

VDI

4th International VDI Conference **Autonomous Trucks**

The Future of Transportation

April 21 and 22, 2020, Munich, Germany

Europe's leading
Autonomous
Commercial
Vehicles
Conference

- Horizon 2030: Advanced Truck Technology meets New Business Models
- Digital Transformation and AI's Impact on the Transportation Industry
- Perspectives on Autonomous Trucks in the USA, EU and China
- Progressive Platooning Systems towards Level 4 Trucks
- Autonomous Electric Trucks on Public Roads

+ **Interactive World Café & Start-up Session**

+ **Panel Discussions with International Industry Experts**

+ **Workshops: Automation on Private Ground & Drivers of U.S. Political Risk**

Keynotes:



Meet international Experts from:



An event organized by VDI Wissensforum GmbH

www.vdi-international.com/01K0915020

09:00 Registration & Welcome Coffee

10:00 Chair's Welcome and Opening Address

Dr. Gerhard Nowak, Partner, QVARTZ, Germany

10:15 The Future of Autonomous Trucks

- Autonomous trucks will commercialize before autonomous taxis
- The importance of long-range vision in highway driving
- The role AI plays in autonomy

Chuck Price, Chief Product Officer, TuSimple, USA

Opening Keynote

I. Horizon 2030: Advanced Truck Technology meets New Business Models

10:45 Digital Transformation & New Business Models - Quo Vadis Transport & Logistics Industry?!

- Readiness of the truck and transport industry to address upcoming opportunities and challenges through digitalization and AVs
- New technologies disrupting existing business models?
- New technologies = new business models = new industry player(s)?

Niklaus H. Waser, Senior Vice President and Chief Digital Officer, MAN Truck & Bus SE, Germany

11:15 AutoFollow: Advanced Platooning Systems for Viable On-Highway L4

- Leveraging the lead truck to restrict the ODD of an automated follow truck
- Reducing perception and mapping requirements for L4 with human drivers
- Simplifying handling of off-nominal use cases for broader applicability

Stephen Boyd, Founder and CEO, Peloton Technology, USA

11:45 Bringing the Waymo Driver to Trucking

- Self-driving technology can make trucking stronger, safer and more efficient
- Custom-built sensors & advanced self-driving software developed together under one roof
- Rigorous simulation, closed course, and public road testing in diverse areas

Vijaysai Patnaik, Product Lead Trucking, Waymo, USA

12:15 🍴 Lunch

13:15 Interactive World Café

During this session, we invite you to directly engage with other experts in small round table discussions. Identify 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.

Exemplary Topics:

- Last Mile Delivery with Autonomous Vans, **VanAssist Project**
- Challenges of V2X Testing for Automated & Connected Vehicles, **Transpolis**
- Data Ownership around autonomous vehicles, **CYRES**

14:30 ☕ Networking & Coffee Break

II. Automated Trucks for Transportation and Logistics

15:00 First Autonomous Driving Electric Truck on a Public Road - Warehouse Traffic in Sweden

- Pilot project between DB Schenker and Einride: Objectives & successes
- Closer look at the piloting of the autonomous, electric pod in Jönköping
- Evaluation and Outlook for other international pilot projects

Lisa Brückner, Senior Business Analyst, Deutsche Bahn AG, Germany

15:30 Deploying Future of Transport: Autonomous & Electric Transport System

- Road freight transport is unsustainable and inefficient
- Autonomous, electric transport has great potential to reduce emissions, increase efficiency and road safety
- Software and services are the core of a new transport system
- Pragmatic approach to infrastructure, regulation and public acceptance: Deployment first in less complex traffic environments, expanding from there

Robert Falck, Founder and CEO, Einride, Sweden

Societal Impact

16:00 The Era of U.S. Political Volatility: Corporations at Risk

- The drivers of instability: Social capital decline, growth-crippling government intervention & the discrediting of the elite policy consensus
- The Divided Nations: This volatility combined with the rise of nationalism has made globalism a serious political liability for multinational corporations
- In today's political environment, corporations confront a far more unfavorable landscape than during the Great Recession

