Grid Integration + Electrified Mobility 2021

Sustainability Check 2021

27 – 28 January 2021
Hanau near Frankfurt am Main, Germany
or virtually via live stream

in conjuction with
The Powertrain of Tomorrow

KEYNOTE LECTURES

Beijing Electric Vehicle Co. Ltd., China / BridgingIT GmbH / IKEM Institut e. V. / Roland Berger GmbH / Schaeffler Automotive Buehl GmbH & Co. KG
Welcome

With the consistent use of renewable electricity, vehicles with an electric drive system can make an important contribution to meeting the targets of 2030 and 2050 in the mobility sector. But it is the customers who are the decisive factor. The main keys to broad-based success are driving range and easy recharging. The development and marketing of these products must therefore be sensibly synchronized with the creation of a charging infrastructure. This process requires stronger impulses.

ATZlive already took a first step in 2019 by combining its established congresses "Grid Integration" and "Electrified Mobility". In order to successfully supply not only national but also international markets with sustainable products, a discussion that is open to all technologies and one that goes beyond familiar technical borders will become increasingly important. For that reason, our congress “The Powertrain of Tomorrow”, which is being held at the same time, will offer an even broader discussion platform.

I look forward to meeting you in person in Hanau or communicating via our live stream.

On behalf of the Scientific Advisory Board

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Stay at the cutting edge!

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

Sustainability check 2021

/ CHARGING INFRASTRUCTURE
Regulations and customer interests

/ BATTERIES
Technology assessments and developments

/ GRID INTEGRATION
Challenges and costs

PANEL DISCUSSION
Are sector coupling and competition between technologies the keys to success?
Grid Integration + Electrified Mobility

Perfect interaction between traffic concepts, vehicles with electrified powertrains, and infrastructure is the precondition for broad-based market success. To provide participants with space for an interdisciplinary dialogue, ATZlive is now offering an even broader platform. In 2021, the congress “Grid Integration + Electrified Mobility”, which was already combined in 2019, will be held at the same time as our long-established congress “The Powertrain of Tomorrow”. Participants will have the opportunity to switch between the parallel strands of lectures. The joint Networking Dinner and the centralized refreshment breaks with an accompanying exhibition will also further support interdisciplinary communication and the necessary systems thinking.

Scientific Advisory Boards

Our two Scientific Advisory Boards, which are composed of outstanding experts in their field, provide support in planning and finding topics for our conference. Their expertise will play a key role in defining the focus of the program of lectures.
09:15  Welcome and opening of the conference  
Dr. Johannes Liebl, Editor-in-Charge ATZ | MTZ | ATZelektronik,  
Springer Nature, Germany  

09:30 – 11:00  
**KEYNOTES**  
Moderation: Dr. Johannes Liebl, Editor-in-Charge ATZ | MTZ | ATZelektronik  

**KEYNOTE**  
09:30  Dynamic hybrid powertrain with high efficiency and reduced complexity  
Manfred Homm, Senior Vice President R&D Powertrain & E-Mobility,  
Schaeffler Automotive Buehl GmbH & Co. KG, Germany  

**KEYNOTE**  
10:00  Charging infrastructure 2.0 – analysis of existing car-to-infrastructure in Europe and urgent recommendations for more customer acceptance  
Dirk Braun, Senior Consultant Innovation, BridgingIT GmbH, Germany  

**KEYNOTE**  
10:30  How much engine power do we need in the future?  
Franco Bellillo, Deputy General Manager, Vice President Purchasing,  
Beijing Electric Vehicle Co. Ltd., China  

11:00  Refreshment break with coffee and tea in the exhibition area  

11:30 – 13:00  
**LIFE CYCLE ASSESSMENT**  
Moderation: Prof. Dr. Hans-Christian Reuss, Head of the Chair of Motor Vehicle Mechatronics, IFS, University of Stuttgart, Germany  

11:30  Life cycle characteristics (CO$_2$) of different propulsion concepts  
Khosrau Heidary, Head of Life Cycle Engineering,  
Vitesco Technologies, Germany  

12:00  LCA of a battery electric vehicle using renewable electricity in the entire supply chain  
Dr. André Sternberg, Scientist, Fraunhofer Institute for Solar Energy Systems (ISE), Germany  

