International Conference

DIESEL POWERTRAINS 3.0

TAILORED ELECTRIFICATION FOR A CLEANER ENVIRONMENT IN 2025
DEAR COLLEAGUES,

The development of highly efficient and clean powertrains for automotive applications to ensure environmentally friendly and affordable mobility is a mandatory prerequisite for future market success. Light-Duty Diesel engines, representing the backbone of the low CO₂ vehicle portfolio in Western-Europe, are facing new challenges due to changed regulatory boundaries and an altering market environment. The optimization of base engine architecture to achieve lowered friction and minimized losses represents a substantial field of intensive engineering activities. Additionally, traditional areas of development, such as optimization of the combustion system towards higher efficiency, better comfort and lower engine-out emissions will play a role in the direction of research. And the addition of enlarged capabilities of highly sophisticated exhaust aftertreatment systems to meet stricter tailpipe emission standards will impact research. Finally, more model-based, physical-oriented control algorithms and tailored electrification of sub-systems will impact the mainstream development trends for the next decade.

WITH BEST REGARDS

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GROUP VICE PRESIDENT
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IN COOPERATION WITH

HAUS DER TECHNIK

Partner der RWTH Aachen und der Universität Duisburg-Essen
Münster - Bonn - Braunschweig
TUESDAY, JUNE 14th

OPENING & KEYNOTE PRESENTATIONS

08:45 Welcome and opening, Dr. J. Ludmann, FEV GmbH
09:00 KSPG’s perspective of the ICE’s future role in mobility, H. Dismon, KSPG
09:30 Emission Technology Roadmap and Evolution, T. Johnson, Corning

10:00 Coffee break

10:30 Optimal Real Driving Emissions - A challenge for the Diesel Powertrain Control System, D. Roettger, Ford
11:00 SCRF Control for real world / new transient Cycles (RDE), Dr. B. Holderbaum, FEV GmbH
11:30 Decreasing the calibration effort, thanks to the use of a virtual powertrain throughout the calibration workflow, E. Brice, D2T

12:00 Lunch break

13:00 CNG-Diesel Powertrain – a concept to improve the profitability of Diesel engines in commercial vehicles, H. Beil, Daimler AG
13:30 Benefits in CO₂ and pollutant emissions by using UPM BioVerno in modern Diesel engine Passenger cars, V. Vauhkonen, UPM

14:00 Coffee break

14:30 „eBOOSTER“ – a contribution of BW for a new age of less emissions and improved transient vehicle performance, D. Metz, BorgWarner
15:00 Fuel consumption and emissions of "phlegmatised" passenger car Diesel engines, Dr. F. Atzler, Continental
15:30 Requirements and Potential Study of 48V ISG Technology for Passenger Car Diesel Vehicles under RDE Conditions, B. van Moergastel, Denso

16:00 End

16:45 Excursion to FEV DLP/Brehna - Visit of Duravelopment Plant
19:30 Dinner and evening event
Program

WEDNESDAY, JUNE 15th

08:30 Reduction of friction losses with camshafts mounted on roller bearings, F. Toste, TU Chemnitz
09:00 Innovations for a Further Emission Reduction – a Contribution from Nemak, Prof. F. Feikus, NEMAK
09:30 CAE-based crankshaft design optimization towards borderline dimensions to minimize friction losses, G. Sabbioni, FCA
10:00 Duravelopment – the future of testing @ FEV-DLP, H. Sonntag, FEV DLP
10:30 Coffee break
11:00 Challenges for Diesel Emission Control Systems for future RDE Standards, N. Heutz, NGK
11:30 Development of Ag-Pd catalyst for PM oxidation, T. Ueda, Mitsui
12:00 OBD Perspective on European Emission Regulation Updates – Challenges and Solutions, A. Muthukaruppan, VKA RWTH Aachen
12:30 DINOx Enhanced SCR Storage and Delivery system for the newest generation passenger car and SUV, J. Op. de Beeck, PlasticOmnium
13:00 Lunch break
14:00 Contribution of the Powertrain to the realization of the first sub-100 g/km CO₂ Jaguar car, Dr. H. Busch, Jaguar Land Rover
14:30 CO₂ Reduction of Diesel Powertrain by Consequent Optimization of Vehicle Subsystems, A. Kapp, HMETC
15:00 WCAC as enabler of an intake air thermal management to improve Diesel engine cold start at low ambient temperatures, Z. Soukeur, Valeo
15:30 Coffee break
16:00 Fuel efficiency improvements for post-Euro 6 Diesel engines, J.-M. Zaccardi, IFP
16:30 Real-Time Capable Simulation of Diesel Combustion Processes for HIL-Applications, D. Neumann, VKA RWTH Aachen
17:00 Closing remarks, Th. Körfer, FEV Group Holding GmbH
Registration

Diesel Powertrains 3.0

Registration

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Conference fee: EUR 1.095,-

The conference is not subject to value added tax. The fee covers all related documents to the event, lunch, beverages and the evening event.

Event ID: W-H070-06-124-6

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Exhibitors
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The FEV endurance test center (Dauerlaufprüfzentrum, DLP) is one of Europe’s most efficient test facilities. In Brehna modernest strategies for endurance testing of combustion engines and all kinds of powertrains are used for SoP and series production validation. During the field trip on day one of the conference, participants will get insights into our facilities and learn more about our capabilities.