



34

AACHEN
COLLOQUIUM
SUSTAINABLE MOBILITY

**OCTOBER
6TH – 8TH, 2025**

PROGRAM BOOKLET

Eurogress Aachen
GERMANY

FEV

tme | cmp

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UNIVERSITY

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TABLE OF CONTENTS

01	Foreword by Scientific Directors & Lord Mayor	→
02	Keynote Speakers	→
03	Start-Up Plenary Discussion	→
04	Conference Agenda	→
05	Start-Up Turbo Talks	→
06	Conference Schedule	→
07	Closing Plenary Session	→
08	Vehicle Demonstrations	→
09	Traditional Banquet	→
10	Information	→

FOREWORD BY THE SCIENTIFIC DIRECTORS



**UNIV.-PROF. DR.-ING.
LUTZ ECKSTEIN**

ika, RWTH Aachen University

**UNIV.-PROF. DR.-ING.
STEFAN PISCHINGER**

tme, RWTH Aachen University

The automotive industry is undergoing a dynamic technological change. Engineers, developers and decision-makers are tackling complex challenges – from electrification and next-gen battery systems to software-defined vehicle architectures, intelligent energy management and increasing levels of automation. The need to innovate has never been greater and with rising pressure from evolving regulations, user expectations and sustainability goals, the pace of transformation keeps accelerating.

Innovative powertrain solutions like electric drives, fuel cells and hydrogen engines are being explored simultaneously, while battery technology, charging infrastructure and range improvements remain key to the future of BEVs. At the same time, intelligent energy and thermal management systems are essential to optimize efficiency and performance across vehicle platforms. Another major driver is the increasing role of software – not only in connectivity and infotainment, but also in safety functions like advanced driver assistance, cybersecurity and automated vehicle control. The rise of AI and data-driven development is reshaping how we design, validate, operate and update vehicles.

In this landscape of rapid change, the **Aachen Colloquium Sustainable Mobility** serves as a vital platform to exchange ideas, present breakthrough and align on strategies that will shape the mobility of tomorrow:

We proudly present an exciting mix of high-profile **keynotes** and over **80 technical presentations** covering a wide range of topics such as Strategy, E-Drive, Battery, ADAS, Software-defined Vehicles, ICE and more. For the first time, we are inviting you to a **start-up panel discussion** to create a lively space for fresh ideas and groundbreaking innovations in addition to the **start-up turbo talks and exhibition area**. After last year's great success, our unique **driving event in real road traffic** will return, offering hands-on experience with cutting-edge technologies. As always, **networking** remains at the heart of our event and we are looking forward to the **traditional banquet** – because only together can we drive sustainable mobility forward!

FOREWORD BY THE LORD MAYOR



SIBYLLE KEUPEN

Lord Mayor of the City of
Aachen

Welcome to the **34th Aachen Colloquium Sustainable Mobility!**

Dear experts, innovators, researchers and visionaries, It is my great pleasure to welcome you once again to Aachen, a city that has always been a hub of progress and innovation.

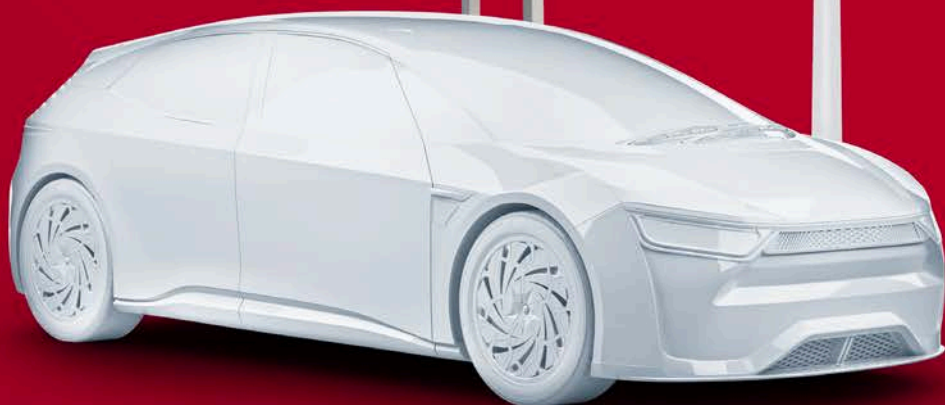
In its 34th edition, this colloquium has brought together brilliant minds to shape the future of mobility. And in 2025, the challenge is clearer than ever: sustainable, intelligent, and efficient transportation solutions for a changing world.

With **over 80 expert talks**, an **impressive exhibition** - including a vibrant **startup area**- and hands-on **driving experiences**, this event is not just about discussing the future. It's about creating it. The presence of top executives, pioneering startups, and leading researchers underscores the global impact of your work.

Aachen is proud to host this **dynamic exchange** of ideas. Beyond the technical program, I invite you to experience the **unique spirit** of our city — whether during **networking sessions**, evening events in our **historic venues**, or simply through the inspiring atmosphere of this **international gathering**.

Enjoy an event full of innovation, collaboration, and new perspectives. Together, we are driving the change towards a more **sustainable future!**

FEV



We drive innovation to help the world evolve.

We love technology. And we understand it deeply. This enables us to pioneer ideas and shape strategies that keep our clients, partners and our people ahead of the game. We do this by asking the right questions: why is it this way? How can it be better? Then we explore, challenge, test and learn – continually improving the solutions we implement and the ways we work together. This helps us develop world-class innovations within sustainable mobility, energy and software to power a better future and a greater quality of life for all.

feel evolution

KEYNOTE SPEAKER

EMILIO SCERVO



Emilio Scervo is a British-Italian engineer, holding a degree in Aerospace Engineering from Pisa University and an Executive MBA from SDA Bocconi in Milan. With a wealth of expertise spanning the aerospace and automotive luxury hypercar industries, Emilio has contributed to the development of iconic products, including the Ferrari 458, McLaren 720S, and McLaren Speedtail.

