop methodologies, processes to deploy safely & efficiently fleets of Automated Vehicles



EasyMile Vision

Mobility challenges resulting from the urbanization of the world



Global Footprint



>160

Deployments
in 21 countries



80 Shuttles
worldwide



Wheelchair
friendly

>250,000

People transported



>160,000

Kilometres travelled



NO ACCIDENT since company inception

Confidential | EasyMile© | Nov2017

The EZ10 : Features

Driverless and electric shuttle

Can carry up to 15 people

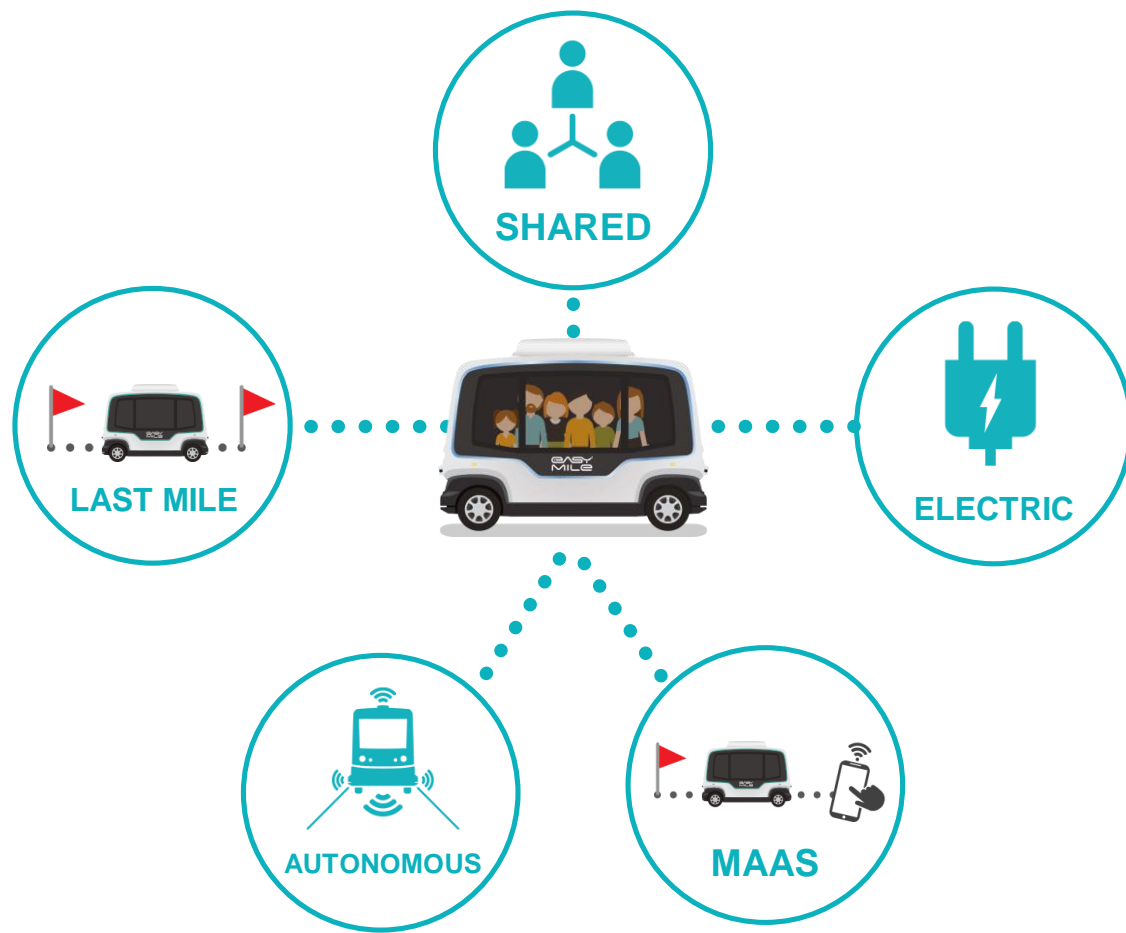
Max speed : 40 km/h

Built-in access ramp for passengers
with reduced mobility

No need for additional infrastructure



What We Do



Value Proposition



VS



DRIVERLESS

SELF-DRIVING



Reduce Traffic



Reduce Car-related
Infrastructure
in Cities



New Mode of
Consuming
Transportation



Social Inclusion

EasyMile use cases : step by step approach

2014- 2018



Enclosed
Areas



Controlled
Areas

2018 - 2020



City districts
Smart Cities
Green Cities



Suburban
Area



Rural
Areas

2020 - 2022



City Centers

2025 -

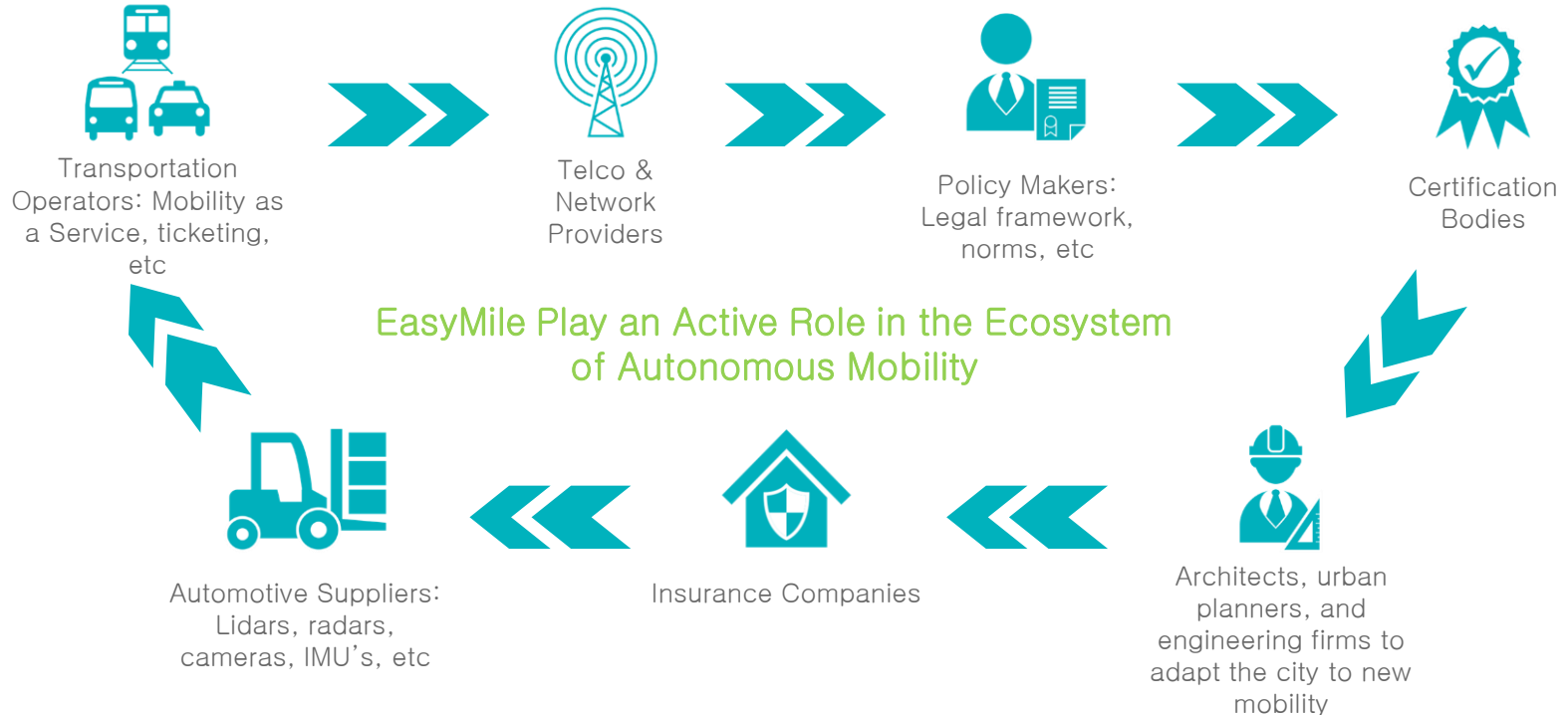


Full open road
with mixed
traffic

First & Last Mile Value Proposition

- Complement
- Feed
- Replace

Driverless Vehicle Ecosystem



Certifications and approved operations



Sécurité routière (**France**)

Astra* (**Switzerland**)



NHTSA (**USA**)

Vicroads (**Victoria, Australia**)



RDW (**Netherlands**)

Tüv Süd (**Germany**)



RTA (**UAE**)

NPRA (**Norway**)



Enclosed areas Theme Parks



Enclosed Areas Theme Park

Premium and innovative
service



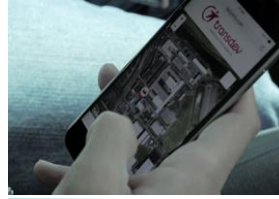
Pedestrians, cyclists, EVs
First commercial operation in APAC
Started in June 2016
2 shuttles operating daily
2 km route(s)
From exit of MRT station to main retail area

