

Vehicles of Tomorrow 2019

Concepts – Materials – Design

19. 11. – 20. 11. 2019

Frankfurt am Main, Germany



KEYNOTE LECTURES

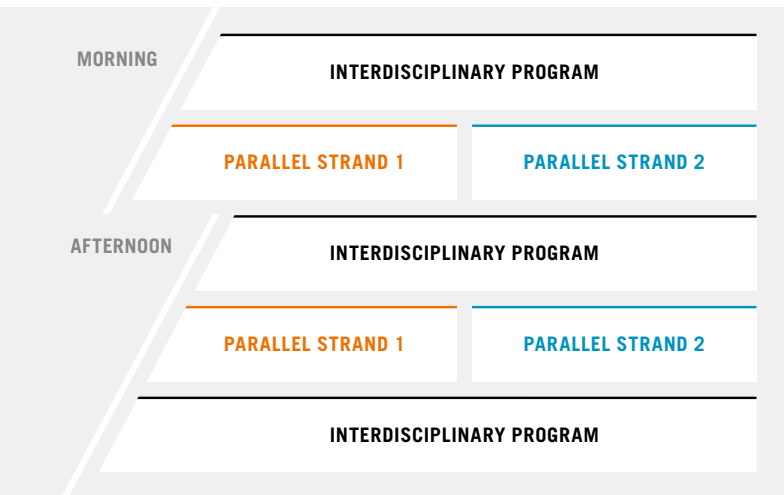
Continental Automotive GmbH // Fraunhofer Institute
for Industrial Engineering IAO // ika, RWTH Aachen
University // ILK, TU Dresden // Yanfeng Technology

Vehicles of Tomorrow

What type of sustainable concepts will meet future mobility requirements? Digitization is leading to the growth of the "sharing society". Especially in megacities, automation and the challenges to last mile logistics are likely to increase significantly.

The question is: How can we use active development methods to design clean, efficient and intelligent mobility solutions? The international congress "Vehicles of Tomorrow" is an information and communication platform that showcases all aspects of the mobility transformation.

Program structure on both days



Accompanying exhibition on both days



08:45 Welcome and opening of the conference

Prof. Dr. Lutz Eckstein, Director, Institute for Automotive Engineering, ika, RWTH Aachen University

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

09:00 – 10:00 – HOLM maX 1

KEYNOTE LECTURES

Moderation: Prof. Dr. Lutz Eckstein, Director, Institute for Automotive Engineering ika, RWTH Aachen University

KEYNOTE

09:00 Disruption in mobility –**new trends, new concepts and new business models?!**

Dr. Florian Herrmann, Managing Director, Head of Mobility and Innovation Systems Research Unit, Fraunhofer Institute for Industrial Engineering (IAO)

KEYNOTE

09:30 New automotive interior experiences: our interior vision 2030

Han Hendriks, Chief Technology Officer, Yanfeng Technology

10:00 Refreshment break with coffee and tea in the exhibition area

10:30 – 12:00, PARALLEL STRAND 1 – HOLM maX 1

NEW BUSINESS MODELS

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

10:30 Intermodality strategy and vehicle requirements at Volkswagen

Augustin Friedel, Intermodality Services, Volkswagen AG

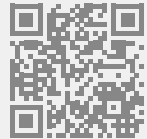
11:00 Purpose-built mobility vehicles

Wolfgang Bernhart, Senior Partner, Global Co-Head of Technology Team – Automotive, Roland Berger GmbH

12:00 Lunch in the exhibition area

The current conference program
and further information
can be found in our event app:

www.atzlive.com/vehicles



10:30 – 12:00, PARALLEL STRAND 2 – HOLM maX 2

THE POTENTIAL OF NEW DEVELOPMENT METHODS

Moderation: David Gagliardi, CEO, Pininfarina Deutschland GmbH

**10:30 Integrative development approach
for future vehicle requirements**

Prof. Dr. Ralph Mayer, Head of Professorship Vehicle
Systems Design, TU Chemnitz

**11:00 Customized mobility: innovation management
and the product development process**

David Hedderich, Research Manager Autonomous Driving,
e.GO Mobile AG

11:30 Fail Fast – the key to success for automotive software?

