34. AACHEN COLLOQUIUM

SUSTAINABLE MOBILITY

OCTOBER 6TH – 8TH, 2025

PROGRAM BOOKLET

Eurogress Aachen

GERMANY

fev | tme | cmp | RWTH AACHEN UNIVERSITY | fka | ika | RWTH AACHEN UNIVERSITY

TABLE OF CONTENTS

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 traffi**c 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.

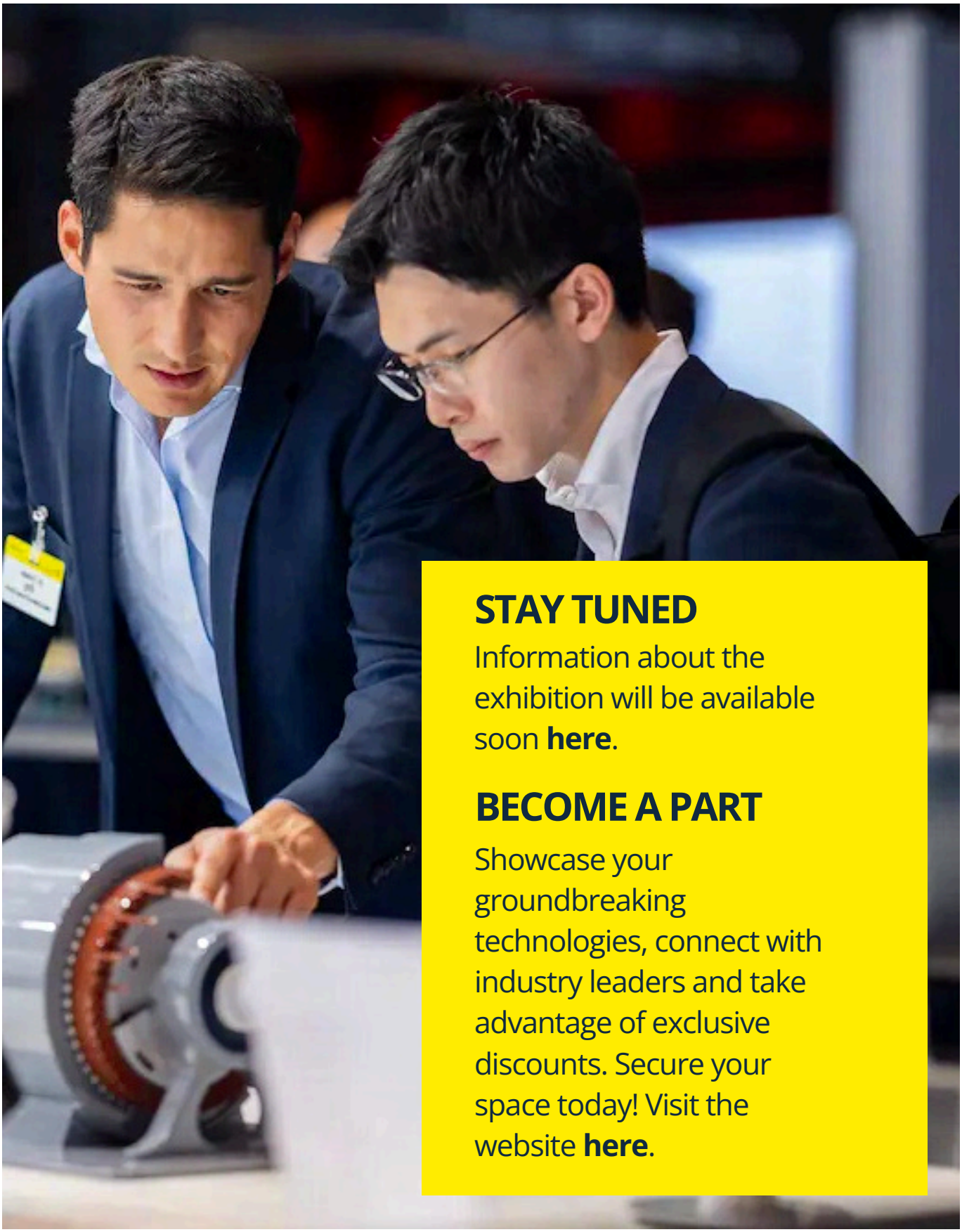
In its 34th edition, this colloquium has brought together brilliant minds to shape the future of mobility. And in 2025, the challenge is clearer than ever: sustainable, intelligent, and efficient transportation solutions for a changing world.