Business Parks

First Transit
transforming travel



Facilities and
traffic
Management
enhancement



University

Facilities and
traffic
Management
enhancement



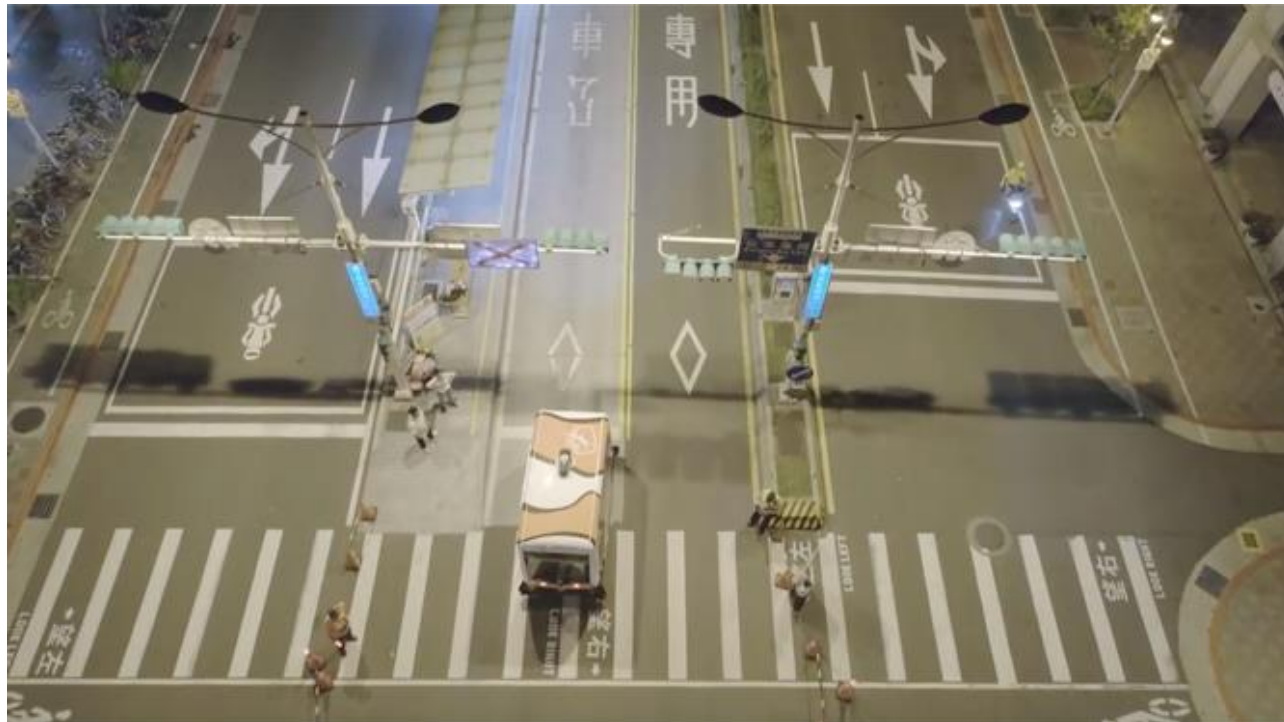
Segregated Lane



HUB to HUB Connectivity

Bus Lane in Taipei City center – from midnight to 5 AM

- Phase 1 : POC
- Phase 2 : V2I test
- Phase 3 : full service



Smart Cities Green Cities

Content application

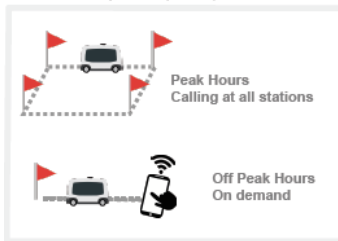
PEÑA STATION, DENVER, COLORADO PANASONIC SMART CITY



BABCOCK RANCH, FLORIDA FIRST 100% SOLAR PANEL POWERED CITY IN THE USA



SERVICE MODE



FPL Babcock Ranch Solar Energy Center

- » Located on a 440-acre site donated by Babcock Ranch developer, Syd Kitson.
- » 74.5 megawatts of quiet, zero-emissions energy, enough to power about 15,000 homes
- » Emissions prevention equivalent to removing 12,000 cars from the road every year
- » Built cost-effectively; savings from fuel and other expenses means no net cost to customers
- » Generating clean, solar power since 2016



Suburban Areas

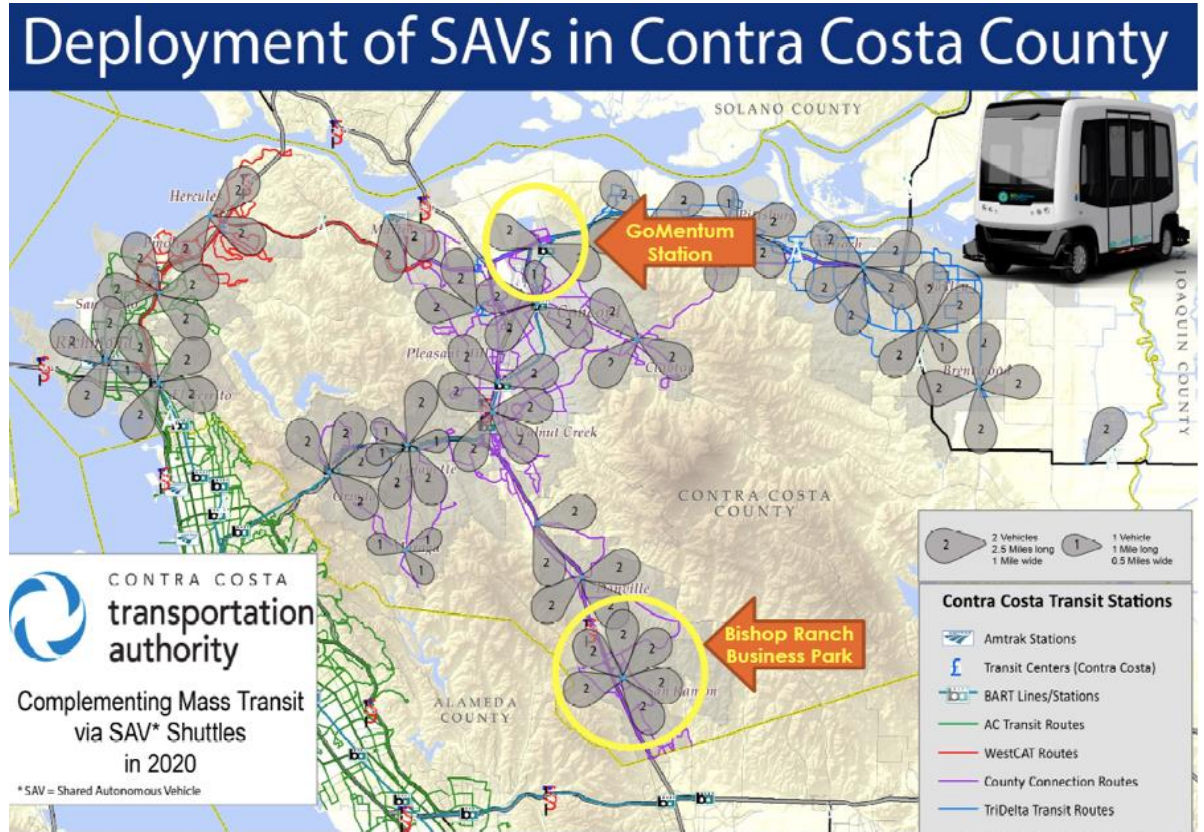
Feeder service
to mass transportation

Benefits:

