Mercedes-Benz City Dashboard
Parking Analytics for Cities

Mercedes-Benz AG – Urban Mobility Solutions

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THE PARKING CHALLENGE

1 Cities do not have transparency about the number of their parking slots

2 Cities have high costs in maintaining and monitoring their parking slots but do not track their utilization
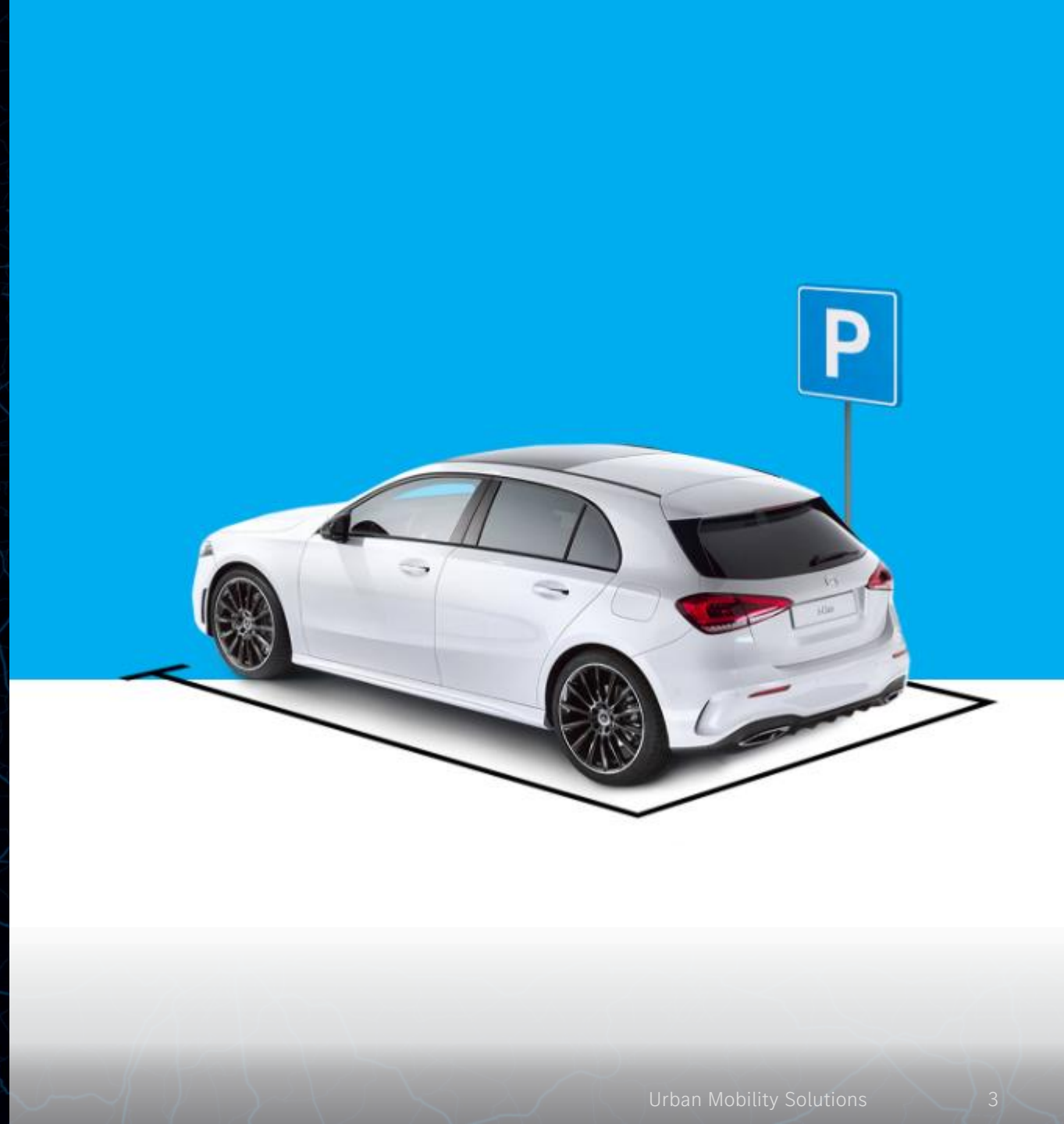
3 Pressure on parking space increases and cities need innovative solutions to increase space in cities

THE SOLUTION: HISTORICAL AND REAL-TIME PARKING BEHAVIOR FOR YOUR CITY

IMAGINE YOU GET A DIGITAL TWIN OF THE PARKING SLOTS AND PARKING BEHAVIOR SINCE 2017 UNTIL TODAY AND IN THE FUTURE FOR A PREDICTIVE PARKING ANALYSIS.

