

#EUYearofRail



EQUIPMENT AND SERVICES IN THE TRANSPORT OF THE FUTURE

Innovation and Sustainable Transports. The role of new
systems and technical solutions

Michael Frankenberg, Siemens Mobility

Global megatrends will increase the need for sustainable mobility solutions

By 2050
70%
of the world's population
will live in cities

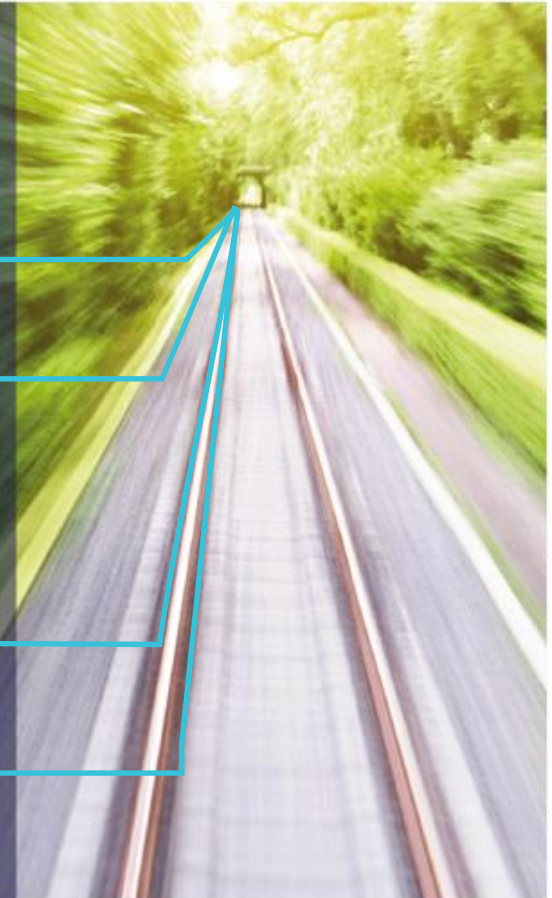
3X more passenger
movement predicted
globally by 2050*, **

More than
30%
of global energy demand
from transportation sector**

25% of global greenhouse gas
(GHG) emissions from
transportation sector**

* The pandemic is predicted not to affect this development in the long run.

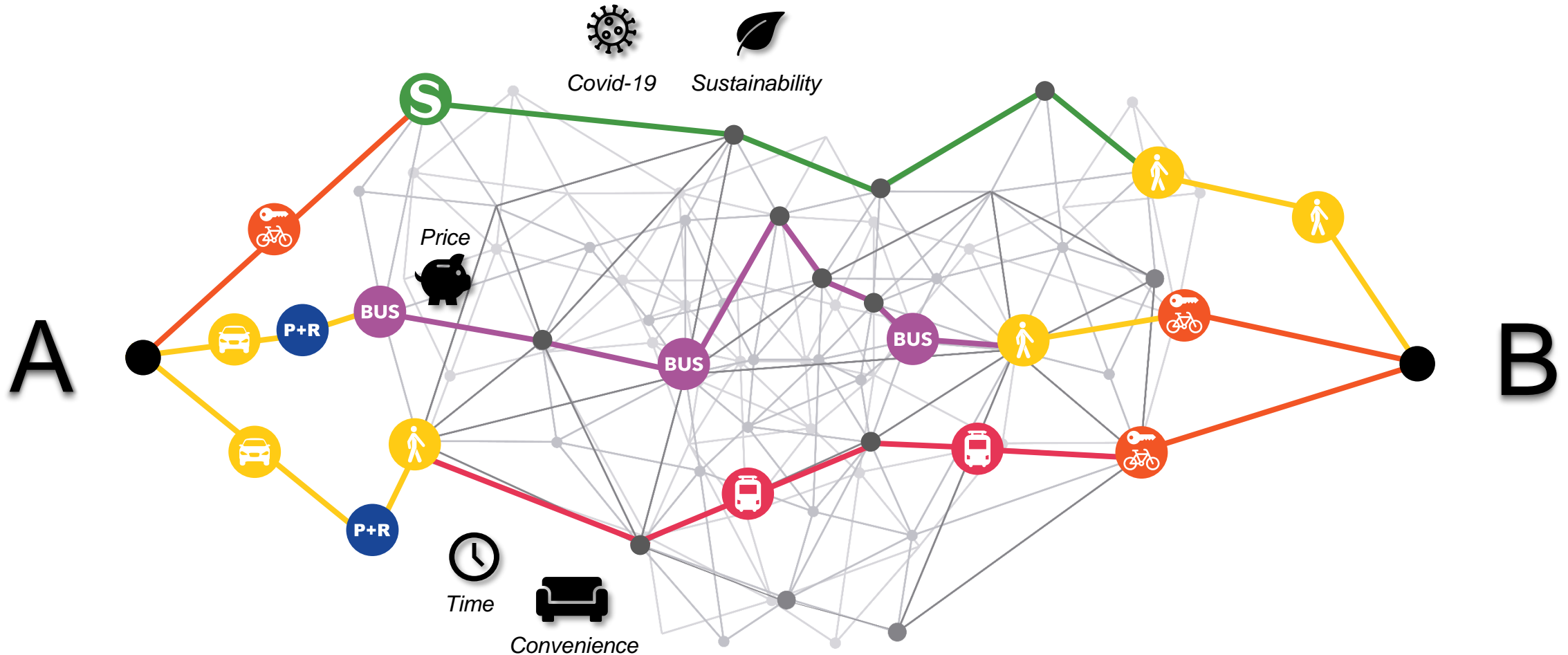
** Source: IEA Future of Rail Report.