- Door to door challenge
- * Efficiency and cost saving for areas of dispersed demand
- On demand during Off peak hours



CONTRA COSTA
transportation
authority



Value Proposition

SUBURBAN

TO ADD AND TO FEED



Rural Areas

Social Inclusion

Benefits:

- Efficiency and cost Saving for areas of dispersed demand
- *Feeder to mass transportation
- On demand / Off peak hours



City Centers Smart Districts

SINGAPORE MaaS

3 Districts - Level 4/5 in mix
traffic by 2022, Public Transport

Fixed & Scheduled Services:

- ~70 large buses
- 80-120 pax

Mobility-on-Demand:

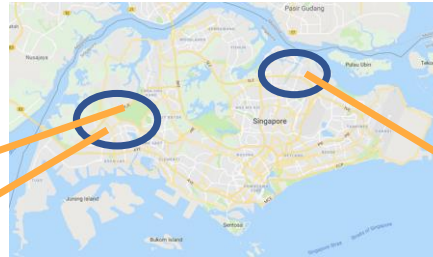
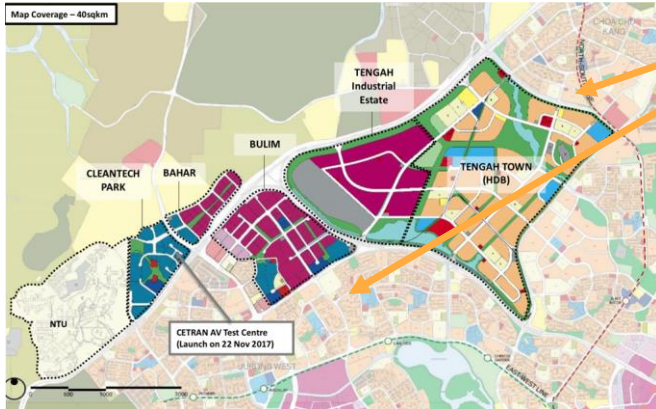
- ~30 shuttles
- 4-5 to 7-8 seaters