THIS IS POSSIBLE WITH OUR MERCEDES-BENZ PARKING ANALYTICS PRODUCTS

Parking data is collected both through specific parking processes and through the detection of parking spaces via ultrasonic sensors
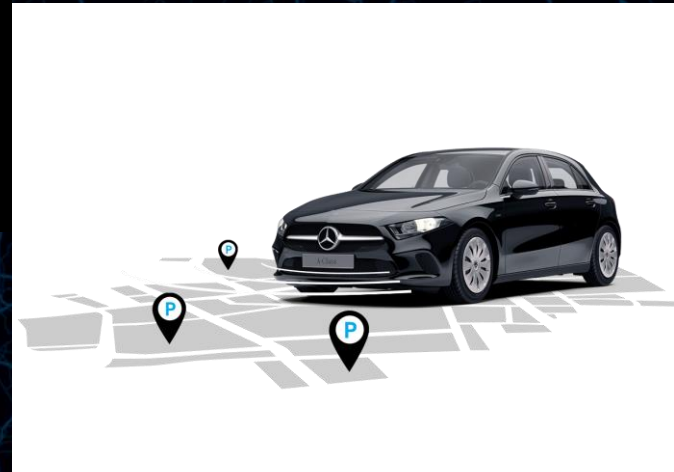
PARK IN / PARK OUT

1

Detection of free / occupied parking spaces through operating the ignition

ULTRASONIC SENSOR DATA

2

Detection of free parking spaces through Mercedes-Benz fleet and swarm-intelligence

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This results in different use cases – from parking space register to predictive parking analyses
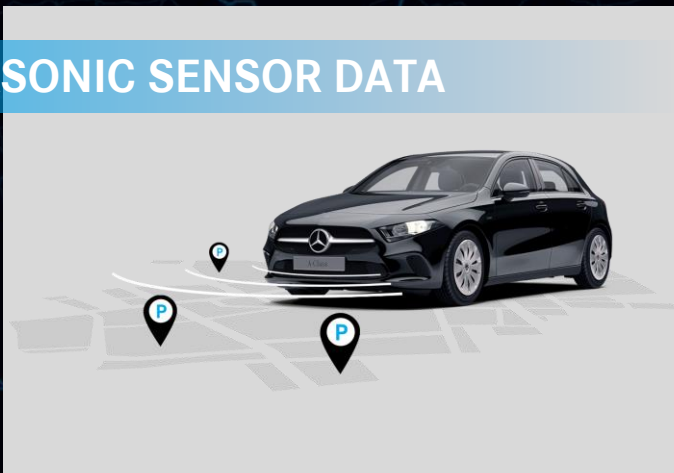
PARK IN / PARK OUT

ULTRASONIC SENSOR DATA

live

I. Parking space register

Status quo analysis on number and location of parking lots per street segment

live

II. Parking occupancy prediction

Prediction of parking space utilization and parking probabilities based on historical data

III. Dynamic parking analysis (real-time)

Dynamic prediction of occupancy model through integration of real-time data possible

Mercedes-Benz with great fleet parking data – historic & real-time

24H data collection – approx. 100.000 events for a 100km² urban area

~10-20% of data events on park-in/park-out

~80-90% of data events regarding free parking spaces *(incl. multiple counting)*

HISTORIC ANALYSES ON PARKING DATA

Data storage since 2017 allows for comprehensive analyses regarding parking patterns and utilization

DYNAMIC UPDATES

Real-time information on free parking spaces via Mercedes-Benz Developer API to be integrated in Apps and navigation services

To fully leverage the Parking Analytics results, we recommend either our Mercedes-Benz Data Dashboard or a data transfer via API/JSON