12:30  LCA of the battery compared to the fuel cell in the electric vehicle  
Dr. Jürgen Kölich, Marketing Manager,  
EVA Fahrzeugtechnik GmbH, Germany  

13:00  Lunch in the exhibition area  

14:30 – 16:00  
**CHARGING INFRASTRUCTURE AND CHARGING FROM THE CUSTOMER’S POINT OF VIEW**  
Moderation: Dr. Kathrin Goldammer, Managing Director,  
Reiner Lemoine Institut gGmbH, Germany  

14:30  Grid integration in the context of public transport electrification  
Tim Röpcke, Research Associate, Reiner Lemoine Institut gGmbH, Germany  

15:00  Presentation in request  

15:30  Learnings from international charging tests and establishing of a charging performance index  
Christian Gehring, Senior Consultant, P3 automotive GmbH  

16:00  Refreshment break with coffee and tea in the exhibition area  

16:30 – 18:15  
**INTRODUCTORY PRESENTATIONS AND PANEL DISCUSSION**  
Moderation: Dr. Alexander Heintzel, Editor-in-Chief ATZ | MTZ Group; Prof. Dr. Hans-Christian Reuss, Head of the Chair of Motor Vehicle Mechatronics, IFS, University of Stuttgart, Germany  

16:30  Electricity as a regenerative commodity in the energy transition and sector coupling – when will wishful thinking become reality?  
Dr. Ralf Burgdorf, Lead Consultant, BridgingIT GmbH, Germany  

17:15  Are sector coupling and competition between technologies the keys to success?  

approx.  
18:15  End of the first day of the event  

19:30  Networking dinner at Philippsruhe Castle  
Enjoy a pleasant evening and interesting conversations over dinner with colleagues and speakers.
08:30 – 09:30

**KEYNOTES**

**08:30** Carbon-efficient integration of e-mobility and decentralised energy supply for urban districts
Maxim Blankschein, Research Associate, Institute for Climate Protection, Energy and Mobility, Germany

**09:00** Battery cell manufacturing in Europe – technology and strategy assessments
Dr. Wolfgang Bernhart, Senior Partner and Global Head of Advanced Technology Center, Roland Berger GmbH, Germany

09:30 – 10:30

**LEGISLATION & REGULATION**

Moderation: Prof. Dr. Hans-Christian Reuss, IFS, University of Stuttgart

**09:30** An analysis of the legal framework for placing charging systems on the market
Saskia Wittbrodt, Attorney-at-Law, Reusch Rechtsanwalts GmbH

**10:00** Vehicle-to-grid: quo vadis? Readiness check on technical and regulatory framework
Lukas Schriewer, Senior Consultant E-Mobility, P3 automotive GmbH

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

11:00 – 12:30

**BATTERY TECHNOLOGY**

Moderation: Markus Schöttle, Springer Nature, Germany

**11:00** Modular battery pack development for on- and off-highway: challenges of optimisation vs. commonality
Julian Dunn, Head of Energy Storage, Ricardo UK Ltd, UK

**11:30** Is cell2chassis the answer to future battery requirements?
Dr. Wenzel Prochazka, Senior Product Manager Global Battery Competence Team, AVL List GmbH, Austria

**12:00** Solid-state batteries – an important current trade-off between cost/benefit and application as well as production conditions
Prof. Dr. Peter Birke, Head of the Electrical Energy Storage Systems Work Group, IPV, Univ. of Stuttgart [in coop. with Fraunhofer IPA]

12:30 Lunch in the exhibition area

13:30 – 15:00

**POWER GRIDS & LOAD MANAGEMENT**

Moderation: Dr. Kathrin Goldammer, Managing Director, Reiner Lemoine Institut gGmbH, Germany

**13:30** Calculated additional grid costs until 2030 at 10% and 30% e-mobility penetration for Austria
Reinhard Renning, Head of Grid Planning and Power Quality, Vorarlberger Energienetze GmbH, Austria

**14:00** Energy und automotive – challenges in grid integration
Ursel Willrett, Senior Technical Consultant Infrastructure Systems E-Mobility, IAV GmbH, Germany

