

PRE-DAY I MOBILITY MEETS DEFENCE

Room: VI/VII

- 9:45 Welcome Coffee
- 10:15 Welcome & Introduction
- 10:30 **Overview of the Defence Industry Ecosystem**
Dr Hans Christoph Atzpodien, Chief Executive Officer, BDSV
- 11:15 **Procurement Requirements – Defense Sector**
Dr Robert Weihofen, VP Commodity Management Chemicals, Rheinmetall
- 12:00 Lunch Break & Networking
- 1:00 **Ukraine – A Shortcut into Defence Industry**
Matthias Puschnig, Oberst i. G., German Federal Ministry of Defence
- 1:45 **How to Enter and Succeed in the Defence Sector** (in coordination)
Daniel Zittel, Head of Defence Sales, Daimler Truck AG
- 2:30 Coffee Break & Networking
- 3:00 **Automotive goes Defence – An Opportunity for a Turning Point**
Antoin Abou-Haydar, Head of Group Defense Office, Volkswagen AG
- 3:45 **Venturing into the Defence Space: Regulatory Do's and Don'ts**
Dr Christoph Goller, Associated Partner, M&A, Defense & Security and
Dr Dr Stefan Widder, Partner, M&A – Gleiss Lutz
- 4:30 Joint Discussion with the afternoon speakers
- 5:00 End of the Pre-Day

PRE-WORKSHOP | AI FUNDAMENTALS & BEST PRACTICES IN POWERTRAIN AND DEVELOPMENT

Room: IX

- 9:45 Welcome Coffee
- 10:15 Welcome & Introduction
- 10:30 **Foundations of Artificial Intelligence: Concepts, Models & Methods**
 - Core Principles of AI, Machine Learning, and Generative AI
 - Introduction to Foundation Models, LLMs, and Agentic AI
 - Insights into hybrid, explainable, and trustworthy AI systems**Prof. Dr. Philipp Slusallek**, Member of the Executive Board, Head of the Department Agents and Simulated Reality (ASR) and **Dr Christian Mueller**, Deputy Head of the Department Agents and Simulated Reality (ASR), both German Research Center for Artificial Intelligence (DFKI)
- 12:00 Lunch Break
- 1:00 **Applications of AI in Drive Systems and Drive Development**
 - AI's role in modern powertrain and R&D
 - Application of AI for modeling and simulation acceleration
 - AI methods for design optimization and calibration
 - AI in testing, validation, and predictive maintenance**Dr Axel Sturm**, Head of Innovative Vehicle Technologies and **Fabian Notz**, Scientific Assistant, both Institute for Automotive Engineering, TU Braunschweig
- 2:30 Coffee Break
- 3:00 **Application of AI in Automotive Company Processes**
 - Importance of GenAI in the development process
 - What to consider as a company for the introduction of AI in the development process
 - Lessons learned, typical pain points and key success factors of AI in development processes
 - Identification and demonstration of AI use cases (e.g. FEV GenAIHub)**Dr Dominik Lückmann**, Director, Motor, Hybrid & Fuel Cell Powertrains, FEV
- 4:30 Q&A

- 8:00 Check-in and Morning Coffee in the CTI SYMPOSIUM EXPO
- 8:30 Opening of the CTI SYMPOSIUM 2025
- 8:45 **Chinese Powertrain System Trends**
Dr Tobias Giebel, Head of Power House, Volkswagen Group (China) Technology
- 9:05 **Accessible Performance: How Rimac Is Scaling High-Performance E-axes for Next Generation of EVs**
Vardaan Bhatia, Head of Product Management – Powertrain, Rimac Technology
- 9:25 **Axial Flux Motors – Superior Performance for EVs and Hybrids!**
Jörg Miska, Chief Executive Officer, YASA
- 9:45 Joint Discussion
- 10:00 **Introduction of Start-Ups @ CTI (Part I)**
 - Yeasma
 - Duvelco
 - THEISSL systems GmbH
 - hyperdrives GmbH
 - OPED
 - Coat-It
 - Axialis
 - Monumo**Followed by a guided visit of the Start-Up Area!**
- 10:15 Networking Coffee Break in the CTI SYMPOSIUM EXPO
Don't miss the Special Programme Features during the Networking Coffee Break!
Company Presentation @ CTI EXPO Stage
 Get first-hand insights from our exhibiting partners
 10:30 ACTech GmbH
 10:40 Hero Motors
Women @ CTI – Round Table
 Host: Nicole von Wieding, Head of Project Management High Voltage Powertrain Systems for EVs, Volkswagen AG
 Topic: The value of mentoring in professional and personal development especially in the automotive Industry. Be part of it!
- 11:00 **Deep Dive Sessions** (details see next page)
- 12:00 Networking Lunch Break in the CTI SYMPOSIUM EXPO
- 1:30 **Deep Dive Sessions**
- 3:00 Networking Coffee Break in the CTI SYMPOSIUM EXPO

