Program

ETAS
Connections
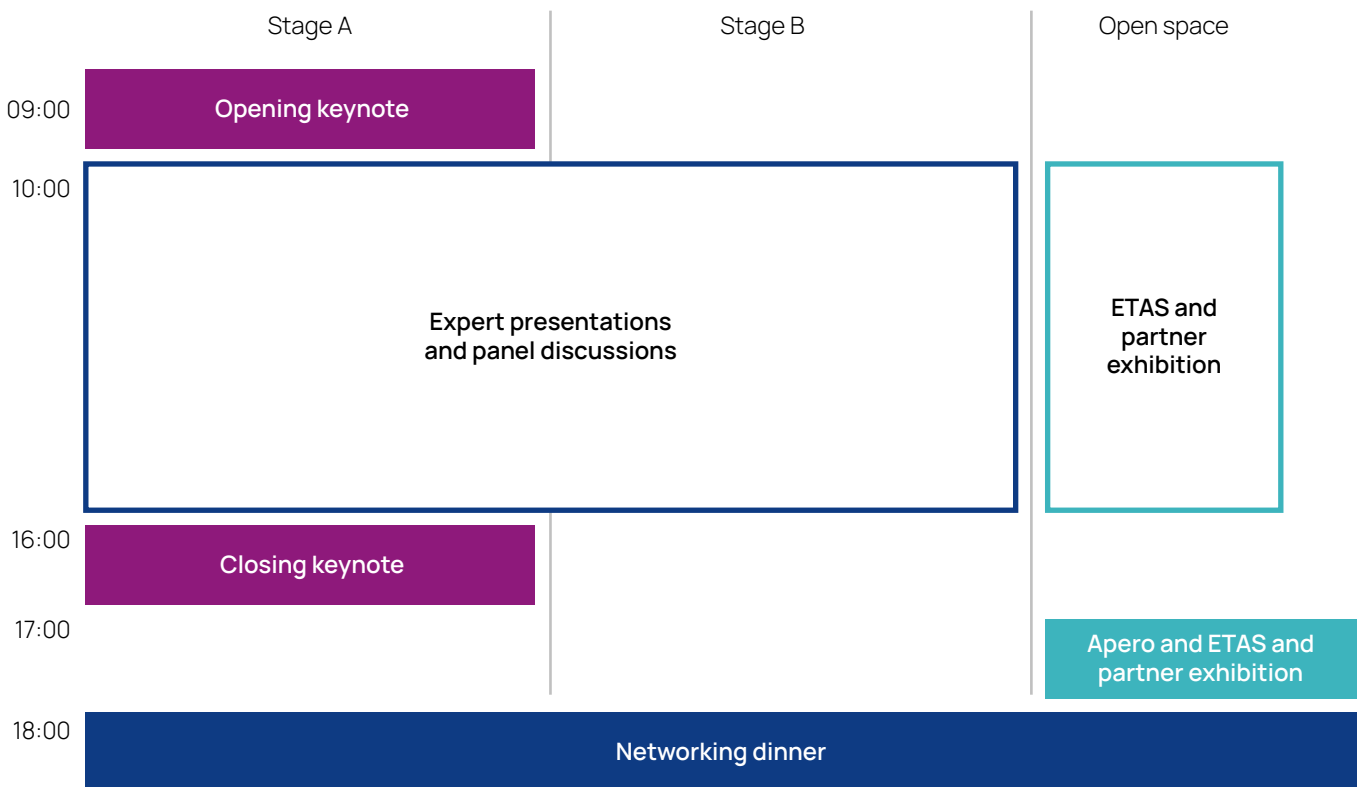2024

Welcome to ETAS Connections 2024!

Under the theme **Collaboration is key: Let's shape future automotive software together with open source!**, we'll explore cutting-edge topics like software-defined vehicles, middleware solutions, ADAS, Software Factory, Open Source, and more. Engage with thought leaders through keynotes, expert presentations, and panel discussions, gaining insights into digital business models and solutions in the automotive industry.

Discover a range of products, solutions, and the latest technological advancements in the exhibition. End your day by joining our exclusive Networking Dinner, an ideal chance to connect with industry professionals and expand your network.

