



BESTMILE
THE MISSING LINK

ÖV-Konferenz

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www.bestmile.com

IT'S HAPPENING NOW

TC TechCrunch

UK's FiveAI gets \$35M to build a taxi service powered by its own self-driving car platform



THE VERGE

Intel says it will build a fleet of 100 fully autonomous vehicles



Forbes

10 Million Self-Driving Cars Will Hit The Road By 2020



CNBC

The \$7 trillion promise of self-driving vehicles

Automotive News

Volvo, Autoliv deepen self-driving ties with Nvidia

FINANCIAL TIMES

Fiat joins BMW's self-driving car development programme



Bloomberg Technology

Baidu Snags 50-Plus Partners for its Apollo Driverless Car

BUSINESS INSIDER

There are now 39 companies testing self-driving cars on Californian roads



International Business Times

Self-Driving: Tesla, Uber, Lyft And Others Building Own Vehicle Fleets



IT'S BIG



AUTONOMOUS VEHICLES
for passengers



AUTONOMOUS VEHICLES
for goods

CHALLENGE

Most player have a **vehicle centric approach** and focus on the development of embedded technologies enabling autonomous driving, including localization and obstacle avoidance.

The next challenge lies on **how mobility providers will offer services** with autonomous vehicles integrated in a coherent and coordinated mobility system.

CHALLENGE

To leverage autonomous vehicles, mobility providers need to operate fleets offering **on-demand and fixed-route services** efficiently matching supply and demand.

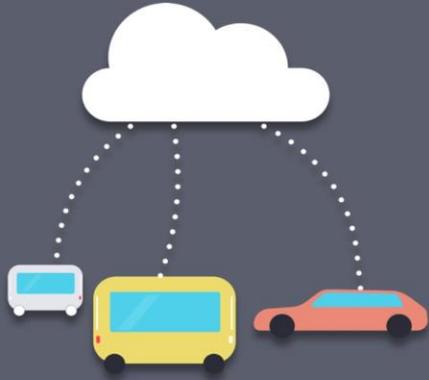
Such services **rely on the capability** to :



Manage together **human-driven and autonomous vehicles**

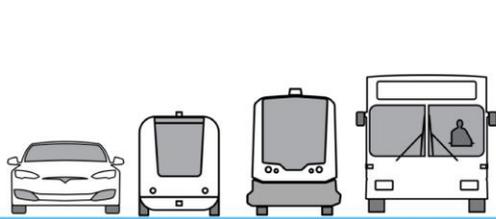


Manage together **different brands of autonomous vehicles**



The future of mobility isn't in autonomous vehicles but in **what they can offer once they're operated and managed** altogether as a transportation system.

VALUE PROPOSITION



+



=



EFFICIENT, FLEXIBLE
MOBILITY SERVICES

Fleet mixing autonomous
and human-driven vehicles

Agnostic, real-time coordination
and optimization platform

On-demand
Fixed-route

BestMile enables mobility providers to **deploy, operate and scale** innovative and efficient transportation services leveraging shared autonomous vehicles

THE CONTROL TOWER ANALOGY



Even when equipped with autopilot, a fleet of airplanes still depends on a control tower to be operated



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OPERATING MODES – FIXED ROUTE



Fixed Route Service

The vehicles follow predetermined routes

1 Fixed Timetable

The vehicles reaches stops at the expected time (static schedules) with mandatory and sequenced stops

2 Headway

Proper headways are computed and maintained (frequency goal) based on the number of vehicles and desired time between consecutive services

3 On-call

The vehicles are booked via an app and follow predefined fixed routes

OPERATING MODES – ON-DEMAND



On-Demand Service

The travelers book trips via an app. The platform dispatch vehicles according to the demand and supply

1 Predefined Stops

The vehicles follow dynamic paths between predefined stops

2 Door-to-door

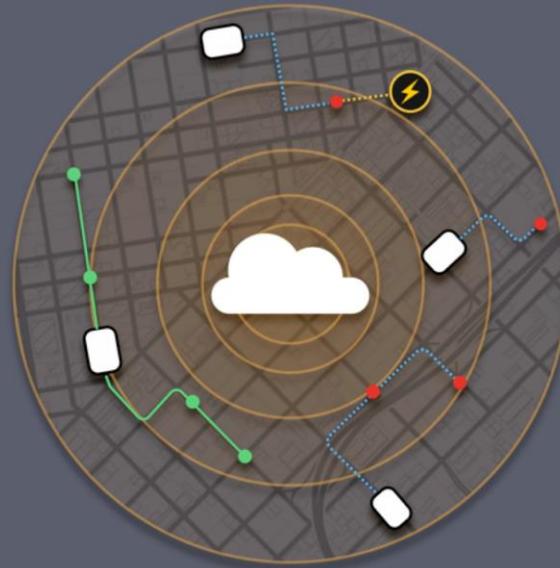
The vehicles follow dynamic paths with dynamic pick up and drop off locations

