AIM Reference track
Application platform intelligent mobility

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Testbed Lower Saxony

Test bed for automated and networked mobility
Testbed Lower Saxony

Fig.: Lower Saxony test bed
Source: https://verkehrsforschung.dlr.de/de/projekte/testfeld-niedersachsen-fuer-automatisiert-und-vernetzt-mobilitaet, last accessed on 11.09.2021

Fig.: Overview Test Bed
Source: https://derweg.org/deutschland/gesamt/deutschlandkarte/, last accessed on 11.09.2021
Testbed Lower Saxony

- Acquisition technology - anonymized acquisition of traffic objects and their trajectories
- Communication technology - V2X via WiFi 802.11p and cellular radio
- Maps - highly accurate and up-to-date for simulations and vehicles
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Reference Track

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Overview map

Fig.: AIM reference route Braunschweig
(lef: city center, right: connection north)
Source: DLR, maps © OpenStreetMap contributors
System architecture

Fig.: Structure of the outdoor facility
Source: DLR

Fig.: Overview of the system structure
Source: DLR
Analysis data range measurement
Data range measurement

Fig.: RSU range measurement DLR site (RSU 1.7m, vehicle 2.2m, summer 2020)
Source: Sten Ruppe and Ronald Nippold, SIRENE final presentation, January 20, 2021

Fig.: RSU range measurement test field (RSU ~ 5m)
Source: Sten Ruppe and Ronald Nippold, SIRENE final presentation, January 20, 2021
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Analysis V2X messages
V2X - Analyzed crossings

Fig.: AIM reference route Braunschweig city center - analyzed intersections
Source: DLR, maps © OpenStreetMap contributors
V2X - Analyzed crossings

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(3.11.2021)
Unique features

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Unique features

- Affect control units
- Different manufacturers of V2X devices
- V2X software framework
- Association with operational and research operations
- Flexibility with the V2X messages beyond the standard
- Open to research and industrial projects
Thank you for your attention!

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https://www.dlr.de/ts/aim  
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