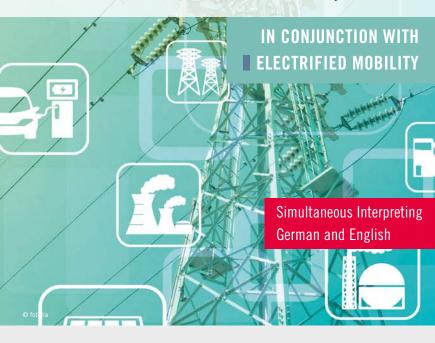
# **ATZ** live

# Grid Integration of Electric Mobility

Customer focus - one key to success

4th International ATZ Conference 12 and 13 November 2019 | Mannheim | Germany



BASIC CHARGING EQUIPMENT MANAGED AND Bidirectional charging **RESEARCH FACTORS** 

/// KEYNOTE-LECTURES

Klaus Baumgärtner, BridgingIT GmbH I Prof. Dr. Uwe Dieter Grebe, AVL List GmbH I Dr. Falko Schappacher, MEET Battery Research Center, Münster University (WWU)



## SCIENTIFIC ADVISORY BOARD



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Xaver Pfab BMW Group



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**Prof. Dr. Ulrich Wagner** TU Munich Scientific Director of the Conference

## IN CONJUCTION WITH ELECTRIFIED MOBILITY



For electric mobility to achieve a breakthrough, the transport concepts, the vehicles and the infrastructure must interact smoothly. this reason, well-established ATZlive events Electrified For our Mobility and Grid Integration of Electric Mobility are taking place this year in the same location and at the same time.

This gives participants the opportunity to move over to the parallel conference and broaden their horizons.

You can find the complete program for the Electrified Mobility conference online:



www.atzlive.de/en/e-mobility

## Grid Integration of Electric Mobility

## WELCOME

Recent legislation on climate change and air quality is forcing us to take new approaches to mobility and vehicle powertrains. Battery electric vehicles and fuel cell electric vehicles can make a major contribution to carbon-neutral mobility if they are powered by renewable electricity. This means that the powertrain transition is part of the essential transport and energy transitions.

The automotive industry is pushing ahead with the development of electrified powertrains. A breakthrough for electric mobility is on the cards, but it will not happen until the development of the products and the expansion of the infrastructure are synchronized. Key factors include the intelligent connection of electrified vehicles to the power grid and the targeted use of information technology. As a result, communication across the boundaries between the different disciplines is becoming increasingly important.

In order to encourage interaction between the representatives of the automotive industry, the energy supply companies, the grid operators, the data services, the finance industry and politicians on a national and international level, ATZlive has brought together its Electrified Mobility congress and Grid Integration of Electric Mobility conference under one roof. The participants of both events have the option of moving over to parallel sessions and broadening their horizons.

We look forward to meeting you and to helping you with the crucial task of networking.

On behalf of the Scientific Advisory Board

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

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## PARTICIPANTS

Decision-makers on a strategic and technical level, development engineers and experts working for vehicle manufacturers, automotive industry suppliers and development service providers, employees of research institutions and universities, planners and operators of test facilities, employees of telecommunication, IT and energy supply companies, of power grid operators, federal and state ministries, urban planning departments, fleet organizations, industry associations and NGOs working with mobility concepts and electric mobility.

## PROGRAM TUESDAY 12 NOVEMBER 2019

9:00 Welcome and opening of the conference Dr. Johannes Liebl, Editor-in-Charge ATZ | MTZ | ATZelektronik, Springer Nature

#### KEYNOTE LECTURES I

Musensaal

## GRID INTEGRATION OF ELECTRIC MOBILITY

### 9:10 How sustainable is electric mobility? Cradle-to-cradle study of different drive systems Prof. Dr. Uwe Dieter Grebe, Executive Vice President Global Business Development, Sales & International Operations, AVL List GmbH, Austria

**ELECTRIFIED** 

MOBILITY

- 9:35 How to develop customer-centric ecosystems? Agile, digital and open Klaus Baumgärtner, Managing Director, BridgingIT GmbH
- 10:00 Joint app-based discussion of the keynote lectures
- 10:30 Refreshment break with coffee and tea in the exhibition area

#### BASIC CHARGING EQUIPMENT

Johann Wenzel Stamitz Saal

- 11:00 **Grid Integration Lessons learned and call for action** Marcus Fendt, Managing Director, The Mobility House GmbH
- 11:15 Charging stations in 2019: an impenetrable jungle and excessive costs – the customer's perspective Gero Lücking, Director for the Energy Industry, LichtBlick SE
- 11:45 Electric mobility 2030 on the road to sector coupling Dr. Jan Strobel, Head of Department Regulations, Market Communication and Mobility, BDEW Bundesverband der Energie- und Wasserwirtschaft e. V.; M. Roemheld, Volkswagen AG
- 12:15 Backbone grid requirements and rules for the successful grid integration of electric mobility Florian Regnery, Project Manager for Electric Mobility & Energy Storage, Network Technology/Network Operation Forum of the VDE (FNN)
- 12:45 Lunch in the exhibition area