Jonathan M. Baron, Principal, Baron Public Affairs LLC, USA

16:30 Panel Discussion: Market Impact and Readiness

Panelists:

Chuck Price, TuSimple, USA

Niklaus H. Waser, MAN Bus & Trucks SE, Germany

Charlie Jatt, Waymo, USA

Robert Falck, Einride, Sweden

Serkan Arslan, NVIDIA, Germany

17:30 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

Stephan Keese, Senior Partner, Roland Berger, USA

III. Safety is Core: Regulation, Verification and Validation**09:15 Race of Jurisdictions: Update on the Legal & Regulatory Framework for AVs in the US, EU and China**

- Due to new technologies we need a new legal and regulatory landscape
- Legal and regulatory framework for prototype testing and series deployment
- Strategic role of the legal and regulatory framework for the technology of automated driving

Nico Waegerle, Senior Legal Counsel & Governmental Affairs, AID GmbH, Germany

09:45 Innovative Validation Methodologies Integrated in the V&V Framework

- How to generate the test content with only relevant test cases?
- How to reach highest coverage?
- What validation tools to choose?

Gernot Hasenbichler, Senior Product Manager ADAS / AD Truck & Bus, AVL List GmbH, Austria

10:15 Safely Developing Automated Trucks

- Holistic safety concept for the development of automated trucks
- Early stage technology testing
- Engineering a safe platform for putting a safe and secured truck on the road
- Ensuring operational safety during testing with safety drivers

David Watson, Chief Architect, Embark Trucks, USA

10:45 ☕ Networking & Coffee Break

IV. Generating Perception: Sensors and Localization**11:15 3D Maps for Autonomous Trucks**

- 3D Maps as a sensor for perception
- Precise localization using High-Definition 3D Maps
- Using 3D Maps as content for simulation in virtual validation

Henning Lategahn, Managing Director, Atlatec GmbH, Germany

11:45 Next Generation Sensors for Autonomous Trucks

- Overview of next generation radar and cameras
- Current developments for new LiDAR sensors
- Capabilities of solid state LiDAR sensors

Thomas Laux, Head of Business Development Advanced LiDAR Solutions, Continental, USA

12:15 Start-up Session

In regards to autonomous trucks and disrupted supply chains, there are many interesting industry newcomers that significantly influence the market. Listen to their presentations and get actively involved in the speed networking session.

Use the chance and present your start-up free of charge!

Confirmed Start-ups:

ANavS, Germany
Tracks, Germany
WhatToLabel, Switzerland
Xenomatrix, Belgium

12:45 🍴 Lunch

V. Cybersecurity and Newest AV Software**13:45 Satellite-based Navigation Cybersecurity: Lessons Learned from Spoofing Experiments**

- Overview of GNSS based navigation systems used in trucking
- Regulus' experiments and research on hacking vehicle navigation systems
- Presenting best practices for cybersecurity for trucks

Yoav Zangvil, Chief Technology Officer, Regulus, Israel

14:15 Implementing AI for Self-Driving Trucks

- Current advancements of autonomous vehicle software
- Deep learning, sensor fusion, and surround vision will enable a safe driving experience
- Challenges of validating the performance of autonomous systems for improving road safety

Sergio Amaya, Director Automotive Software, NVIDIA, Sweden

14:45 Panel Discussion: Software and Safety for Autonomous Trucks**Panelists:**

David Watson, Embark Trucks, USA
Luca Delgrossi, Volvo, Sweden
Thomas Laux, Continental, USA
Sergio Amaya, NVIDIA, Sweden

15:45 Conference Chair's Closing Remarks

16:00 End of Conference

International VDI Workshop 1

Automation on Private Ground

Workshop Chair:

Benedikt Fried, Senior Consultant, P3 automotive GmbH, Stuttgart

Marco Dargel, Partner Autonomous Mobility, P3 automotive GmbH, Stuttgart

Date and Venue:

April 20, 2020

Steigenberger Hotel Munich, Germany

Time:

10:00 - 16:00

Content

This workshop introduces the possibilities that are already available today by using automation technologies (including but not limited to automated trucks) on private grounds (fields, yards, mines, harbors, company grounds etc.). Participants will learn that they do not have to wait to generate the advantages based on automated operations. By analyzing own operations on private grounds the participants will learn how to develop an automation project, how to deal with respective challenges and roadblocks during the project realization. The workshop addresses operators and owners of private grounds as well as all innovative first movers from the autonomous driving industry to learn about today's possibilities and to improve technologies for productive automation use cases.