Heiko Herchet, Head of Car IT, trive.me, EDAG Engineering GmbH

13:30 – 14:00 – HOLM maX 1

INTRODUCTORY LECTURE

Moderation: Dr. Alexander Heintzel, Editor-in-Chief ATZ | MTZ Group

13:30 The aesthetic of future automotive mobility experience – the premises, the opportunities and the challenges from a designer's perspective

Anders Warming, Designer & Founder, Warming Design

14:00 – 15:30, PARALLEL STRAND 1 – HOLM maX 1

COMPLETE VEHICLE CONCEPTS I

Moderation: Dr. Nico Depner,
Head of Vehicle Concept Department, fka GmbH

14:00 SVEN – shared mobility as driver for a vehicle package with 2.50 m length

Michael Hog, Global Vice President Vehicle, FEV Europe GmbH

14:30 EDAG CityBots – autonomous transport and work vehicle as mobility concept

Johannes Barckmann, Global Design Manager,
EDAG Engineering GmbH

15:00 Coquille – new mobility

Uwe Reske, Technical Expert Body & Lightweight Design,
IAV GmbH

15:30 Refreshment break with coffee and tea in the exhibition area

16:00 – approx. 17:15 – HOLM maX 1

PANEL DISCUSSION

Moderation: Dr. Alexander Heintzel, Editor-in-Chief ATZ | MTZ Group

HIGHLIGHT

16:00 En route to the sharing society: social benefits and customer acceptance

Participants:

Prof. Dr. Lutz Eckstein, IKA, RWTH Aachen University;

Johannes Barckmann, EDAG Engineering GmbH;

Dr. Karsten Michels, Continental Automotive GmbH;

Anders Warming, Warming Design

14:00 – 15:30, PARALLEL STRAND 2 – HOLM maX 2

THE POTENTIAL OF NEW MATERIALS AND PROCESSES

Moderation: Thomas Siebel, Editor lightweight.design, Springer Nature

- 14:00 Amorphous metals enable weight reduction for high performance components in automotive**
Dr. Jürgen Wachter, Head of Business Unit Heraeus AMLOY,
Heraeus Deutschland GmbH & Co. KG
- 14:30 Automotive front panels – proven technologies enabling aesthetic styling, design & sensor integration**
Michael Fischer, Head of Business Development Technologies,
ENGEL AUSTRIA GmbH, Austria
- 15:00 Dual-curing adhesives for short cycle times and high-precision alignment of components**
Dr. Stephan Pröller, Product Manager,
DELO Industrie Klebstoffe GmbH & Co. KGaA

**19:00 Networking Dinner at the restaurant
“WasserCraftwerk”, Kelsterbach**



Enjoy a pleasant evening and interesting conversations over dinner with colleagues and speakers.

RESEARCH. KNOWLEDGE. PROGRESS.

Developing the future – today's production facilities need to meet the requirements of tomorrow. This is one of the main challenges facing vehicle manufacturers. Innovations in manufacturing processes, resource use, the effectiveness of value chains and increasing automation and digitization are all helping to shape smart vehicle production. ATZproduction provides the latest information from the fields of research and development and includes in-depth technical reports on all aspects of vehicle manufacturing. In addition to the print edition, we offer an **interactive e-magazine**. You can also benefit from the extensive information in our **unique online archive**, which gives you the option of **downloading PDF files**.

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09:00 – 10:00 – HOLM maX 1

KEYNOTE LECTURES

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

KEYNOTE

- 09:00** **Lightweight materials in the automotive industry of tomorrow – the engineer as the driving force behind environmentally responsible lightweight design**
Prof. Dr. Hubert Jäger, Member of the Management Board, Institute of Lightweight Engineering and Polymer Technology (ILK), Technical University of Dresden

KEYNOTE

- 09:30** **User experience in future mobility: challenges – criteria – solution concepts**
Knut Ehm, Head Of Advanced Development, Continental Automotive GmbH

10:00 Refreshment break with coffee and tea in the exhibition area

10:30 – 12:00, PARALLEL STRAND 1 – HOLM maX 1

COMPLETE VEHICLE CONCEPTS II

Moderation: Jörg Hölzig, Head of Competence Center for Integral Safety, EDAG Engineering GmbH

- 10:30** **HV-battery integration according to complete-vehicle-specifications & mobility concepts for the future**
Reinhard Hörmann, Project Manager Vehicle Concepts & Alternative Production Process, Magna Steyr Fahrzeugtechnik AG & Co KG, Austria
- 11:00** **Tailored for automation – purpose design for autonomous urban mobility in UNICARagil**
Torben Böddeker, Research Assistant, Institute for Automotive Engineering (ika), RWTH Aachen University
- 11:30** **From prototype into series production for attendant-free driverless mobility: the EZ10 GEN 3**
Dr. Arwed Schmidt, Technical Sales Lead, EasyMile GmbH

12:00 Lunch in the exhibition area

During the breaks you have the opportunity to visit the exclusive exhibition.