Jurong

100k population
Students & offices

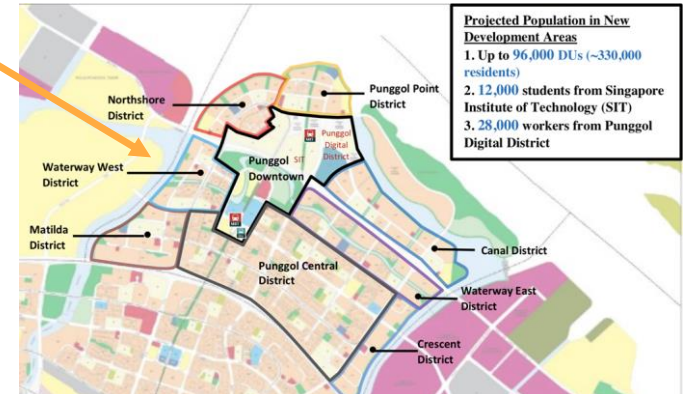
Tengah

42k units
residents & offices



Punggol

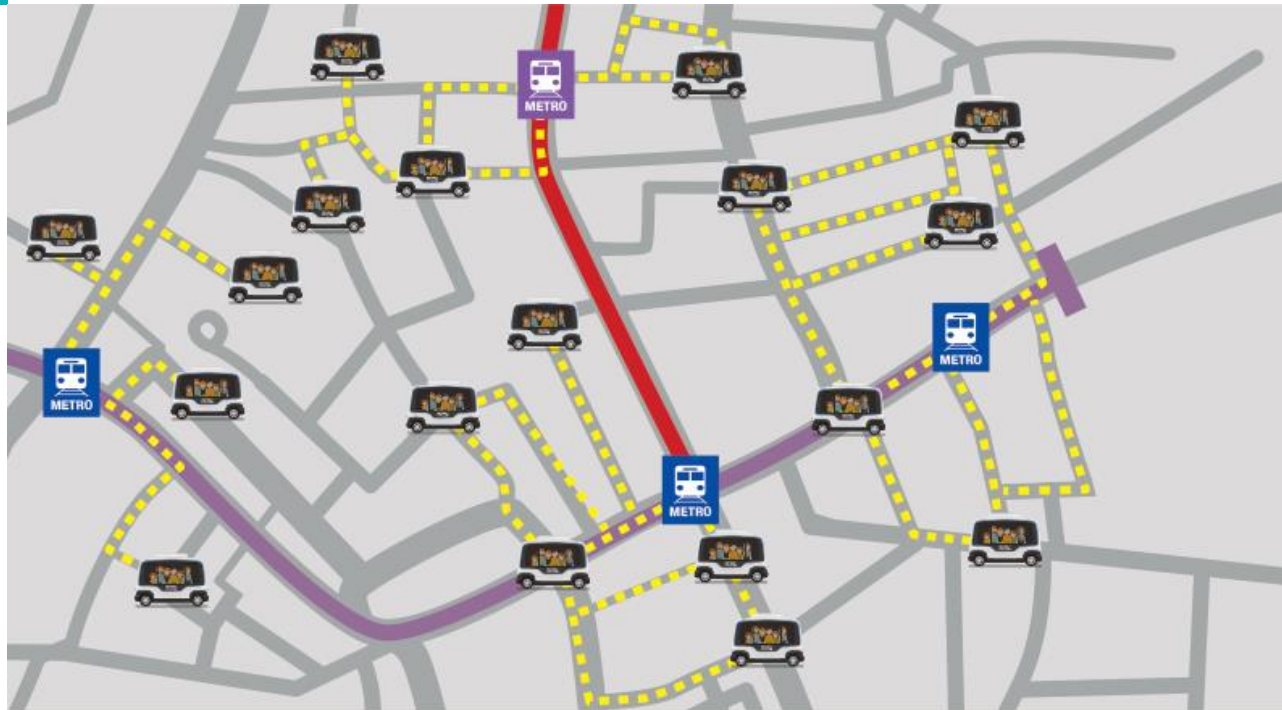
96k units
residents & offices



Value Proposition

URBAN

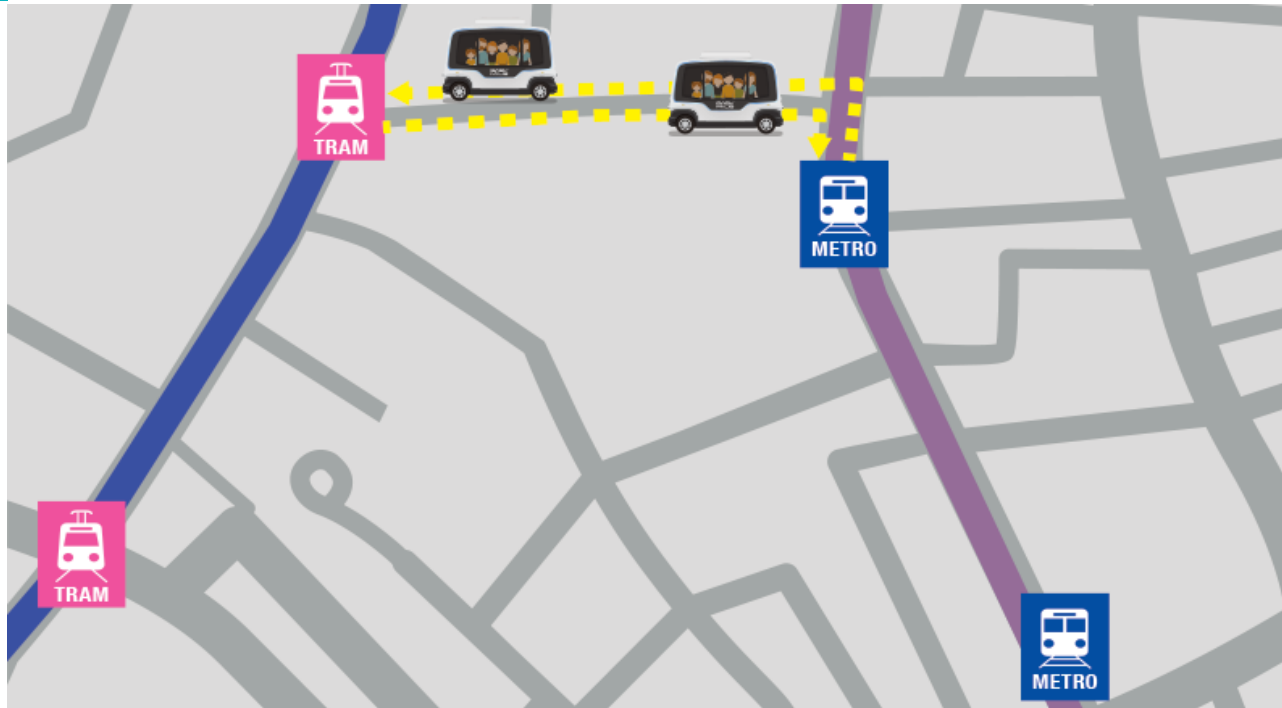
TO REPLACE AND COMPLEMENT



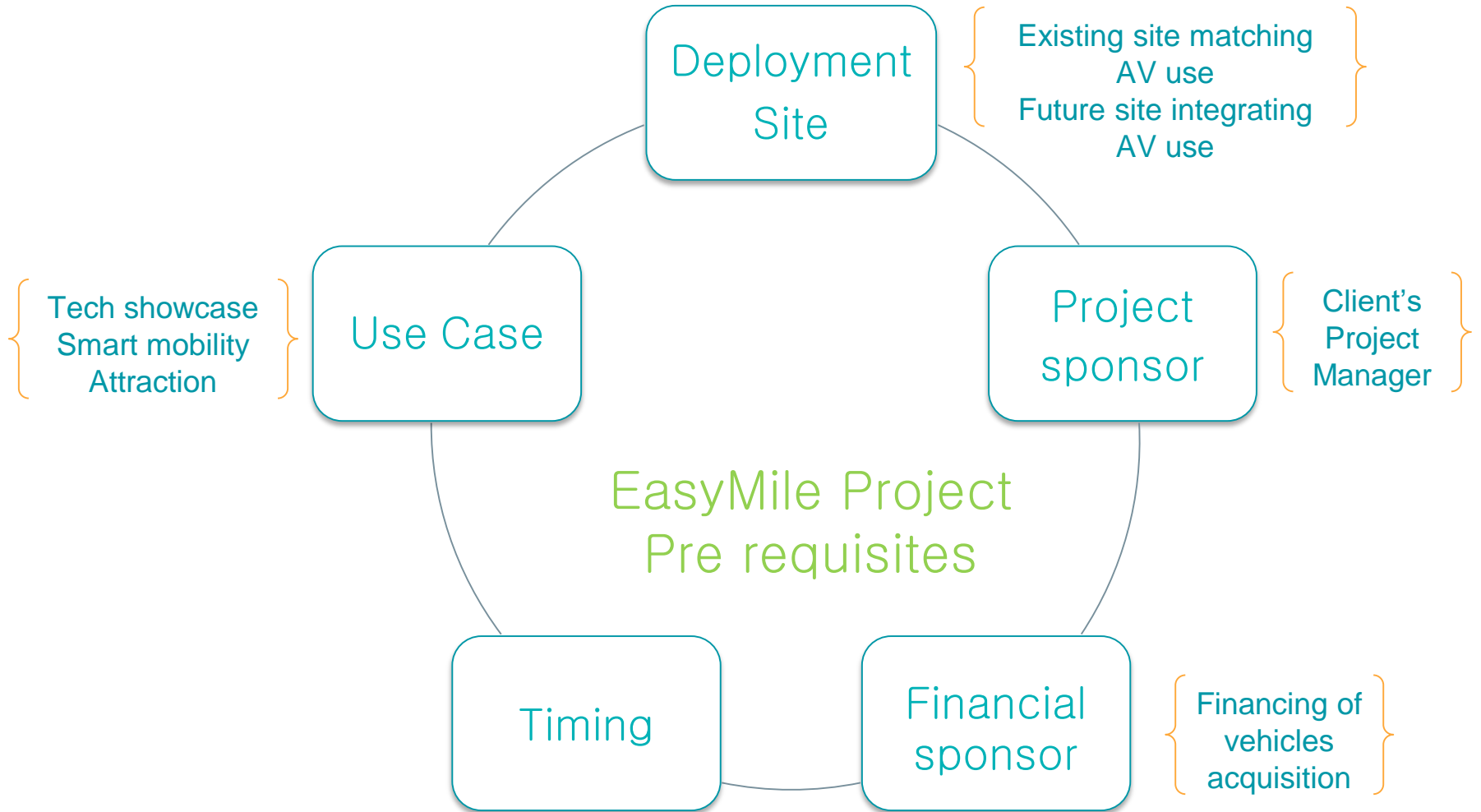
Value Proposition

HUB-TO-HUB

TO CONNECT AND FEED

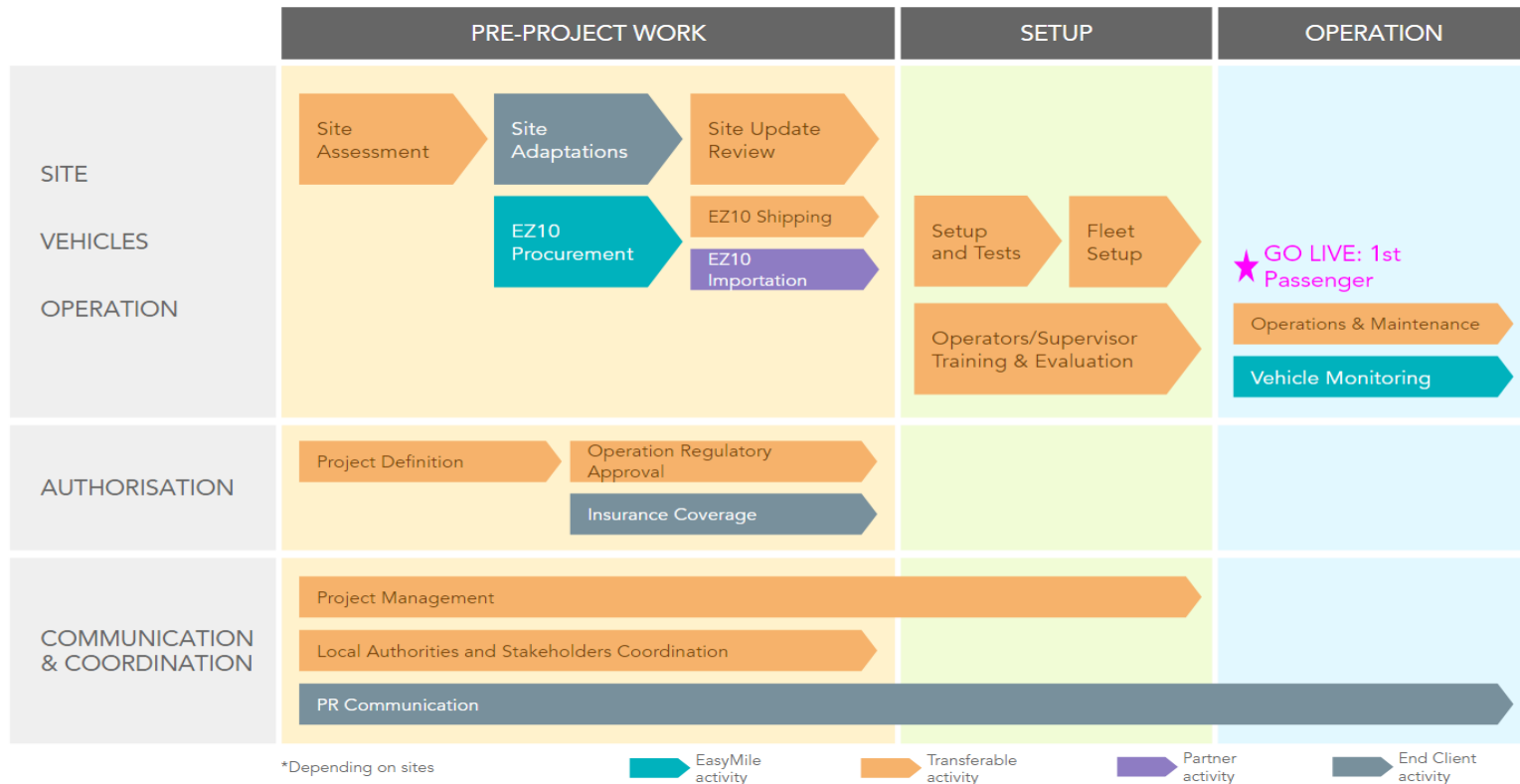


EasyMile Project Pre requisites



EasyMile Shuttle deployment Project stages

EZ10 Deployment project stages



Maintenance Operations

During its life cycle, several preventive maintenance interventions are scheduled on the vehicle. These tasks fall into 3 main categories, according to the skill level needed to achieve the tasks:

L0 – Tasks performed by Clients/ Operators :

Functional tests of the vehicle subsystems : infotainment, air conditioning, lights, Windshield wiper replacement, etc

L1 – Tasks performed by a technician trained and certified by EasyMile

Replacement of wearing parts : tyres, brake discs, brake pads, etc. (according to manufacturer's specifications and wear and tear)

Draining of fluids (according to manufacturer's specifications)

L2 – Tasks performed by EasyMile staff only

Localisation and safety pieces of equipment calibration (yearly)

