

Grid Integration + Electrified Mobility 2021

Sustainability Check 2021

27 – 28 January 2021

Hanau near Frankfurt am Main, Germany
or virtually via live stream

in conjunction 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

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?



**Dr. Johannes
Liebl**

Editor-in-Charge
ATZ | MTZ |
ATZechnik,
Springer Nature

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.

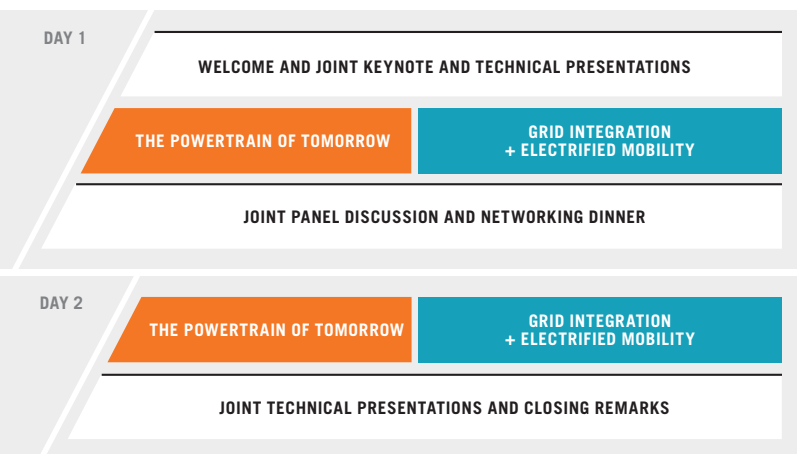
On behalf of the Scientific Advisory Board

Stay at the cutting edge!

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

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.



Accompanying trade exhibition



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.



Dr. Kathrin Goldammer
Reiner Lemoine
Institut gGmbH

Scientific Director
Grid Integration



Prof. Dr. Hans-Christian Reuss
University of Stuttgart

Scientific Director
Electrified Mobility

Klaus Baumgärtner
BridgingIT GmbH

Klaus Baumgärtner
BridgingIT GmbH

Axel Hausen
Netze BW GmbH

Dr. Wolfgang Bernhart
Roland Berger GmbH

Gero Lücking
LichtBlick SE

Isabell Knüttgen
e-mobil BW GmbH – State Agency
for New Mobility Solutions and
Automotive Baden-Wuerttemberg

Xaver Pfab
BMW Group

Florian Mayr
Apricum GmbH

Dr. Gunnar Steg
Volkswagen Group Charging GmbH

Jürgen Schenk
P3 Group GmbH

Prof. Dr. Ulrich Wagner
Technical University of Munich (TUM)

Prof. Dr. Gernot Spiegelberg
Technical University of Munich (TUM)

Markus Wiedemann
Stuttgarter Straßenbahnen AG (SSB)

Dr. Johannes Liebl
Editor-in-Charge ATZ | MTZ | ATZelektronik,
Springer Nature

Markus Schöttle
Senior Editor Automotive Developments,
Springer Nature

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 (CO₂) 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

INTRODUCTORY PRESENTATION**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

INTRODUCTORY PRESENTATION**Net zero carbon in transport 2050**

Dr. Peter Sauermann, Regional Technology Director Europe,
BP Europa SE, Germany

PANEL DISCUSSION**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

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

KEYNOTE**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

KEYNOTE**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 Nennung, 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



To the Program

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

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

Cooperation partner



www.bridging-it.de

Media partners



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

Grid Integration + Electrified Mobility

27 – 28 January 2021

Hanau near Frankfurt am Main, Germany or virtually via live stream

Your contact person

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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.