10:30 – 12:00, PARALLEL STRAND 2 – HOLM maX 2

THE POTENTIAL OF NEW JOINING TECHNOLOGIES

Moderation: Dr. Hubert Pelc,
Head of Specialist Media Materials | Energies, Springer Nature

- 10:30 Automotive industry: actual and future requirements in joining technology**
Dr. Marco Bastian, Global Senior Market Manager Transportation, Lohmann GmbH & Co. KG
- 11:00 Hem flange bonding: a challenging joining process in car body construction**
Fred Jesche, Head of Department Mechanical Joining, Fraunhofer Institute for Machine Tools and Forming Technology
- 11:30 Structural adhesive and sealing solutions for battery applications**
Dr. Felix Koch, R&D Manager Structural Adhesives, DuPont de Nemours, Inc., Switzerland

13:00 – 13:30 – HOLM maX 1

START-UP PITCHES

Moderation: Dr. Alexander Heintzel, Editor-in-Chief ATZ | MTZ Group

13:00 Technology and business models for future mobility solutions

Participants: Gerret Kalkoffen, Chairman of the Board, Carbon Truck & Trailer GmbH; Andy Zurwehme, CEO, eROCKIT Systems GmbH, Germany; Simon Schneider, Co-founder, Jungle, Arrival Germany GmbH

13:30 – 15:00, PARALLEL STRAND 1 – HOLM maX 1

INTERIOR CONCEPTS

Moderation: Prof. Thomas Hofmann, Head of Studies Industrial Design, IUI, Osnabrück University of Applied Sciences

13:30 New materials and production methods for the vehicle interiors of tomorrow

Markus Leder, Head of Engineering Germany, Pininfarina Deutschland GmbH

14:00 Steering wheel and restraint system heading for automated driving

Dr. Christian Strümpfer, Team Leader HMI / Human Factors, Joyson Safety Systems Aschaffenburg GmbH

14:30 Project PURE: the freedom to move – automotive interior of the future 2035

Marko Boving, Senior Manager Strategic Product Planning Automotive & Commercial Vehicles, GRAMMER AG

15:00 Refreshment break with coffee and tea in the exhibition area

15:30 – 16:00 – HOLM maX 1

KEYNOTE LECTURE**KEYNOTE****15:30 Shaping future mobility**

Prof. Dr. Lutz Eckstein, Director, Institute for Automotive Engineering ika, RWTH Aachen University

16:00 Closing remarks

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

13:30 – 15:00, PARALLEL STRAND 2 – HOLM maX 2

LIGHTWEIGHT CONSTRUCTION AND SUSTAINABILITY

Moderation: Dr. Hubert Pelc,
Head of Specialist Media Materials | Energies, Springer Nature

- 13:30 Potentials of low-carbon aluminium products in automotive applications – ensuring sustainable mobility concepts throughout the entire life cycle**
Leif Hagebeucker, Automotive Application Engineer, Norsk Hydro ASA; Dinesh Thirunavukkarasu, Scientific Assistant, fka GmbH
- 14:00 Thermoplastic composites technologies for future aircraft structures**
Georg Doll, Scientific Assistant, Institute of Structures and Design [in cooperation with Institute of Materials Research, German Aerospace Center e. V. (DLR)]
- 14:30 High performance sustainable materials for automotive applications: dream or reality?**
Philippe Godano, Global Product Manager Interior Floor & Product Marketing Manager, Autoneum Management AG, Switzerland



DEN FORTSCHRITT EINEN SCHRITT VORAUSDENKEN.

Die EDAG Group ist der unabhängige Engineering-Dienstleister für ganzheitliche Lösungen in der Automobilindustrie. In partnerschaftlicher Kooperation mit ihrem interdisziplinären Expertenteam gestaltet und definiert die EDAG Group die Mobilität von morgen. Weltweit vernetztes Fachwissen vereinigt sich hier mit deutscher Ingenieurskunst zu innovativer und umfassender Entwicklungs- und Fertigungskompetenz.

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