	Stage A	Stage B	Open space
09:00	Opening keynote		
10:00	Expert presentations and panel discussions		ETAS and partner exhibition
16:00	Closing keynote		
17:00			Apero and ETAS and partner exhibition
18:00	Networking dinner		

Stage A

Opening keynote · 09:00 – 10:00 · Open source

Now or never: Redefining automotive development through collaboration, standardization and differentiation

Thomas Irawan CEO, ETAS
Chris Salzmann VP for Global Software Strategy, -Factory and -Platforms, BMW Group
Sara Gallian SDV Program Manager, Eclipse

The automotive industry is at a crossroads: with technological complexity and customer expectations reaching unprecedented heights, OEMs must navigate a delicate balance between standardization and differentiation. This keynote will explore how a shift in mindset towards collaboration, strategic standardization, and targeted differentiation can drive the future of automotive development.

Expert presentation · 10:20 – 10:40 · Open source

The impact of open source on roles, responsibilities and business models in automotive

Björn Reistel SDV Open Source Strategist, ETAS
Jan Hoscan Head of Global Ecosystem and Business Development Automotive, RedHat

This presentation will explore the transformative impact of open source software on the automotive industry. It will delve into the changing roles and responsibilities of automotive professionals, as well as the evolving business models within the industry. Attendees will gain insights into the opportunities and risks associated with this revolution, and discover how to navigate the evolving landscape of the automotive industry.

Panel · 10:50 – 11:35

Outside-in perspective: Why the automotive industry struggles with software and digitization

Moderator Christian Uebber CTO, ETAS
Michael Fait Global Head of Technology for Software-Defined Vehicles, Thoughtworks
Chris-Markus Kratz Global Director Automotive & Manufacturing, AWS
Christiane Viereck Vice President Strategic Account Automotive, Capgemini

Join our panel to explore the automotive industry's struggle with software and digitization from an outside-in perspective. Hear insights from consultants and software experts not traditionally from automotive, uncovering fresh strategies and innovative solutions for a digital transformation in automotive.

Stage B

FishBowl · 10:10 – 10:55 · Data

Interactive fishbowl: Unleash innovation through seamless collaboration

Patrick Scholl Cross Functional Epic Owner, ETAS

Dive into the transformative potential of data-driven automotive development in our interactive Fishbowl discussion. Take an active role by swapping seats on stage to share your insights and engage in debates. Be inspired by a visionary film that illustrates how connectivity and cloudification are revolutionizing collaboration in automotive software development.

Expert presentation · 11:00 – 11:20 · Simulation

Optimizing hybrid electric vehicle performance: A cloud-based co-simulation approach

Jongil Park Group leader of virtual development and calibration group, Hyundai Motors

Efficient energy management and control strategies are crucial for hybrid electric vehicles. Hyundai and ETAS developed a co-simulation environment integrating all major components and controllers, leveraging cloud computing for parallel evaluation across driving scenarios. This approach, applied to a new hybrid engine with lean combustion, optimized strategies, achieving over 10% efficiency improvement and maintaining emissions below target levels in real-world tests.

Expert presentation · 11:30 - 11:50 · Cybersecurity, Software factory

Software factory security - common capabilities for boosting and protecting automotive software business

Moritz Minzlaff Head of Professional Security Services, ETAS
Tobias Kreuzinger Head of Software Defined Vehicle Product Field Test, ETAS

Drawing from the expertise of over 150 clients worldwide this presentation reveals innovative and effective methods for developing secure automotive software. It highlights cybersecurity as a crucial enabler and delves into advanced DevSecOps practices, including „security as code" and test automation integration. Attendees will discover how to elevate software efficiency while maintaining robust security standards.

Stage A

Panel   11:45 - 12:30   Open source, Middleware

Inside-Out perspective: Turning strategy into action

Moderator **Abhimanyu Chandra** Senior Manager SDV Partnerships and Strategy, ETAS
Christian Uebber CTO, ETAS
Chris Salzmann VP for Global Software Strategy, -Factory and -Platforms, BMW Group
Nico Hartmann Chief Technology Officer, Qorix
Jan Hoscan Head of Global Ecosystem and Business Development Automotive, RedHat

Discover practical steps to drive digital transformation in the automotive industry. Our panel of insiders will share actionable strategies and real-world examples, offering their top three actions to implement immediately. Learn how to overcome internal barriers and turn plans into successful execution.

Expert presentation   12:40 - 13:10   Rust

Rust: The newcomer in the SDV landscape

Hendrik Post Chief Software Architect, ETAS
Arnaud Riess Embedded Software Engineer, Bosch
Frederic Ameye Cybersecurity Architect, Ampere (Renault Group)
Mario Cupelli CTO, Hightech EDV-Systeme

Moving to a new programming language and fulfill standards and expectations is a huge challenge for any automotive software company. Within this panel, the way to reach an automotive "state of the art Rust implementation" will be discussed and the challenge to make Rust accepted within existing organizations using C/C++ for decades.

