

Heavy-Duty Engines 2026

Commercial Vehicles | Agricultural and
Construction Machinery | Marine

24 – 25 November 2026
Salzburg, Austria

FACTORY TOUR

Robert Bosch AG plant,
Hallein, Austria

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KEYNOTE LECTURES

EUROMOT aisbl, Belgium | PACCAR, Inc., USA |
Robert Bosch AG, Austria | Same Deutz-Fahr Italia S.p.A., Italy

KST.

Promoting technological diversity

/ APPLICATIONS

Commercial vehicles, mobile machinery, gensets, ships

/ TECHNOLOGIES

Dual- and multi-fuel technologies, combustion processes, ignition, exhaust aftertreatment

/ ALTERNATIVE FUELS

Methanol, ethanol, hydrogen

/ OPTIMIZATION

AI-supported analysis and modeling, friction reduction, vibration analysis

HIGHLIGHT

Tour of the Robert Bosch AG plant



Prof. Dr. Michael Günthner
University of
Kaiserslautern-Landau (RPTU)

Welcome

In many heavy-duty applications, the possibilities for electrification are very limited. Particularly in areas such as agriculture, decentralized energy production, and shipping, biogenic and synthetic climate-neutral fuels are almost indispensable when it comes to reducing CO₂ emissions. Efforts are increasingly being made to find gaseous and liquid energy sources and combinations of these that can, when tailored to the specific application, provide maximum benefits for the climate. The legal framework for their rapid implementation is a key factor here.

New engine developments and advancements across all segments of heavy-duty applications, both on-road and off-road, demonstrate the dynamism of the market. The development of components and exhaust aftertreatment systems is also continuing to advance, increasingly with the support of AI.

The MTZ Conference “Heavy-Duty Engines” will provide an opportunity for the developers and designers of engines for commercial vehicles, mobile machines, stationary systems, and marine engines to gain information on the very latest technology trends. The 21st conference will be supplemented by a tour of the Robert Bosch AG plant in Hallein.

We look forward to your participation in the conference.

On behalf of the Scientific Advisory Board

Stay at the cutting edge!

- ✓ Highly relevant technical papers presented by renowned speakers
- ✓ Networking in the international expert community
- ✓ Innovative products and services

Heavy-Duty Engines

Manufacturers of heavy-duty engines and related components face mounting pressures: they are expected to meet rising demands for engine output, while also reducing fuel consumption, emissions, and assembly space.

New concepts for engines, emission reduction, and drivetrain optimization are called for in order to overcome these challenges. Combining presentations, in-depth discussions, and networking possibilities among experts, the international MTZ Conference “Heavy-Duty Engines” offers you the ideal platform.



Scientific Advisory Board

Our Scientific Advisory Board, which is made up of prominent figures from the relevant field, provides support during the planning phase of the conference and helps to identify suitable topics.

With its expertise, the board has made a valuable contribution to the choice of themes for the lecture program.



Prof. Dr. Michael Günthner
University of
Kaiserslautern-Landau (RPTU)

Scientific Director of the Conference

David Bennet
Ricardo UK Ltd

Rolf Brück
Emitec Technologies GmbH

Prof. Dr. Bert Buchholz
University of Rostock

Dr. Heiner Bülte
DEUTZ AG

Bernd Danckert
ICCL – Integrated Consulting
Company GmbH

Dr. Volker Groß
Liebherr-Components Colmar SAS

Ismo Hämäläinen
AGCO Power Inc.

Dr. Alexander Heintzel
Editor-in-Chief ATZ | MTZ Group,
Springer Nature

Dr. Andreas Kolbeck
Shell Deutschland GmbH

Dr. Michael Krüger
Robert Bosch GmbH

Werner Kübler
MAN Truck & Bus SE

Dr. Markus Münz
VDMA e. V.

Prof. Dr. Gerhard Reiff
KST-Motorenversuch GmbH & Co. KG

Peter Thomas
Tenneco GmbH

Martin Urban
Rolls-Royce Solutions GmbH

Dr. Ioannis Vlaskos
Winterthur Gas & Diesel Ltd.