- 3:50 **Hybrid Futures – A Key Path to Net Zero**
Ingo Scholten, CTO, Horse Powertrain
- 4:10 Q&A
- 4:15 **Toyota's Multi Pathway Approach Towards Carbon Neutral Powertrains**
Tim D'Herde, Head of Powertrain, Toyota Motor Europe
- 4:35 Q&A
- 4:40 **Introduction of Start-Ups @ CTI (Part II)**
 - Drive13
 - Compredict GmbH
 - Vaionic
 - Spread GmbH
 - HCP Sense GmbH
 - brudeli
 - DRV Solutions
- 4:50 **From Stress to Strength: Restructuring for Financial Resilience of Automotive Suppliers**
Matthias Müller, Partner, Dr. Wieselhuber & Partner GmbH
- 5:00 **PLENARY PANEL DISCUSSION:**
Consistent Strategies in an Inconsistent World
Moderator:
 Ulrich Walter
Panelists:
 Christian Krajewski, Director of Driveline Engineering, Daimler Truck AG
 Dr Qiang Liu, General Manager, Li Auto Germany R&D Center
 Tarun Aggarwal, Senior Executive officer & Head of Engineering, Maruti Suzuki India Limited
 Dr Nils Redeker, Acting Co-Director, Jacques Delors Centre, Hertie School
- 5:50 **The Path to Climate Neutrality in Aviation**
 Prof. Dr Klaus Höschler Chair, Holder Aero-Engine Design, Scientific Director Chesco, Brandenburgische Technische Universität Cottbus-Senftenberg
 Prof. Dr Lars Enghardt, Director DLR Institute of Electrified Aero Engines, German Aerospace Center (DLR), Institute of Electrified Aero Engines (EL)
- 6:10 Joint Discussion
- 6:20 End of Day 1
- 6:30 **CTI Networking Night | Christmas Market @ Estrel Showtheater**

DEEP DIVE SESSIONS | 2 DECEMBER 2025

Session A Electric Powertrains *Plenary Hall*

- 11:00** **Electric Drive Efficiency – A Systematic Engineering Approach from Vehicle to Chip**
Dr Qiang Liu, Vice President, **Li Auto**
- 11:30** **The New eAxle Platform from Daimler Truck AG for the eActros600**
Bertram Wunderlich, Manager eTorque Systems, **Daimler Truck**
- 12:00** **Effective Solutions for Bearing Insulation to Prevent Electrical Corrosion in E-Drive Systems**
Philippe Pauchard, Application Engineer and Lab Leader, **DuPont**

Session B Virtual Development Methods *Expo Stage in Expo Hall*

- Development of a Cost-Efficient, Modular Truck eDrive Platform based on Multi-Objective Optimisation**
Philip Hätscher, Research Assistant, **Daimler Truck**
- What's the Best EV Powertrain Architecture: Simulation-Driven Design Space Exploration**
Dr Jonathan Godbehere, Manager Application Engineering, **Motor Design Ltd, an ANSYS company** and Sean Stanley, Director of Product Engineering, **AAM**

