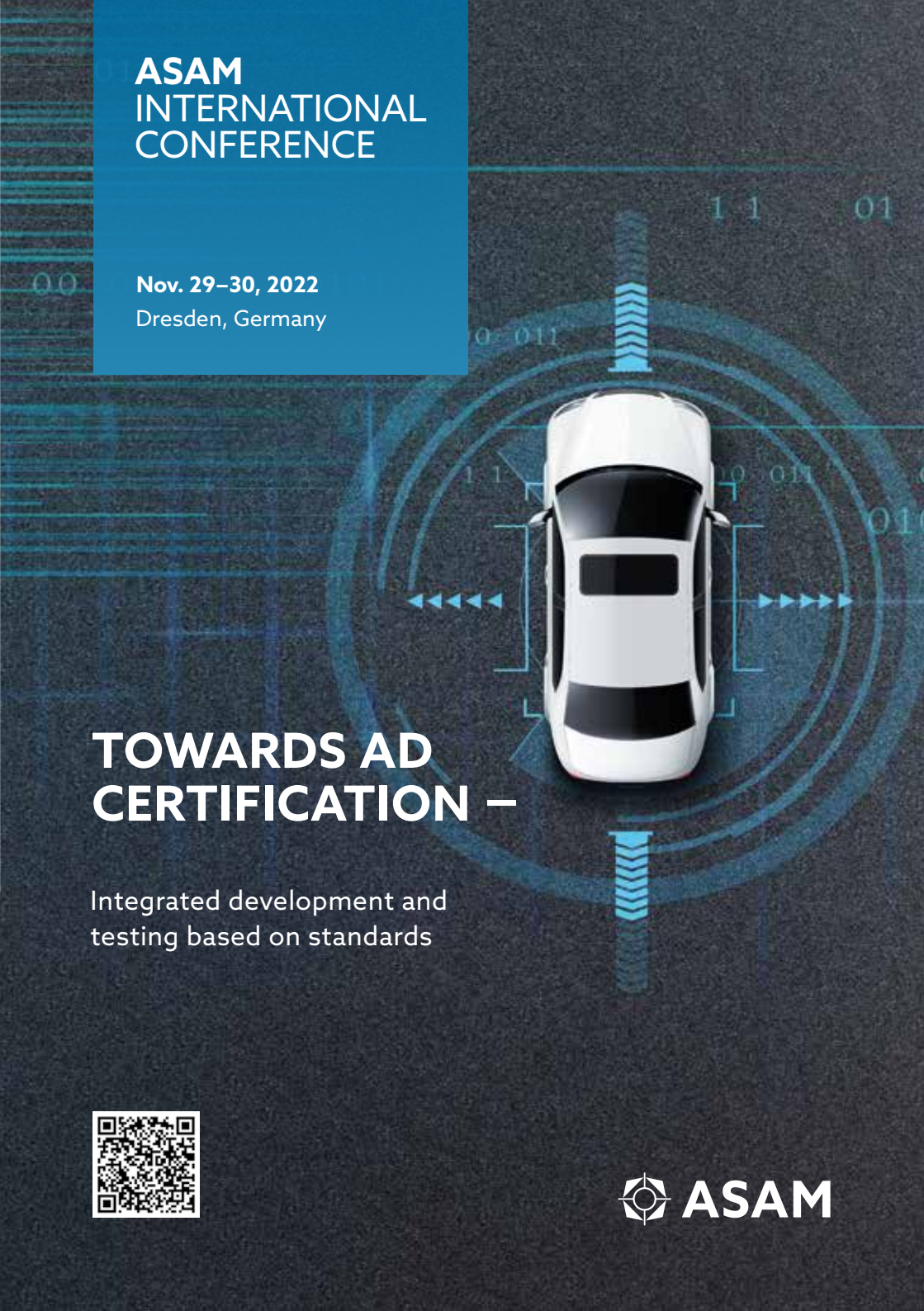
ASAM
INTERNATIONAL
CONFERENCE

Nov. 29–30, 2022
Dresden, Germany



TOWARDS AD CERTIFICATION –

Integrated development and testing based on standards

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The challenge of developing safe and trustworthy technologies while managing the significant associated costs associated can only be met through the cooperation of all involved stakeholders. Standards therefore play an increasingly important role – from development, testing and validation to certification, approval and ultimately vehicle operation. This year's ASAM International Conference will address the entire AD development process up to certification and discuss the role of standards herein.