MERCEDES-BENZ DATA DASHBOARD
Intuitive dashboard with filtering and data integration

MERCEDES-BENZ DATA LAYER
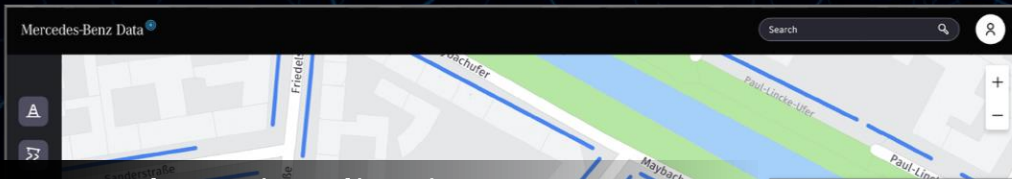*Transfer via defined data layer (z.B. JSON oder csv)*

MERCEDES-BENZ DEVELOPER API
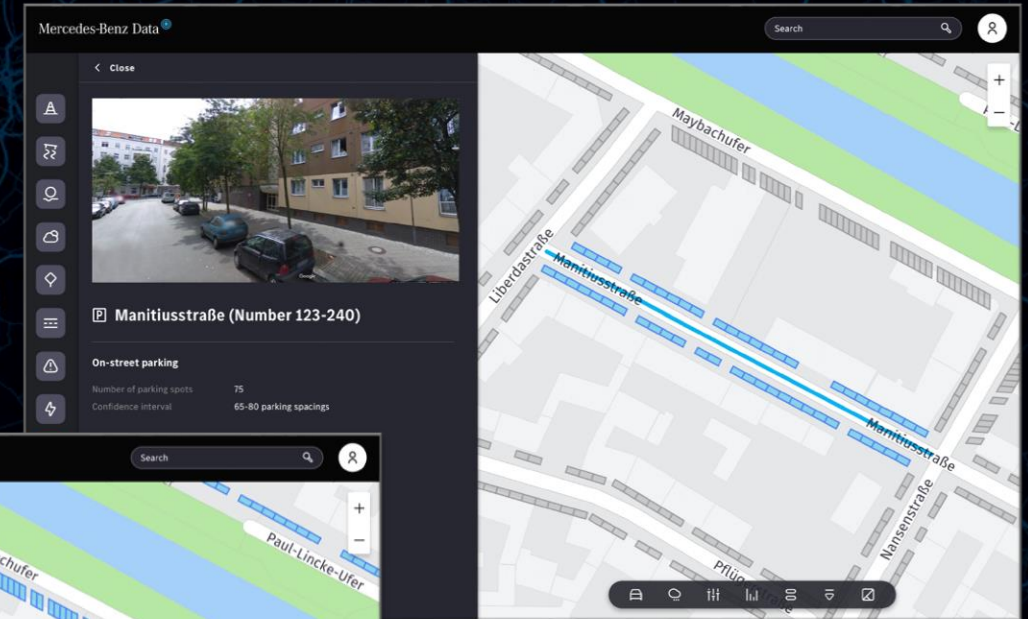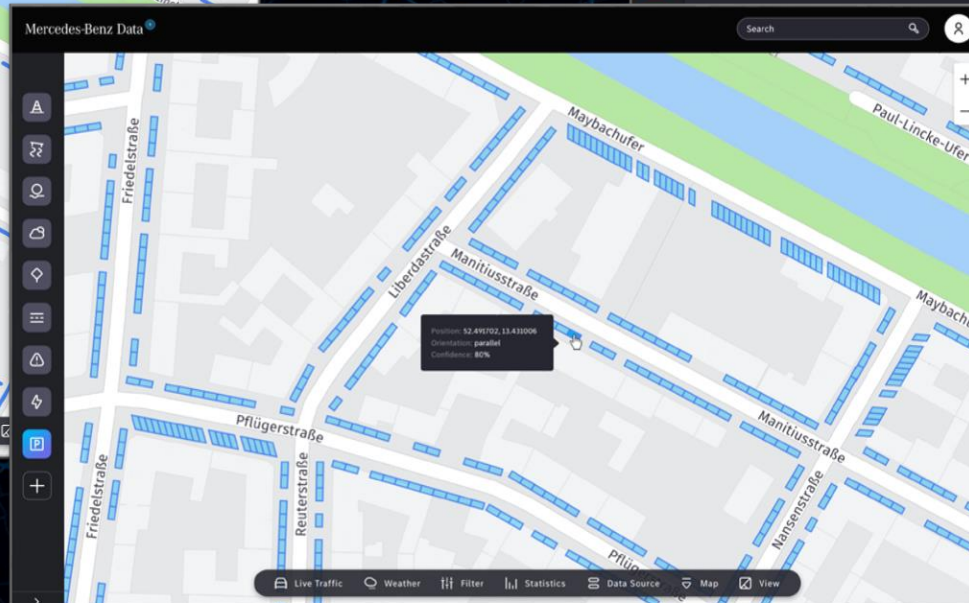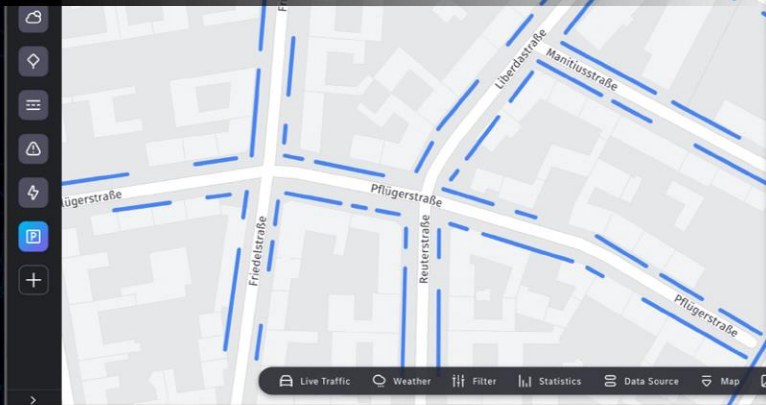*MB DevAPI for integrating MB data products into existing infrastructures*