Session C Cost Reduction *Room: XII/XIII*

- Reshaping Next-Gen E-Motors with Additive Manufacturing Technology**
Dr Ahmed Selema, CTO, **Drive13**
- The Butterfly Effect of Electric Motor Insulation**
Luigi Marino, eMobility Marketing Manager, **Syensqo**

Session D Electric Motors *Room: XV*

- How In-Wheel Motors Make Better High Performance Electric and Hybrid Vehicles**
Dr Stephen Lambert, Chief Technology Officer, **Protean Electric**
- Application of a Dual Rotor, Radial Flux In-Wheel Motor in Electric Vehicles**
Stefan Ender, Co-CEO, **DeepDrive**
- Transition from Hair-pin to Mini-hairpin**
Daniele Nocciolini, R&D Dept. Coordinator, **ATOP SPA | IMA Automation**

Session E Commercial Vehicle Powertrains *Room: VI/VII*

- e-TROVA Diesel-to-Electric Technology**
Nick De Bie, Senior Application Engineer, **Flanders Make**

Session F – Operating Strategy, Energy and Thermal Management *Silent Conference Stage in Expo Hall*

- Immersion Cooled Battery and Power Electronics towards Single Oil Cooling and Lubrication**
Ankit Surti, Project Leader, **Flanders Make**
- It's all about the Fluids – How Lubricants & Functional Fluids Enable Thermal Management**
Damian Weinzierl, Head of New Mobility, **Fuchs**
- Proven Reliability of TotalEnergies Immersion Cooling Technology in Application**
Dr Gérard Quoirin, Product Engineer Battery Fluids **TotalEnergies Lubrifiant**

Session G Automotive Transmissions *Room: IX*

- Introduction of GWM's Hi4 4WD Hybrid Platform & Hi4 Performance Version**
Yvan Le Neindre, Chief Engineer, **Great Wall Motor**
- Modular Longitudinal DHT for Front-Wheel Drive: From Development Kit to Market Launch in Record Time**
Tobias Lenz, Chief Engineer, **Finest Automotive Technology Group**

12:00 Networking Lunch Break in the CTI SYMPOSIUM EXPO

- 1:30** **Holistic Solution for clean and efficient Transportation**
Michael Ruf, President European Market, **Super Panther**
- Smart Approach to Validation Evaluation and Release Supporting Time-To-Market Targets of <24 Months**
Alwin Tuschkan, Project Manager Dev. Process Innovation & Implementation, **AVL**
- Automated Engineering for BEV Systems: Reducing Time, Enhancing Performance**
Dr Andreas Viehmann, Project Manager Innovation, **EDAG Engineering**
- Hyperdrives' Hollow Conductor Cooling: Benchmarking Motor Performance and Series Production Cost**
Michael Numberberger, CTO, **Hyperdrives**
- Investigating the Failure Mechanism of Wet eMachines in the Presence of Transmission Oil**
Peter Björklund, Technical Manager, **Traton**
- Speeding Up EDU Development: From Early Testing to Model Coupling and Digital Twins**
Patrick Schatz, Skill Team Leader, **AVL**
- Performance Validation of Dual-Motor Drive System with Multi-Functional Dog Brake**
Dr Isamu Shiotsu, Researcher, **Toyota Central R&D Labs**
- 2:00** **High Speed e-Axle: A System-Level Approach to Optimising Weight, Cost and Packaging in EVs**
Brice Lecole, eAxle R&I Manager, **Valeo**
- Efficient Robust Systems Engineering for Accelerated Product Maturity**
Ralph Fleuren, Sr. Product Manager, **FEV**
- Driving Design Efficiency: Real-World Strategies from Leading Automotive OEMs and Tier 1 Suppliers**
Mark Rushton, Principal Product Manager, **aPriori Technologies**
- Potential for Efficiency and Power Characteristics in Electric Drives through Ironless Stator Design**
Tino Paruschkewitz, Team Lead Simulation, **Vaionic Technologies**
- Prototype to Production: Practical Path to High-Efficiency ePropulsion for EV Commercial Vehicles**
Rahul Sagar Plavullathil, Head of Driveline Product Engineering, **FPT Industrial S.P.A., a brand of Iveco Group**
- Best-in-Class Thermal Assessment of Electric Powertrain**
Mario Theissl, CEO, **THEISSL systems GmbH**
- NVH Optimisation of Silent Chains in 2-Speed ATC Systems for ICE Pickup Trucks**
Jongwoong Park, Research Engineer, **Hyundai WIA**
- 2:30** **High Power Density EDU with 30k RPM Motor and Highly Integrated Ring Inverter**
Martin Burgbacher, Executive Director, **AAM**
- On Path to Self-Calibrating Anti-Jerk Controllers: Potential to Reduce Development Times to Minutes**
Felix Wipfler, System Simulation Engineer, **Schaeffler**
- Considering of Customer Requirements in the Development Process of an Efficient Electric Drive**
Dr Piotr Kalinowski, System Engineer and Dr Jan-Niklas Weber, Development of Electrical Machines – EAEE/2, **Volkswagen**
- Innovative 9-Phase Axial Flux PM Motor without Rare Earth for High Efficiency, Power and Low Cost**
Randolph Toom, Director of Strategic Partnerships, **Ferrstron Powertrains**
- IAV's Next Gen CV-E-Powertrain Concept for Flexible Vehicle Installation in Heavy Duty Applications**
Rico Resch, Project Manager, **IAV**
- Prediction-Based Improvement of a FCEV Operating Strategy**
Dominik Sebastian Leininger, Research Associate, **Technical University of Darmstadt**
- UK Testbed for Sustainable Gear Manufacturing: Scaling to Indian Volume Production, Considering Specific Innovative Indian Requirements**
Agnes Ragondet, Group Sustainability Director, **Hewland Engineering – a Hero Motors Company**