In 2021, Emilio assumed the role of Board Member and Chief Technology Officer at Bugatti Rimac, where he leads the development of groundbreaking hypercars for both Bugatti and Rimac. Under his strategic guidance, Emilio oversees the evolution of product portfolio of both esteemed brands. His visionary leadership and instrumental role in shaping the long-term strategy position Bugatti Rimac as the preminent hypercar company, poised to set new standards in the global automotive landscape.

Emilio has played a key role in the development of the Bugatti Tourbillon, Mistral, Bolide, as well as the Rimac Nevera and Nevera R – with many more revolutionary models still to come.

KEYNOTE SPEAKER

RAMASAMY VELUSAMY



**President of Automotive
Technology & Product
Development**

Mahindra & Mahindra

R. Velusamy is a seasoned automotive leader with over 28 years of experience. He has been instrumental in shaping Mahindra's vehicle development strategy and driving technological advancements across its Automotive product portfolio.

Joining Mahindra & Mahindra in 1996, Velusamy began his career in the powertrain division, where he led the development of the revolutionary MHawk engines, setting new industry standards for performance, efficiency, and durability.

His leadership has played a key role in the development and launch of Mahindra's most iconic vehicles, including the All-New Thar, XUV700, Scorpio-N, and the recent blockbusters XUV3XO and Thar Roxx, which have redefined their respective segments.

Velusamy is also the Joint Managing Director of Mahindra Electric Automobile Limited (MEAL) and spearheaded the development and launch of Mahindra's electric-origin SUV portfolio in November 2024, setting new benchmarks in the Indian automotive space.

Beyond his role in product development, he serves as the Chairman of Mahindra Racing UK and as a Director on the Board of PF Holding B.V. He also actively contributes to industry advancements as the Vice Chair of the Automotive Research Association of India's (ARAI) Governing Council, a Member of the Governing Board for the Centre for Advanced Automotive Research (CAAR), and the Chair of the CMVR Committee at SIAM, focusing on safety regulations.

Velusamy holds a B.Sc. from the University of Madras and a B.Tech in Automobile Engineering from Anna University, Chennai. He has further strengthened his leadership and strategic acumen through executive programs at Wharton Business School, Harvard University, and Michigan Ross School of Business.

KEYNOTE SPEAKER

JIAN WU



President

GAC Research Institute

Jian Wu, born in 1967, graduated from Tianjin University with a doctorate degree in power machinery and engineering.

He is currently a member of the Executive Committee of GAC Group and Deputy Director of the Independent Brand Management Committee, President of GAC Research Institute, Member of the Standing Committee of Guangdong Association for Science and Technology, Vice Chairman of the Society of Automotive Engineers of China, and Chairman of the Guangdong Society of Automotive Engineers.

With more than 30 years of experience in the automotive industry, he joined GAC Research Institute in May 2008, as the main technical leader and manager of GAC's independent R&D system. Moreover, he has accumulated rich experience in technical planning, product development, technology research and development, scientific and technological innovation and talent training. Moreover, he is committed to the research and development and innovation of core and key technologies of automobiles.

He has won the first prize of China Automobile Industry Science and Technology Award, the first prize of Science and Technology Award of China Internal Combustion Engine Society and other awards. The "Outstanding Scientific and Technological Talent Award of China Automotive Industry" and "Fellow" of the Society of Automotive Engineers of China, and the "Outstanding Contribution Award" of the Chinese Society of Internal Combustion Engines.

START-UP PLENARY DISCUSSION



SARAH FLEISCHER

CEO & Co-Founder
tozero

- Sarah Fleischer: CEO and Co-Founder of tozero GmbH – Europe's first start-up dedicated to lithium-ion battery recycling.
- Focused on circular value chains and low-emission processes to return critical raw materials back into the supply chain.



MARCUS BEHRENDT

Managing Partner
BMW i Ventures

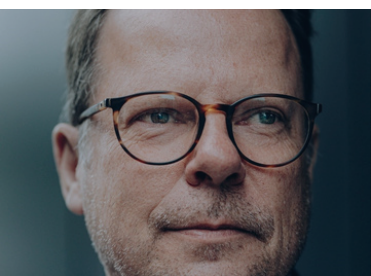
- Managing Partner at BMW i Ventures with deep expertise in automotive technology, venture capital, and scaling deep tech startups
- Supports founders in mobility, manufacturing, and AI-driven sectors, leveraging global corporate leadership and hands-on experience in fostering impactful collaborations between startups and established industry players



KLAUS ENTENMANN

Co-Founder & CCO
ExpectedIT

- Co-Founder & CCO of ExpectedIT and former CEO of Daimler Financial Services, with extensive expertise in mobility finance and venture building.
- Advises early-stage companies on scaling and strategy, combining corporate leadership experience with a start-up-driven mindset.



PETER MERTENS

Executive Director
Mertens VC

- Investor, advisor, and former CTO of Audi AG with decades of leadership experience in the global automotive industry.
- Supports mobility start-ups as a board member and strategic advisor, bridging the gap between corporate scale and start-up agility.

CLOSING DISCUSSION



GERRIT MARX

Chief Executive Officer

CNH Industrial

CHRISTIAN OBERWINKLER

Chief Technology Officer

Kässbohrer Geländefahrzeug AG

As CEO of CNH, he leads 40,000+ employees and oversees the Agriculture segment, driving global farming and construction solutions.

