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# How can MaaS fly?

Will open APIs allow MaaS to take off?

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General Manager

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@SiemensMobility



# TRAVELERS DEMAND FOR A SEAMLESS MAAS SOLUTIONS

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## Passenger



The collage includes screenshots of: a search results page for 'Dubai RTA Customer Service Center'; a QR code ticket for 'Pearson Union' with a QR code; a train status app showing 'ICE 1609' and 'Wagenstandsanzeiger'; and a 'Rate journey' app showing a 5-star rating for a journey from Hannover Hbf to Berlin Hbf.



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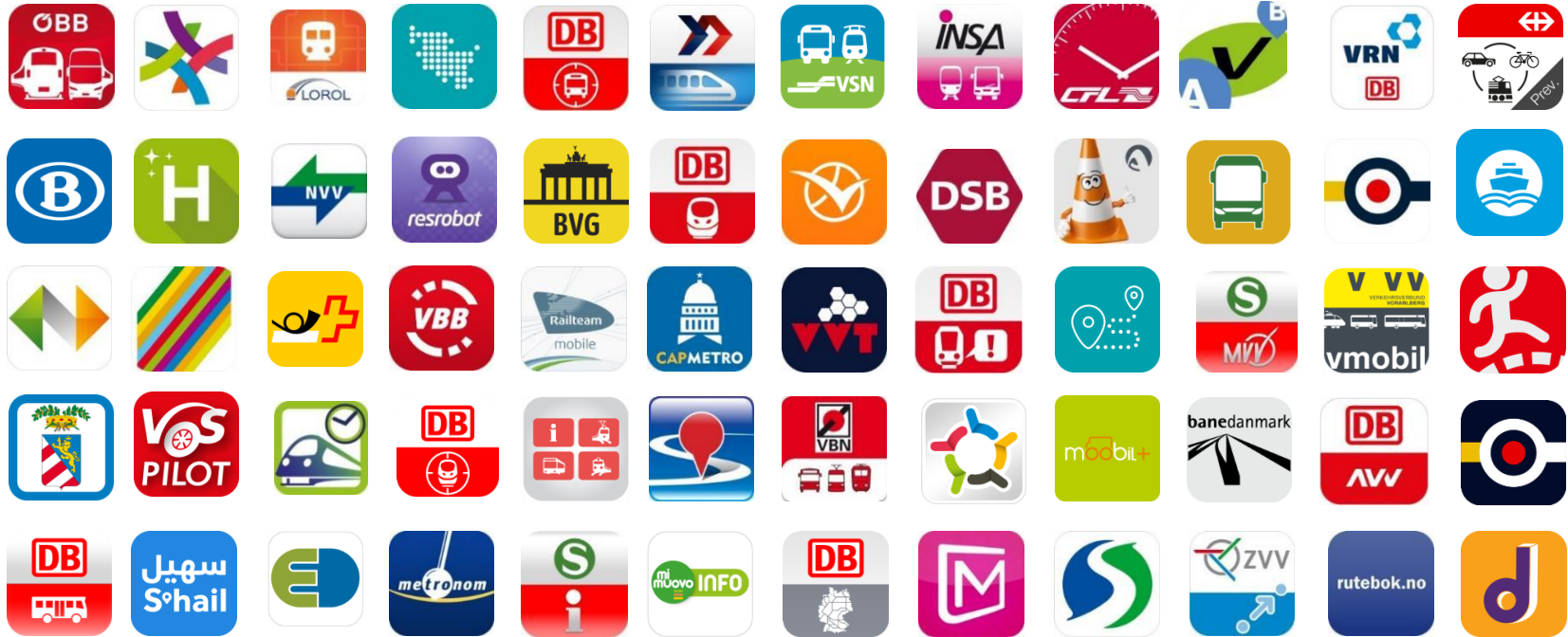