Dr. Marco Warth
MAHLE International GmbH

Wolfgang Weller
Daimler Truck AG

Dr. Michael Willmann
Woodward L'Orange GmbH

Markus Wundel
Purem GmbH

08:45 **Welcome and opening of the conference**

Dr. Alexander Heintzel, Editor-in-Chief ATZ | MTZ Group, Springer Nature, Germany;
Prof. Dr. Michael Günthner, Head of Institute, Institute of Vehicle Propulsion Systems (LAF), University of Kaiserslautern-Landau (RPTU), Germany

09:00 – 10:30

KEYNOTE LECTURES

Moderation: Prof. Dr. Michael Günthner, Head of Institute, Institute of Vehicle Propulsion Systems (LAF), University of Kaiserslautern-Landau (RPTU), Germany

KEYNOTE

09:00 **Considerations of engine and alternative powertrain manufacturers on regulatory proceedings for non-road mobile machinery**

Dr. Peter Scherm, General Manager, EUROMOT aisbl, Belgium

KEYNOTE

09:30 **SDF powertrain strategy for agricultural machinery**

Manlio Mattei, Manager, R&D Engine Systems, Same Deutz-Fahr Italia S.p.A., Italy

KEYNOTE

10:00 **The challenging future of heavy-duty engine and commercial vehicle certification**

Cynthia Webb, Director of Emissions Regulatory, Certification and Compliance, PACCAR, Inc., USA

10:30 Refreshment break with coffee and tea in the exhibition area

The current conference program and further information can be found online:

www.atzlive.com/heavyduty



11:00 – 12:30

NEW ENGINES

Moderation: Dr. Michael Krüger, Senior Vice President Engineering System Domains, Robert Bosch GmbH, Germany

11:00 **12V 2000 M96Z – the latest MTU yacht engine from Rolls-Royce Power Systems**

Matthias Erath, Project Manager Engine Development, Rolls-Royce Power Systems AG, Germany

11:30 **Brake mean effective pressure above 40 bar, the next generation of high-performance HD diesel engines**

Dr. Lukas Virnich, Product Manager Commercial Engines, FEV Europe GmbH, Germany

12:00 **Modularity, flexibility, and highest efficiency for next-generation high- and medium-speed engines**

Anton Arnberger, Director Product and Business Development ICE-based Powertrain, AVL List GmbH, Austria

12:30 Lunch in the exhibition area

13:45 – 15:15

LIQUID ALTERNATIVE FUELS

Moderation: Dr. Markus Münz, Deputy Managing Director Engines and Systems, Managing Director Large Engines, VDMA e. V., Germany

13:45 **Ethanol in tractor application**

Speaker to be announced, AGCO Power Inc., Finland

14:15 **Operation of large heavy-duty diesel engines on ethanol/gasoi fuel blends**

Prof. Dr. Leander Marquardt, Professorship Piston Engines & Thermodynamics, Stralsund University of Applied Sciences [in cooperation with GenSys GmbH and GasKraft Engineering], Germany

14:45 **Recent research on alternative fuels at SwRI: combustion control and emissions characterization**

Dr. Khanh Cung, Lead Engineer, Southwest Research Institute, USA

15:15 Refreshment break with coffee and tea in the exhibition area

15:45 Bus transfer or individual travel to the factory tour

HIGHLIGHT**16:30 Tour of the Robert Bosch AG plant in Hallein**

Robert Bosch AG – competence center for the development, production and sales of injection systems for large engines – and ATZlive invite you to a plant tour in Hallein.

Welcome and introduction

Jens Olaf Stein, Head of Engineering Section,
Robert Bosch AG, Austria

In 1986, Robert Bosch AG acquired Friedmann & Maier, a company previously based in Hallein, and over time, it became one of the region's most important employers and the lead plant for large engines.

KEYNOTE**Challenges and solutions of the large engine transformation within a diverse fuel landscape**

Jens Olaf Stein, Head of Engineering Section,
Robert Bosch AG, Austria

Visit the plant in Hallein and experience the modern manufacturing and assembly of our globally successful MCRS injection system. The innovative injection systems for large engines – developed, manufactured, and sold world-wide – are used in ships, heavy land and rail vehicles as well as in decentralized energy systems. Look forward to some exciting insights.



