

International VDI Conference

Alternative Powertrains for Commercial Vehicles

October 28 and 29, 2020, Munich, Germany

Will take place
on site or
online

- Horizon 2025: New Technology meets New Business Models
- Electrified Powertrain Solutions for Trucks and Buses
- Hydrogen Combustion Engines and Fuel Cell Powered Commercial Vehicles
- Challenges and Solutions for the Charging and Fuelling Infrastructure
- Fleet Management, Optimized Utilization, Emergency Handling

+ Interactive World Café Session

+ Panel Discussion with Industry Experts

Keynotes:



Meet international Experts from:



An event organized by VDI Wissensforum GmbH

www.vdi-international.com/01K0956020

09:00 Registration & Welcome Coffee

10:00 Chair's Welcome and Opening Address

Adam Panayi, Managing Director, RhoMotion, UK

10:15 The Road to Zero Emissions in Logistics for IVECO/Nikola: Different Solution for Different Missions

Opening
Keynote

- The blue bridge to green emissions
- Important as vehicle-technology, infrastructure build up as a key
- Tight timelines and high investments are only feasible with the vision and strategic alignment of both partners

Thomas Hilse, Brand President, IVECO, Germany

I. Horizon 2025 and beyond: New Technology enables New Business Models

10:45 Electrification of Trucking Operations

- Logistics and other truck operators need holistic approaches for eMobility solutions
- A wide-spanning ecosystem provides customer benefits and eases the transition
- Customer consulting and charging infrastructure as crucial elements

Jan Wohlmuther, Manager Customer System Consulting E-Mobility, Daimler Trucks & Buses, Germany

11:15 Electrified Buses: An Important Step into an Era of Electromobility

- Experiences with electrified buses so far
- What type of electrified buses will we see going forward?
- Electric supply & Charging infrastructure: How do we go about it?

Håkan Agnevall, President, Volvo Bus, Sweden

11:45 The Outlook for E-Trucks: Applications, Technology and Scope

- What are the use cases for Electric Trucks versus other technologies?
- What battery chemistries and sizes are most appropriate for the sector?
- How big will the market become?

Adam Panayi, Managing Director, RhoMotion, UK

12:15  Lunch

13:30 Interactive World Café

We invite you to directly engage with other experts in small round table discussions. Identify together with the participants of the VDI conference „Future of Buses“ challenges within your sector as well as problems, needs and solutions. Decide what exactly you would like to discuss and introduce your own experiences and cases.

Confirmed Topics:

- Systems Considerations for Weight Reduction in Electrified Commercial Vehicles, **KPG Automotive**
- The Influence of Alternative Powertrain Technologies and Changing Mobility Habits, **MAN Truck & Bus**
- The Future of Buses in the Fully Connected Smart City, **Vecctor / Kundtmann Datenmanagement & Technik**
- Urban Mobility in the 21st Century – from Vision to Reality, **Siemens Mobility**
- Standardized charging plugs and components (open)

15:15  Networking & Coffee Break

II. Charging Infrastructure for Electrified Commercial Vehicles

15:45 High Power Inductive Underfloor Charging Implementation

- Real world heavy duty use cases of inductive charging
- Transition from 50kW to 1MW
- Implementation challenges

Viktor Metzler, Product Engineer, WAVE IPT, USA

16:15 eHighway: Sustainable Heavy Road Transport

- Lowest TCO thanks to most efficient use of renewable electricity
- Based on mature technology and proven in field trials on German motorways
- Project is Part of the German climate action plan and recommended to reach 4,000 km by 2030 by NPM

Hasso Grünjes, Head of eHighway, Siemens Mobility, Germany

16:45 Challenge and Solutions for the Operation of a Charging Infrastructure for an Urban Bus Operation with over 200 City Buses

- Requirement and peripheral conditions
- Charging infrastructure with the highest possible availability

Dipl.-Ing. (FH) Alexander Wolf, Head of Technical Bus Department, and Dieter Stelzer M Sc, Head of Electro-Mobility, both: Stadtwerke München, Germany

17:15 Panel Discussion: Alternative Powered Commercial Vehicles on the Road?