The vast variety of mobility lead to a jungle of options



Guiding by digital solutions is necessary!



We connect all stakeholders and elements of mobility

PASSENGERS



DIGITAL MOBILITY – Intermodal and Connected

SIEMENS

HACON

sqills

BYTEMARK

EOS.UPGRADE

PADAM MOBILITY

VEHICLES / MOBILITY SERVICES

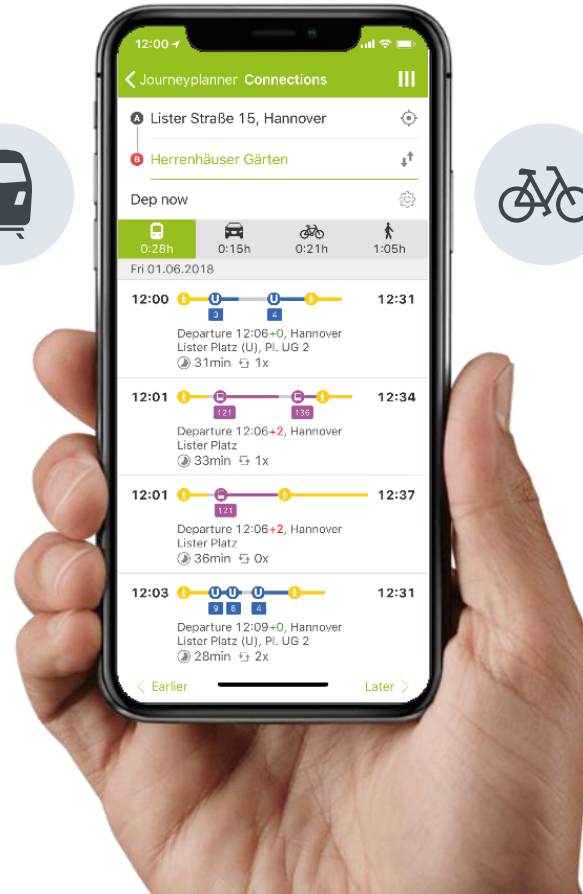
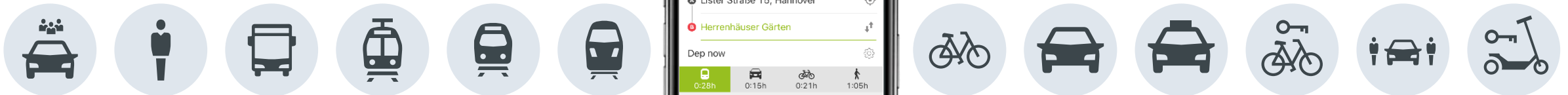