BESTMILE PLATFORM - CORE ENGINE

Sending the right missions to the right vehicles at the right time

Service operations

Service planification
Supply & Demand matching
Routing & Dispatching



Business back-office

Pricing and billing
Travelers management
Travelers support

Fleet management

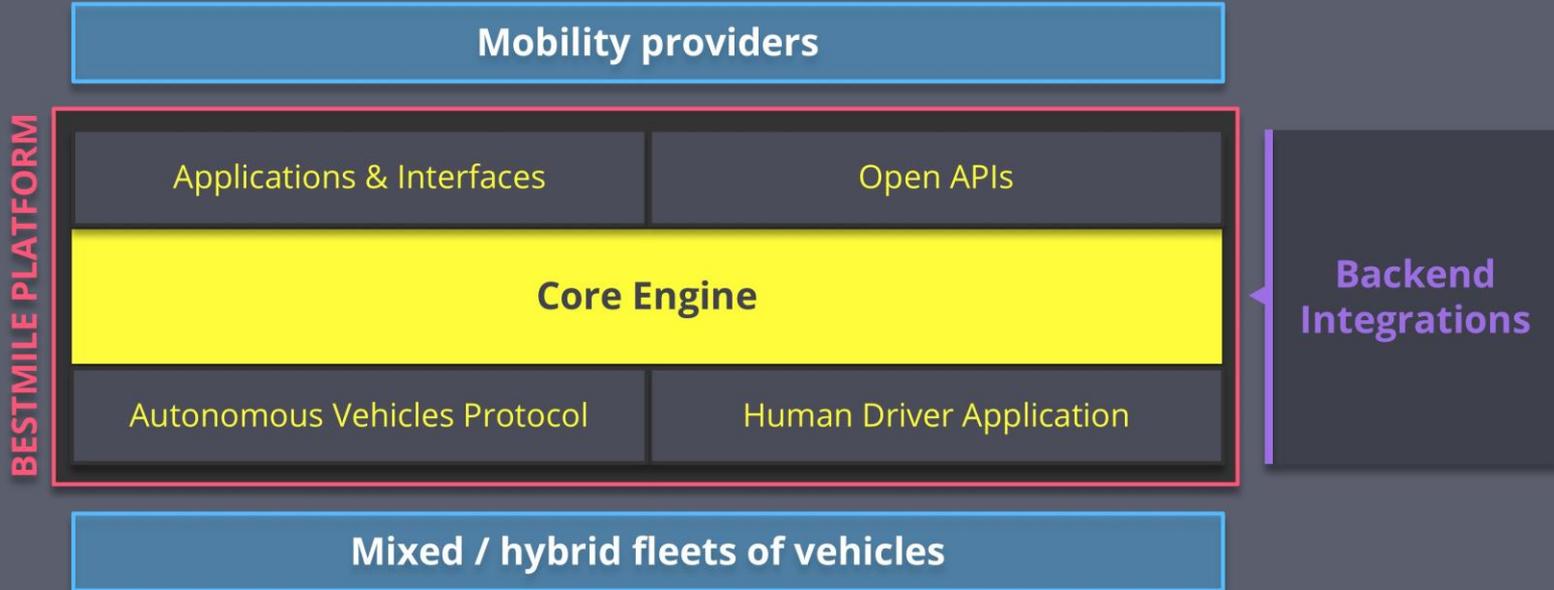
Maintenance
Cleaning
On-side vehicle support

