# QUALITY DRIVEN BY ASAM STANDARDS

### 25 YEARS OF EXCELLENCE IN STANDARDIZATION



- Portfolio of 37 standards
- Written by recognized domain experts
- · Widely accepted and used by the automotive industry
- Mature standards proven in practice
- · Huge network of experts and suppliers
- Extensive support by commercial off-the-shelf tools

### KEY INDUSTRY PLAYERS TRUST IN ASAM STANDARDS

- ~ 80 % of all cars worldwide are calibrated with ASAM standards.
- Most major OEMs worldwide use ASAM standards for diagnostics.
- ASAM test data management standards are used by many global OEMs.
- ASAM OpenX<sup>®</sup> standards are gradually becoming the industry's reference for their respective use cases and are supported by the majority of simulation tool providers and manufacturers worldwide.



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Association for Standardization of Automation and Measuring Systems





Tool interoperability

Seamless data exchange

Long-term stability



Association for Standardization of Automation and Measuring Systems

## STANDARDIZATION AT ASAM

ASAM promotes standardization within the mobility industry. Together with its more than 400 member companies worldwide, ASAM creates standards for the **development**, **testing** and **validation** of the entire vehicle and its ECU components.

# **66** ASAM standards enable easy integration of tools into existing value chains and a seamless exchange of data.

ASAM standards define file formats, data models, protocols and interfaces. They are **based on specific use cases** and are **vendor- and technology-agnostic**: System components are interchangeable and not tied to specific IT platforms.

ASAM standards are developed by experts from member companies: **OEMs**, **suppliers**, **tool vendors and research institutes** worldwide work together to specify solutions for shared challenges.

ASAM **requests and encourages an open exchange** among all stakeholders. This ensures a high level of quality and industry-wide acceptance of the standards.

### ASAM PROVIDES A PLATFORM

- → to address technical challenges
- $\rightarrow$  to connect with members
- $\rightarrow$  to coordinate work groups
- $\rightarrow$  to develop, release, and maintain standards
- ightarrow to market and distribute these standards
- for a long-lasting benefit of the industry.

## **MEMBER-DRIVEN**

ASAM project groups allow the discussion on shared, non-competitive challenges in compliance with anti-trust regulations.



All ASAM activities are initiated by the members: They determine the need for new standards and send technical experts to develop them. ASAM provides guidelines and processes to drive these projects to success.

### WHY CONTRIBUTE TO ASAM STANDARDS?

• The ASAM spirit

Be part of a global network of experts.

- Thought leadership Work together with experts on a common vision while deepening knowledge on highly relevant industry topics.
- Efficiency and proficiency Take advantage of a lean, structured association.
- Reliability and quality Benefit from standards with wide industry acceptance, high quality and relevance.

# **SOLUTION-DRIVEN**

ASAM standards are applied throughout the development cycle and can be categorized in the following domains:



### **MEASUREMENT & CALIBRATION**

Standards for working with ECU variables and parameters.



#### DIAGNOSTICS

Standards for describing and testing the diagnostic subsystems of ECUs.



### **ECU NETWORKS**

Standards for describing and testing ECU networks.



#### SOFTWARE DEVELOPMENT

Standards that support the ECU software development process.



### **TEST AUTOMATION**

Standards for working with test systems, incl. APIs, and formats for test descriptions.



#### DATA MANAGEMENT & ANALYSIS

Standards for storing, retrieving, and analyzing mass data.



### SIMULATION

Standards for simulation-based testing of automated driving functions. They cover a wide range of use cases for virtual development, incl. hybrid testing approaches that combine virtual and physical components.