

**BIAS**  
MÜHENDİSLİK

Yenilikçiler için Çözümler  
*Solutions for Innovators*

## Mobility Solutions



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# Application Areas & Expertise

## 1 Artificial Intelligence

- Data labeling and dataset preparation for training and validation
- Model development for image, time-series, and point-cloud data
- AI-driven IoT applications and sensor-fusion algorithms
- AI-assisted data inspection, analytics, LiDAR clustering, filtering, and error-correction techniques

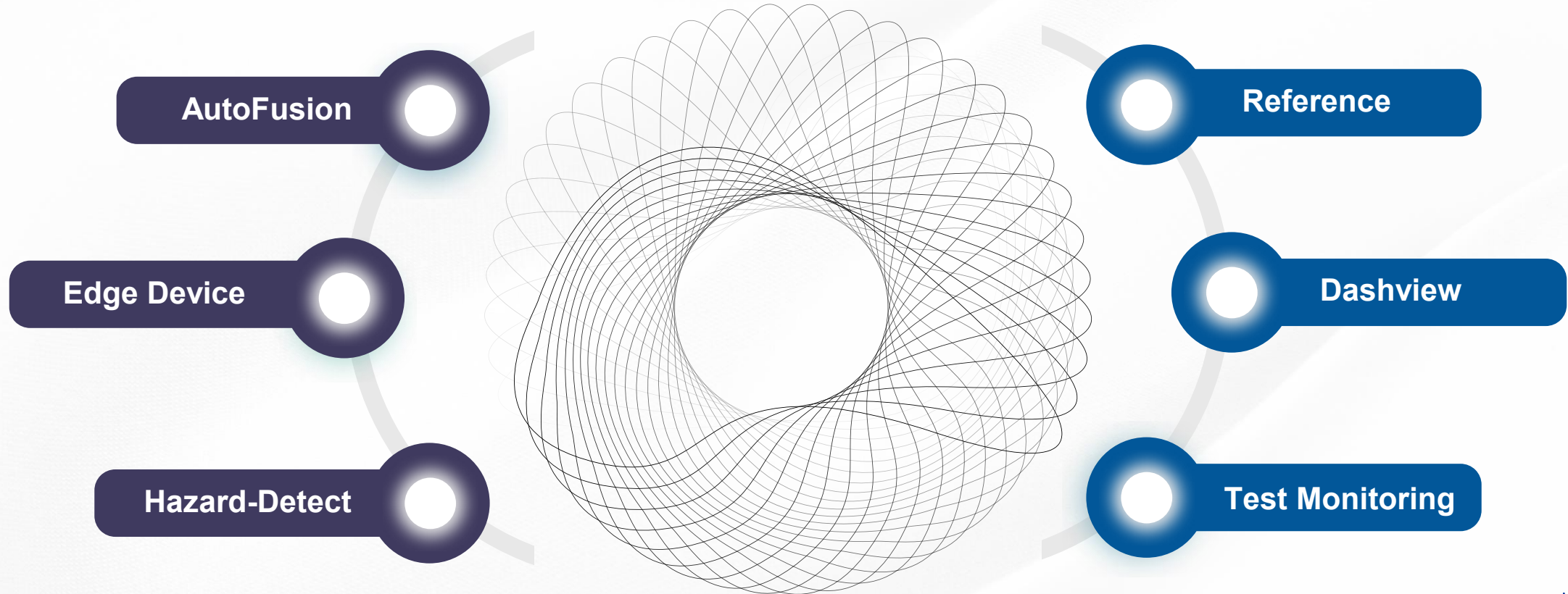
## 2 Data Acquisition

- Multi-sensor fusion and algorithm development (LiDAR–Camera, LiDAR–IMU, LiDAR–Radar)
- ROS-based algorithm design
- ADAS/Autonomous Vehicle data acquisition (video, LiDAR, analog, CAN)