- 14:00 Key findings and recommendations for grid integration Meta-study highlights the status quo Florian Regnery, Project Manager for Electric Mobility & Energy Storage, Network Technology/Network Operation Forum of the VDE (FNN)
- 14:30 **The digitization of the energy transition: the next steps** Alexander Kleemann, Desk Officer, Federal Ministry for Economic Affairs and Energy (BMWi)
- 15:00 Moderated discussion Electric vehicles – integrating electric mobility charging points into urban distribution grids Bastian Pfarrherr, Head of Innovation Management, Stromnetz Hamburg GmbH

Electric Mobility Avenue – Electric mobility needs strong power grids Dr. Selma Lossau, Director of Electric Mobility Grid Integration, Netze BW GmbH

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

#### BIDIRECTIONAL CHARGING

Johann Wenzel Stamitz Saal

- 16:00 **Vehicle-to-grid business cases in Europe** Tim van Beek, CEO and Co-Founder, S. Moorman, EVConsult BV, Netherlands
- 16:30 Integration of electric vehicles into the electricity grid: hardware, software and the customer proposition Tom Pakenham, Director Electric Vehicles, OVO Group, UK
- 17:00 Integration of distributed flexibility into the power system: requirements and needs of the transmission grid Axel Kießling, Manager Digital Transformation, TenneT TSO GmbH
- 17:30 **Reverse power flow as an addition to charging functionalities** Dr. Gunnar Bärwaldt, Manager Standards and Regulation for Grid Integration, Volkswagen AG

approx.

18:00 End of the first day of the conference

#### 19:30 Networking Dinner

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

#### BIDIRECTIONAL CHARGING II

#### Johann Wenzel Stamitz Saal

- 9:00 **Bidirectional charging management** Xaver Pfab, Project Manager Electric Mobility Grid Integration, M. Pilkington, BMW Group
- 9:30 Enhancement of electric mobility standards toward bidirectional charging Dr. Ingo Diefenbach, Head of Quality and Safety, Westnetz GmbH
- 10:00 **Bidirectional charging: a regulatory framework** Sarah Schweizer, Partner, A. Matzner, Schweizer Legal
- 10:30 Refreshment break with coffee and tea in the exhibition area

#### **RESEARCH FACTORS I**

Johann Wenzel Stamitz Saal

- 11:00 The Global Grid Integration Project GGIP Growing an interoperable ecosystem through a common testing approach Dr. Harald W. Scholz, Project Leader Interoperability of Electric Vehicles, Smart Grids & Smart Homes, Joint Research Centre European Commission (JRC); T. Eberz, Ford-Werke GmbH; O. Logvinov, IoTecha Corp.; B. Sole, H.Selle, Dr. Ing. h.c. F. Porsche AG; K. Hardy, Argonne National Laboratory; L. Driessen, ElaadNL; and the whole GGIP Team
- 11:30 The importance of electric vehicle infrastructure planning in road networks for the German energy system Dr. Katrin Goldammer, Managing Director, O. Arnhold, J. Gemassmer, J. Hartmann, A. Windt, Reiner Lemoine Institut gGmbH
- 12:00 Lunch in the exhibition area

#### BUSINESS MODELS FOR ELECTRIC MOBILITY

Johann Wenzel Stamitz Saal

Developing customer-centric 13:00 electric mobility ecosystems Presentation of the workshop results Klaus Baumgärtner, Managing Director, BridgingIT Group

#### **RESEARCH FACTORS II**

Johann Wenzel Stamitz Saal

- 13.30 Environmental impact of electric vehicles influence of intelligent charging strategies Steffen Fattler, Research Associate, A. Regett, Forschungsstelle für Energiewirtschaft e. V. (FfE)
- 14:00 Preferences and perceptions of bidirectional charging from the customer's perspective Prof. Dr. Josef F. Krems. Professor of Cognitive and Engineering Psychology, B. Kämpfe, Department of Psychology, Chemnitz University of Technology
- Refreshment break with coffee and tea in the exhibition area 14.30

#### KEYNOTE LECTURES II

## **GRID INTEGRATION OF ELECTRIC MOBILITY**

A comparison of electric mobility in Germany and other countries from a political perspective

ELECTRIFIED MOBILITY

(Speaker inquired)

- 15:25 Research into the production of battery cells - What does it mean to be Germany's leading institute in this field? Dr. Falko Schappacher, Director of the MEET Battery Research Center, Münster University (WWU)
- 15.50 Electric mobility in Germany – Industrial funding initiatives from a business perspective (Speaker inquired)
- 16.15 Joint app-based discussion of the keynote lectures

#### 16:30 **Closing remarks**

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

approx.

