ASAM Standards for the Automotive Industry

Dr. Klaus Estenfeld ASAM e.V. March 3rd, 2020 Höhenkirchen





Association for Standardization of Automation and Measuring Systems

ASAM - Introduction

Compliance Statement

For more than 20 years, ASAM e.V. (Association for Standardization of Automation and Measuring Systems) is actively promoting standardization within the Automotive Industry. Together with its more than 290 members worldwide, the association develops standards that define interfaces and data models for tools used for the development and testing of electronic control units (ECUs) and for the validation of the whole vehicle.

ASAM standards are recommendations, they do not have an impact on regulatory framework.

From the beginning, ASAM has requested and encouraged an open exchange among all stakeholders: manufacturers, suppliers, tool vendors and research institutes. Following this ASAM policy, technical experts from ASAM member companies worldwide commonly develop new standards in project groups. The developed standards are accessible for all interested companies and serve as basis for the development of tools and ECUs within the respective companies worldwide. Tools and products developed based on ASAM standards allow easy integration into existing value chains and seamless data exchange.

ASAM project groups do not define products or take any business decisions preventing competition.

Prof. Dr. Marcus Rieker Chairman of the Board of Directors Dr. Klaus Estenfeld Managing Director https://www.asam.net/home/about-asam/compliance.html



Organization



Board of Directors

Voluntary Representatives from International Tier-1s, Tool Vendors and Research Institutes

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- Prof. Dr. Marcus Rieker, Chairman HORIBA Europe GmbH
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- Siemens Industry Software GmbH
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- Vector Informatik GmbH
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ASAM Membership

More Than 290 Member Organizations Develop and Apply ASAM Standards

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Some Highlights (2019/2020)

ASAM actively drives its evolution – inside and outside

- Services for ASAM members worldwide (members in 27 countries) ASAM International Conference 2019, ASAM General Assembly 2020, ...
- New Standards Related Activities
 - New domain "Simulation" established, high interest worldwide
 - Five ASAM OpenX projects identified, first releases in March 2020
 - First successful local Concept Project outside Europe finished
 - First standard development outside Europe, release in March 2020
- Next Steps towards Internationalization
 - Local entry in China (C-ASAM)
 - Re-vitalization of North American Activities
 - Requests from Korea
 - First ASAM members in Canada, Croatia, Israel, Romania, Slovenia, Spain,
- A Recognized Partner in the Standardization Community
 Liaison Agreements with ISO, MoU with SAE, AUTOSAR Attendee Agreement, ...