Agenda

Introduction

- Overview of automated operation on private ground
- Introduction on technologies and infrastructure requirements
- Lessons Learned from first realized automation projects

Breakout Sessions

- Framework for automation projects on private ground
- Design the automation project from user story to service
- Identify challenges and opportunities in automation projects
- Evaluate quick wins, economic advantages and selling points

Discussion and conclusion

- Presentation of results from breakout sessions
- Main findings of the workshop day
- Outlook into the future vision and next steps of "automation on private grounds"

International VDI Workshop 2

Super Trends: Drivers of U.S. Political Risk

Workshop Chair:

Jonathan M. Baron, Principal, Baron Public Affairs, LLC, Washington D.C., US

Date and Venue:

April 20, 2020

Steigenberger Hotel Munich, Germany

Time:

10:00 - 16:00

Content

This workshop provides an overview of the powerful currents that shape the U.S. political landscape, drive policy outcomes, and impact corporate decision making. The confluence of Political Risk Super Trends now unfolding portends increasing political volatility, resulting in an unpredictable legislative and regulatory environment for companies. Mr. Baron's analysis is informed by nearly two decades of assessing political risk for companies – including members of the Fortune 10 and some of the nation's largest privately-held firms – involving discussions with more than one thousand policy makers, experts, and opinion leaders.

Agenda

Introduction

- Overview of current U.S. political landscape as shaped by the defining feature of social capital collapse

Breakout Sessions

- China Delenda Est: Both the American Right and the Left appear determined to thwart China's increasing global influence and global companies will be required to reorient their China market strategy
- Industrialism: The electoral revolution of 2016 positioned the Midwest, and therefore the industrial economy, at the center of the U.S. political conversation
- Labor Force Constraints: Rather than face the conventional problem of workers without jobs, U.S. companies suffer the more worrisome challenge of jobs without workers
- Additional topics: „Soft Nationalization“, „Resistance in Deregulation“, Crony Cannibalism“ and „Escapism in Consumer Decisions“

Discussion and Conclusion

- Potential for the further Political Isolation of corporate America

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:

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Supporting Experts

Serkan Arslan, Director Business Development, NVIDIA GmbH, Germany

Torbjörn Holmström M.Sc., Senior Advisor to the CEO of Volvo Group, Volvo Group, Sweden

Stephan Keese, Senior Partner, Roland Berger, USA

Torsten Klein, Senior Vice President Research, MAN Truck & Bus SE, Germany

Jörg Lützner, Head of Portfolio&Innovation Management, Continental Automotive GmbH, Germany

Dr.-Ing. Mark Mohr, ZF Friedrichshafen AG, Germany

Dr. Gerhard Nowak, Partner, QVARTZ, Germany

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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: 48 Volt in Automotive, Alternative Powertrains for Trucks and Buses, Software for Autonomous Vehicles and Vehicle Electronics.

Please submit your topic to:

Benedikt Rothhagen
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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
Steigenberger Hotel München
Berliner Str. 85
80805 Munich, Germany
Phone: +49 (0) 89 159061-0
Email: muenchen@steigenberger.com



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

Hotel room reservation: A limited number of rooms has been reserved for the benefit of the conference participants at the Steigenberger Hotel München. 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 April 21, 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 only an administrative fee of € 50.00 plus German VAT if you cancel your registration earlier than 14 days 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!

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Yes, I will participate as follows:

Participation Fee + VAT

VDI Conference 21.-22.04.2020
(01K0915020) € 1840

and

Workshop 1 20.04.2020
(01ST949001) € 950

and/or

Workshop 2 20.04.2020
(01ST978001) € 950

or

Package Price (Please tick the boxes)

(Conference + 1 Workshop) € 2500

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