Combined Power for Mobility



# +100 APPS FOR TRIP PLANNING, TICKETING AND MAAS IN +25 COUNTRIES

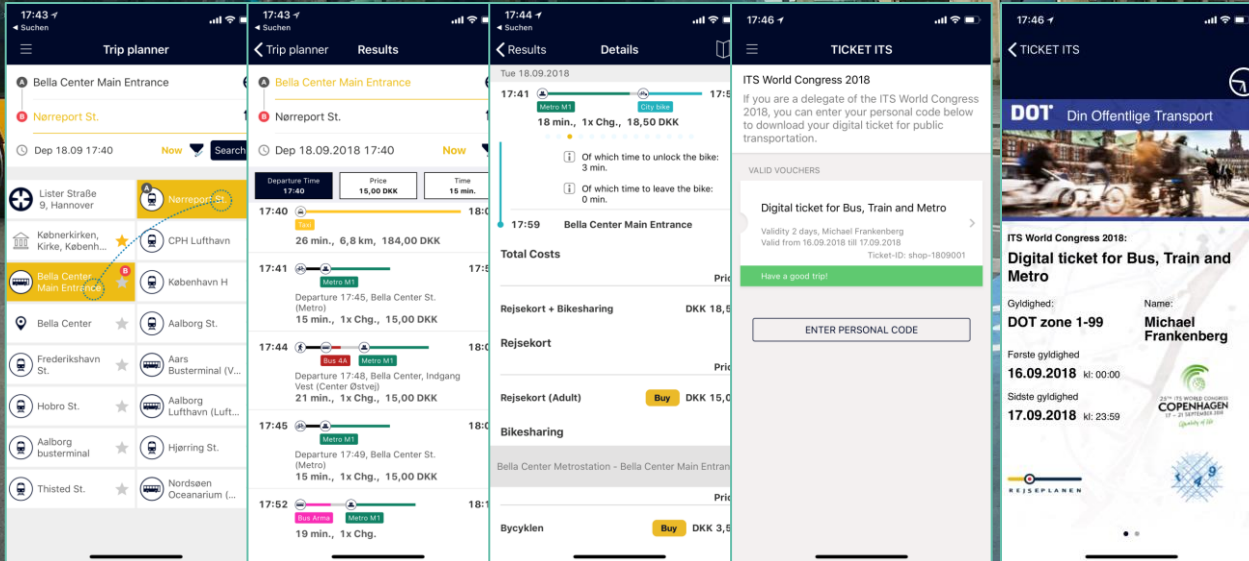
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# Multimodal Trip Planning