Software update (twice a year), complex hardware item intervention

Turkey solution



Daily operation



Fleet
Monitoring &
Supervision



Fleet
Maintenance



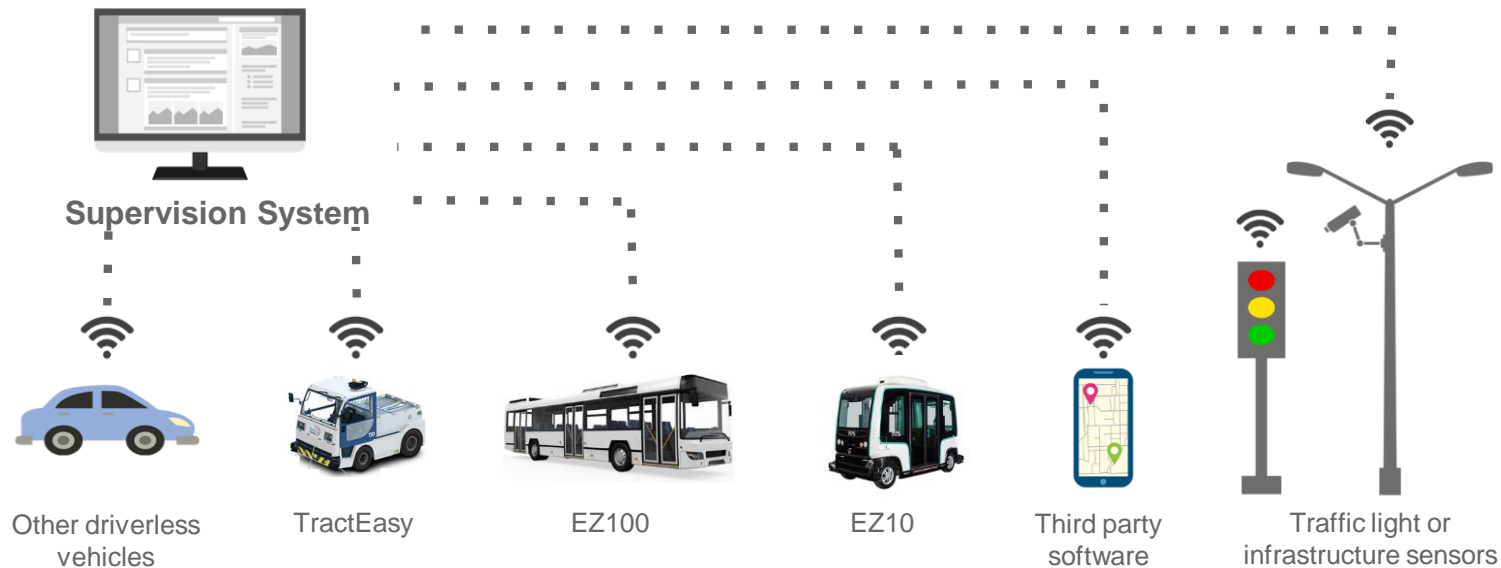
Additional
Transport Services

Fleet Management Software

An Autonomous Road Transport Solution

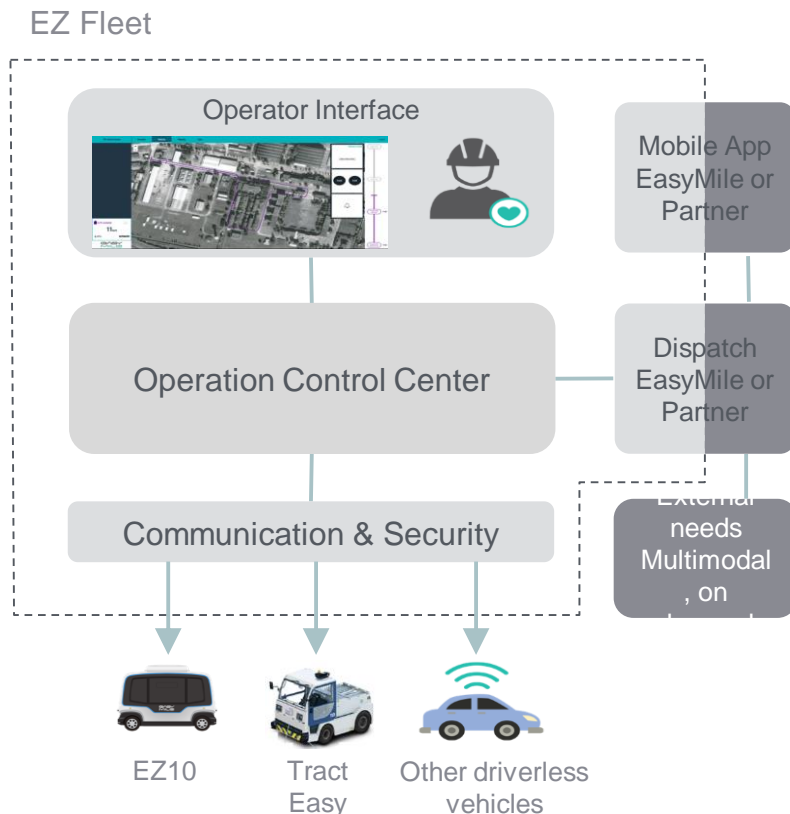
Solution Overview

Based on compatible driverless vehicles



Fleet Management - 4 Main Functions

- **Control Center**
 - Vehicle performance
 - Vehicle safety
- **Mission Manager**
 - Organise and optimise driverless vehicle missions
- **Data, Reports & Statistics**
 - Gather vehicle information on usage patterns
 - Enable preventive maintenance
- **Communication**
 - With passenger via User interface
 - Communicate with third parties software



Fleet Management - Benefits



Safe and efficient operations of driverless vehicles



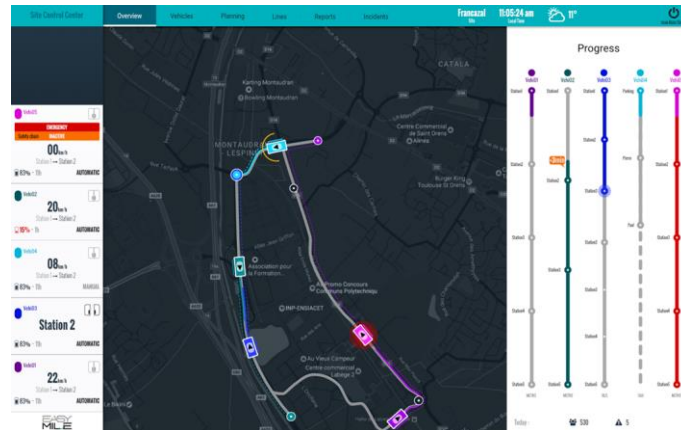