Panelists:

Thomas Hilse, Brand President, IVECO

Håkan Agnevall, President, Volvo Bus

Hasso Grünjes, Head of eHighway, Siemens Mobility

18:00 End of Conference Day One



Get-together

At the end of the first conference day we kindly invite you to use the relaxed and informal atmosphere for in-depth conversations with other participants and speakers.

09:00 Chair's Welcome

III. Hydrogen Powered Commercial Vehicles

09:15 Propulsion Technology for Commercial Vehicles: The New Generation of Hydrogen Combustion Engines

- Three zero-emission drive technologies according to EU legislation
- Hydrogen internal combustion engine: Innovation leap with the right concept
- The first zero-emission drive technology that beats diesel

Thomas Korn, CEO, co-author: Jürgen Nadler, CMO, all: KEYOU GmbH, Germany

09:45 Esoro Fuel Cell Truck – the First 35t Fuel Cell Truck

- Fuel cell truck as key factor in hydrogen ecosystem
- Precondition, development and realization
- Operation and lessons learned

Stefan Camenzind, Senior Engineer, Esoro Engineering AG, Switzerland

10:15 Modeling a Potential Hydrogen Refueling Station Network for Fuel Cell Heavy-Duty Vehicles in Germany in 2050

- Heavy-duty vehicle traffic on German highways
- Determination of required number and costs of hydrogen refueling stations
- Flexibility value of hydrogen refueling stations

Dr.-Ing. Philipp Rose, Researcher, Fraunhofer ISI, Germany

10:45 ☕ Networking & Coffee Break

IV. Electrified Powertrain Solutions

11:15 New Integrated Electric Axle for Heavy Duty Trucks

- E-axle topology and optimization of system efficiency
- Modular approach for different applications
- Shifting without interruption of traction force

Dipl.-Ing. Jürgen Tochtermann, Lead Engineer, AVL Commercial Driveline & Tractor Engineering GmbH, Austria

11:45 On the Road: Electrically driven 27t Truck Chassis with Batteries and Hydrogen Fuel Cells

- Technical background and use cases
- System design and vehicle availability

Georg Sandkühler, Head of Development Alternative Powertrains, Kirchhoff Ecotec, Germany

12:15 Safety Aspects for Energy Storage Systems for Commercial Vehicles

- Safety devices in energy storage systems
- Specific challenges for commercial vehicles

Prof. Dr. Hans-Georg Schweiger, co-authors: Bhavya Kotak and Katharina Wöhrle, all: Faculty of Electrical Engineering and Information Technology, Technische Hochschule Ingolstadt, Germany

13:00 🍽️ Lunch

V. Optimized Fleet Management and Risk Assessment

14:00 Operating a 1000+ Fleet of Electric Vehicles

- Routing to maximize fleet efficiency
- Optimizing vehicle allocation to improve battery usage
- Using EVs as part of a smart grid

Steven Thijssen, Fleet and Business Development, PicNic, Netherlands

14:30 Optimized Utilization and Acquisition of Heavy-Duty Vehicles with Conventional and Alternative Powertrains

- Prediction and reduction of real-world energy consumption through vehicle fitness tracking
- Optimized route planning using AI and vehicle simulation
- Reduce uncertainty towards alternative powertrain buying decisions using customer-specific recommendations

Steffen Link, CTO, and Andreas Rude, COO, both: Camideos UG, Germany

15:00 Electric Cars: Risk Assessment as Key Approach for Fire Prevention and Fire Fighting

- Lithium-Ion batteries are considered to be non-extinguishable: What are the risks from a fire fighting and fire prevention point of view and why the problem is smaller than expected
- The Munich Fire Brigade uses the knowledge out of e-car fires and committee work to gain knowledge and provide reasonable recommendations.
- Risk assessment is necessary to find socially and technically acceptable solutions to so called „new dangers“ following new techniques.