He brings 25+ years of leadership across McKinsey, Daimler, Volkswagen China, Bain Capital, and Iveco Group, where he advanced connectivity and alternative propulsion.

Gerrit Marx holds degrees in Mechanical Engineering, an MBA from RWTH Aachen, and a PhD from Cologne. His focus: transformation, value creation, and tech-driven change.

Dr. Christian Oberwinkler has been CTO and board member at Kässbohrer Geländefahrzeug AG since March 2023, overseeing technology and production for vehicles in extreme environments.

Previously in leadership at Komptech, he focuses on sustainability, digitalization (including AI), and demographic change to ensure user-friendly, advanced, and future-ready products.

He holds a doctorate in engineering and promotes openness to technology, alternative drives, and AI, aligning innovation with efficiency, resource conservation, and climate goals.

CONFERENCE AGENDA

EUROPA

BRÜSSEL

K1

K2

Monday, October 6th, 2025

18:00

Welcome Reception &
Opening Exhibition

Tuesday, October 7th, 2025

08:30

Opening Plenary
Session

10:45

Strategy I

E-Drive-Components

AI

Development
Processes I

13:30

Strategy II

E-Drive-Systems

Fuel Cells I

SdV

16:00

Turbo Talks -
Start-Up Pitches

16:35

Vehicle & Mobility
Concepts

Battery I

ADAS / DMS

Fuel Cells II

Wednesday, October 8th, 2025

08:15

ICE I

Battery II

Safety Assurance

Chassis - Active
Components

10:15

HEV

Energy Carriers &
Infrastructure

Real World
Applications

Electric
HD-Transport

13:30

Plenary Discussion
"Start-Ups in Mobility:
Chances and Challenges"

15:00

ICE II

Thermal
Management

Development
Processes II

Chassis - Vehicle
Dynamics

16:40

Closing Plenary
Discussion

TURBO TALKS

Attend our Turbo Talks, where young companies, startups and student initiatives present their innovative mobility solutions and bring fresh ideas to life.

Ecogenium e.V.

Ecogenium is a multidisciplinary team of motivated students working in the area of hydrogen mobility with the goal to design and build a hydrogen fuel cell vehicle to race for efficiency at the annual Shell Eco-Marathon.

Ecurie Aix Formula Student Team RWTH Aachen e.V.

Ecurie Aix is the Formula Student Team of RWTH Aachen University. Every year, the team builds a fully electric racing car and converts a vehicle of the previous year into an autonomous vehicle to compete on renowned racetracks.

800 Volt Technologies

800 Volt Technologies is the team behind PUMP, the iOS app for electric vehicle drivers which allows to connect the car, plan a trip and charge.

V-HOLA

V-HOLA Labs develops energy efficiency solutions for electric vehicles, as their AI engine adeptly manages energy consumption, considering both the vehicle and driver.

Wattical Energon Tech GmbH

Wattical Energon Tech GmbH is a high-tech leader in battery testing and energy storage solutions, with a strong commitment to deliver safe, reliable, and innovative products.

to be continued...

fka **ACK 25'**

Booth Topics

- › LevelXData
- › Sensor Testing
- › Steer-by-Wire: Controllability
- › Hybrid Testing of Heavy-Duty Vehicles

Meet us!



CREATING IDEAS & **DRIVING INNOVATIONS**

CONFERENCE SCHEDULE

Welcome & Introduction to the 34th Colloquium

08:30



Univ.-Prof. Dr. rer. nat. Dr. h.c. mult
ULRICH RÜDIGER
Rector
RWTH Aachen University



Univ.-Prof. Dr.-Ing
LUTZ ECKSTEIN
Institute Director
ika, RWTH Aachen University



Univ.-Prof. Dr.-Ing
STEFAN PISCHINGER
Institute Director
tme, RWTH Aachen University

Opening Plenary Session

08:40



EMILIO SCERVO
Chief Technology Officer
Bugatti Rimac



RAMASAMY VELUSAMY
President of Automotive
Technology & Product
Development
Mahindra & Mahindra



JIAN WU
President
GAC Research Institute

PRESENTATIONS

Tuesday, October 7th, 2025

10:45 - 11:15

11:15 - 11:45

11:45 - 12:15

EUROPA	BRÜSSEL	K1	K2
Strategy I	E-Drive-Components	AI	Development Processes I
Global Light Vehicle Powertrain Outlook W. Hossenally S&P Global	From eDaily to S-eWay: Feature driven development of electrified commercial vehicles A. Bernardini - Iveco Group P. Glusk, F. Richert - FEV	Challenges for perception systems in autonomous agricultural machines A. Schröder CLAAS E-Systems GmbH	Rethinking Gears: From Idea to Virtual Assembly U. Rütjes Hirschvogel Holding GmbH
Last Man Standing Is No Solution C. Koehler - H&Z Group J. Rückauf - Hirschvogel Group	Designing for efficiency in high performance AFM powertrains T. Hillman, R. Phillips, T. Woolmer YASA	An MLOps Architecture for Automated Driving and Beyond B. Lampe, L. Eckstein ika, RWTH Aachen University	Functional Safety and AI: Opportunities and Challenges for the Automotive Domain R. Adler Fraunhofer IESE
ESG - Excellence in operations A. Busse, M. Brandt fka GmbH / strato7	Current leakage mitigation innovations & testing methodology for oil-cooled eAxles A. Simonin SKF	Industrial Vehicle Autonomy - technical and commercial dimensions of driver out applications A. Wischnewski driveblocks	Integration of System Engineering with a Compliance Agent A. Lauringer, H. Yasko Kontrol