15:00

16:45 End of the conference Musensaal

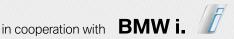
bridging IT



## THE CONFERENCE IS SUPPORTED BY BMW i

BMW i is a BMW Group brand that stands for visionary vehicle concepts, networked mobility services and a new understanding of the idea of premium products that is heavily based on sustainability. BMW i is represented in 76 countries with the BMW i3 (battery electric city car, available since 2013) and the BMW i8 (sports car of the future, available since 2014). BMW i opens up new target groups on behalf of the company and functions as an incubator for innovations. Once technologies have been successfully used by BMW i, they are transferred to the BMW parent brand.

Other companies in the BMW Group and its shareholdings that are associated with BMW i include ShareNow (car sharing), ChargeNow (easy access to the world's largest network of charging stations), ParkNow (finding, booking and paying for parking spaces easily), BMW i Ventures (investment in young companies with a focus on urban mobility), BMW Energy Services (services for optimizing energy efficiency) and the Competence Center for Urban Mobility (consultancy service for municipal authorities).



www.bmwgroup.com

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www.bridging-it.de

## WORKSHOP

#### Developing customer-centric electric mobility ecosystems

"How can we establish an agile, open and connected electric mobility ecosystem, where vehicles can be charged just as easily as they can be refilled with conventional fuels and where new business models covering all aspects of value added services are set up?"

In this interactive workshop, which is being held separately from and in parallel with the lectures of each conference, representatives of the automotive, energy and IT industries will be able to discuss this question.

Moderators: Lars Christiansen, CEO, Seed Investments GmbH, BridgingIT Group Dr. Reha Tözün, Business Manager, BridgingIT Group

The workshop takes place at 11:30 a.m. on November 12. The number of participants is limited. To take part in the workshop, please register before the event by sending an email to: **ATZlive@springernature.com** 

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For information on the various presentation options, please contact: Elke van Lon I Phone +49 611 7878-320 elke.vanlon@springernature.com

## **REGISTRATION FEE**

#### € 1,295. – plus VAT

This includes the conference documentation, coffee breaks, soft drinks, two lunches, and the evening reception.

## VENUE

**Congress Center Rosengarten** Rosengartenplatz 2 68161 Mannheim | Germany

## HOTEL

We have made an advance block booking of a limited number of rooms at a discounted price. The Congress Center is directly linked to the hotel. Please book your hotel room by October 27, 2019 quoting the keyword "ATZlive".

Hotel Dorint Friedrichsring 6 68161 Mannheim Phone +49 621 12510 reservierung.mannheim@dorint.com € 140.– Single room, including breakfast

## LANGUAGES USED IN THE PRESENTATIONS

German and English with simultaneous interpreting (German – English / English – German)

## THE NEW EMAGAZINE ATZWORLDWIDE AND ATZELECTRONICS WORLDWIDE

All the participants in the conference will receive our new English-language eMagazine free of charge and without any obligation.

We will give you free access for 30 days.



## CONDITIONS

Cancelations are possible until 21 October 2019. If a cancelation is made after this date, the full registration fee will be charged. Cancelations must be made in writing. The date of the postmark will determine whether the deadline has been met. If you are unable to attend, we will be happy to accept a substitute participant.

Should a speaker be unable to attend at short notice by reason of force majeure, illness, accident, or other circumstances for which ATZlive cannot be held responsible, another qualified person will be appointed to the exclusion of any claim for compensation. Should the event be canceled altogether, we will of course refund the registration fee.

Should a speaker be unable to attend at short notice by reason of force majeure, illness, accident, or other circumstances for which ATZlive cannot be held responsible, another qualified person will be appointed to the exclusion of any claim for compensation. Should the event be canceled altogether, we will of course refund the registration fee.

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## THE ORGANIZER



ATZlive // Spotlight on Powertrain and Vehicle Engineering //

ATZlive organizes its high-caliber conferences for vehicle and engine specialists together with key representatives from research and industry to ensure that they are tailor-made to the needs of the participants and address the very latest issues. Our close collaboration with the editorial teams of our specialist magazines ATZ and MTZ keeps us fully up-to-date with on the latest topics and trends on the market.

Springer, with its automotive technology brands the ATZ and MTZ Group, is part of Springer Nature, one of the world's leading publishing groups for scientific, educational, and specialist literature.

## **Grid Integration of Electric Mobility** 12 and 13 November 2019 | Mannheim | Germany

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\* The General Terms and Conditions for Events by Springer Fachmedien Wiesbaden GmbH apply, as published on the website www.atzlive.de/en/standard-terms-of-business/

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Date, Signature