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**!

EXHIBITION INFORMATION



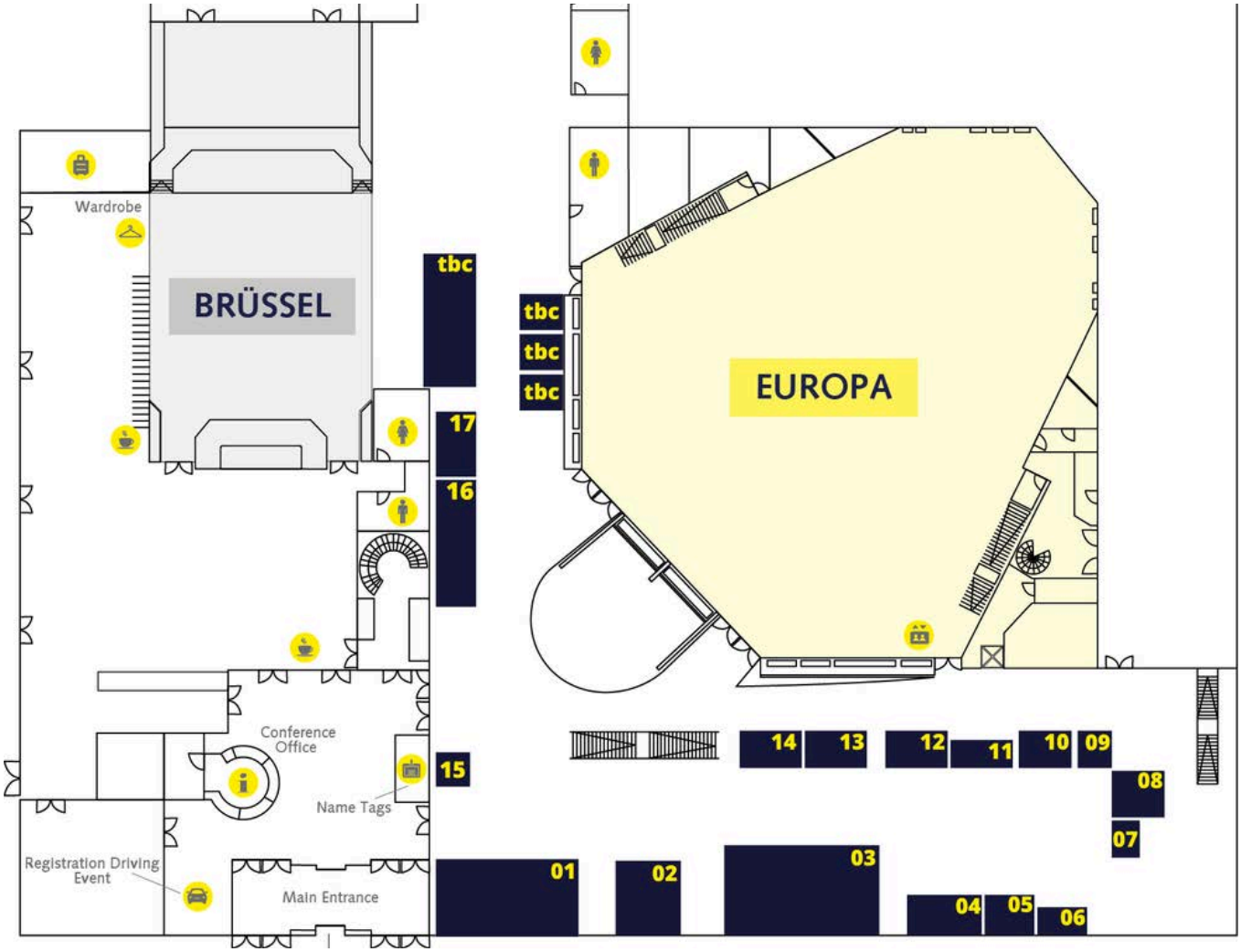
STAY TUNED

Information about the exhibition will be available soon **here**.