Development of autonomous driving functions requires completely new concepts, test and validation methods. The focus is no longer on the driver but on the perception of the environment. Virtualized development is the key to manage the increasing complexity of AD systems. Digital twins, AI methods and machine learning techniques are used to help the system act more safely and keep development costs under control. Traceability and reproducibility of results are critical.

Certification of AD, in particular, is not solved yet. First approvals of Level 3 vehicles are under way, with the standardized formats of ASAM OpenSCENARIO® and ASAM OpenDRIVE® as part of the approval strategy. However, regulations for Levels 4 and 5 remain to be defined.

Do we need additional standards to further drive AD development? How can proven old-world standards be applied? Which adaptions might be necessary? How can a seamless data management from concept to approval be ensured?

Join us at the conference to discuss these questions and to learn about what has happened in the past two years and how ADAS, AD and ASAM OpenX® will continue to advance in the future.

ABOUT THE ASAM INTERNATIONAL CONFERENCE

The series of ASAM International Conferences addresses aspects of ADAS and AD development, with a focus on standardization. This conference series has driven the establishment of ASAM's new domain "Simulation" and led to the expansion of the ASAM OpenX standards portfolio for AD development.

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REGISTRATION FEE

	Early Bird*	Regular
Members:	510 € + VAT	590 € + VAT
Non-members:	810 € + VAT	890 € + VAT
Students:	150 € + VAT	150 € + VAT
Member online:	280 € + VAT	280 € + VAT
Non-member online:	380 € + VAT	380 € + VAT

*until Sep. 25, 2022

The following services are included

- Participation in the conference
- Dinner Reception on Nov. 29, 2022
- Entry to the exhibition
- Lunch and refreshments on both days
- Conference documents
- Access to online portal (hybrid event)

TERMS OF CANCELLATION: Cancellations made before Oct. 15, 2022 (date of receipt of cancellation notice) will be subject to a processing fee of 100 €. Cancellations made after Oct 15, 2022 and no-shows will result in a forfeiture of the full participation fee unless another person is designated. Cancellations require a written notice to: dorothee.bassermann@asam.net

The organizer reserves the right to change, postpone, relocate or cancel the entire event or parts thereof at short notice. If the event cannot be held at the scheduled time for reasons of force majeure (e.g. official orders, natural disasters, terrorist attacks, outbreak of epidemics at the venue or similar), the event will be held online. In this case, the costs exceeding the online price will be refunded. If an online conference is not possible and the conference has to be cancelled completely, the ticket prices will be refunded.

PROGRAM TUESDAY, NOV. 29, 2022

09:00 – 9:15	**Welcome** Prof. Dr. Marcus Rieker, Chairman of the Board of Directors, ASAM e.V. Marius Dupuis, CEO, ASAM e.V.
09:15 – 10:00	KEY NOTE: **Trends and tipping points technologies, autonomous mobility and engineering until 2032** Lars Thomsen, Chief Futurist and Founder of future matters AG
10:00 – 10:25	**Safety assessment of driver assistance and automated driving based on real life traffic data** Prof. Günther Prokop, Professor for automotive engineering, Technical University of Dresden
10:25 – 10:55	*Coffee Break & Exhibition*