## 3 Hardware & Connectivity

- Edge-computing hardware design with embedded software capabilities
- Integration of CAN-Bus, cellular (LTE/4G), Wi-Fi/Bluetooth, GNSS/IMU, and GPU-based AI processors

# Products/Tools

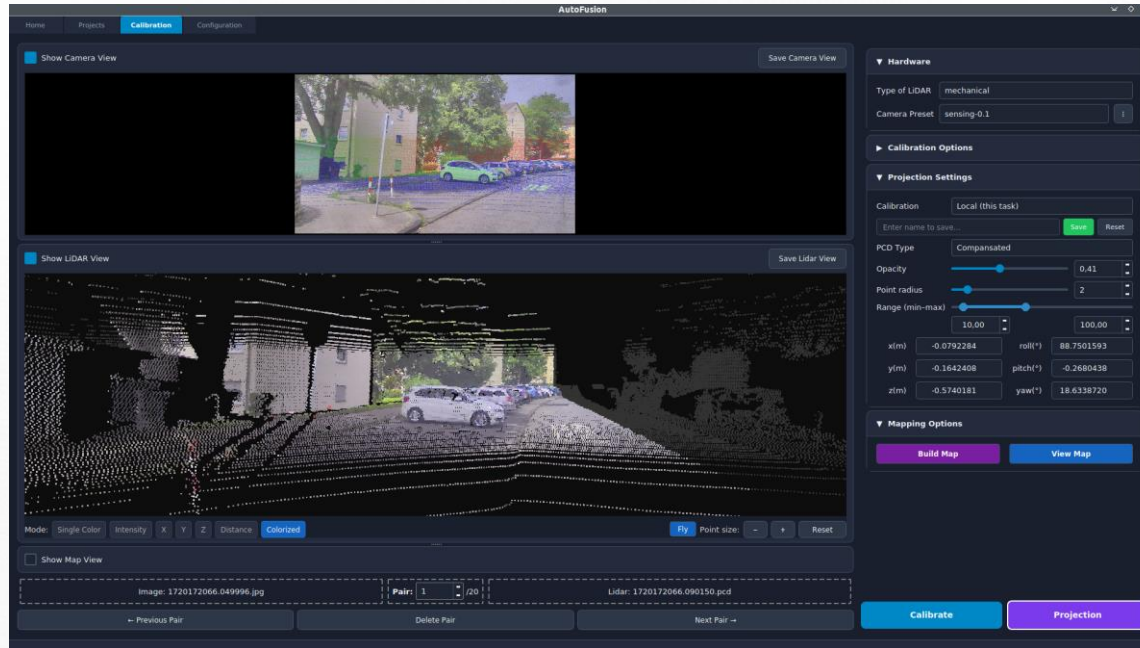




# AutoFusion

Perform sensor calibration in minutes, targetless and fully automated

- AI-driven high-precision sensor fusion
- 6-axis measurement (XYZ, roll, pitch, yaw) with  $\pm 0.02$  m /  $\pm 0.2^\circ$  accuracy
- Works with any LiDAR system or LiDAR-camera pair
- Processes static or dynamic data and delivers results in under 20 minutes





# Edge Device



- ADAS warning indicator and speaker
- Forward facing camera
- GNSS



- Wifi/ Bluetooth module
- IMU
- Cellular network (2G, 3G, 4G, LTE)
- CAN-Bus Module, 2 channels
- Powerful AI Processor



## Data Acquisition

Processing the vehicle data with the edge computing method and data transfer to the server or the cloud



## ADAS Warnings

Real-time warnings for lane departures, forward collision and pedestrian collision



