



DSC 2018 EUROPE VR
Driving Simulation & Virtual Reality Conference & Exhibition



AIMOTIVE

How Simulation Accelerates Self-Driving Technology

Peter Tamas Kovacs, COO

Aimotive - The Company at a Glance

COMPANY

- Founded in 2015 by CEO Laszlo Kishonti
- Incorporated in Germany, headquartered in Budapest

GLOBAL GROWTH

- 4 offices across 3 continents: Budapest, Helsinki, Mountain View and Tokyo
- 4 licensed testing locations: Hungary, Finland, California, Nevada
- Autonomous driving test cars from 4 manufacturers: Toyota, Volvo, Citroen, SAIC

TEAM & EXPERTISE

- 190+ passionate team, including 150+ highly skilled engineers
- In-house developed AI algorithms and framework
- 10+ years in high-performance embedded programming

STRONG TRACTION

- Strong track record of delivering customer projects since 2015
- Running autonomous driving projects across 3 continents (Europe, USA, Asia)

INVESTORS

- Over \$50 million raised
- Robert Bosch VC, Nvidia, Inventure VC, Draper Associates, B Capital, Prime Ventures, Cisco Investments, Samsung Catalyst Fund, Day One Capital, Private investors

Our Autonomous Driving Technologies



aiDrive

Self-driving Software Platform

Artificial Intelligence-based software suite for Level 4 and 5 autonomous driving



aiSim

Virtual Simulation Environment

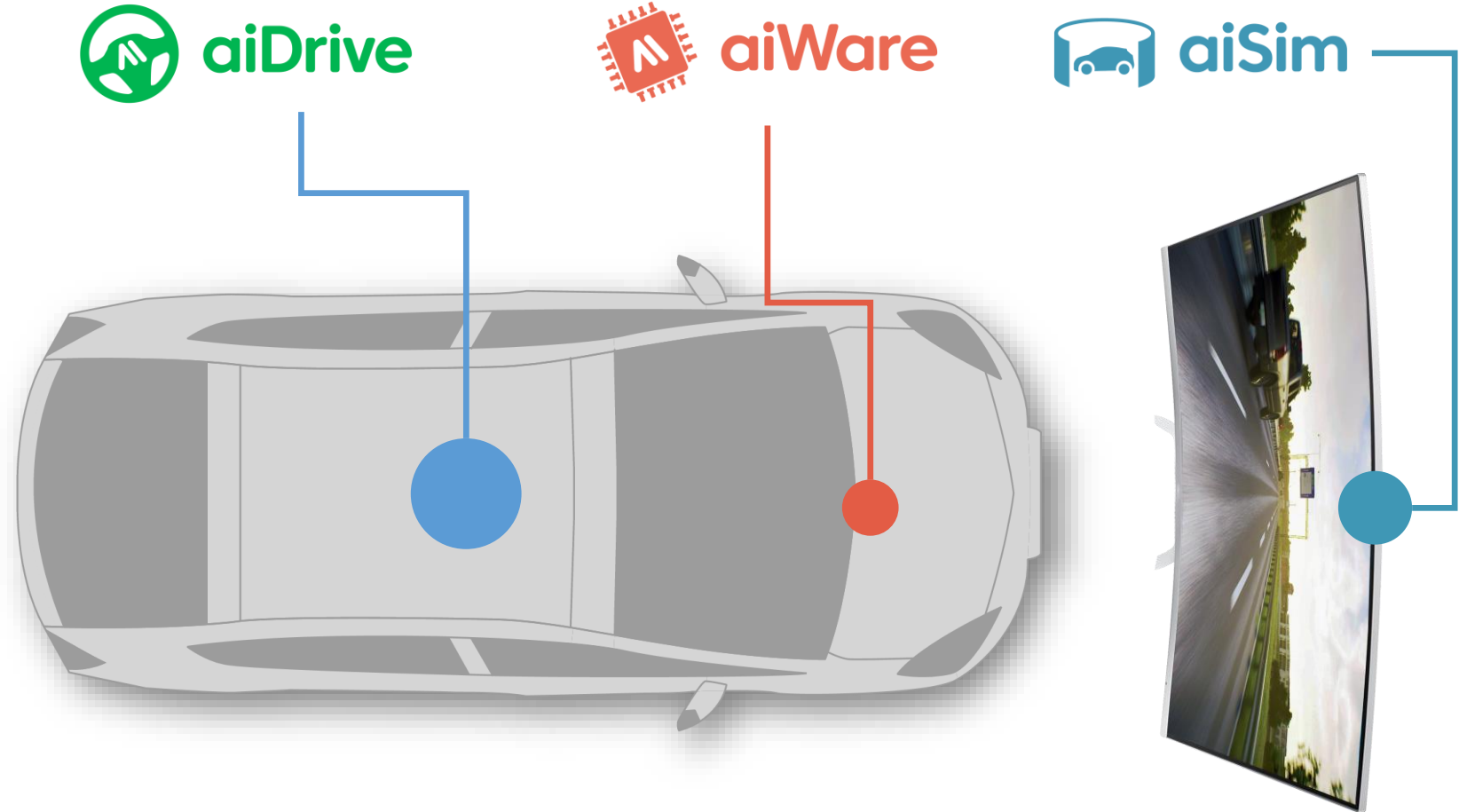
Photorealistic and dynamic virtual environment for AI training and system testing



aiWare

AI-Optimized Hardware Platform

NN accelerator IP for low-power, high-performance AI-optimized computing



Our L4 Solutions

Autonomous Valet Parking



Highway Autopilot



Urban Driving



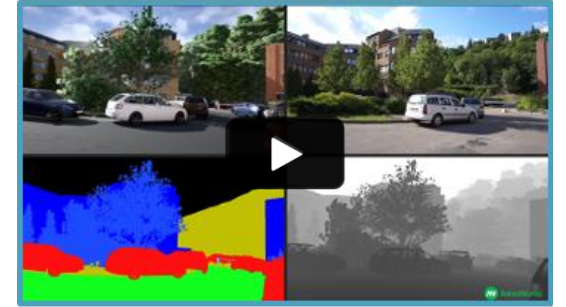
Aimotive works with its partners around the world to bring safe and scalable autonomous driving experience to the market.



aiSim: The Simulator for Autonomous Vehicle Development

OVERVIEW

- Designed to accelerate autonomous vehicle development
- Recreated real-world situations and new unique scenarios for safe development
- Fully integrates into aiDrive allowing for SiL and HiL testing
- Supports artificial intelligence research and training with ground truth data



USE CASES

- Scenario testing: based on hundreds of unique safety test cases
- Permutable with location, weather, traffic, time of day
- Modular Verification: with ground truth sensor data or model-space data
- Data generation: instance segmentation, bounding box, depth, point clouds



TEST SETUP & RESULTS

- Real-time bidirectional connection of aiDrive and aiSim
- Dedicated servers for nightly and pre-commit tests
- Automated report generation with videos showing the vehicle's behavior in the simulated environment
- Integrated with ALM tool for requirement management and traceability

Our Development Pipeline Solves for Speed and Safety