**14:30** Presentation in request

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

15:30 – 16:30

**BATTERY DEVELOPMENT PROCESSES**

Moderation: Prof. Dr. Hans-Christian Reuss, Head of the Chair of Motor Vehicle Mechatronics, Institute of Automotive Engineering (IFS), University of Stuttgart, Germany

**15:30** Challenges in battery development – the advantage of FEV Group's validation concept
Dr. Michael Stapelbroek, Director Battery Systems, Electronics & Electrification, FEV Europe GmbH, Germany [in cooperation with FEV eDLP GmbH; EVA Fahrzeugtechnik GmbH, both Germany]

**16:00** Challenges and new methodologies for battery development starting at cell level
Mareike Schmalz, Project Coordinator, APL Automobil-Prüftechnik Landau GmbH, Germany

16:30 Closing remarks
IN CONJUNCTION WITH

The Powertrain of Tomorrow 2021

Thinking in systems

/ POWERTRAIN SYSTEMS
Development open to all technologies

/ LIFE CYCLE ANALYSIS
Sustainable decision-making

/ DEVELOPMENT PROCESSES
Developing efficiently and accurately

Our established ATZlive events Grid Integration + Electrified Mobility and The Powertrain of Tomorrow now take place simultaneously at the same location.

There will be joint keynote lectures and intensive interdisciplinary exchange in a joint panel discussion, during the breaks and at the social evening event. The participants have the possibility to switch to the lectures of the parallel running conference and thus to broaden their perspective even further.

See the program online!

You have the choice: participate on site or virtually via live stream

Due to the current situation created by Covid-19, the Conferences Grid Integration + Electrified Mobility and The Powertrain of Tomorrow will take place as a hybrid event this year.

The live stream package includes all lectures and the panel discussion of both events.

A comfortable event app with live stream offers you Q&A functions, 1:1 video chats with participants, exhibitors or speakers, live surveys and other useful functions, such as your personal digital program overview and a virtual exhibition.

You will find detailed information on our website.
BridgingIT is an independent technology and management consultancy business that offers customised IT solutions for the specific needs of our diverse client base. The company provides these services across an array of industries, bringing together a wide variety of skill sets and an optimal blend of technical and methodological expertise. With its holistic end-to-end approach, bridgingIT, together with its wholly-owned subsidiaries fastahead, Heidelberg Mobil and craftingIT, fosters innovation along the entire value chain of its clients.

Operating one of the biggest fully electric longdistance fleet in Germany in combination with an innovative corporate mobility concept, including charging infrastructure, the bridgingIT group takes a leading role with respect to future oriented mobility.

Your presentation platform

Take this opportunity to present your latest products and services to the specialist audience: as an exhibitor in our exclusive exhibition and/or as a sponsor with an attractive advertising presentation. Make use of this industry meeting place to make valuable contacts with customers. For information on the various presentation options, please contact:

Elke van Lon
Phone +49 611 7878-320
elke.vanlon@springernature.com
Registration fee

Participation on site: € 1,395.– plus VAT

Participation via live stream: € 995.– plus VAT

This includes the conference documentation, the catering during breaks and the evening event on 27-01-2021. The participants have the possibility to switch to the parallel running conference and thus broaden their perspective. Virtual participation eliminates the catering during breaks and the evening event.

Date
27 – 28 January 2021

Venue
Congress Park Hanau
Schlossplatz 1, 63450 Hanau, Germany
or virtually via live stream

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.

Online Registration and Further Information:
www.atzlive.com/grid

Participants
This ATZ Congress is aimed at managers and engineers from car manufacturers, suppliers, development service providers, research institutes, and universities, and at employees of telecommunications services providers, IT companies, financial services providers, energy suppliers and grid operators, federal and state ministries, associations, and NGOs involved in all disciplines of electric mobility.

Further Information and Online Registration:
www.atzlive.com/grid

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ATZlive Spotlight on Powertrain and Vehicle Engineering

Our events are firm fixtures in the diaries of automotive engineers and engine specialists. We offer a range of innovative conferences on the latest topics in the world of automotive engineering and engine 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.