PRESENTATIONS

Tuesday, October 7th, 2025

	EUROPA	BRÜSSEL	K1	K2
	Strategy II	E-Drive-Systems	Fuel Cells I	SdV
13:30 - 14:00	<p>Making Europe Great Again – Perspectives to Regain the Competitive Position of Europe's Automotive Industry</p> <p>W.-D. Hoppe, K. Schmitz Arthur D. Little</p>	<p>Next-Generation Traction Drive with highly compact Multilevel Inverter Architecture for improved 800V vehicle efficiency</p> <p>J. Deussen, A. Apelsmeier, P. David, L. Louco, K. Schten, A. Mayer, H. Nanjundaswamy BorgWarner</p>	<p>Comparing Hydrogen Fuel Cell Engines and Hydrogen Internal Combustion Engines for Zero-Emission Heavy-Duty Vehicles</p> <p>J. Masson Ballard Power Systems</p>	<p>The Evolution of Software-Defined Vehicles: Technological and Organizational Transformation, and Ecosystem Dynamics</p> <p>W. Said, R. Biurrun Porsche Consulting GmbH</p>
14:00 - 14:30	<p>Navigating the Digital Revolution: Transforming R&D in the Automotive Sector</p> <p>C.-S. Ernst, K. Thielemann Roland Berger GmbH</p>	<p>The Electric Drive Platform Select – compact, magnet free and drag loss optimized solutions for “Boost Drives”</p> <p>P. Wieske, W. Barth, O. Bayer, M. Berger, U. Niehaus, S. Stroph ZF Friedrichshafen AG</p>	<p>Advancing Fuel Cell Drives: Enhancing Efficiency and Performance for Heavy-Duty Long-Haul Transport</p> <p>M. Zubel, J. Blum, T. Braun, S. Hollnaicher, J. Köhler, N. Loughlan, N. Weidler cellcentric GmbH & Co. KG</p>	<p>Advanced Product Development for SDV: Boosting competitiveness and speed</p> <p>M. Engelhard FEV Consulting</p>
14:30 - 15:00	<p>Chip shortage ahead: How to react</p> <p>T. Schadt, N. Becht, C. Foltz PwC Strategy& (Germany) GmbH</p>	<p>MMA: CLA with EQ Technology - Next Generation BEV by Mercedes-Benz</p> <p>T. Stegmaier Mercedes-Benz AG</p>	<p>Model-based fuel cell stack design and optimization</p> <p>P. Eppe, J. Kraft, F. von Lehn, K. Wahl, N. Zsiga EKPO Fuelcell Technologies GmbH</p>	<p>autotech.agil: Architectures and Tools for Future Mobility</p> <p>C. Geller, R. van Kempen, L. Eckstein ika, RWTH Aachen University</p>
15:00 - 15:30	<p>Humanoid Robotics: Potential or Hype for Automotive Suppliers?</p> <p>R. Padovano, D. Boemer, B. Knobloch, A. Nase, H. Wegner FEV Consulting</p>	<p>Next Battery Swapping: Accelerating Electrification in Medium-Duty Transport with Dual Battery Swapping for 12-18t Truck</p> <p>S. Steinwascher GETEC Getriebe Technik GmbH</p>	<p>Electrification in Mobility: Fuel Cell Vehicle</p> <p>D. Kim Hyundai Motor Company</p>	<p>Open-Source as a crucial factor for the implementation of SDV</p> <p>T. Wooten Thinking Cars GmbH</p>

PRESENTATIONS

Tuesday, October 7th, 2025

	EUROPA	BRÜSSEL	K1	K2
16:00 - 16:30	Turbo Talks - Start-Up Pitches			
	Vehicle & Mobility Concepts	Battery I	ADAS / DMS	Fuel Cells II
16:35 - 17:05	<p>Unleashing the Potential of Data: How Data Helps Developing the Best Vehicles</p> <p>O. Seifert Dr. Ing. h.c. F. Porsche AG</p>	<p>Driving a Healthier EV Industry: Breaking Through Battery Technology Barriers</p> <p>C. Hsieh Prologium</p>	<p>Performance of LiDARs in adverse conditions: Results from the LPAC project</p> <p>A. Sakpal, U. Kradepohl fka GmbH</p>	<p>Development trends for the next generation of BoP products</p> <p>M. Wick, M. Becker Rheinmetall AG</p>
17:05 - 17:35	<p>Energy Management in Honda S+ Shift Control</p> <p>Y. Ukai Honda Motor Co., Ltd.</p>	<p>Demonstrating recent Advances of Solid State Battery Technology</p> <p>U. Keller, S. Bach, D. Bohrmann - Mercedes-Benz AG M. Stapelbroek - FEV</p>	<p>Challenges in Mass Processing of Open Road Data for Statistical Validation of AD/ADAS Systems</p> <p>P. Krejčí, D. Aurélio, T. Kletečka Valeo</p>	<p>Titel t.b.c.</p> <p>t.b.c. t.b.c.</p>
17:35 - 18:05	<p>V2G: Enabler of Mobility and Energy Transition</p> <p>I. Drescher Volkswagen AG</p>	<p>AI vs. Model-Based Methods: The Future of State-of-Charge Estimation for Li-ion (LFP) Batteries</p> <p>U. Genc, C. Kurtulus, U. Yavas eatron technologies</p>	<p>In-Cabin Sensing: Detecting Driving Under the Influence of Alcohol</p> <p>J.-P. Göbel CARIAD SE</p>	<p>Model-Based Assessment of Performance and Total Cost of Operation for Various Fuel Cell and Battery Sizes of a Fuel Cell Powered Truck</p> <p>E. I. Yalçın, Ç. Gürel, D. Ş. Yıldız, Y. Togay - FORD OTOSAN</p>