Vehicle agnostic, a system for managing fleets made of different autonomous vehicles



Designed for high availability, scalability, and future evolutions



Operator friendly : ergonomic, quick setup...

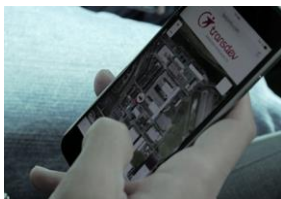


Partnering with transport operators

- Control Center (OCC)
- Multimodal Transport management System
- Dynamic routing & Data analysis :
- Real-Time Monitoring for Maintenance & Safety



Some key EasyMile Transport Operators Partners



Production facilities @ LIGIER

The EZ10 : Manufacturer

LIGIER
GROUP

Incorporated : 1971



Current Headcount : 225



- €141 M Revenues
- 2 Factories in France
- 15000 vehicles produced per year





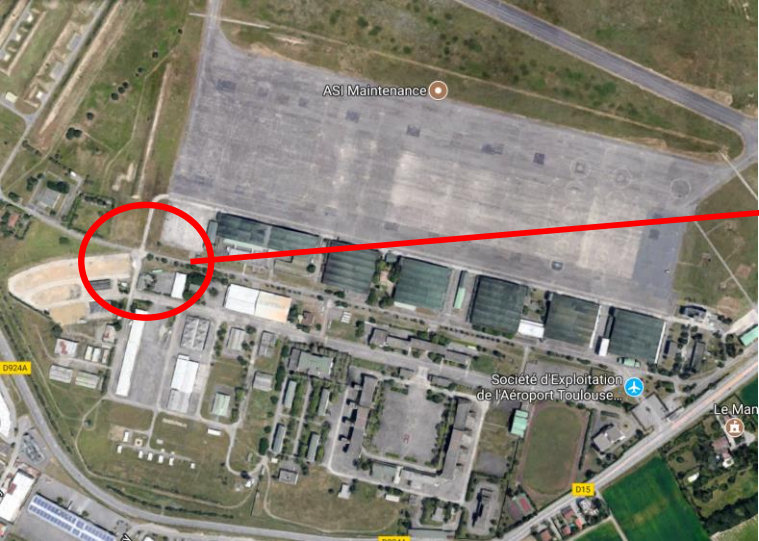


EZ10 PROCESS

JS46 V2.4 - PROCESSUS D'ASSEMBLAGE



EasyMile Test bed in France



Gen2 vehicle





Thank you!



Connect with us to find more about our recent developments!
#EasyMile