The Mercedes-Benz Data Dashboard bundles all the insights from the parking data analysis for the parking space register

I. Parking space register

Based on Mercedes parking data combined with satellite images

Exemplary visualization

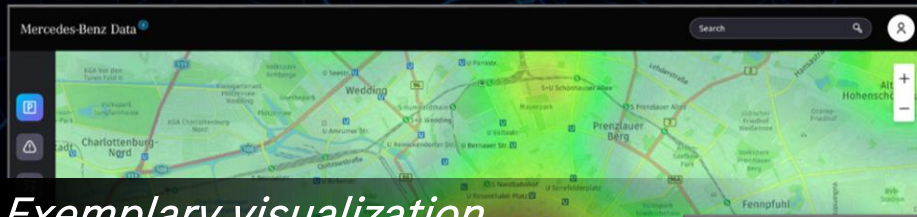**Data insights to be delivered:**

Register endpoint
- Polygon geometry of parking space (longitude/latitude)
- Physical orientation of the parking spot (parallel, cross, diagonal)
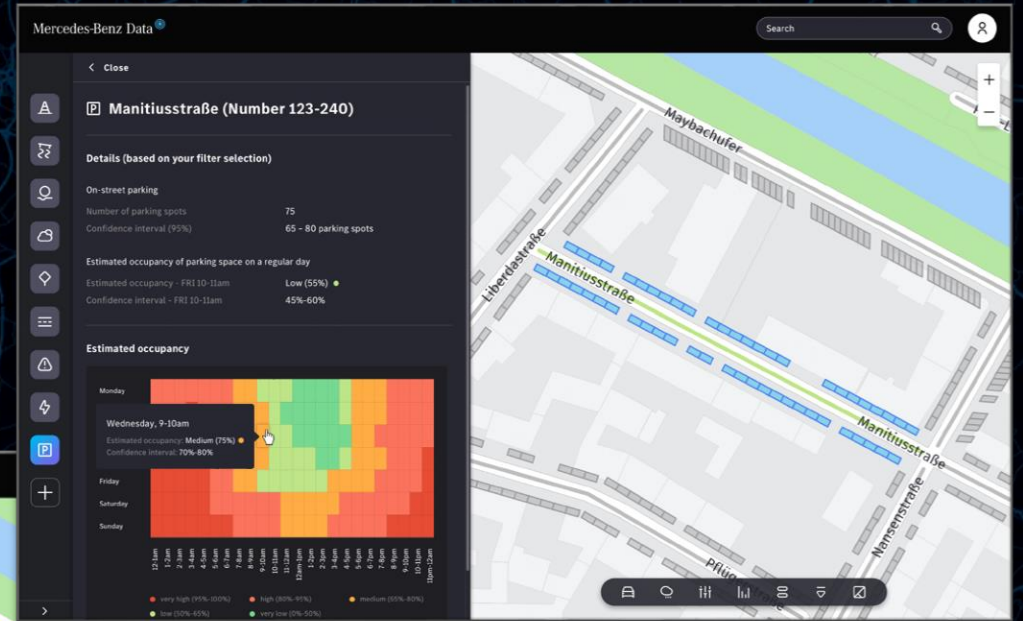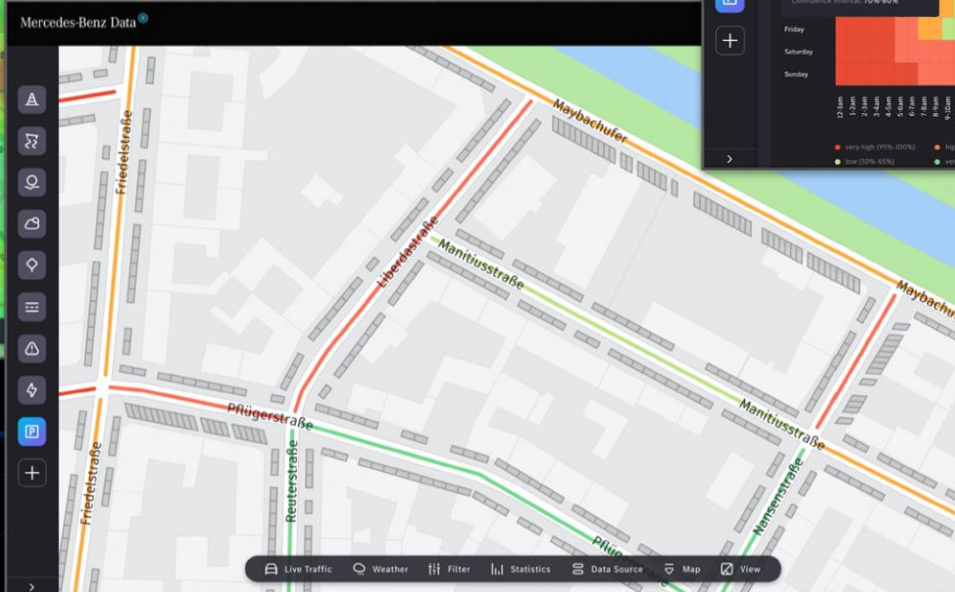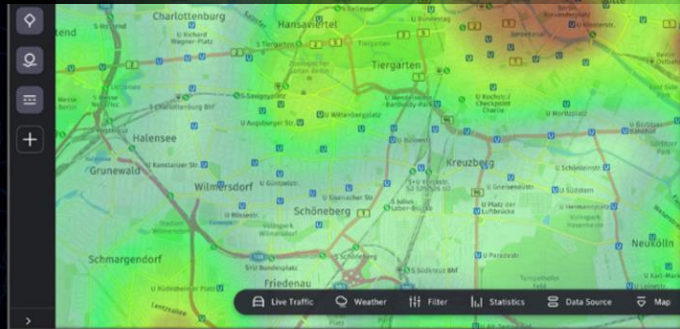- Confidence value

Capacity endpoint
- Number of parking spaces for given geometry (e.g. geofence, street segment)
- Confidence value

In addition, the Mercedes-Benz Data Dashboard offers comprehensive information on predictive parking analysis and parking behavior

II. Parking occupancy prediction

Exemplary visualization

Data insights to be delivered:

Register & capacity endpoint as for parking space register

Occupancy endpoint
- Occupancy as percentage of parking spaces occupied relative to the capacity
- Weekday (Monday-Sunday)
- Local time in hour & minutes (e.g. 10:30am)

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