PRESENTATIONS

Wednesday, October 8th, 2025

08:15 - 08:45

EUROPA

ICE I

HyMot: H2 Engine optimized for Light Commercial Vehicle Applications with Near-Zero Emissions

J.-B. Leroy - Robert Bosch France
O. Coureau - Renault Group
F. Pignard - Forvia
B. Corbières - Alpine
A.-L. Mendes-Siqueira - TotalEnergies
N. Perrot - Ecole Centrales Nantes
X. Gautrot - IFP Energies Nouvelles
R. Grizivatz - Ose Engineering

BRÜSSEL

Battery II

Key enablers for commercial superfast charging battery cells

S. Beschnitt, A. Averberg,
J. Küpper, M. Rudolph,
M. Stapelbroek - FEV

K1

Safety Assurance

Linking Real-World Data with Simulation: Handling Requirements for the Validation of Automated Driving Functions

M. Buller
dSPACE

K2

Chassis - Active Components

Hydraulic Steer-by-Wire System Development for Commercial Vehicle

J. Schubert
Weber-Hydraulik GmbH

08:45 - 09:15

JMC's all-new 2,5L Diesel Engine Platform – an enabler of economical and sustainable mobility worldwide

T. Koerfer - JMC / FEV
M. Chao, L. Shanbin, D. Hui
- Jiangling Motor Co., Ltd.
U. Grütering, X. Liu, J. Li - FEV

Next Generation of Prismatic Battery Cell Caps

M. Sutter
Freudenberg Sealing Technologies

leveLXData update: UAV-based Naturalistic Traffic Data with Multi-Sensor Enrichment

C. Klas
fka GmbH

Fluid-free active-passive hybrid electromagnetic damper and its control strategy design

X. Cao, H. Niu
Hunan University

09:15 - 09:45

A generation of piston bowl geometry: a redefinition of paradigms in high-efficiency natural gas Heavy Duty engine design

S. Golini, S. Giordana, N. Rapetto
- FPT Industrial
P. Napolitano, D. Di Domenico,
C. Beatrice - CNR STMS

Revolutionizing Low-voltage Boardnet Systems with SCiB™ Cell Property with lithium titanium oxide (LTO) Anode

S. Shimakawa, M. Sekino
Toshiba Corporation

Symbolic logic framework for situational awareness in mixed autonomy

M. van Schijndel, S. Haesaert
- Eindhoven University of Technology
S. Soudjani, A. Ghosh
- Max Planck Institute for Software Systems

From Technology to the Road: Vehicle-Level Performance Analysis of Innovative Roll Damping and Stabilization Solution

T. Schrüllkamp, A. Gersmeier,
D. Schröder
- Mubea Fahrwerksfedern GmbH
C. Kwak, K. Oguzcan
- Hyundai Motor

PRESENTATIONS

Wednesday, October 8th, 2025

	EUROPA	BRÜSSEL	K1	K2
	HEV	Energy Carriers & Infrastructure	Real World Applications	Electric HD-Transport
10:15 - 10:45	<p>Modular hybrid high-performance drivetrain - engine development within the challenge of performance & sustainability</p> <p>M. Schober Audi AG</p>	<p>Role and opportunity of advanced bio- and e-fuels in mobility</p> <p>K. Wilbrand, F. Balthasar, R. Cracknell, A. Kolbeck, R. Uitz-Choi SHELL GLOBAL SOLUTIONS DEUTSCHLAND GMBH</p>	<p>Teleoperation: Ensuring Safety and Reliability in the Future of Driverless Mobility</p> <p>M. Mering RTC</p>	<p>Sustainability in commercial transport: the eTrailer from Trailer Dynamics</p> <p>R. Henn, A. Jaber Trailer Dynamics GmbH</p>
10:45 - 11:15	<p>A Mass Market Highly Efficient Range Extender Engine for Light-duty Vehicles</p> <p>M. Bassett, Y. Ao, A. Cooper, D. Hancock MAHLE Powertrain Limited</p>	<p>Assessment of Monitoring and Methodologies for Detecting Carbon Neutral Fuels for Vehicles</p> <p>J. Weber, M. Calixto de Sousa, O. E. Herrmann, Y. Frekers, D. Queck, J. Schatorjé DENSO AUTOMOTIVE Deutschland GmbH</p>	<p>Results from Large-Scale Testing of Automated Driving</p> <p>M. Sonntag, L. Eckstein ika, RWTH Aachen University</p>	<p>Heavy Duty Drivetrain Electrification: fka development platform accelerates development of innovative technologies</p> <p>O. Vossen fka GmbH</p>
11:15 - 11:45	<p>Benchmark in efficiency – the all-new 48-V Hybrid Powertrain of Mercedes-Benz</p> <p>H. Schilling, N. Brinkert, J. Fischer, A. Harsch, W. Holly, A. Rehberger, V. Marx Mercedes-Benz AG</p>	<p>Unlocking the potential of eFuels - Market volumes to be expected and resulting CO₂ reductions</p> <p>L. Mauler Porsche Consulting</p>	<p>Utilizing Naturalistic Urban Driving Scenarios for Customer-Centric Engineering of ADAS and Automated Driving Systems</p> <p>F. Schröder, M. Grimm - Dr. Ing. h.c. F. Porsche AG C. Klas, C. Kotulla, S. Runde, A. Zlocki - fka GmbH</p>	<p>High-voltage batteries and heavy-duty electrification: trends, challenges, and solutions</p> <p>C. Kleinhans, M. Müller IONCOR</p>
11:45 - 12:15	<p>Range Extender, a new push for electromobility?</p> <p>P. Kapus, J. Linderl, C. Martin, G. Meister AVL</p>	<p>Synchronizing Fuel Cells, Industrialization, and Infrastructure for Heavy-Duty Long-Haul Applications</p> <p>F. Henkel, A. Engelen, L. Johansson cellcentric GmbH & Co. KG</p>	<p>Why Simulation Technology is the Key for Developing Autonomous Ridepooling</p> <p>C. Rösener Volkswagen AG Nutzfahrzeuge</p>	<p>From Challenge to Charge – Promise and Complexities of Megawatt Charging for Heavy-Duty Trucks</p> <p>R. Uerlich DAF Trucks N.V.</p>

