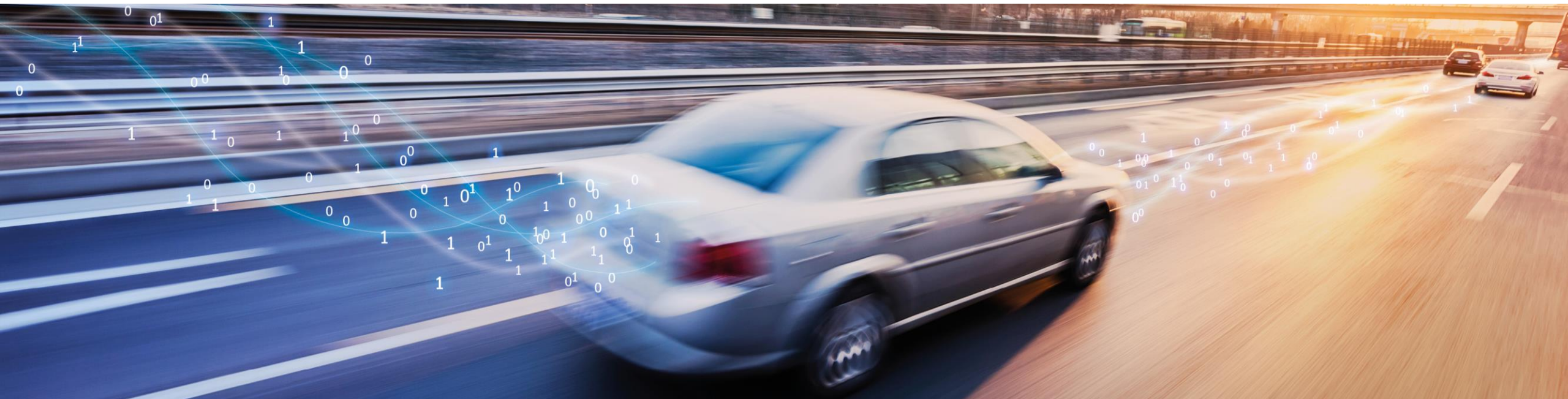


ASAM

Standards for the Automotive Industry

Dr. Klaus Estenfeld
Managing Director, ASAM e.V.

Höhenkirchen
October 9, 2018



ASAM - Introduction

Compliance Statement

For almost 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 200 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.

Marc Blatter
Chairman of the Board of Directors

Dr. Klaus Estenfeld
Managing Director

<https://www.asam.net/home/about-asam/compliance.html>

ASAM

The Organization

Board of Directors

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

- Marc Blatter (Chairman)
Daimler AG
- Dr. Ralf Nörenberg
HighQSoft GmbH
- Prof. Dr. Marcus Rieker
HORIBA Europe GmbH
- Armin Rupalla
RA Consulting GmbH
- Richard Vreeland
Cummins Inc.



Technical Steering Committee (TSC)

A Highly Experienced International Team of Experts from Automotive Industry

- **AVL LIST GmbH**

Dr. Gerald Sammer



- **BMW AG**

Michael Schwarzbach



- **Continental AG**

Helmut Wellenhofer



- **dSPACE GmbH**

Dr. Hans-Joachim Rabe



- **emotive GmbH**

Dr. Jörg Supke



- **ETAS GmbH**

Killian Schnellbacher



- **National Instruments Corp.**

Stefan Romainczyk (Speaker)



- **Softing GmbH**

Markus Steffelbauer



- **Tass International (Siemens AG)**

Oliver Philipp



- **Vector Informatik GmbH**

Dr. Christoph Dallmayr



ASAM Membership

More Than 200 Member Organizations in 20 Countries Develop and Apply ASAM Standards

OEMs



Tier-1 Suppliers



Tool Vendors / Service Providers



Universities / Research Institutes



Status: as of September 30, 2018

Standardization at ASAM

Portfolio, Process, Support

ASAM Standards Portfolio

A New Domain to Come in 2018

Data Management & Analysis

CEA ODS

Measurement & Calibration

CDF CPX MCD-1 CCP / XCP
MCD-1 POD MCD-2 MC MDF
MCD-2 CERP

Test Automation

ACI ASAP 3 ATX GDI
MCD-3 D MCD-3 MC XIL

Diagnostics

MCD-2 D MCD-3 D
OTX Extensions

Software Development

CC FSX ISSUE LXF
MBFS MDX

ECU Networks

MCD-2 NET



Simulation

Open* standards

Standards Development

Process

- ASAM members can propose a new standardization activity at any time.
- Standards are developed and maintained via projects.
- Experts from member organizations participate in standard development projects.
- Projects have a defined start and end.
- Project groups (working groups) are given a lot of leeway to organize their own work.
- Errors are corrected via a continuous issue resolution process.