3:00 Networking Coffee Break in the CTI SYMPOSIUM EXPO

3:45 Change to Plenary Hall

6:30 CTI Networking Night | Christmas Market @ Estrel Showtheater

- 8:00 Check-In and Morning Coffee in the CTI SYMPOSIUM EXPO
- 8:30 **Deep Dive Sessions** (details see next page)
- 10:00 Networking Coffee Break in the CTI SYMPOSIUM EXPO
Don't miss the Special Programme Features during the Networking Coffee Break!
- Company Presentation @ CTI EXPO Stage**
Get first-hand insights from our exhibiting partners
10:15 Arteco NV
- 10:45 **Deep Dive Sessions** (details see next page)
- 12:15 Networking Lunch Break in the CTI SYMPOSIUM EXPO
- 1:45 Change to Plenary Hall
- 1:45 **Insights into GLC electric drivetrain**
Daniel Hopp, Senior Manager Electric Drive Units, Mercedes-Benz AG
- 2:00 **PLENARY PANEL DISCUSSION:**
EV-Charging: Joining the Last Missing Dots of Electric Mobility
Moderator:
Martin Seiwert, Deputy Head of Business & Technology Department, WirtschaftsWoche
Panelists:
Simon C. Brück, Head of Environmental, Climate and Energy Policy, DSLV Federal Association for Freight Forwarding & Logistic Germany
Florian Hacker, Deputy Head Resources & Transport Division, Öko-Institut
Johannes Pallasch, Head of the National Centre for Charging Infrastructure, Now GmbH
Dr Stefanie Wolff, Expert Charging Infrastructure, German Association of the Automotive Industry (VDA)
- 3:00 Announcement of the winners of the Expo Rallye
- 3:05 Networking Coffee Break in the CTI SYMPOSIUM EXPO

- 3:45 **Quo Vadis Propulsion in a Sustainable World**
Dr Norbert Alt, COO & Executive Vice President, FEV
- 4:05 **Smartphone on Wheels? Robot on Wheels? Brain on Wheels!**
How AI transforms Automotive Business
Dr Nikolai Ardey, Executive Director Volkswagen Group Innovation, Volkswagen
- 4:25 Joint Discussion
- 4:35 Closing
- 4:55 End of CTI SYMPOSIUM GERMANY 2025