INFRASTRUCTURE



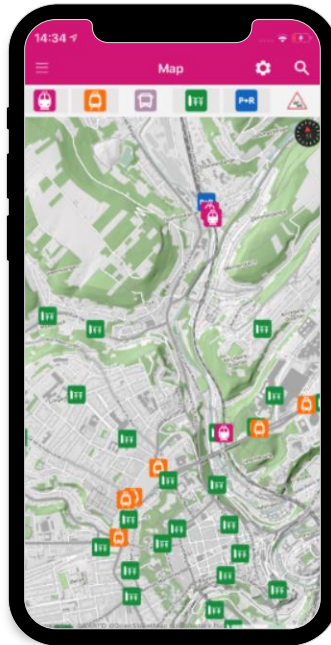
MaaS = Mobility as a Service.

One single interface to intermodal Plan, Book & Travel



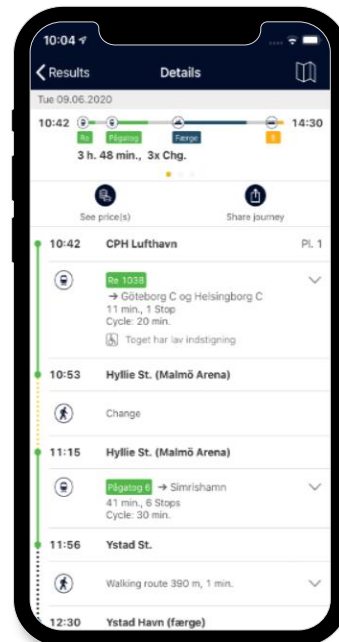
MaaS live in Action

mobilität.lu /
Luxemburg



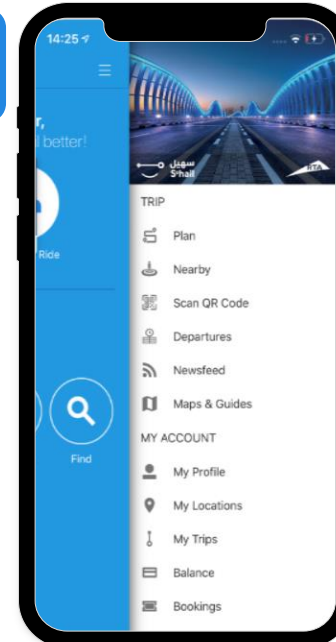
- Public transport, car, e-charging, car sharing, P&R, bike sharing
- Comparison of CO2 emissions
- 100k+ downloads

Rejseplanen /
Denmark



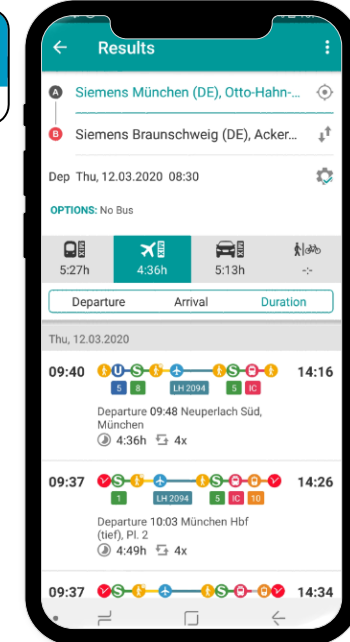
- Nationwide mobility platform
- Public transport, mobility services and domestic planes
- More than 4 Mio. Downloads

S'hail / Dubai



- 1st integrated “all in one” platform in the Middle East
- Seamless payment process
- 200k+ downloads

Siemens Travel
Planner



- Door-to-Door intermodal planner for Business Travel
- Rail, Flight, Freenow, SIXT
- Digital Fahren & Fliegen Ticket