Session I: Seamless Data Management from Prototyping to Homologation

Chairman: Lutz Morich, frE3-Innovations

10:55 – 11:15	**Standardization facilitates the validation and homologation process for autonomous vehicles** Stefan Romainczyk, Senior Product Manager, Peak Solution GmbH
11:15 – 11:35	**Virtual assessment framework with ontology-based test case generation method** Hannes Schneider, Lead Engineer, AVL List GmbH
11:35 – 11:55	**The validation of automated vehicles – A puzzle?** Max Winkelmann, Concept Developer Simulation & Modeling, IAV GmbH
11:55 – 12:15	**5-minute pitches for poster session**
12:15 – 13:30	*Lunch & Exhibition*
13:30 – 13:50	**Automatic large-scale scenario production and application** Charles Shao, Senior Product Manager, LiangDao GmbH
13:50 – 14:10	**Cars in the cloud: Enabling modern software development methods with large scale testing and simulation** Andreas Falkenberg, Principal Partner Solutions Architect Automotive, Amazon Web Services
14:10 – 14:30	**How data spaces will shape future data ecosystems for scenario-based testing** Rico Auerswald, Department Mobility and Digital Services, Fraunhofer Institute IVI
14:30 – 14:50	**Enabling virtual test and validation - Defining data quality requirements and acceptance tests for ASAM OpenX simulation data** Carlo van Driesten, BMW Group

14:50 – 15:20	*Coffee Break & Exhibition*

Session II: Application of ASAM Standards

Chairman: Dr. René Grosspietsch, BMW AG

15:20 – 15:40	**How ASAM OpenX standards play a critical role for AV development through faster and guaranteed interoperability** Arun Prasad, Product Manager Autonomous Vehicles | Vignesh Amur Automotive Domain Consultant Smart Mobility Group, Tata Consultancy Services
15:40 – 16:00	**Scenario description vs expected behavior description: Sample application using ESMini and ASAM OpenSCENARIO** Dr. Christoph Lauer, Virtual Verification at CARIAD Technology
16:00 – 16:20	**ASAM standards to ensure reproducibility und improve efficiency** Michael Kluge, Product Manager, dSPACE GmbH
16:20 – 16:40	**Rapidly precise: Scenario-based perception testing and training - A partnership approach** Bernhard Mueller-Besser, Head of Autonomous Solutions, Hexagon | Heiko Scharke, AVL List GmbH

In the evening of Nov. 29, we invite all participants on site to a dinner event.

08:30 – 9:00	**Development of international standards for autonomous driving test scenarios** Zhao Wang, Director of Auto Standardization Research Institute, China Automotive Technology and Research Center Co., Ltd.	
	Session IV: Testing & Simulation Concepts Chairman: Andras Kemeny, Driving Simulation Association	**Session V: Standards-Based Tool Chains** Shuai Zhao, CATARC
09:00 – 09:25	**Robust scenario definition at the heart of autonomous vehicle validation** Éric Vaillant, Expert Leader Testing, Renault	**Standardization's impact on quality using the example of operational design domains** Dr. Andreas Richter, Engineering Program Manager Operational Design Domains, Volkswagen AG
09:25 – 09:50	**Training and testing autonomous vehicles on edge case scenarios** Nils Goldbeck, CTO, ∂RISK	**Applying ASAM OpenSCENARIO V2.0.0 on real-life requirement-based-testing projects** Sharon Rosenberg, Solution Architect and Chief Methodologist, Foretellix
09:50 – 10:15	**Using ASAM standards for creating re-usable tests and scenarios** Dr. Jakob Kaths, Product Owner, Vector Informatik GmbH	**Towards validating, correcting and up-mapping ASAM OpenDRIVE datasets** Benedikt Schwab, Research Associate, Chair of Geoinformatics, Technical University of Munich
10:15 – 10:45	*Coffee Break & Exhibition*	
10:45 – 11:10	**Experiences of virtual testing methods in automated driving pre-development and challenges in the context of standardization** Dr. Christoph Sippl, Simulation Engineer, AUDI AG / Dennis Kloepping, e:fs TechHub GmbH	**Verification and validation of Euro NCAP scenarios based on simulation of responsibility-sensitive safety (RSS) and safety force field (SFF) metrics** Ho Suk | Junekyo Jhung, both Yonsei University
11:10 – 11:35	**Automatic scenario generation – Sophisticated traffic models for the functional specifications of respective ECUs and/or functions** Intakhab Khan, Managing Director, Automotive Artificial Intelligence (AAI) GmbH	**ASAM OpenSCENARIO V2.0.0 scenario description language and its application** Bolin Zhou, Technical Director, ICV Data Division, Automotive Data of China, Co. Ltd | Zuqiu Mao, Senior Software Development Manager, 51WORLD