Panel   13:15 - 14:00   Middleware, ADAS

The future and impact of middleware on ADAS/AD development

Moderator **Deepa Vijayaraghavan** Global Sales Director, ETAS
Zoran Cutura Business Development ADAS/AD solutions, ETAS
Holger Grandy Head of Department Software Platform Automated Driving, BMW
Yuhan Yao Chief Technology Officer, ADAS Systems Software and Services, Bosch
Sunny Choi Vice President of Business Development, Plus
Yaoyu Yang General Manager, Thundersoft

In this panel discussion, industry experts will address major challenges, discuss diverse use cases that are specific to ADAS/AD development, and provide insights into emerging middleware solutions. Gain a comprehensive understanding of how middleware is shaping the future of automotive technology, ensuring safety, scalability, and efficient integration in advanced driver-assistance systems.

Expert presentation   14:10 - 14:50   AI, Software factory

How AI will enrich the automotive software landscape

Moderator **Andrej Junginger** Head of Research & Advance Engineering, ETAS
Gabriela Kreyssing Product Manager, ETAS
Boris Löw Product Manager, ETAS
Jonas Messner Senior Manager Embedded AI, Bosch
Igor Susmelj Co-Founder, Lightly

AI is revolutionizing the automotive software landscape, enhancing efficiency and innovation. This presentation will showcase three key examples of ETAS activities: embedded code generation of neutral networks, a vehicle app generator, and AI-based data logging, highlighting AI's transformative impact.

Stage B

Expert presentation   12:00 - 12:20   Open source

Shared and open automotive software platform

Dirk Bangel Tech Lead Software Defined Vehicle, Bosch

The automotive shift from Internal Combustion Engine (ICE) vehicles to Electric Vehicles (EVs) and automation requires a complete redesign of vehicle design, production processes, and business models. An open and shared software platform is vital for modernizing, reducing costs, and fostering innovation. This talk proposes a cross-industry approach to core engineering and respective quality attributes.

Expert presentation   13:00 - 13:20   ADAS, Software factory

Enhancing vehicle performance and driver experience through tire status integration

Jose de Almeida Key Account Manager, ETAS
Guillaume Broussin Project Manager, Michelin
Hélène Bathias Business Model Leader - Passenger Car, Michelin

Discover how integrating tire status data into vehicles can elevate performance and driver experience. Michelin and ETAS present a successful project that integrates tire-related algorithms for predictive maintenance and ADAS enhancements. Learn about OEM benefits, Michelin's software solutions, and the development of seamless, plug-and-play integration methods.

Panel   13:30 - 14:15   Cybersecurity

Embracing cyber risk-based strategies for automated driving

Moderator **Moritz Minzlaff** Head of Professional Security Services, ETAS
Felix Maag Cyber Security Architect, Daimler Truck
Alessandro Farsaci In-Vehicle Cybersecurity manager, Iveco
Frank Schubert Information Security Principal / Senior Cybersecurity Architect, Cariad
Elmar Schoch Head of Automotive Security Architecture and Management, BMW
Frederic Ameye Cybersecurity Architect, Ampere (Renault Group)

Explore key strategies for managing cyber risks in automated driving and software-defined vehicles with insights from leading automotive experts. This panel will cover essential capabilities, security infrastructure for vehicle computers and ADAS, and solutions for integrated DevSecOps and automated security management.

Panel   14:20 - 15:05   Middleware

Embedded harmony: Orchestrating general-purpose computing, hardware acceleration and standard software

Moderator **Darren Buttle** Head of RTA Solutions, ETAS
Thomas Roecker Architect Automotive, Infineon
Mars Huang Senior Engineer, RealTek Semiconductors
Jonathan Siegel Software Product Manager, NXP Semiconductors

The balance between general-purpose and domain-specific hardware in vehicles is shifting dramatically. How do standardized software platforms harness new hardware capabilities, and what impact do SoCs with immense computing power have on vehicle integration and performance? Join us to delve into these pressing questions in our panel discussion.

12:00   13:00   14:00

Stage A		Stage B

15:00

Panel   15:00 - 15:45   Software factory

Continous homologation:
The key to regulatory success in automotive?

Moderator **Nargis Vershinina** Agile Master in Automotive Software Development Innovations, ETAS
Ebrahim Ameen Software Engineer, ETAS
Christian Hort Senior Vice President Automotive, T-Systems
Nico Waegerle Founder, Certivity
Sarunas Kondratas Head of EU ADAS/AD Features & Compliance, NIO
Dirk Slama Chairman digital.auto, VP Partner Ecosystems, Bosch

Continuous homologation is the ongoing process of ensuring vehicles meet regulatory standards. In the automotive industry, this is crucial for safety, compliance, and market access. This panel will present results of the digital.auto Continuous Homologation SIG, including regulatory changes, the integration of advanced IT solutions, and innovative approaches for efficient certification.