PRESENTATIONS

Wednesday, October 8th, 2025

13:30

EUROPA

BRÜSSEL

K1

K2

Plenary Discussion
"Start-Ups in Mobility: Chances and Challenges"

15:00 - 15:30

ICE II

Thermal
Management

Development
Processes II

Chassis - Vehicle
Dynamics

Brand new 1.5L
3Cylinder engine
development
dedicated to Next-
Generation NISSAN
e-POWER

A. Shikata, N. Tagishi
Nissan Motor Co., Ltd.

Thermal Simulation
with Optimisation
Approaches to Reduce
Heat Losses during
MCS Megawatt
Charging of Electric
Vehicles

J. Krings, S. Beisser, P. Steinmetz,
P. Ziegler - Daimler Truck AG
H.-C. Reuss - FKFS Stuttgart

Software-Defined
Powertrains
Surpassing the Limits:
Cloud-Driven Pwt.
Optimization

A. Fandakov, M. Clauss,
A. Heghmanns, J. Hilgert,
M. Sens, S. Sinning, P. Stracke
IAV GmbH

A Study on Chassis
Design of PBV to
Improve Driving
Stability

S-J. Noh - Hyundai Motor
B.-K. Cho, S.-S. Kim - VDL

15:30 - 16:00

Weichai's T10 2,0L
Diesel Engine – a
global engine design
to serve multiple
commercial
applications towards
future market

H. Busch - Weichai / FEV
T. Körfer - FEV
Y. Wenzhao, W. Ziliang
- Weichai Power Co., Ltd.

PFAS free refrigerants
- Two solutions for
mobile Applications in
eVehicles

R. Heckt, H. Freitag
HANON Systems Deutschand
GmbH

Development of Next-
Generation Hybrid
Powertrain for
C-Segment SUVs

D. Niiyama
Nissan Motor Co., Ltd.

A Methodological
Framework for
Comparing Real-World
and Vehicle-in-the-
Loop Brake Control
System Testing

W. J. Nana
Volkswagen AG

16:00 - 16:30

Contributing to the
Environment with
Internal Combustion
Engines towards
Carbon Neutrality

K. Harada, M. Hitomi, E. Nakai,
D. Shimo, H. Yamashita,
T. Yamamoto
- Mazda Motor Corporation

The Strategic Role of
Electrical Heaters in
Optimizing Thermal
Management in EVs

K. Bolz
- Eberspächer catem GmbH
& Co. KG
C. Massonet, L. Eckstein
- ika, RWTH Aachen University
L. Fautz - fka GmbH

From Weeks to Hours -
AI-powered Concept
Development for
Driving Attributes

M. Oswald, E. Bogner, S. Kellner
AVL List GmbH

Potential of fast and
precise Torque
Vectoring actuation for
shaping vehicle
dynamics
characteristics

A. Sticht
AUDI AG

CLOSING PLENARY SESSION

Plenary Discussion: Sustainable Future in Industrial Applications

16:40



GERRIT MARX
CEO, CNH Industrial

CHRISTIAN OBERWINKLER
CTO, Kässbohrer Geländefahrzeug AG

Closing Remarks



Univ.-Prof. Dr.-Ing
LUTZ ECKSTEIN
Institute Director
ika, RWTH Aachen University



Univ.-Prof. Dr.-Ing
STEFAN PISCHINGER
Institute Director
tme, RWTH Aachen University

End of Colloquium

17:45



VEHICLE DEMONSTRATIONS

SCAN ME



The way we travel is constantly evolving. Mobility solutions are continuously developed to take us from A to B faster, further, more comfortably, and increasingly sustainably. At the Aachen Colloquium, this progress becomes tangible: in front of the Eurogress, you'll have the chance to experience innovative vehicle concepts firsthand. Test drives allow you to explore new technologies and future-oriented solutions for individual transportation – especially in urban environments, where the demand for smart and sustainable mobility is greater than ever.

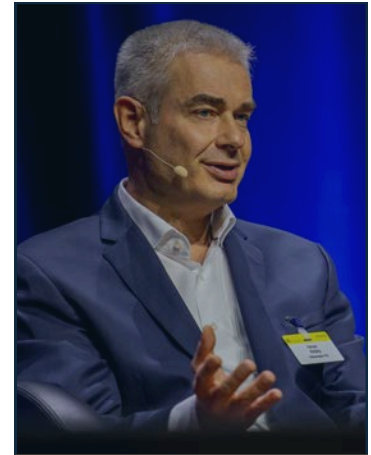
HERE'S HOW TO PARTICIPATE:

- 1** Register as a participant for the Colloquium.
- 2** Upon arrival at the Eurogress Aachen, head to the driving event registration desk in the foyer.
- 3** Present a valid driving license – international participants must provide a German translation of their license.
- 4** Once verified, you'll receive access to our event platform, where you can book individual test drives with the participating vehicle manufacturers.