BECOME A PART

Showcase your groundbreaking technologies, connect with industry leaders and take advantage of exclusive discounts. Secure your space today! Visit the website **here**.

EXHIBITION PLAN



01	fka	07	800 Volt	13	ACTech
02	Denso	08	Wattical	14	SEi Automotive
03	FEV	09	t.b.c.	15	Printen Klein
04	Ecurie AIX	10	eMoveUs	16	IAV
05	Ecogenium	11	Loge	17	t.b.c.
06	V-Hola	12	Freudenberg FST	18	t.b.c.

FEV

feel evolution

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.

KEYNOTE SPEAKER EMILIO SCERVO

Chief Technology Officer & Board Member

Bugatti Rimac

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
JIIAN 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

- 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.

CHRISTIAN OBERWINKLER

Chief Technology Officer

Kässbohrer Geländefahrzeug AG

- 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
12:15	Lunch			
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
12:15	Lunch			
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.

eMoveUs GmbH

eMoveUs provides solutions for electrical and electromechanical energy conversion systems in the drivetrain at the level of electronics hardware, software, electromagnetics, and mechanics, aiming to ensure efficient and sustainable mobility for all.

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.

VAIONIC

VAIONIC develops modular, ironless axial flux motors and power electronics for efficient, compact, and sustainable electric drive systems—scalable from vehicles to aerospace and stationary applications.

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...

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ALL INFORMATION AT YOUR FINGERTIPS

Make the most of your Aachen Colloquium experience with our official event app! Stay up to date with real-time schedule updates, speaker details, and session locations. Easily navigate the conference agenda, bookmark your favorite presentations, and receive important notifications – all in one place.

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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

	EUROPA	BRÜSSEL	K1	K2
10:45 - 11:15	Strategy I Nikolai Ardey Volkswagen AG	E-Drive-Components Norbert Alt tme, RWTH Aachen University	AI Ralf G. Herrtwich NVIDIA Automotive Software	Development Processes I Steven Peters FZD, TU Darmstadt
	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
11:15 - 11:45	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
11:45 - 12:15	ESG - Exellence 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
13:30 - 14:00	Strategy II Max Brandt strato7	E-Drive-Systems Lutz Eckstein ika, RWTH Aachen University	Fuel Cells I Helmut Eichelseder TU Graz	SdV Stefan Kowalewski i11, RWTH Aachen University
	Making Europe Great Again – Perspectives to Regain the Competitive Position of Europe's Automotive Industry W.-D. Hoppe, K. Schmitz Arthur D. Little	Next-Generation Traction Drive with highly compact Multilevel Inverter Architecture for improved 800V vehicle efficiency J. Deussen, A. Apelsmeier, P. David, L. Louco, K. Schten, A. Mayer, H. Nanjundaswamy BorgWarner	Comparing Hydrogen Fuel Cell Engines and Hydrogen Internal Combustion Engines for Zero-Emission Heavy-Duty Vehicles J. Masson Ballard Power Systems	The Evolution of Software-Defined Vehicles: Technological and Organizational Transformation, and Ecosystem Dynamics W. Said, R. Biurrun Porsche Consulting GmbH
14:00 - 14:30	Navigating the Digital Revolution: Transforming R&D in the Automotive Sector C.-S. Ernst, K. Thielemann Roland Berger GmbH	The Electric Drive Platform Select – compact, magnet free and drag loss optimized solutions for "Boost Drives" P. Wieske, W. Barth, O. Bayer, M. Berger, U. Niehaus, S. Stroph ZF Friedrichshafen AG	Advancing Fuel Cell Drives: Enhancing Efficiency and Performance for Heavy-Duty Long-Haul Transport M. Zubel, J. Blum, T. Braun, S. Hollnaicher, J. Köhler, N. Loughlan, N. Weidler cellcentric GmbH & Co. KG	Advanced Product Development for SDV: Boosting competitiveness and speed M. Engelhard FEV Consulting
14:30 - 15:00	Chip shortage ahead: How to react T. Schadt, N. Becht, C. Foltz PwC Strategy& (Germany) GmbH	MMA: CLA with EQ Technology - Next Generation BEV by Mercedes-Benz T. Stegmaier Mercedes-Benz AG	Model-based fuel cell stack design and optimization P. Epple, J. Kraft, F. von Lehn, K. Wahl, N. Zsiga EKPO Fuelcell Technologies GmbH	autotech.agil: Architectures and Tools for Future Mobility C. Geller, R. van Kempen, L. Eckstein ika, RWTH Aachen University
15:00 - 15:30	Humanoid Robotics: Potential or Hype for Automotive Suppliers? R. Padovano, D. Boemer, B. Knobloch, A. Nase, H. Wegner FEV Consulting	Next Battery Swapping: Accelerating Electrification in Medium-Duty Transport with Dual Battery Swapping for 12-18t Truck S. Steinwascher GETEC Getriebe Technik GmbH	Electrification in Mobility: Fuel Cell Vehicle D. Kim Hyundai Motor Company	Open-Source as a crucial factor for the implementation of SDV T. Woopen Thinking Cars GmbH