## and Booking

## in Denmark



4.1  
★★★★★  
STARS

+4 Mio  
↓  
DOWNLOADS



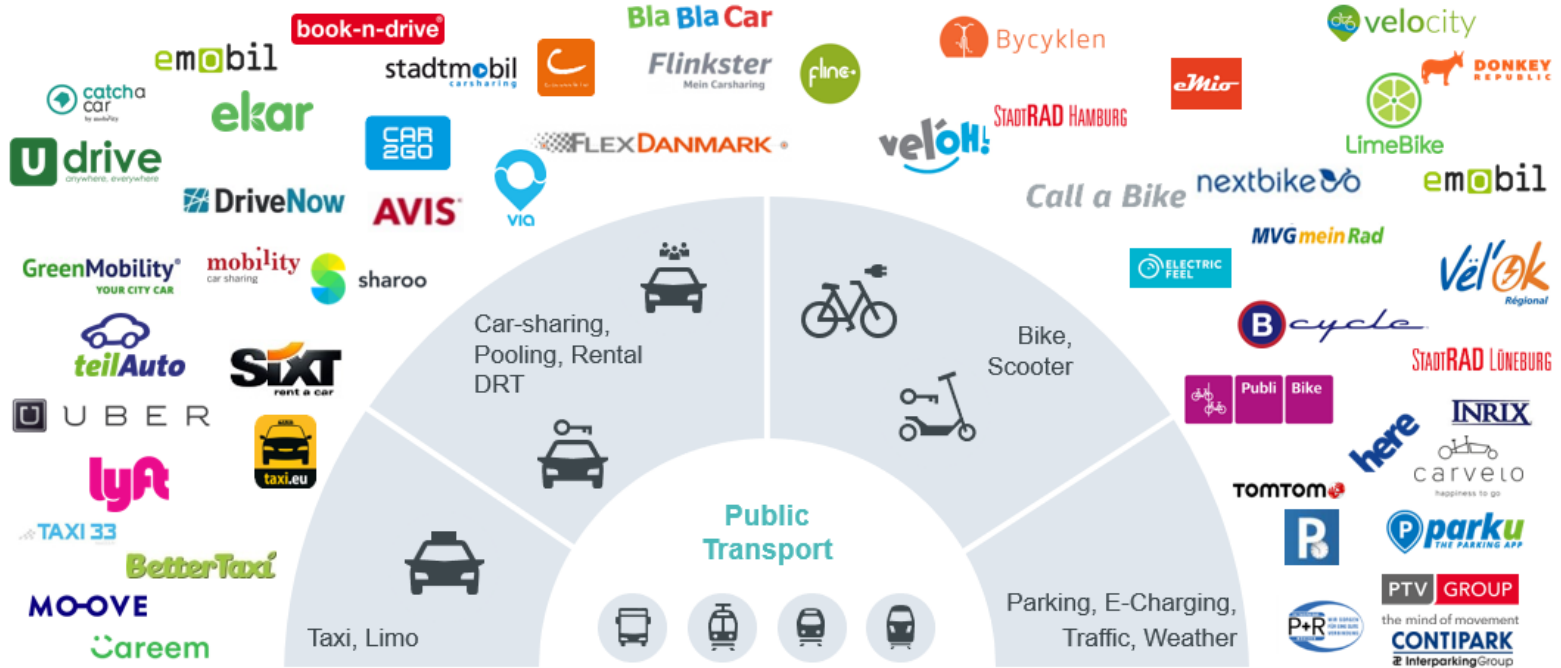
Rejseplanen



MinRejseplan  
(2<sup>nd</sup> version)

# WE HAVE ALREADY INTEGRATED A WIDE RANGE OF MOBILITY SERVICES

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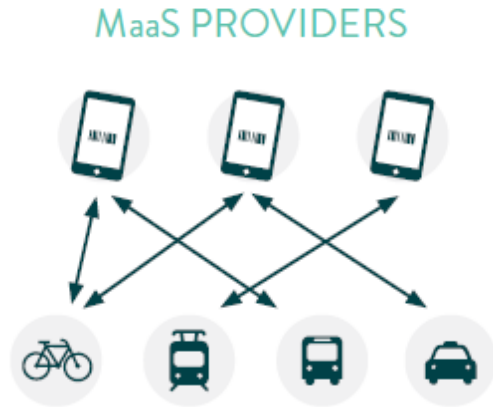
# MAAS – A JUNGLE OF MOBILITY INTERFACES AND MIX OF OPEN VS. CLOSED ECOSYSTEMS

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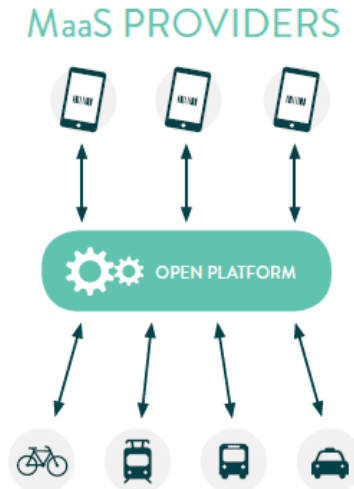