PRO TIP: SLOTS FILL UP FAST – THE SOONER YOU CHECK IN AND REGISTER ON-SITE, THE MORE OPTIONS YOU WILL HAVE!

THANK YOU

We sincerely thank the Advisory Board of the Aachen Colloquium for their valuable support, dedication, and expertise. Your commitment plays a crucial role in shaping the quality and success of this event. We deeply appreciate your guidance and contributions, which help drive innovation and meaningful discussions within our community.



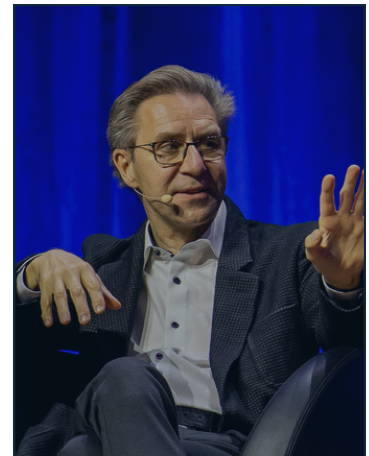
NICOLAI ARDEY
Volkswagen AG



CHRISTIAN ENDERLE
Porsche Consulting



AXEL GERN
Aeva Technologies



RALF HERRTWICH
NVIDIA



PHILIP KOEHN
BMW Group



GERRIT MARX
CNH Industrial



KARSTEN WILBRAND
Shell

TRADITIONAL BANQUET

SCAN ME

The traditional banquet on Tuesday evening presents a feast of culinary delights set in the historic buildings around the Aachen marketplace. This enchanting evening offers a unique blend of exquisite cuisine and restaurants for every taste, providing the perfect backdrop for meaningful interactions. Join your business partners in a relaxed atmosphere, where you can reflect on the day's experiences and deepen your professional relationships. Additionally, this gathering offers an excellent opportunity to enhancing your business prospects and create new contacts.

EVENING OF CONNECTION, CULTURE & CONVERSATION

This year, in addition to our traditional seated dinners. We are excited to introduce a more agile and interactive format: the banquet at Karls Café and the Centre Charlemagne. Between the stunning Aachen Cathedral and the town hall, Karls Café is far more than just a café. It sits within the Centre Charlemagne, the city's historical museum, and offers a unique blend of cultural ambiance and modern elegance.

CALL FOR PRESENTATION 2026

Next year the Aachen Colloquium will take place for the 35th time. You are warmly invited to submit a lecture proposal on one of the main topics. You will find the submission form on our website from December 2025:

www.aachen-colloquium.com

February 2026

DEADLINE FOR ABSTRACTS

Submit your abstract online by February 15th to be considered as a speaker. Submissions will be reviewed by the scientific committee. Presentations must be held in English.

April 2026

NOTIFICATION OF AUTHORS

Authors will receive feedback on their submissions by mid to late April. Accepted speakers will receive further instructions for registration and preparation of their presentations for the Aachen Colloquium Sustainable Mobility 2026.

September 2026

DEADLINE FOR SUBMISSION

Final presentation files must be uploaded by September. This ensures proper technical setup and allows organizers to prepare the event schedule. Late submissions may not be accepted for presentation.

October 2026

ON-SITE PRESENTATION

All accepted contributions will be presented in person at the Aachen Colloquium, taking place from **October 5-7, 2026** at the Eurogress Aachen.

AAC 2025

AACHEN ACOUSTICS COLLOQUIUM

November 24 – 26, 2025
Aachen, Germany

Join us for insightful talks from leading experts in acoustics! Presentations, exhibition and networking opportunities await you.



Register now!

www.aachen-acoustics-colloquium.com

FEV **fka**

HEAD acoustics

REGISTRATION & CONFERENCE

REGISTRATION PROCEDURE

- 1** Registration
www.aachen-colloquium.com/registration
- 2** Receive confirmation by e-mail
- 3** Settle the invoice
- 4** Registration completion after Receipt of payment

PARTICIPANT FEE

All prices are exclusive of VAT

Full Participation on site: 1.590,- €

Day tickets for flexible participation:

include conference access, catering and event materials.