PRESENTATIONS

Tuesday, October 7th, 2025

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

PRESENTATIONS

Wednesday, October 8th, 2025

	EUROPA	BRÜSSEL	K1	K2
	ICE I Christian Beidl TU Darmstadt	Battery II Dirk Uwe Sauer RWTH Aachen University	Safety Assurance Peter Urban ika, RWTH Aachen University	Chassis - Active Components Adrian Zlocki fka GmbH
08:15 - 08:45	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	Key enablers for commercial superfast charging battery cells S. Beschnitt, A. Averberg, J. Küpper, M. Rudolph, M. Stapelbroek - FEV	Linking Real-World Data with Simulation: Handling Requirements for the Validation of Automated Driving Functions M. Buller dSPACE	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 S. Morgenstern 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 STEMS	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 Bernhard Geringer TU Wien	Energy Carriers & Infrastructure André Casal Kulzer FKFS, University of Stuttgart	Real World Applications Adrian Zlocki fka GmbH	Electric HD-Transport Jakob Andert MMP, RWTH Aachen University
10:15 - 10:45	Modular hybrid high-performance drivetrain - engine development within the challenge of perfomance & sustainability M. Schober Audi AG	Synchronizing Fuel Cells, Industrialization, and Infrastructure for Heavy-Duty Long-Haul Applications F. Henkel, A. Engelen, L. Johansson cellcentric GmbH & Co. KG	Teleoperation: Ensuring Safety and Reliability in the Future of Driverless Mobility M. Mering RTC	Sustainability in commercial transport: the eTrailer from Trailer Dynamics R. Henn, A. Jaber Trailer Dynamics GmbH
10:45 - 11:15	A Mass Market Highly Efficient Range Extender Engine for Light-duty Vehicles M. Bassett, Y. Ao, A. Cooper, D. Hancock MAHLE Powertrain Limited	Assessment of Monitoring and Methodologies for Detecting Carbon Neutral Fuels for Vehicles J. Weber, M. Calixto de Sousa, O. E. Herrmann, Y. Frekers, D. Queck, J. Schatorjé DENSO AUTOMOTIVE Deutschland GmbH	Results from Large-Scale Testing of Automated Driving M. Sonntag, L. Eckstein ika, RWTH Aachen University	Heavy Duty Drivetrain Electrification: fka development platform accelerates development of innovative technologies O. Vossen fka GmbH
11:15 - 11:45	Benchmark in efficiency – the all-new 48-V Hybrid Powertrain of Mercedes-Benz H. Schilling, N. Brinkert, J. Fischer, A. Harsch, W. Holly, A. Rehberger, V. Marx Mercedes-Benz AG	Unlocking the potential of eFuels - Market volumes to be expected and resulting CO_2 reductions L. Mauler Porsche Consulting	Utilizing Naturalistic Urban Driving Scenarios for Customer-Centric Engineering of ADAS and Automated Driving Systems F. Schröder, M. Grimm - Dr. Ing. h.c. F. Porsche AG C. Klas, C. Kotulla, S. Runde, A. Zlocki - fka GmbH	High-voltage batteries and heavy-duty electrification: trends, challenges, and solutions C. Kleinhans, M. Müller IONCOR
11:45 - 12:15	Range Extender, a new push for electromobility? P. Kapus, J. Linderl, C. Martin, G. Meister AVL	Role and opportunity of advanced bio- and e-fuels in mobility K. Wilbrand, F. Balthasar, R. Cracknell, A. Kolbeck, R. Uitz-Choi SHELL GLOBAL SOLUTIONS DEUTSCHLAND GMBH	Why Simulation Technology is the Key for Developing Autonomous Ridepooling C. Rösener Volkswagen AG Nutzfahrzeuge	From Challenge to Charge – Promise and Complexities of Megawatt Charging for Heavy-Duty Trucks R. Uerlich DAF Trucks N.V.