# OPEN APIS IN THE CONTEXT OF VARIOUS MAAS MODELS

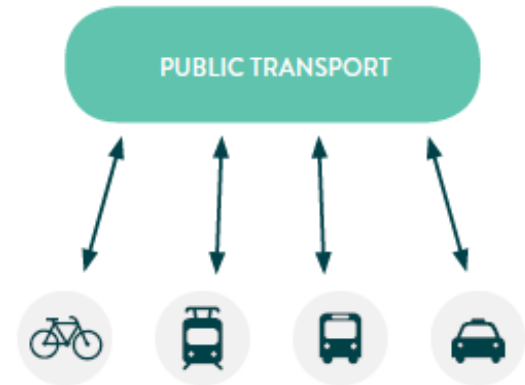
## 1) Commercial Integrator



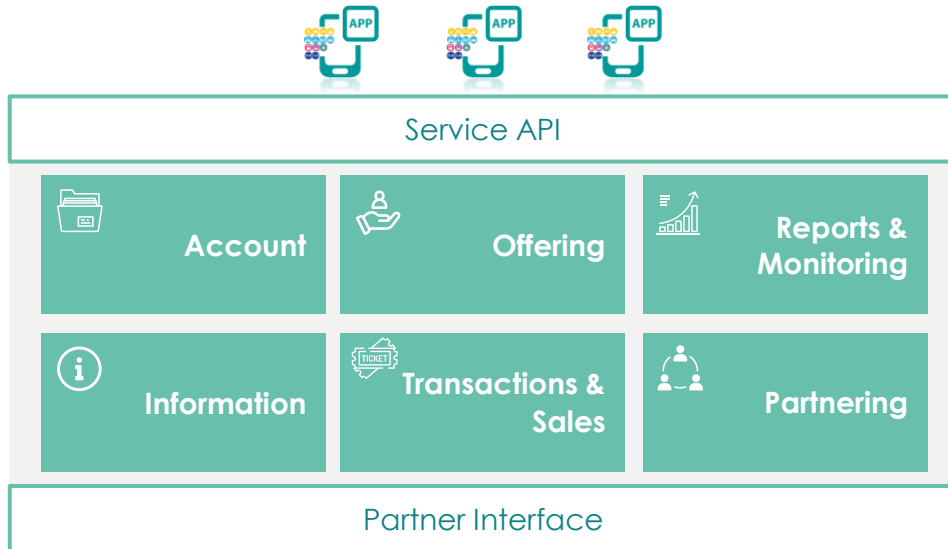
## 2) Open Back-end Platform



## 3) Transport as the integrator



# B2B MAAS PLATFORMS CAN PROVIDE A SIGNIFICANT VALUE FOR ALL STAKEHOLDERS

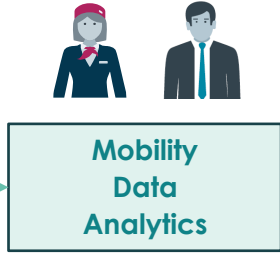
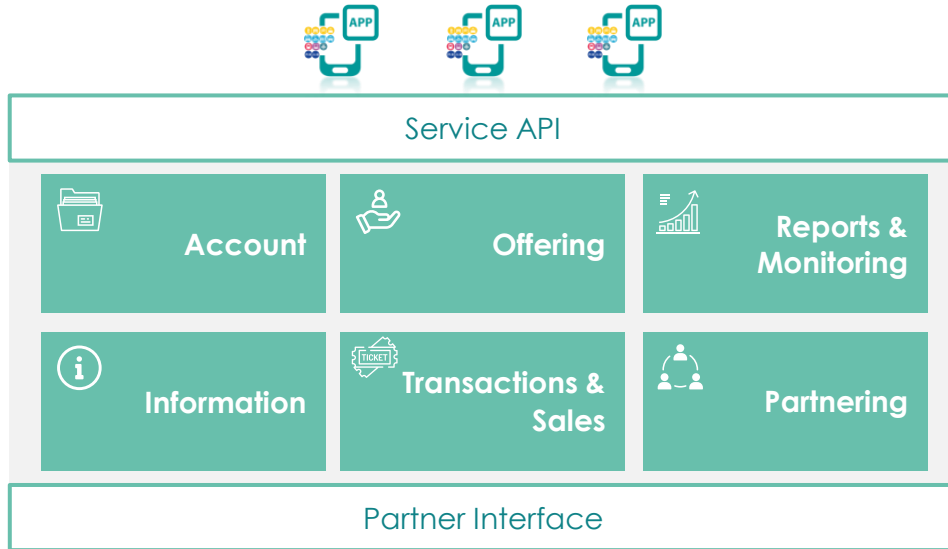


- Integration layer of mobility service
- Service APIs to use platform modules
- Unbiased route planning
- Valuable holistic data set