19:00 Bus transfer from the factory tour or individual travel to the networking dinner

The walk takes us on the last stretch through Salzburg's historic Christmas market – one of the oldest and most beautiful Christmas markets in the world.

19:30 Networking dinner at St. Peter Stiftskulinarium in Salzburg

We will welcome you in the courtyard of St. Peter Stiftskulinarium. Enjoy an exclusive mulled wine and punch reception, followed by dinner in the elegant Baroque Hall – an impressive setting that uniquely combines magnificent architecture with Salzburg's rich cultural heritage and history.

In business for over 1,200 years, the **St. Peter Stiftskulinarium** is considered to be the oldest restaurant in Europe. Enjoy a pleasant evening and interesting conversations over dinner with colleagues and speakers.

08:30 – 10:30

GASEOUS FUELS

Moderation: Dr. Heiner Bülte,
Senior Manager Performance & Electronic System, DEUTZ AG, Germany

- 08:30 **Medium-speed engine technology for hydrogen fuel**
Dr. Rune Nordrik, Senior Principal R&D Engineer,
Bergen Engines AS, Norway
- 09:00 **Development of a hydrogen-fueled active pre-chamber for a high-speed large bore size engine application**
André Barroso, Chief Engineer, Ricardo UK Ltd, UK
[in cooperation with Ricardo Prague s.r.o., Czech Republic]
- 09:30 **Hydrogen engines for non-road heavy-duty applications: experimental insights and challenges**
Peter Kappacher, University Project Assistant, Institute of Thermodynamics and Sustainable Propulsion Systems (ITnA), Graz University of Technology, Austria [in cooperation with Liebherr AG, Switzerland; Umicore AG & Co. KG, Germany and Technical University of Leoben, Austria]
- 10:00 **From knock sensitivity to efficiency optimization: experimental analysis on a modern HD gas engine**
Dr. Stefano Golini, Innovation Specialist, FPT Industrial S.p.A. [in cooperation with CNR STEMS], Italy

10:30 Refreshment break with coffee and tea in the exhibition area

11:00 – 13:00

COMPONENTS & EXHAUST AFTERTREATMENT

Moderation: Rolf Brück, Managing Director,
Emitec Technologies GmbH, Germany

- 11:00 **Quantifying oil transport mechanisms and oil consumption in a hydrogen engine using a physics-based digital twin**
Dr. Philipp Köser, Senior Expert & Technical Lead MHD PCU, MAHLE GmbH, Germany [in cooperation with Massachusetts Institute of Technology, USA]
- 11:30 **Valve seat inserts and valve guides made of high-performance sintered materials for heavy-duty ICE**
Dr. Christopher Schaak, Head of R&D,
BleiStahl Services GmbH & Co. KG, Germany
- 12:00 **Impact of engine scaling on torsional dynamics and damping requirements in emerging power generation drivetrains**
Dr. Andreas Thalhammer, Manager TVC & Digital Development, Geislinger GmbH, Austria

- 12:30 **High-temperature stable EATS with vanadate SCR for stage V application: a field experience**
Dr. Olivier Sonntag, Business Unit Manager,
Mobile Emissions Catalysts, Interkat Catalyst GmbH
[in cooperation with J.M. Voith SE & Co. KG and
Technical University of Kaiserslautern], Germany

13:00 Lunch in the exhibition area

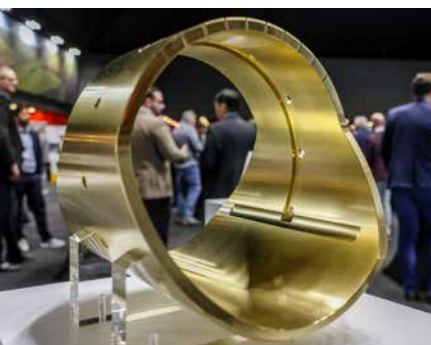
14:00 – 15:30

AI-ASSISTED DEVELOPMENT

Moderation: Dr. Marco Warth, Vice President Corporate Research
and Advanced Engineering (CR), MAHLE International GmbH, Germany