PRESENTATIONS

Wednesday, October 8th, 2025

	EUROPA	BRÜSSEL	K1	K2
13:30	Plenary Discussion "Start-Ups in Mobility: Chances and Challenges"			
	ICE II Thomas Koch IFKM, Kalsruher Institut für Technologie (KIT)	Thermal Management Niklas von der Aßen RWTH Aachen University	Development Processes II Henning Wallentowitz ika, RWTH Aachen University	Chassis - Vehicle Dynamics Jens Passek TH Bingen
15:00 - 15:30	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
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Porsche Consulting

AXEL GERN
Aeva Technologies

RALF HERRTWICH
NVIDIA

PHILIP KOEHN
BMW Group

GERRIT MARX
CNH Indusrial

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

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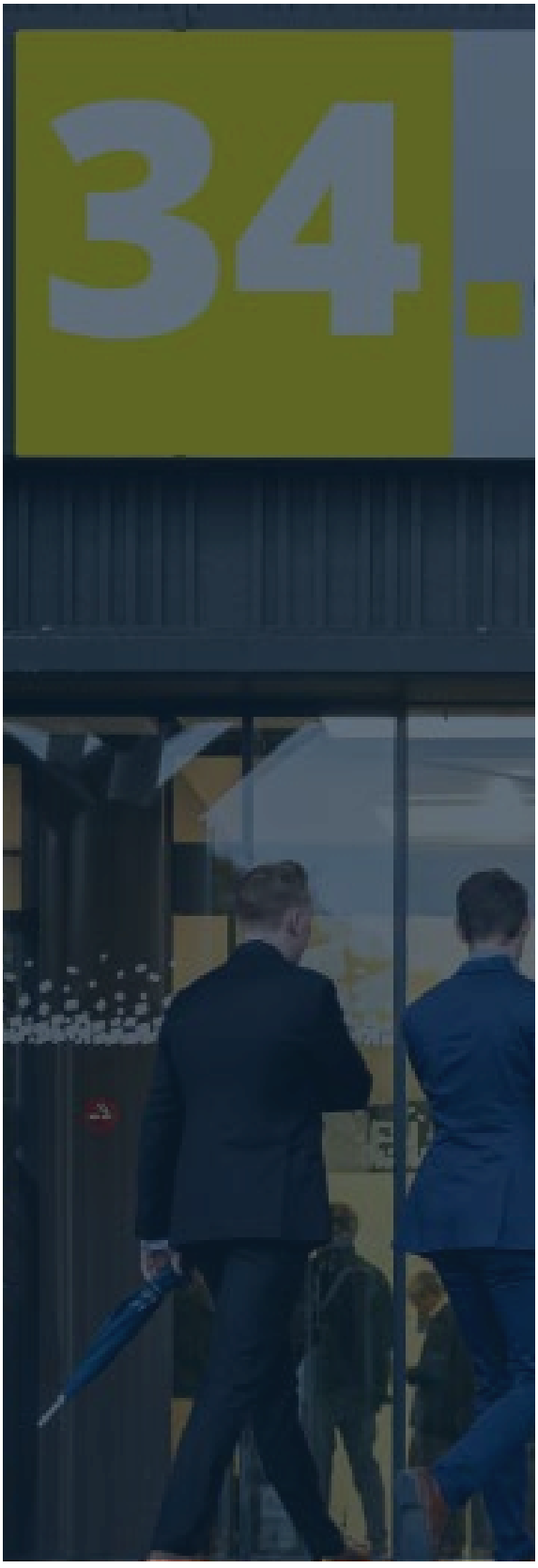

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Don't miss a thing:

35. AACHEN COLLOQUIUM SUSTAINABLE MOBILITY

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

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