Project Support

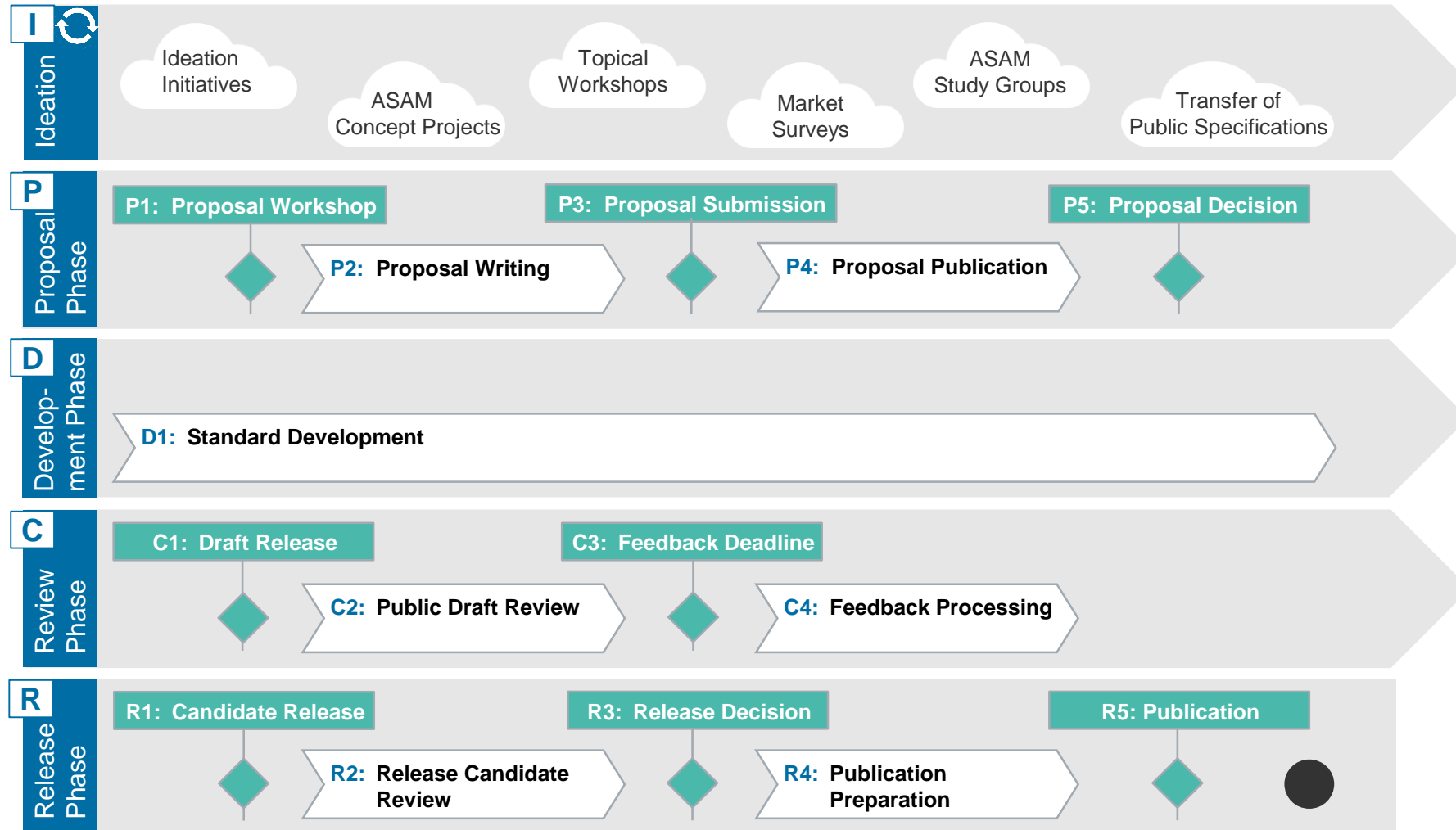
- Projects may have a budget, funded by ASAM.
- Projects may be supported by a service provider.
- Administrative and infrastructure support through the ASAM office.

Project Types

- **Standard Development Projects:**
 - New Standard Development
 - Major Version Development
 - Minor Version Development
 - Revision Version Development
- **Other Projects:**
 - Implementation Project
 - Concept Project
 - Study Project

ASAM Development Process for Standards

From First Ideas to New Standards



ASAM Offers a Complete Environment for Standardization

Professionalism & Culture

- **Proven processes** for standards development and long-term maintenance.
- **Time-to-Market:** Low process overhead. Fast project turn-around times.
- **Legitimacy:** Decisions are made by elected industry representatives.
- **Neutrality:** The ASAM Office guarantees unbiased support for every company (big or small).
- **Non-Profit Paradigm:** Our goal is to provide best-in-class technologies in E/E-development.

Project Budget

- Membership fees are invested in technical projects (ROI can be higher than 100%, if a member uses ASAM a lot).
- ASAM pays for project service providers, e.g. standard writing, code development, prototyping, benchmarking, etc.
- Relieve experts from routine work. Let them focus on requirements, concept development and reviews.

Tools

- IT Infrastructure: Bugzilla, SVN, Adobe Shared Review.
- Communication Infrastructure: WebEx, Video conferencing (pilot phase successfully finished).

Network

- Large, worldwide network of experts in the Automotive E/E development domain, throughout all tiers.
- Collaboration with ISO, SAE, AUTOSAR, other SDOs^{*)} and government agencies.