- 14:00 **ECU-deployable compressed data-driven powertrain models for HD applications**
Louis Weller, Research Associate, Institute of Automotive Engineering Stuttgart (IFS), University of Stuttgart [in cooperation with FKFS Research Institute for Automotive Engineering and Powertrain Systems Stuttgart], Germany
- 14:30 **How to tame the hydrogen flame – tools to investigate load limiting combustion anomalies**
Jonathan Ziegler, Development Engineer Thermodynamics,
Daimler Truck AG, Germany
- 15:00 **AI-supported development methodology for the hydrogen combustion engine**
Kai Liu, Consultant for AI, Robert Bosch GmbH, Germany

- 15:30 **Summary of the conference and closing remarks**
Prof. Dr. Michael Günthner, Head of Institute,
Institute of Vehicle Propulsion Systems (LAF),
University of Kaiserslautern-Landau (RPTU), Germany;
Dr. Alexander Heintzel, Editor-in-Chief ATZ | MTZ Group,
Springer Nature, Germany



KST-Motorenversuch GmbH & Co. KG

KST – Testing powertrains to move the future

As an independent testing service provider with a strong focus on innovation in engine and powertrain development, we have established ourselves as one of the key players in this market.

KST offers a full range of specialized testing services for OEMs and Tier 1 suppliers. Our infrastructure features 85 state-of-the-art engine test benches for passenger and commercial vehicle testing and for off-road applications with a strong emphasis on development topics for e-mobility, hydrogen drive systems and synthetic fuels.

We also bring a high level of experience and expertise to the table in the field of testing industrial, railway and marine engines with a power capacity of up to 4 MW.

Service portfolio overview:

- Electric / hybrid drive systems in all performance categories
- Power electronics / inverters, including HiL
- Battery testing, including reliability and abuse test work
- Hydrogen-based drive systems, hydrogen engine and fuel cell testing, and electrolyzers
- Synthetic fuels / operating materials, including HVO
- Large engines – industrial / railway / marine, including hydrogen applications
- Future-oriented technologies for internal combustion engines

Cooperation partner

KST.

www.kst-motorenversuch.de/en/

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Mr. Alex Woidich

Phone +49 611 7878-206

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Media partners

MTZ **MTZ industrial** **ATZ heavyduty**

Registration fee

€ 1,595.– plus VAT (Austria)

This includes the conference documentation, the use of the digital event platform as well as the catering during breaks and the evening event on 24-11-2026.

Date

24 – 25 November 2026

Venue

Radisson Blu Hotel & Conference Centre, Salzburg
Fanny-von-Lehnert-Str. 7
5020 Salzburg
Austria

Languages used in the presentations

German and English with simultaneous interpreting
(German – English / English – German)

Hotels

Some hotels have room blocks at reduced prices for the participants.
You can find more information on the events page of our website.

**Further information
and online registration:**

www.atzlive.com/heavyduty

**Participants**

The MTZ Conference "Heavy-Duty Engines" is aimed worldwide at experts from engine and vehicle manufacturers in the fields of commercial vehicles, mobile machinery, stationary and marine engines, suppliers and development partners, teaching staff and research assistants from universities, representatives of authorities and associations and engineers active in these fields.

**Further information
and online registration:**

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FACTORY TOUR

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Hallein, Austria

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The organizer**ATZlive** // Spotlight on Powertrain and Vehicle Engineering

Our events are firm fixtures in the diaries of automotive engineers and powertrain specialists. We offer a range of innovative conferences on the latest topics in the world of automotive engineering and powertrain technology, from the perspective of research, development, and applications.

Our close collaboration with the editorial teams of our specialist magazines ATZ and MTZ keeps us fully up-to-date on the latest topics and trends on the market.

Springer, with its automotive technology brands in the ATZ and MTZ Group, is part of Springer Nature, one of the world's leading publishing groups for scientific, educational and specialist literature.