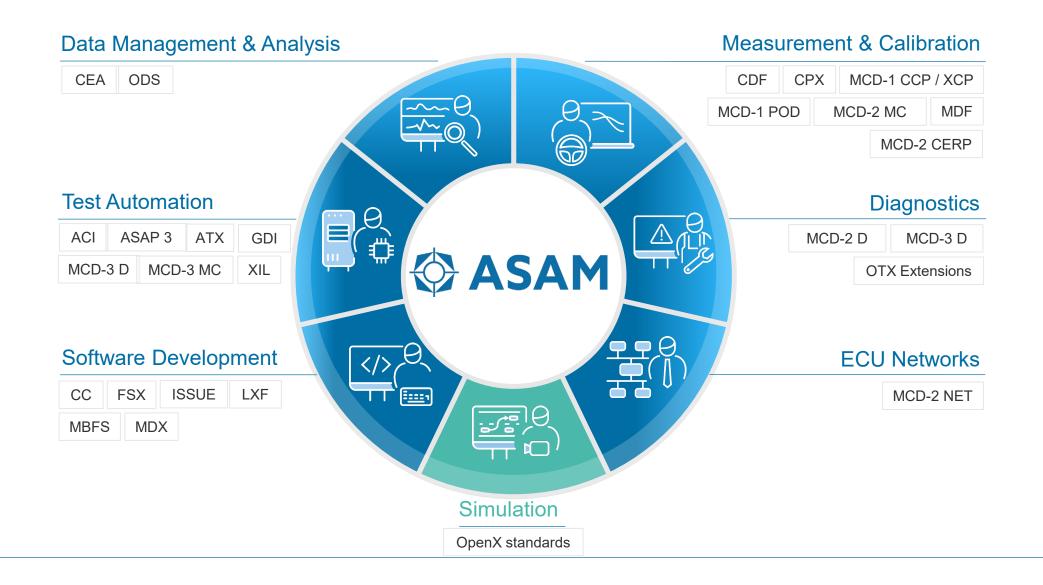




Standardization Activities



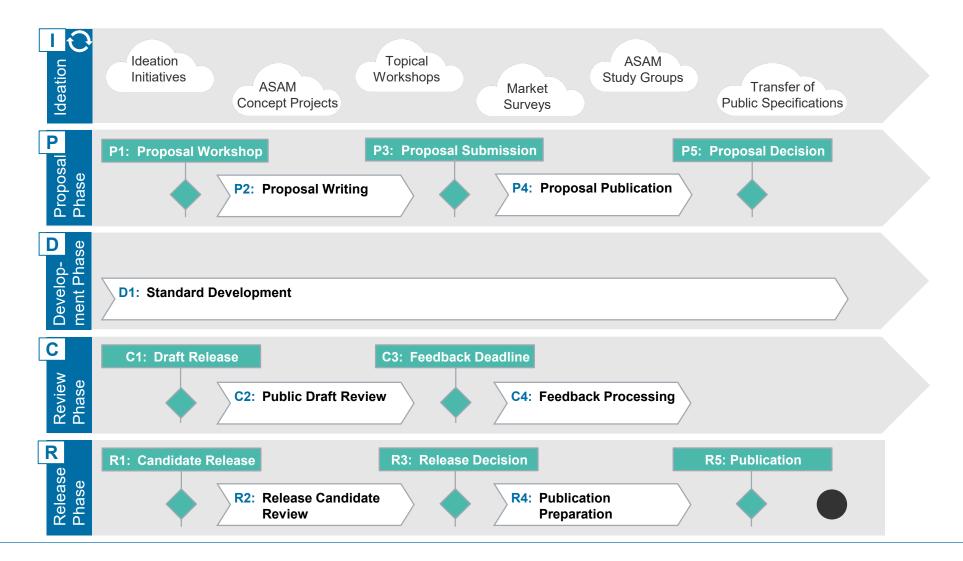
ASAM Standards Portfolio





ASAM Development Process for Standards

From First Ideas to New Standards





A New ASAM Domain for Highly Automated Driving ASAM OpenX Standards for Driving and Traffic Simulation



New Domain at ASAM: Simulation



Simulation

- Standards for simulation model data exchange.
- High demand for standards for new type of simulation: Driving and Traffic Simulation.
- Public specs driven by tool vendors have emerged in recent years.
- Specs have been transferred to ASAM to:
 - Become official standards for the industry
 - Be hosted by a neutral professional organization
 - Guarantee long-term and professional further development
- Current projects have been transferred to ASAM:
 - OpenDRIVE
 - OpenCRG
 - OpenSCENARIO
 - Open Simulation Interface (OSI)
- Next standards in ideation ...



Transfer of OpenDRIVE® to ASAM

In September 2018, a real success story at ASAM began



Open Dynamic Road Information for Vehicle Environment



Positioning of ASAM OpenX Standards

ASAM OpenDRIVE

Road Network

ASAM OpenCRG

Road Surface



Static Content

Dynamic Content

ASAM OpenSCENARIO

• Driving Maneuvers

• Motivation

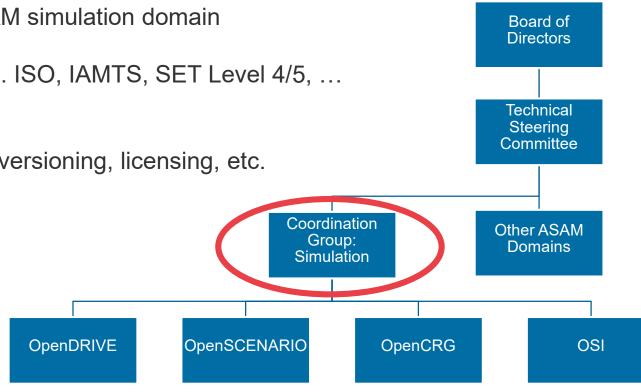
- Exchange of data between creation tools (e.g. road network editors) and simulators.
- Use of the data in simulators from different vendors.
- Use with other public standards.



Coordination Group: Simulation

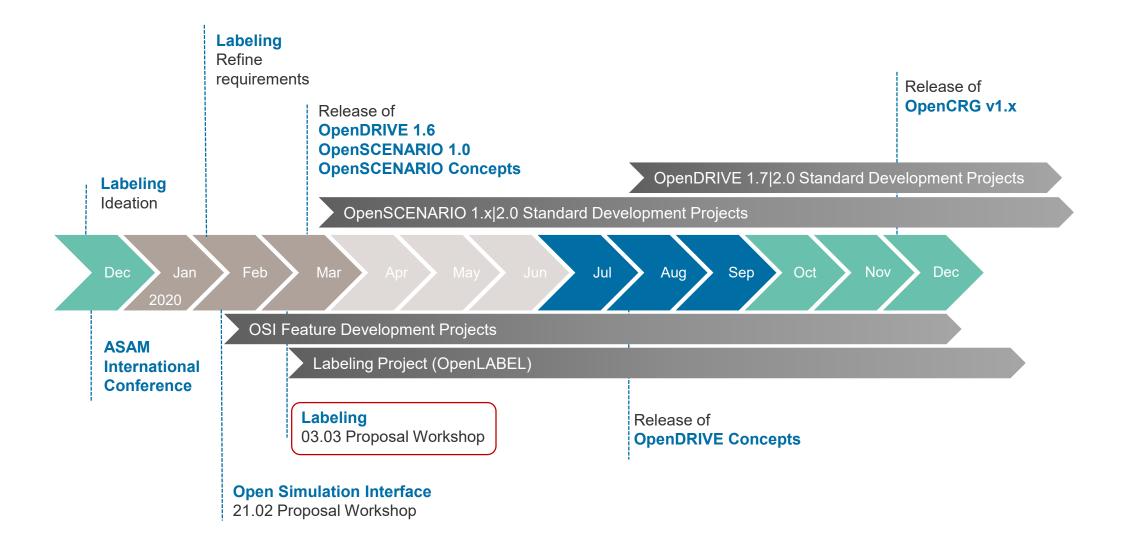
Organization and Purpose

- Strategic (whitespot) analysis of the automotive domain
 - Identify potential for further standardization within the simulation domain and initiate activities - (include external)
 - Develop and maintain a roadmap of the ASAM simulation domain
 - Ensure no overlap of standards
 - Ensure alignment with external activities, e.g. ISO, IAMTS, SET Level 4/5, ...
- Review and refine relevant processes
 - e.g. release process, development process, versioning, licensing, etc.
 - new project models
- General internal topics (governance)





Timeline 2020





Thank you!

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www.asam.net