Data intelligence

Reporting & Analytics
Machine Learning
Demand forecasting

BESTMILE PLATFORM - ARCHITECTURE

BestMile provides a platform built around the Core Engine

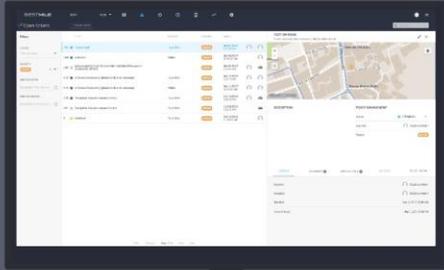


BESTMILE PLATFORM - APPLICATIONS

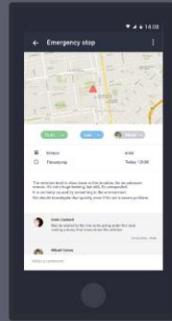
Driver Application



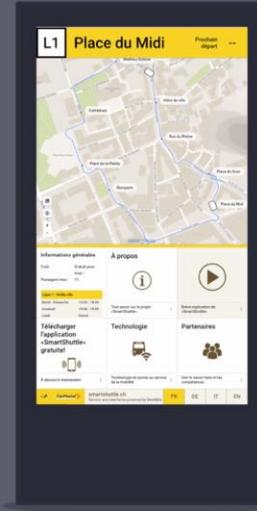
Operator Dashboard



Field Agent Application



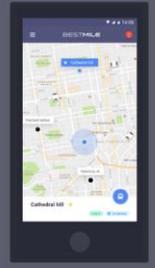
Interactive Kiosk



Web Portal



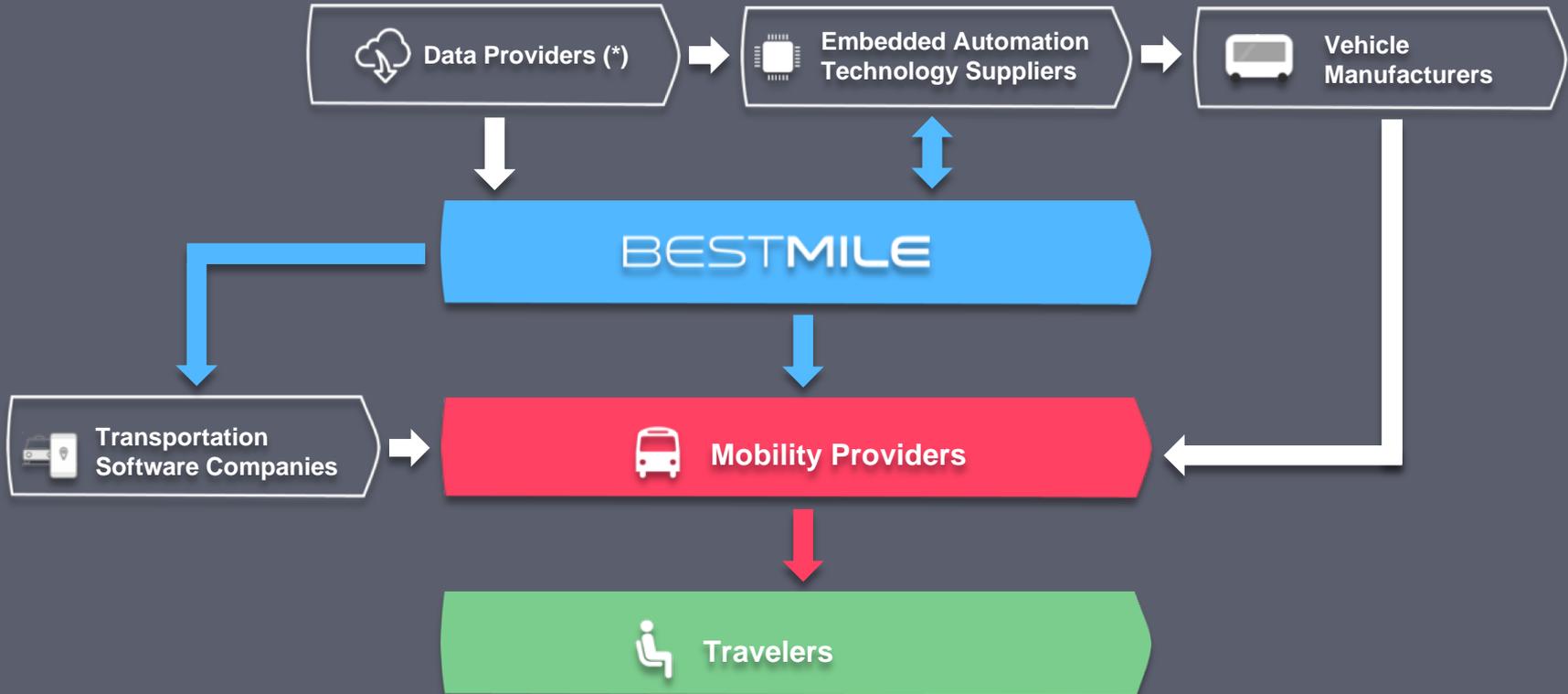
Traveler Application



PRO APPLICATIONS
for mobility providers

PUBLIC APPLICATIONS
for travelers (white-labeled)

THE VALUE CHAIN



** weather forecast, maps, live traffic, etc...*

FOR WHOM ?