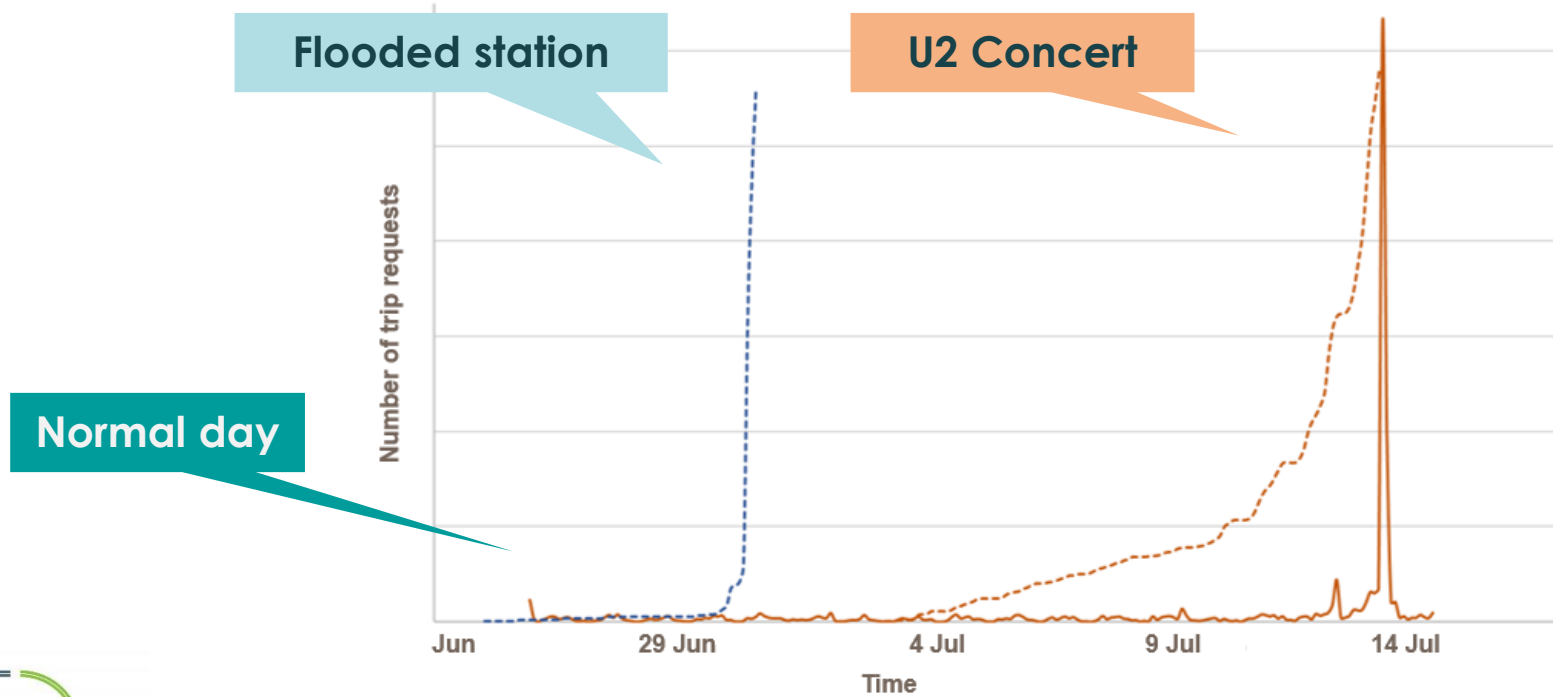


# SMART DATA SERVICES BY USING SEVERAL DATA SOURCES AND ADDING AI



- + Trip Diary
- + Mobility Data
- + Exogeneous Data

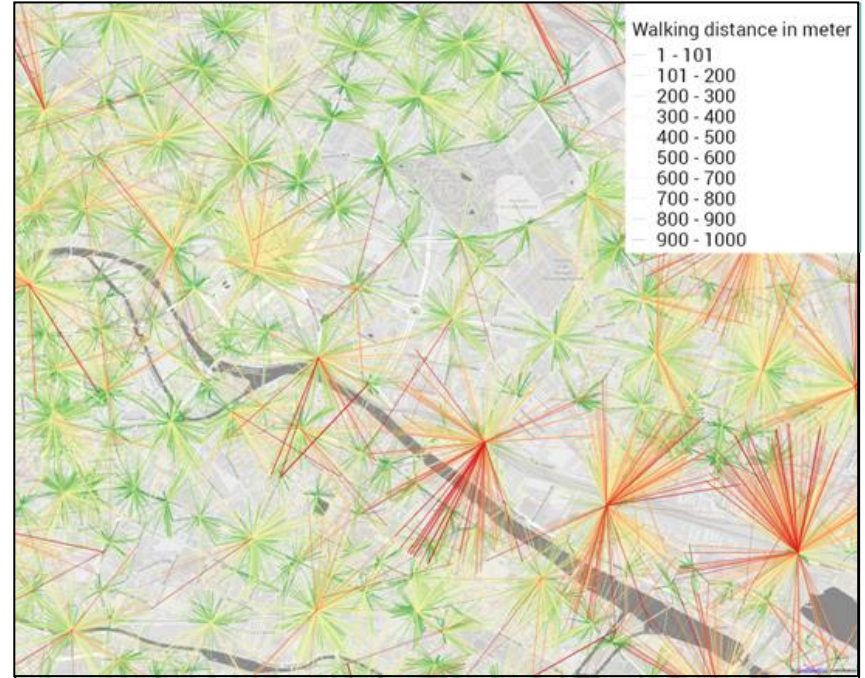
# IDENTIFICATION OF INCIDENTS & EVENTS BY AGGREGATION OF TRIP REQUESTS



# IDENTIFY DRT OPPORTUNITIES BY ANALYZING FIRST/LAST MILE COVERAGE

Walking distance to public transport stations by aggregated, anonymized door-to-door routing requests

Where should we set up a flexible Demand Responsive Transport (DRT) offering?