The banquet can be added for 100,- €

Day 1 Ticket 950,- €

Day 2 Ticket 750,- €

Online: 795,- €

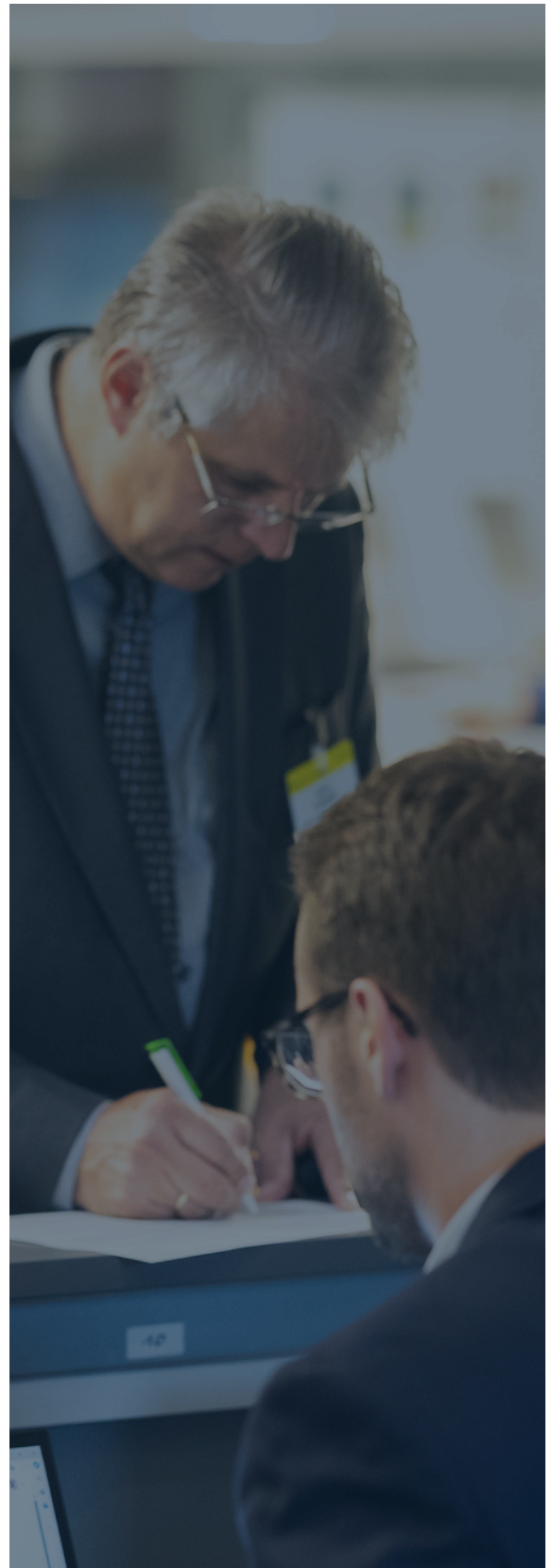
University members: 50% discount on all options

CONFERENCE DOCUMENTS

Licences for single or multiple use of the complete conference proceedings as well as individual presentations can be ordered via www.aachen-colloquium.com/proceedings

CONFERENCE OFFICE

Monday, Oct. 6th, 2025	04:00pm - 07:00pm
Tuesday, Oct. 7th, 2025	07:30am - 06:00pm
Wed., Oct. 8th, 2025	07:30am - 06:00pm



GENERAL INFORMATION

ORGANIZER

Aachener Kolloquium
Fahrzeug- und Motorentechnik GbR
Steinbachstraße 7
52074 Aachen
Germany

SCIENTIFIC MANAGEMENT

Univ.-Prof. Dr.-Ing. Lutz Eckstein
Director ika, RWTH Aachen University

Univ.-Prof. Dr.-Ing. Stefan Pischinger
Director tme, RWTH Aachen University

ORGANIZATION

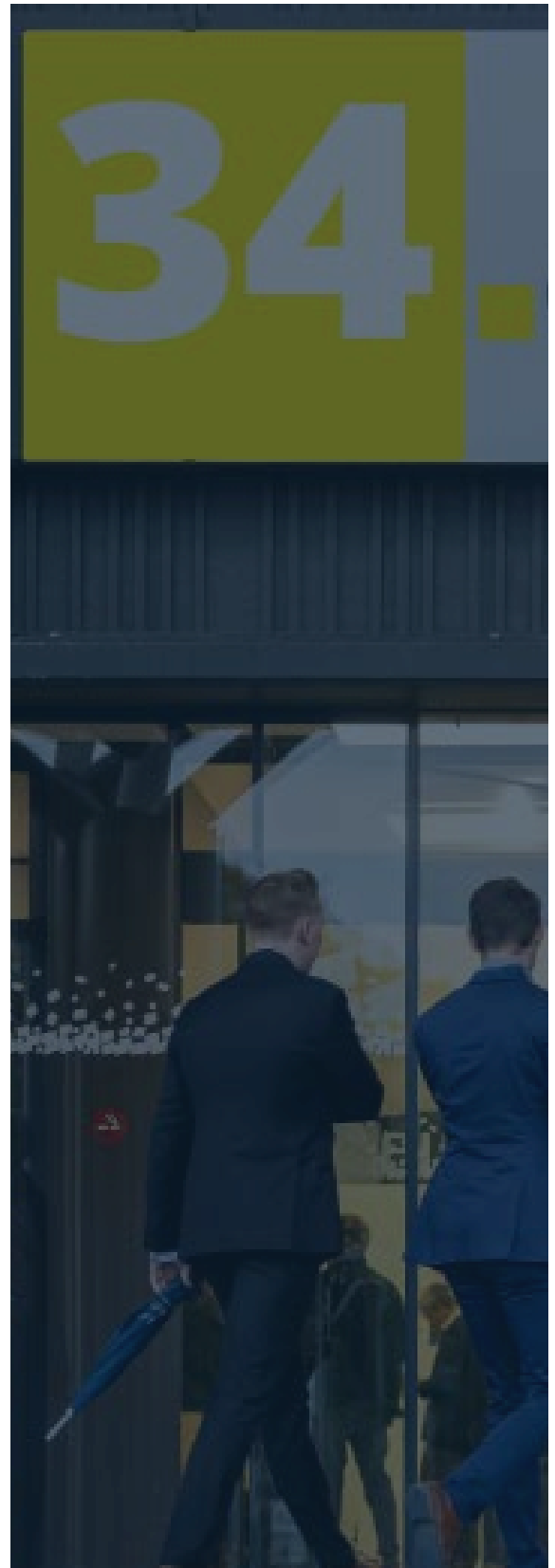
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DESIGN PROGRAM BOOKLET

Franziska Goffart





LOOKING FORWARD TO SEEING YOU NEXT YEAR **OCTOBER** **5TH – 7TH, 2026**

www.aachen-colloquium.com

info@aachen-colloquium.com