Dipl.-Phys. Björn Maiworm, Fire Director, Fundamental Questions, Fire Department Munich, Germany

15:30 Conference Chair's Closing Remarks

15:45 End of Conference

Fleet
Management
Realization



Source: © iStock.com – Andrey Suslov

International VDI Workshop

Adaptive Urban Transport: Sensing Occupancy and Predicting Demand

Workshop Chair:

Steffen Schaefer, New Mobility / Smart Cities Advisor
Cindy Hadhri, Innovation Coach & Mobility Expert

Date and Venue:

October 27, 2020, Munich, Germany

Time:

09:00 - 16:00

Content:

The COVID-19 pandemic has dramatically changed mobility behaviour. Transport operators must continue providing an alternative to the privately-owned car but are – due to decreased ridership – under immense cost pressure. The dilemma can be solved by adapting services to demand in real-time. In this workshop, participants will learn about strategies and technologies for sensing, optimizing and communicating what is happening in the transport system. The workshop will look at challenges, prototypes and pilots.

3rd International VDI Conference

Future of Buses

Autonomous & Electric Buses

Date and venue:

October, 28-29, 2020
Munich, Germany

Parallel running
conference –
free of
extra charge

Following Topics will be discussed:

- Potential of Autonomous & Smart Buses
- New Business Models & New Technologies to improve Public Transport
- Strategies for Future Buses & New Mobility
- Connectivity & Safety
- Public Acceptance & MaaS

With confirmed speakers from Volvo, Scania, MAN, Navya, Sensible 4 and Fairtiq

www.vdi-international.com/01K0932020

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Alternative Powertrains for Commercial Vehicles

Exhibition / Sponsoring

If you want to meet with and reach out to the first-rate experts attending this VDI conference and to powerfully present your products and services to the well-informed community of conference participants, please contact:

Martina Slominski

Project Consultant Exhibitions & Sponsoring

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Email: slominski@vdi.de



Become a speaker

Become a speaker at our international VDI Automotive Conferences. Make yourself known in the industry and discuss best practice examples with other international experts. We are looking for speakers on: Autonomous Trucks, Alternative Powertrains for Commercial Vehicles, Fuel Cell and Hydrogen Solutions, Sustainable Mobility Solutions, Software for Autonomous Vehicles and Vehicle Electronics.

Please submit your topic to:

Benedikt Rothhagen

Product Manager International Business

Phone: +49 211 6214-194

Email: rothhagen@vdi.de

Registration

Terms and Conditions

Registrations: Registrations for conference attendance must be made in writing. Confirmation of your registration and the associated invoice will be mailed to you. Please do not pay your conference attendance fee until you have received our invoice and its invoice number to be stated for transfer. German VAT directives apply. Please state your VAT-ID with your registration.

Conference venue

Munich, Germany (Hotel will be announced soon)

Should it not be possible to hold the conference in Munich, there will be an alternative.



You will find more hotels
close to the venue at
www.vdi-wissensforum.de/hrs

Please refer to "VDI Conference". For more hotels: www.vdi-wissensforum.de/hrs

VDI Wissensforum service package: The conference package includes the conference documents (online), beverages during breaks, lunch and the get-together on October 28, 2020.

Conference attendance conditions and terms: By way of your registration you accept the conference attendance conditions and terms of VDI Wissensforum GmbH as binding. Any cancellation of your registration must be made in writing. We will charge you an administrative fee of € 250.00 plus German VAT if you cancel your registration earlier than 4 weeks ahead of the conference date.

Any cancellation that reaches us after this deadline will entail the conference attendance fee as stated in our invoice to be charged in full. The date of the post office stamp of your written cancellation will be the decisive criterion. In that case, we will gladly mail you the conference documents on request. Subject to agreement, you may name a substitute participant. Individual parts and sections of conferences and seminars cannot be booked. You will be informed without delay if an event has to be cancelled for unforeseeable reasons. In that instance, you will be entitled only to a refund of your conference attendance fee if already paid. We reserve the right to exchange speakers and/or change the program sequence in exceptional cases. In any case, the liability of VDI Wissensforum GmbH is restricted exclusively to the conference attendance fee.

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Register online!
www.vdi-international.com/01K0956020



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Participants
are eligible to
attend the parallel
conference free
of extra charge

Yes, I will participate as follows:

Participation Fee + VAT

☐ **VDI Conference 28.-29.10.2020**
(01K0956020) **€ 1840**

and

☐ **Workshop 27.10.2020**
(01ST946001) **€ 950**

or

Package Price (Please tick the boxes)
☐ (Conference + 1 Workshop) **€ 2500**

☐ I am interested in sponsoring and/or exhibition
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* For the price category 2, please state your VDI membership number

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