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DEEP DIVE SESSIONS | 3 DECEMBER 2025

Session H Electric Powertrains *Plenary Hall*

8:30 **Brushless EESM Systems for High Power Motors Applications**
Camelia Jivan, Project Manager, Valeo and Thomas Hennings, Senior Project Manager Automotive Traction, Mahle New Mobility Solutions

9:00 **Boosted Sustainable Electrically Excited Synchronous Motors (EESM)**
Dr Philippe Farah, CEO-Founder, Yeesma

9:30 **Axial vs. Radial Flux Machines in BEV Drivetrains**
Pontus Fyhr, System Architect, Alvier Mechatronics

Session I Virtual Development Methods *Expo Stage in Expo Hall*

Rapid Efficiency Benchmarking: How to Shorten Competitor Insight Lead Time by 6 Month
Richard Dunne, Head of Business Development, Drive System Design

Application of Digital Twin approach to Thermal Management System Development for xEV
Dr Matteo De Cesare, R&D Innovation Manager, Marelli

Increasing Development Speed through Seamless Virtualisation and Testing
Aleš Kolar, Senior Product Manager, AVL

Session J Markets, Policies and Sustainability *Room: XII/XIII*

Zero-Emission Braking Systems for Electric Vehicles
Patrick Strobl, Head of Division Clutches and Electromechanical Drives, Technical University of Munich

E-Axle Integrated Brakes – Pollutant- and Maintenance Free Brakes for Electric Traction Systems
Dr Kiarash Sabzewari, Head of Competence Centre Electric Machines and Drive Systems, Schaeffler

Global Electrification Review: A Come Back of Plug-in Hybrid (including range-extender)? And How?
Dr Yu Yang, Principal Analyst, Yole Group

Session K Power Electronics *Room: XV*

Future Power Electronics for Next-Generation EV Chargers
Dr Philip Brockerhoff, Head of System & Electronics, Schaeffler

Performance and Efficiency Study of a Si/SiC Hybrid Switch for a 400 V Automotive Traction Inverter
Hariprasad Baburajan, Expert – System Simulation, Valeo eAutomotive Germany

Drive Cycle Analysis of Infineon's Si/SiC Fusion Power Modules in Automotive Traction Inverter
Dave Werry, Department Manager, FEV

Session L Artificial Intelligence in Powertrains *Room: VI/VII*

AI-Powered Engineering for Agile Powertrain Development with OPED
Dr Martin Hofstetter, Head of E-Mobility and Alternative Drivetrains Research Group, Graz University of Technology

Advancing Hybrid Power-trains with AI-Driven Thermal Management
Sven Steinwascher, CTO, GETEC Getriebe Technik

Virtual Sensor Modelling using Machine Learning: Electrically Excited Synchronous Motor Thermal Model
Dr Farzaneh Tatari, Senior Control Engineer, Drive System Design

Session M Cooling Fluids and Lubricants *Silent Conference Stage in Expo Hall*

Efficiency Improvement of Electric Motor by Evaporation Cooling with Phase Change Material
Ron Dircks, R&D Manager, Eagle Simrax

Scalable Thermal Management for Transition to PFAS free Natural Refrigerant System
Gerhard Eser, Principal Expert Thermal Management, Schaeffler

Experimental Study of a Direct-Cooled High-Power Density Inverter Using a Multi-Purpose Fluid
Hakim El Bahi, Research Engineer, TotalEnergies and Alexandre Battiston, Research & Innovation Project Leader, IFP Energies Nouvelles

Session N Hybrid Powertrains; Traction Batteries *Room: IX*

Universal Hybrid Electric Vehicles: Coupling Mobility and Energy Grids
Tobias Peichl, Group Leader Vehicle Systems, Technical University of Darmstadt

Innovative DHT Platform for Entry Segment Vehicles
Diederik Abrams, Product Architect, Punch Powertrain

Volkswagen Plug-in Hybrid with Electric Rear Axle
Alexander Gabriel, Hybrid Application Specialist, Volkswagen