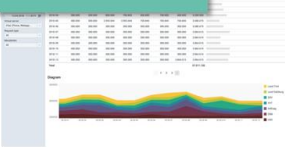


# MULTIPLE MOBILITY DATA ANALYTICS USE CASES HAVE BEEN IMPLEMENTED

## Validation and Calibration



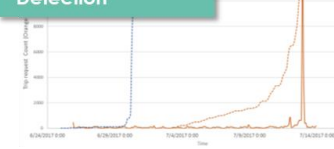
## Statistics 3.0



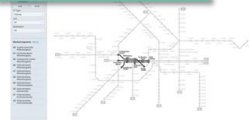
## Event Prediction



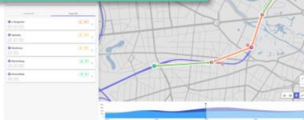
## Incident Detection



## Rail Replacement Service



## Occupancy Analysis & Forecasts



## Delay Analysis



## Quality of Interconnections



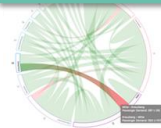
## Travel Time Car vs. Public Transport



## First/Last Mile



## Impact Assessment Tool

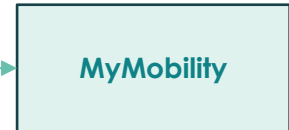
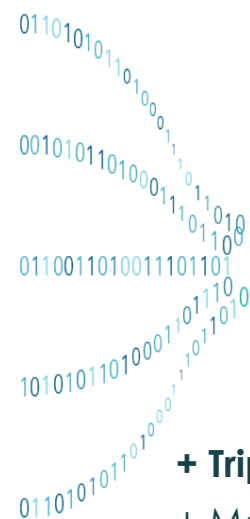
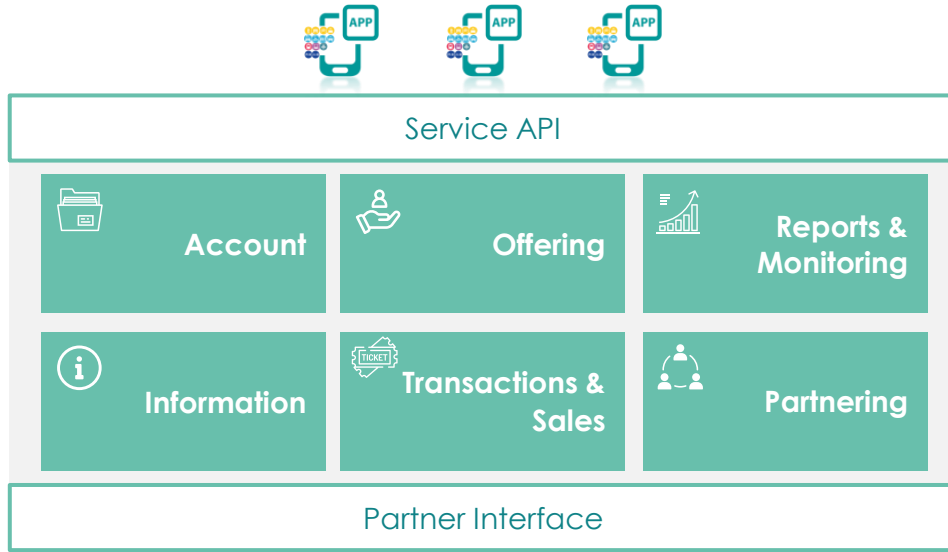


Passenger Demand (imp)	24,294
No. Interconnection (imp)	1,68
Travel Time (imp)	32m 22s
Interconnection Time (imp)	24m 13s
Walking Time (imp)	01m 17s
Delays (imp)	33s

## Your Use Case



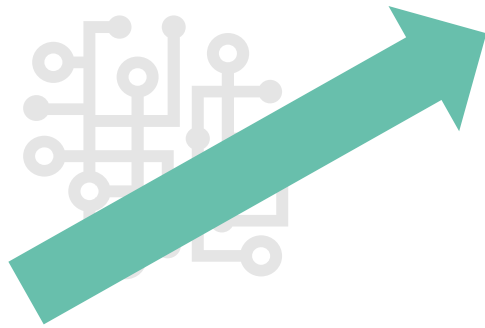