Session VI:	Safety Aspects Chairman: Bernard Dion, Ansys	Session VII: AI in the Context of Digital Twins & Certification Prof. Dr. Frank Koester, DLR e.V.
11:40 – 12:05	**Functional Safety and Cybersecurity: A unified approach** Dr. Long Lu, Global Head of Digital Safety & Security, NIO	**Digital twin of a proving ground enables new testing and simulation concepts** Tim Rothmann, Development Engineer, Fraunhofer Institute ITWM
12:05 – 12:30	**System safety based out of ISO 26262 and SOTIF (safety of the intended functionality)** Karthikeya S M, Senior Safety Consultant, AVIN Systems Private Limited	**Plastic surgery of 3D building models to test automated driving** Olaf Wysocki, Research Assistant & PhD Candidate, Technical University of Munich
12:30 – 13:45	*Lunch & Exhibition*	
13:45 – 14:10	**Sensitivity Analysis within the Prospective Safety Integrity Framework** Prof. Dr. Moritz Werling, Senior Expert Safe System Design, BMW Group	**Auto traffic model development and calibration for vehicle co-simulation** Shaleen Srivastava, CEO, Goleyo
14:10 – 14:35	**A systematic scenario-based framework for safety validation of autonomous vehicle systems** Dr. Babak Jahromi, Staff Systems Engineer, Aurora Innovation	**On the utilizatin of ASAM OpenLABEL for complex multi-sensor data labeling** Dr. Marcos Nieto, Head of Cooperative & Connected Automated Systems, Vicomtech

		Session VIII: Related Activities Prof. Dr. Marcus Rieker, HORIBA Europe
14:35 – 14:55	**Compilation of driving simulation languages via retargetable and semantics-based translation** Joern Schneider, Full Professor, Trier University of Applied Sciences	**NDS – The development and use of a worldwide standard for map data** Fabian Klebert, Technical Coordinator NDS
14:55 – 15:15	**Accident data based scenario and simulation technology: A solution to solved SOTIF issue** ChuZhao Li, Deputy Secretary of Data and Simulation Department, Intelligent Connected Technology of CAERI Co., Ltd. (ICTC)	**Current and future collaboration with ASAM e.g. on ASAM OSI and ASAM SOVD (working title)** Martin Lunt, AUTOSAR Project Lead, Robert Bosch GmbH
15:15 – 15:35	**Wireless channel simulation tool for connected and autonomous vehicles** Longxiang Wang, Head of R&D department, CAICT Innovation Center of Automotive and Transportation	**Opportunities and limitations of ASAM OSI within the VIVID and DIVP projects** Lukas Elster, Research Associate, Technical University of Darmstadt
15:35 – 15:50	*Coffee Break & Exhibition*	
15:50 – 16:20	**Assuring regulatory compliance of CAVs during their operational lifetime** Richard Goebelt, Representative of the joint IAMTS / CITA Study Group Vehicle Compliance	
16:20 – 16:45	**PLENARY DISCUSSION: Key findings** All session chairs **Closing Remarks**	

EXHIBITION & SPONSORING

The ASAM International Conference is a biennial event that attracts more than 300 participants both managers and experts from the automotive industry worldwide. The conference focusses on the latest technologies and processes used in global development and validation of vehicles with specific emphasis on process integration, functional validation and quality.

Use this platform to address your specific target group and present your products and solutions.

For options and prices, please contact dorothee.bassermann@asam.net

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ORGANIZATIONAL

Day and Time	Tuesday, Nov. 29, 2022	9:00 – 17:00
	Wednesday, Nov. 30, 2022	8:30 – 16:45
Venue	**International Congress Center** Ostra-Ufer 2 01067 Dresden, Germany Phone: +49 351 216-0 www.dresden-congresscenter.de	
Hotel Recommendation	**Maritim Hotel** Ostra-Ufer 2 01067 Dresden, Germany Phone: +49 351 216-0 www.maritim.de (Code: ASAM)	
Dinner Reception	Tuesday, Nov. 29, 2022	

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