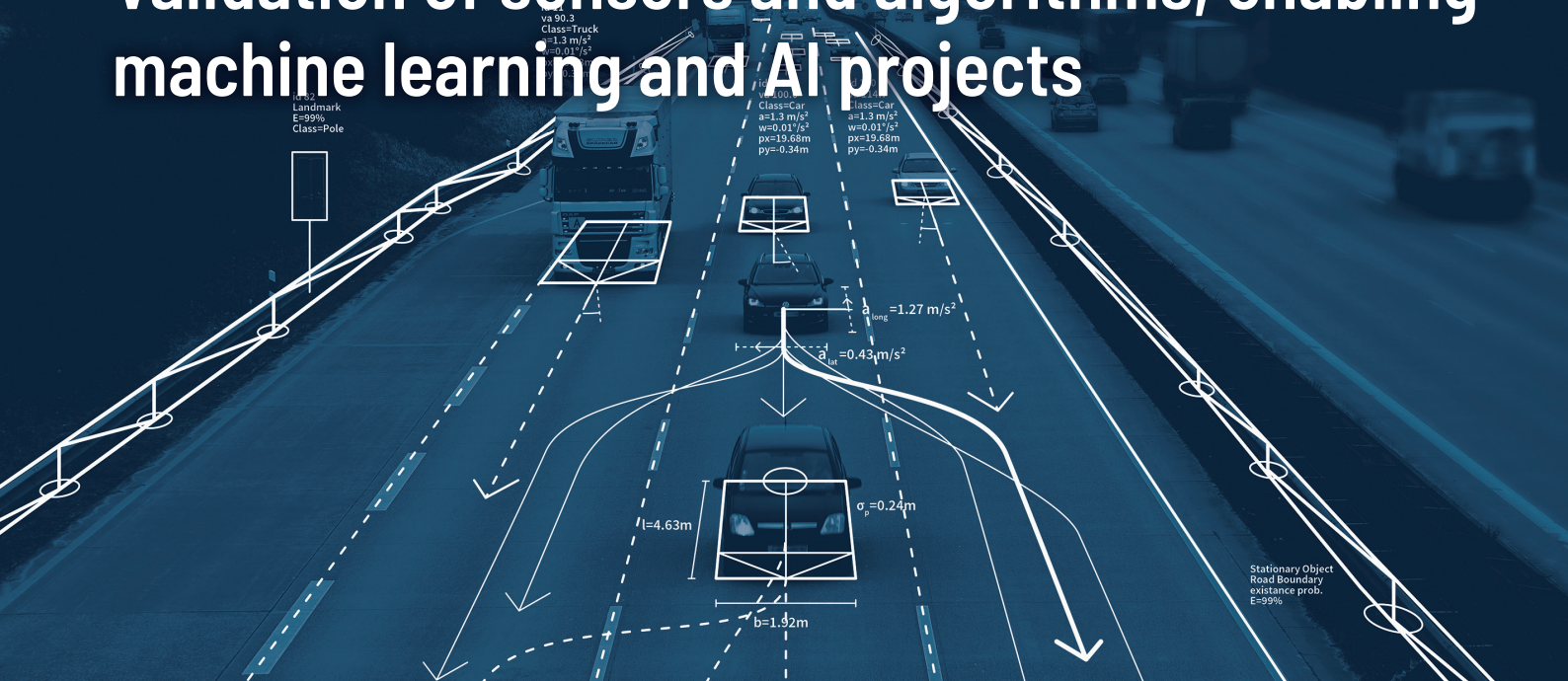


MOSAIK Suite™

Validation of sensors and algorithms, enabling machine learning and AI projects



Key Features

- ▶ Offers the complete toolchain from a single source
- ▶ Includes MVIS Auto-Annotation software
- ▶ Automatically annotates objects and lanes
- ▶ Scalable due to cloud-compatible architecture
- ▶ Supports data of selected third-party lidars
- ▶ Allows for manual editing of objects and lanes
- ▶ Compatible with MVIS SyncBox Pro

Toolchain

STEP 1 Real-time Tracking and Recording	STEP 2 Recorded Data Validation	
0% raw data 100% raw data	0% GT** data	100% GT data
Recording System	MVIS Validation	
Hardware <ul style="list-style-type: none"> ▶ Lidar ▶ Lane tracker SLMS ▶ Third-party lidar sensors* ▶ MVIS ECU ▶ MVIS SyncBox Pro ▶ IMU / GPS 	MVIS Auto-Annotation Software <ul style="list-style-type: none"> ▶ Automatic object detection, classification & tracking ▶ Automatic lane marking and road boundary detection (highway) ▶ Automatic scenario detection ▶ Cloud-compatible architecture due to Docker image ▶ Intuitive graphical user interface ▶ Data formats: <ul style="list-style-type: none"> • For objects .json • For lanes OpenDRIVE xODR 	MVIS Reference Software <ul style="list-style-type: none"> ▶ Visualization for scan point, object, and lane data ▶ Editors for object, lane and scenario data ▶ Interface software development kit (SDK)
Software <ul style="list-style-type: none"> ▶ MVIS ECU Recording Suite ▶ MVIS CaliGraph 		