# SMART DATA SERVICES BY USING SEVERAL DATA SOURCES AND ADDING AI



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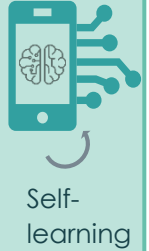


# PERSONALIZED, PROACTIVE MOBILITY RECOMMENDATION FOR PASSENGERS



## Next generation Apps

- Proactive and personalised
- Individual suggestions: favourite places, frequent destinations
- Contextual trip planning
- Automated data completion



## Current Apps

- Reactive Journey Planning
- Reactive Ticketing
- Address entry
- Multiple registrations

**Uplift your App with  
AI-based technology**

# OPEN, STANDARDIZED APIS & B2B MAAS PLATFORMS CAN GIVE MAAS WINGS!

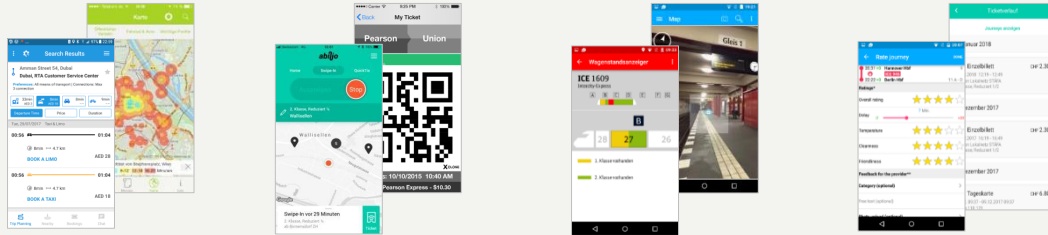
## Passenger

Information  
& Planning

Booking, Ticketing  
& Payment

Travel

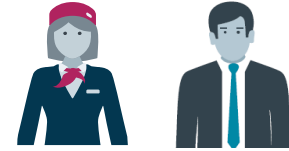
Management



MaaS platform



## Operator / Authority



**1. Sustainable ecosystem with reduced interfaces & complexity**

**2. Access to a holistic data set to**

- Understand passengers
- Improve operations
- Provide personalized services
- Orchestrate mobility