Mobility providers: anyone operating a fleet

 New York City Transit

 First Transit

 transdev
MOBILITY INSPIRED BY YOU

 RATP

**TRANSIT
AGENCIES**



 NYC TAXI

 SMRT

 TAXIS G7

**TAXI
COMPANIES**

 Gett

 CHAUFFEUR-PRIVÉ

 OLA

 Careem

**TRANSP. NETWORK
COMPANIES**

 MOIA


FORD SMART MOBILITY

 DriveNow

 RENAULT NISSAN

**NEW
ENTRANTS**

AV MARKET SIZE OPPORTUNITY

“20 million fully self-driving cars will hit the road by 2025” - Juniper Research

“Launching a fully self-driving car first for ride-sharing is a better way to reach the mass market and make the cars more affordable” - Ford CTO, August 2016

2017-18

Threshold year

Strategic alliances
Deployments on private sites
First services on open roads

2 - 10 vehicles / fleet

2020

Full acceptance

Autonomous on-demand services
Large-scale deployments on
selected locations

100 - 5000 vehicles / fleet

2025

Market explosion

Shift in regulation
Democratization of AVs as
regular transportation mode

Up to 20'000 vehicles / fleet

PREMIUM CLIENTS & PARTNERS

CarPostal 

 **Trapeze**®


local motors

IVU TRAFFIC
TECHNOLOGIES
AG 


SBB CFF FFS

 **GOMENTUM
STATION**

NAVYO **SYSTRA**

MBC

First  **Transit**

**EASY
MILE**


NVIDIA®

tpf


PARAVAN®

next

σ tpg

UE PROJECT: CATS



UE PROJECT: CITYMOBIL2



THE SMARTSHUTTLE PROJECT - SION, CH



PostBus SmartShuttle

Sion - SWITZERLAND

2 Naya shuttles in
a busy city downtown

In operation since
June 2016

Operated 6 days a week
from 1pm to 6pm

Moved 60,000 pax and
traveled 4,500 kms

CURRENT DEPLOYMENTS



GoMentum Station

California - USA

Pilot with
2 EasyMile shuttles

Partnership since
December 2016

To deploy 160 AVs
on public road



EDF

Civaux - FRANCE

6 Nava
shuttles

Daily operation
since 2016

Waiting time at stops
under 10 mns



Confluence

Lyon - FRANCE

2 Nava shuttles,
fixed line

Operated
since 2016

Eco-neighborhood
with a 1.4 km path



Transport of Fribourg

Fribourg - SWITZERLAND

2 Nava shuttles,
fixed line

Connecting Fribourg to
Marly Innovation Center

Since Sept. 2017,
on-demand in 2018

UPCOMING DEPLOYMENTS



MBC

Cossonay - SWITZERLAND

2 Naya
shuttles

Operated 5 days a week
from 7am to 7pm

2 lines connected to
a cable car service



SBB Railways

Zug - SWITZERLAND

2 EasyMile
shuttles

Integrated solution (trains,
buses and car sharing)

Geo-fenced area with
on-demand in 2018



Transport of Geneva

Geneva - SWITZERLAND

1 Naya
shuttle

Loop of 2 kilometers,
fixed line

On-demand
in 2018

2018 : RIDE-HAILING WITH 500 VEHICLES

Scaling to 100 cities in the next 5 years



NEXT STEP: ROBOTAXI



- Robotaxis trials are starting all around the world, commercials roll-out are expected **before 2020**.
- Robotaxi services will offer fares at a **fraction of the cost** of taxi and public transit today.
- In this new paradigm, owning a private car will cost almost **twice as much** as using robotaxis.



COMPANY PROFILE

BestMile

Incorporated in January 2014



Track Record

- +50'000 miles covered
- 200'000 pax transported
- 13 fleets managed
- 6 live: USA, Europe, Japan

Financials

- \$ 5.5M Funding



AIRBUS VENTURES

A team of 40 amazing people and rapidly growing !

- Engineering (PHDs)
- Business development
- Program & Product management
- Operations
- Talent acquisition
- Sales & customer success

R&D Partnership with the EPFL

- Complex algorithms for large scale fleets
- Exclusive license for BestMile
- Patentable outcomes



EXECUTIVE TEAM

Raphael GINDRAT

San Francisco & Lausanne

CEO



- Founder
- Tested and operated the very first prototype of autonomous shuttle since 2012 at the Swiss Federal Institute of Technology in Lausanne

Michael COTTLE

San Francisco

VP Sales & Cust. Success



- 25 years of experience in SaaS Sales and Senior Executive for 20 years in charge of Business Development
- Ridecell & DeCarta: experience in startups and with mobility solutions

Lissa FRANKLIN

San Francisco

VP BD & Marketing



- AppDirect: Manage market development, business dev., OEM and partner relations, channel strategies
- Board Member of the Connected Vehicle Trade Association (CVTA)

Anne MELLANO

Lausanne

VP Operations EMEA



- Founder
- Transportation engineer with urban planning experience
- Coordinated European project on autonomous mobility

Zhao LU

Lausanne

CTO



- Former CIO at Easy Taxi (ride-hailing, 420 cities, 0.5M drivers, 20M users)
- More than 15 years of software eng. Exp. in big groups (IBM, Orange) and start-ups. Silicon Valley veteran

Marco LAUMANN

Lausanne

VP Research



- Project leader for Transportation and Operations Research at IBM Research
- 13 years of experience in robust and stochastic optimization for decision making under uncertainty



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