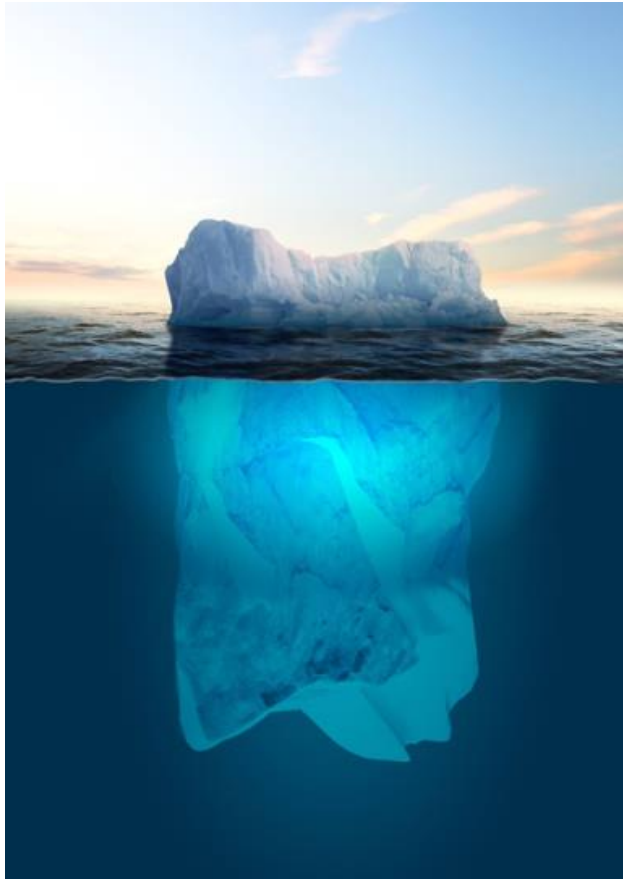
COMING SOON – MaaS App for Renfe in Spain



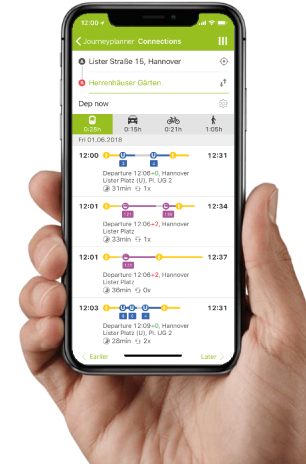
- Countrywide **Mobility as a Service (MaaS)** platform for Spain
- Integration of shared and public transport
- MaaS will be **available in 27 cities** across Spain including Madrid, Barcelona, Valencia, Bilbao and Sevilla
- Renfe predicts the intermodal platform will attract a minimum of **650,000 new customers** to train travel, who will generate **1.8 million new trips** in five years, **increasing train ticket sales** in the main corridors by **3% to 4%**