## Data Storage

Collected raw and processed data are stored on local servers or in the cloud

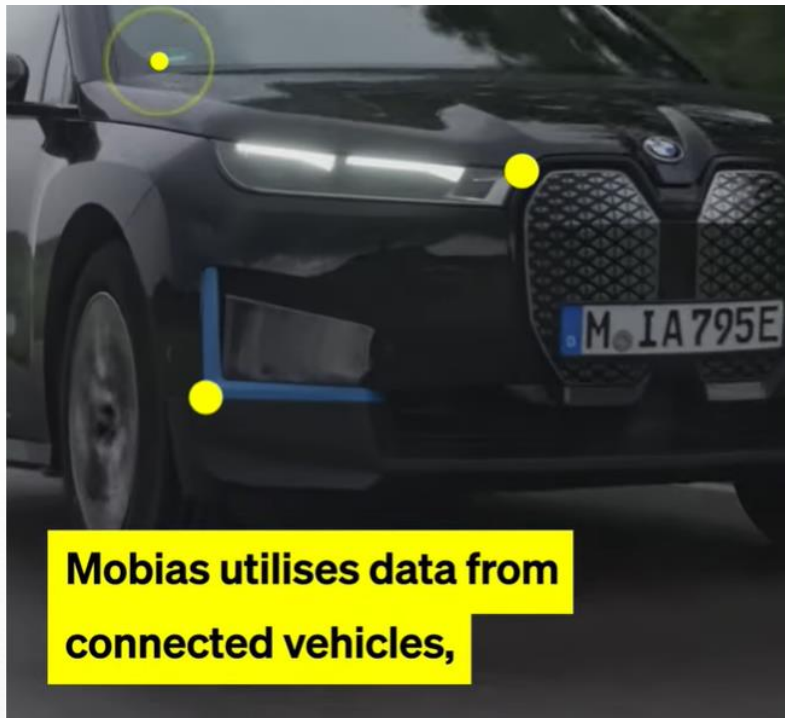


## Data Products

Real-time monitoring and data analysis on data products

# ⋮ Hazard-Detect

[Mobility in 60 seconds: Danger spots in traffic by Mobias](#)





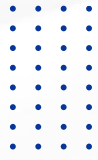
# Reference

## System Specifications:

- Measurement Range: ~50m
- Position Accuracy: ~0.05m (30m/s speed)
- Tracking based on Lidar Point Cloud
- Class detection accuracy (>%98)

- INTELLIGENT SPEED ASSIST (ISA)
- MOVING OFF INFORMATION SYSTEM (MOIS)
- LANE KEEP ASSIST (LKA)





# Dashview

## Automatic detection of all vehicle dashboard warnings

- No training required – Start using it immediately.
- Detects all dashboard warnings automatically.
- Post-process high-accuracy detection and analysis with advanced AI algorithms.
- User-friendly interface – Intuitive and easy to use.





# Test Monitoring

PoC with EVs & ICE vehicles

## System Specifications:

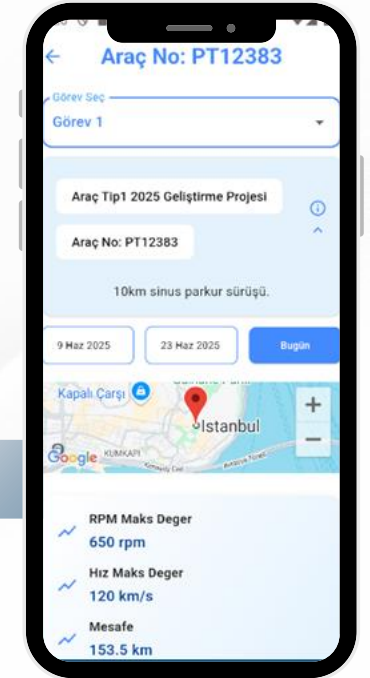
- Real-time monitoring of CAN Bus data
- Electric vehicle SoC and SoH data
- Statistical calculations, Task assignment
- OBD, DBC, J1939 compatibility
- Vehicle identification, online DBC file upload



WeLog



WeMobile



WeCloud

## PARİS



## STUTT GART



## MOBIAS



## STUTT GART

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**Thank You!**

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