Panel   15:10 - 15:50   Vehicle health

The next level of vehicle diagnostics and health monitoring

Juergen Hornung Vice President Mobility Services and Solutions, ETAS
Tobias Friedrich Director Product and Portfolio Management Mobility Services and Solutions, ETAS
Holger Rothaug Client Delivery Partner, Microsoft

With the rise of Software Defined Vehicle (SDV) technology, the automotive aftermarket is facing significant disruptions, particularly in diagnostics and health monitoring. This session will explore the shift towards integrated, cross-lifecycle diagnostics with automated content generation. Together with Microsoft, we will discuss how generative AI and onboard diagnostics are shaping the future of service-oriented vehicle diagnostics (SOVD).

16:00

Closing keynote   16:00 – 17:00   Innovation, AI

Co-innovate with your digital colleague:
How to accelerate innovation with AI

Mariella Minutolo Member of the Board, ETAS
Tanja Rueckert Member of the Board of Management, Bosch
Joachim Franz Automotive Industry Lead, Microsoft

In the rapidly evolving landscape of Machine Learning and generative AI, businesses face immense opportunities and challenges. These technologies have transformative potential akin to the internet's impact. However, many companies struggle with scalable integration. This keynote will inspire you to turn challenges into innovation success. Using examples from the automotive software industry, it will show how AI accelerates innovation by streamlining ideation, development, prototyping, and testing phases.

17:00

ETAS and partner exhibition

We are excited to present the Open Space, a dedicated exhibition area showcasing the latest advancements and innovative solutions shaping the future of automotive technology.

Explore cutting-edge products, services, and technologies from ETAS and our partner companies. Engage with industry experts, experience live demonstrations, and gain insights into the evolving automotive landscape. Whether you're looking to network, learn, or be inspired, this exhibition offers a unique opportunity to connect and explore what's next.

Topic areas

ADAS/AD Development

Accelerating the market launch of advanced driver assistance systems (ADAS), and especially highly automated driving (AD) functions presents numerous challenges for the industry. These challenges range from managing technical complexity and meeting strict safety and regulatory requirements to ensuring scalability and effective software-hardware integration. ETAS offers comprehensive, adaptable solutions with integrated software and hardware tools that support fast, data-driven development, seamless integration, efficient validation, and holistic cybersecurity.

Cybersecurity

As pioneers in automotive cybersecurity, we help our customers navigate the complexities of cybersecurity, reduce risk, and maximize their business potential through a comprehensive portfolio of on- and off-board solutions, complemented by professional security services. Millions of vehicles worldwide are protected by ETAS' automotive cybersecurity solutions, setting the standard for software-defined vehicle security.

Measurement and Calibration

In the field of automotive measurement and calibration, the electrification of the powertrains with a focus on efficiency leads to higher control complexity, requiring cross-domain concepts. Additionally, changes in the E/E architectures are shifting calibration work from domain control units to central systems, presenting a significant challenge. Visit this topic area to explore how ETAS INCA can support you in addressing these challenges effectively.

Middleware

Explore the ETAS Middleware portfolio, designed for diverse E/E architectures, to elevate safe and secure communication and application abstraction across vehicle domains. Our solutions deliver modularity, real-time performance, seamless updates, and advanced diagnostics. Built on AUTOSAR Classic and Adaptive Standards, our high-performance middleware supports ADAS/AD applications, ensuring efficient development and future-proofing your software.

Open Source

At ETAS, we recognize the power of Free and Open Source Software in driving innovation within the mobility software ecosystem. Through initiatives like the Eclipse Software Defined Vehicle (SDV) Working Group and the Connected Vehicle Systems Alliance (COVESA), we foster collaboration and sustainability in automotive software development. Visit our Open Source booth to meet experts from ETAS, RedHat, Covesa, Bosch, and Eclipse, learn about our contributions, and explore how we can work together to advance the future of connected vehicles.

Software Factory

Explorer our integrated toolchain, which combines ETAS and third-party tools to enhance efficiency through automation and AI, streamlining your development processes. Discover how we seamlessly integrate diverse software stacks across domains, improving traceability and collaboration. Our solutions are designed to transform your software factory by managing complexity and leveraging virtualization, ultimately accelerating development and reducing time-to-market.

Our exhibition partners