We need to ensure best possible data



App



Content

Algorithms

Payment

CRM

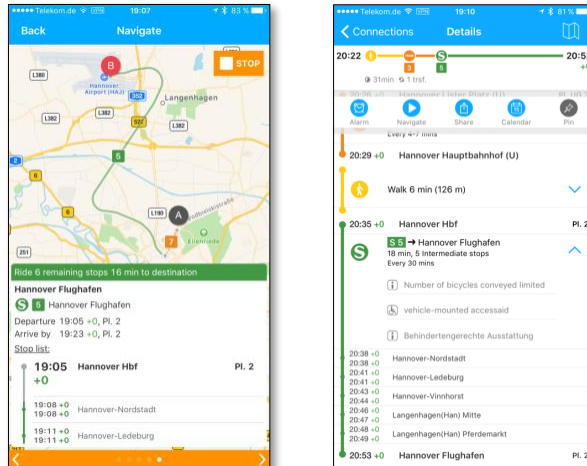
IoT

Big Data / AI

Disruption Management

HAFAS and HAFAS Driver – Ecosystem to digitize mobility

Customer App

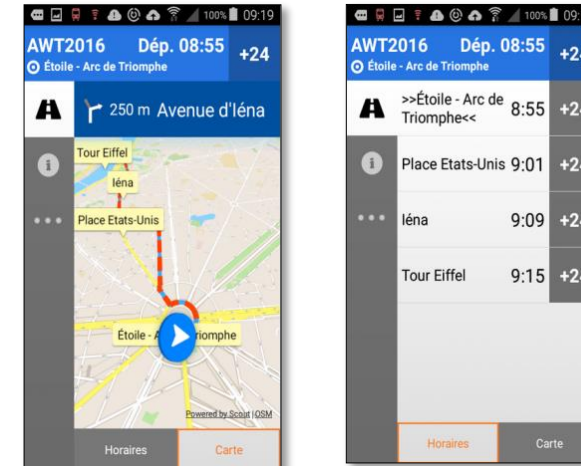


Digital STOP button

“Registered” trips

Ecosystem for
feedback & rating

Driver App



- Multimodal trip planner app
- Push notifications for commuters
- Navigation for public transport – re-routing inside
- Connected with driver app

- App-based ITCS system for bus & train
- Navigation for bus driver – re-routing
- Connection assurance integrated
- Connected with customer app

Rural mobility demands flexible mobility offerings



Individual needs require flexible services – On demand!



Occupancy Analytics – Live at BVG and RMV

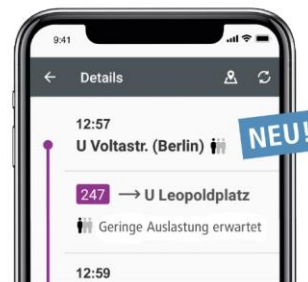


Entspannter von A nach B mit unserer Fahrinfo-App

Das öffentliche Leben steht seit Monaten Kopf. Abstand halten und sich selbst und andere vor Corona zu schützen, hat dabei oberste Priorität. Auch wir tun alles, um dich und andere Fahrgäste bestmöglich zu schützen.

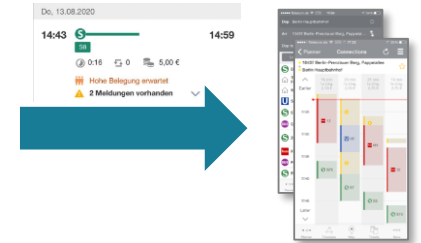
Deswegen haben wir unsere Fahrinfo-App um ein neues Feature ergänzt: die Auslastungsanzeige. So kannst du zukünftig schon vorab einschätzen, wie leer oder voll es auf deiner Strecke wird und dementsprechend deine Fahrt besser planen.

Lade dir unsere Fahrinfo-App jetzt schnell und unkompliziert runter:

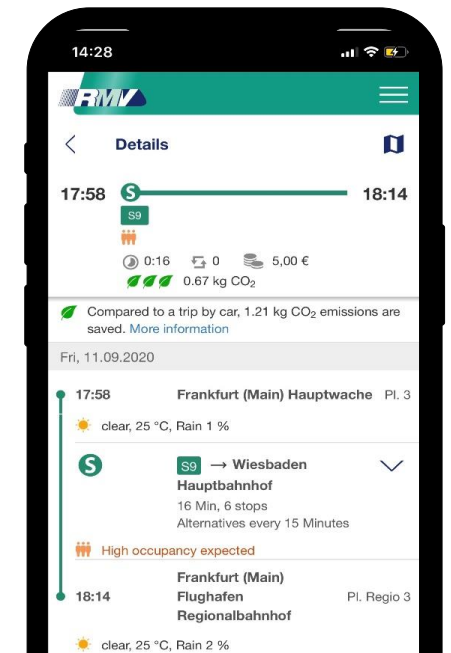
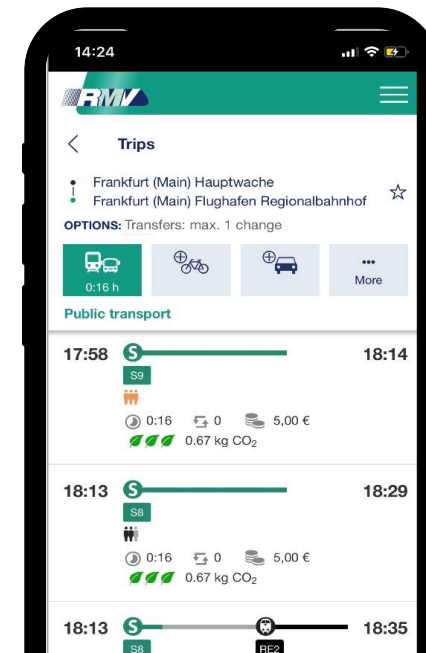