^{*)} Standard Development Organizations

Worldwide Marketing & Distribution

ASAM Home Page

- Specifically geared towards standard promotion and distribution.
- Download of standards for members. Sales for non-members.
- Project information.
- Technical Wiki for standards.

Regional Membership Activities

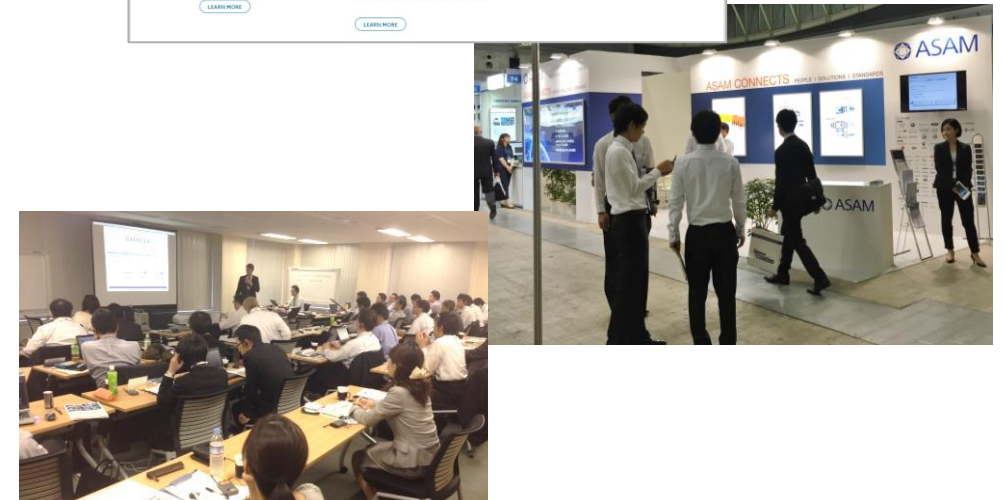
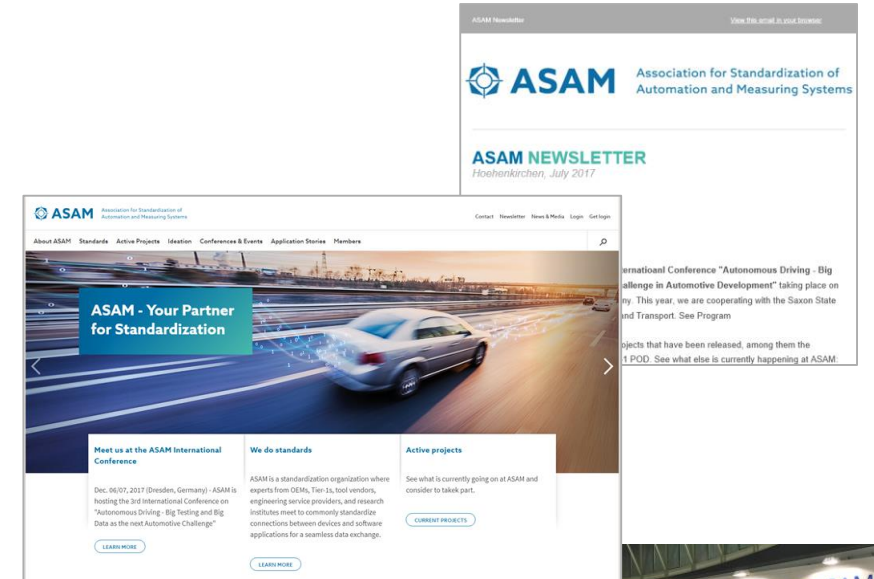
- Regular meetings in EU, US and JP.

Public Relations

- Newsletter.
- Solutions guide.
- Trade show participation in emerging markets (JSAE, ...).

Training & Support

- Technical support for all standards (support@asam.net).
- Overview training on ASAM standard portfolio.
- Update training on new releases (upon request).



A New ASAM Domain for Highly Automated Driving

Open* Standards

Transfer of OpenDRIVE® to ASAM

Contract Signed at DSC 2018, Juan les Pins



**Open
Dynamic
Road
Information for
Vehicle
Environment**

First Steps – Activities Scheduled

More Details will Follow

OpenDRIVE/OpenCRG

- [28.09.2018](#) 9:00 a.m. – 17:00 p.m. **Open* Standards Training for Japanese Organizations** Tokyo
- [09.+10.10.2018](#) 10:00 a.m. – 17:00 p.m. **Kick-Off Workshop ASAM OpenDRIVE (incl. ASAM OpenCRG)** Höhenkirchen

OpenSCENARIO

- [17.09.2018](#) 10:00 a.m. – 17:00 p.m. **Use Case and Requirements Workshop** Höhenkirchen
- [13.11.2018](#) 10:00 a.m. – 17:00 p.m. **Kick-Off Workshop ASAM OpenSCENARIO** Kaiserslautern

Status: as of today

Let's start!

Thank you!

Dr. Klaus Estenfeld

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For more information
on ASAM visit

www.asam.net