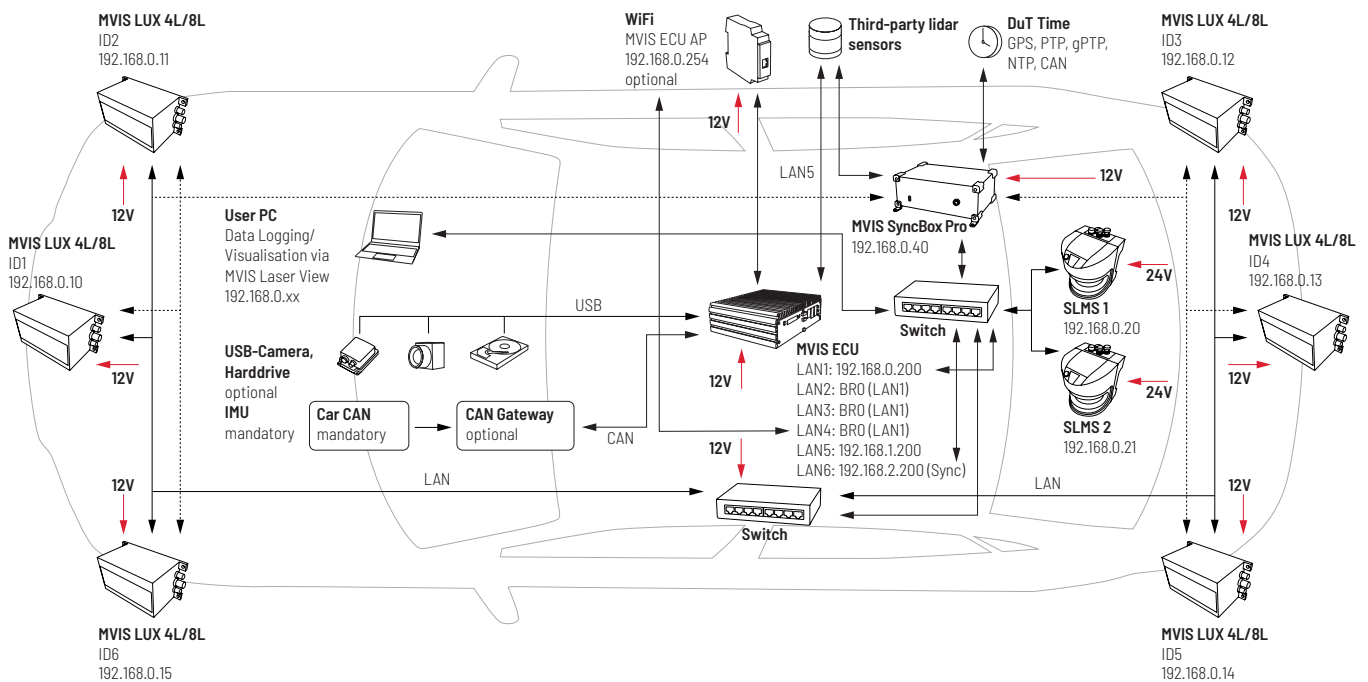
*Selected third-party hardware not in MVIS product portfolio; real-time object data not available

**GT = Ground Truth

Safe mobility at the speed of life



System Architecture



MOSAIK Suite™: Our Difference



Third-Party Lidar Data Support

- ▶ MOSAIK Suite™ supports selected lidar devices from other suppliers
- ▶ Offers increased flexibility through support of third-party lidar devices (e.g., 360° lidar on the rooftop)
- ▶ Enables simultaneous operation of different devices to accommodate any use case



Object and Lane Editing

- ▶ Quick and intuitive tools to increase object and lane quality of the reference data manually
- ▶ Enables modification of objects and lanes, such as position, orientation, and classification
- ▶ Applies changes to the entire object track instead of frame-by-frame editing



MVIS SyncBox Pro

- ▶ Time management device that synchronizes all systems in the car to a single source of truth
- ▶ Able to function as leader clock or follower clock for each connected component or protocol
- ▶ Ensures data time quality of all systems in the car
- ▶ Supports all common time protocols (such as PPS & NMEA, gPTP/PTP, NTP, CAN) and can be configured to the use case accordingly
- ▶ Monitors synchronization status for various interfaces