Artificial Intelligence Machine Learning

... someone just looking up a route, in Berlin. This makes > 75 Mio route requests per month



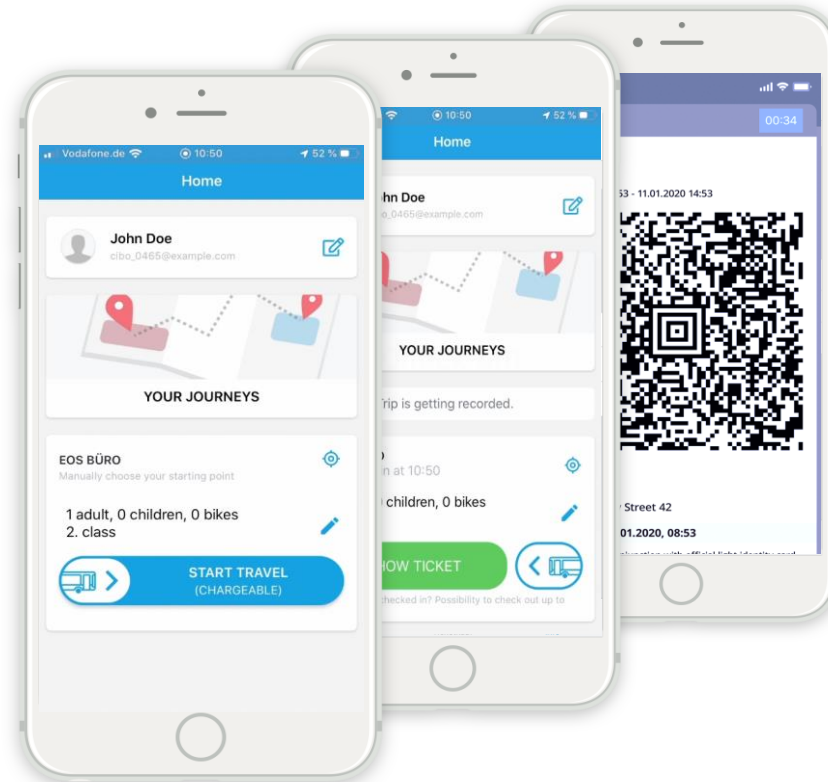
Predictions on Occupation



Account Based XiXo Ticketing

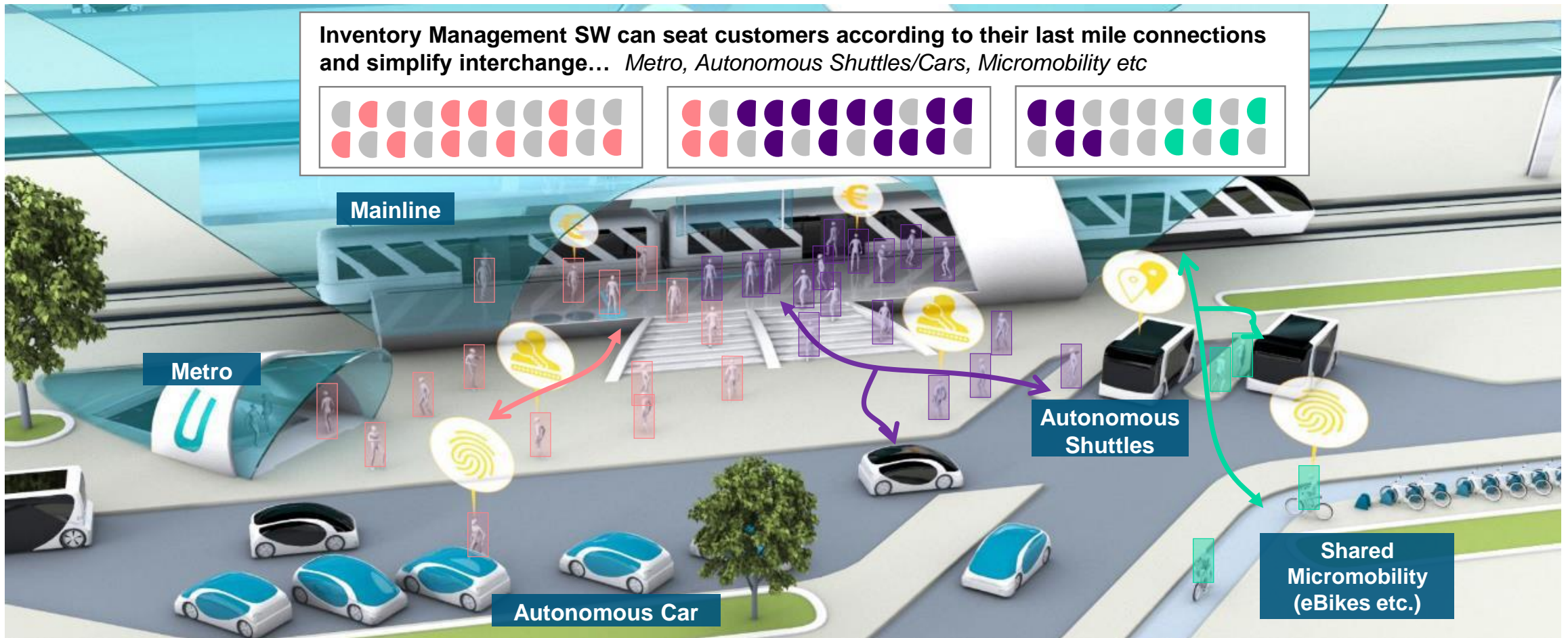


Live in Osnabrück!

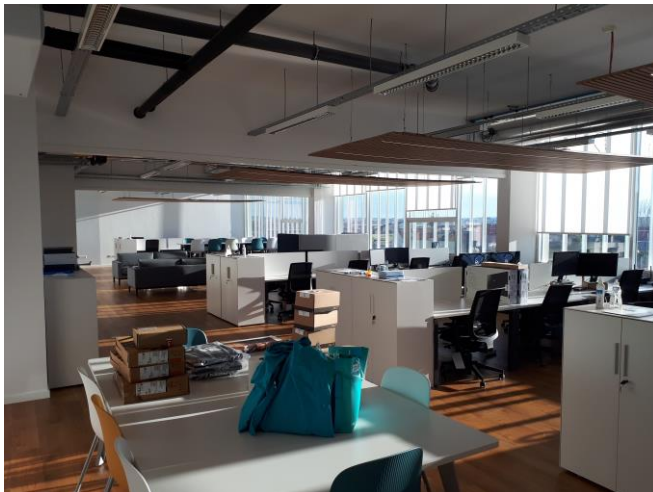


- ✓ From Check-in & check-out to Be-in & Be-out
- ✓ Best Price Automation
- ✓ No fare knowledge needed anymore

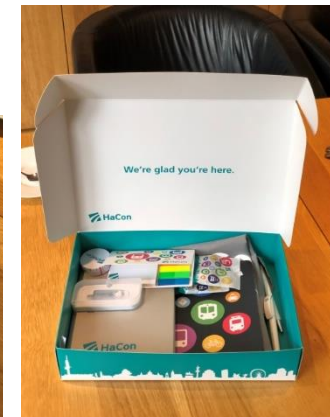
Future of Mobility will be “connected” and intermodal



Boa tarde desde Aveiro! New Siemens Mobility Center of Competence in Portugal



Established in **Sep. 2020**
until now **47** people hired!



Obrigado pela vossa atenção!

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