10:00 Networking Coffee Break in the CTI SYMPOSIUM EXPO

10:45 **Development of EV Powertrain and Battery for the Third Generation LEAF**
Shunsuke Shigemoto, Vice President for ePowertrain Technology, Nissan

Numerical Homogenisation of Friction-Bonded Laminated Stators
Dieter Laes, Technical Manager, Toyota

Europe's Economic Potential in the Shift to Electric Vehicles
Patrick Schaufuss, Partner, McKinsey

Shifting the Priority Towards REEVs & EREVs
Patrick Leteinturier, Fellow Automotive System, Infineon Technologies

Speed Up Automotive Product Development with AI, GenAI, and AI Agents
Dr Alois Danninger, Skill Area Manager, AVL

From Turbo to Boosting Cooling Performance: Innovative E-Cooling Solution
Saphir Faid, Senior Director Engineering, Garrett Motion

Advanced Blade Cell Battery Technology
Dr Chen Zhao, Deputy Director, BYD Automotive/FinDreams Battery

11:15 **Lightweight Twin Electric Drive Unit Platform with Torque Vectoring**
Dr Håkan Sandquist, Director Strategy and CEO Office, InfiMotion Technology Europe

Battery Safety vs. Fast Charging – New Virtual and Applied Development Methods to Support Both
Dr Amalia Wagner, Manager Battery Advanced Development, APL

Global Powertrain Outlook
Florian Eichinger, Executive Director, Global Light Vehicle Powertrain Forecasting, S&P Global Mobility

N-in-1 Powerbox – Integrated Power Electronics Study for Passenger Cars and Commercial Vehicles
Dr Christoph Danzer, Head of Department, IAV

Beyond Words: AI in the Physical World
Simon Shepherd, Chief Product Officer, Monumo

Development of the First-Generation Dedicated Hybrid Transmission Fluid (DHTF)
Dr Yungwan Kwak, Sr. R&D Scientist Afton Chemical

NIO's Battery Swap System: 9 Advantages that Redefine Battery Design
Dr Frank Kindermann, Head of Battery System Europe, NIO GmbH

11:45 **Development and Application of a High Efficiency EDU > 94% Average Cycle Efficiency Drivetrain**
Hou Xiaohong, Managing Director of Chery Euro Tech Center, Chery Europe R&D Center, and Wilhelm Vallant, Senior Product Manager, AVL

Influence of Roller Bearing Raceway Imperfections on Dynamic Loads and EV Powertrain NVH Simulation
Dr Marco van Zoelen, Senior Researcher, SKF

From Battery Waste to Battery Wisdom: Multilevel Architectures as the Key to Sustainable EVs
Dr Manuel Kuder, CO-Founder, Pulsetrain

Cryogenic Cooling of GaN Traction Inverter
Temoc Rodriguez, Global Technical Expert – Electrification, Ricardo

Legal Requirements at a Click
Dr Lukas Schäfers, Team Leader Systems Engineering & AI, FEV

Fluids for Wet Brake Applications – Challenges & Innovations
Jochen Seufert, Product Management Automotive OEM, Fuchs Lubricants

Switch ON an Electric Future – Immersion Cooling with Dielectric Fluids for EV Batteries:
Dr Christopher Wolter, Senior Technologist PD Driveline & Advanced Electrification Fluids, Castrol

12:15 **JJE's Power Management Products for eDrive System?**
Ping Yu, President & CEO, JJE Technologies

The Quite Hazard of High-Voltage Ripple & Transients in EVs
Feng Zhang, Product Manager, Stropower

High-speed sealing for e-axes – challenges & insights
Dr Mirco Gronitzki, Technical Director and Dr Sarah Shabbir, Senior Research Engineer, EQYO – A Saint-Gobain brand

12:15 Networking Lunch Break in the CTI SYMPOSIUM EXPO

1:45 Change to Plenary Hall

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		Rate
Symposium + Pre-Event	1. – 3.12.2025	3,300 €*
Symposium	2. – 3.12.2025	2,600 €*
Pre-Event	1.12.2025	900 €*

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