



# Welcome to the Symposium 2023




VOLKSWAGEN GROUP

**Kristin von Szadkowski**

Kristin von Szadkowski studied biomimetics (Bionik) and mechanical engineering, and she specialized in the field of robotics and mechatronics. She worked at the German Research Centre for Artificial Intelligence, Robotics Innovation Centre before joining Volkswagen Group in 2017, first in the area of Automotive Service Robotics and from June 2021 in the area of sustainability as manager and coordinator in the field of action „Go.Sub-Zero“ for the development of solutions for carbon-negative and circular mobility.



 Synhelion

Dr.  
**Gianluca Ambrosetti**

Dr. Gianluca Ambrosetti is CEO and co-founder of Synhelion. He has a PhD in Physics/Nanotechnology from EPF Lausanne. Before founding Synhelion, he held various leadership positions in the concentrated solar power and photovoltaics industry. His achievements include several patents and scientific publications, and he is the recipient of the EPFL Prix Prof. René Wasserman 2011. Synhelion is a global pioneer in the field of carbon-neutral solar fuels.



 SBB CFF FFS

Dr.  
**Roland Moser**

Dr. Roland Moser is Head of Technology Office at SBB since 2021. He holds a PhD in engineering from EPF Lausanne, and a MBA from the University of Chicago. Prior to this assignment, Roland Moser held international technology management positions with ALSTOM and General Electric (GE). He won various corporate, industry and venture awards for innovation and is author of numerous peer reviewed journal papers and conference publications and over 20 patents in the field of non-destructive testing, robotics, machine tools and magnetic levitation. He currently chairs the European Railway Research Advisory Council.



**SIEMENS**

Dr.  
**Andreas Mehlhorn**

Dr. Andreas Mehlhorn is Global Head of Sustainability at Siemens Mobility, being responsible both for sustainable business strategy, including business development consulting and innovative as well as sustainability within own operations. Prior to this, Andreas Mehlhorn was heading Consulting and Business Development at Siemens Mobility, driving innovative solutions and digitalization initiatives with customers. He has 15 years experience of co-innovation with governments, city authorities and mobility operators and is a renowned mobility strategist with focus on the business impact of new technologies.

08:30 *Poster session & registration*

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09:15 Welcome, **Prof. Dr. Christopher Onder** (CSFM, ETH Zurich)

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09:25 Digital twin project of the CSFM, **Dr. Jascha Grübel** (CSFM, ETH Zurich)

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09:50 MI project presentation: **EVAdopt** - Overcoming barriers to electric vehicle adoption, **Dr. Davide Cerruti** (Centre for Energy Policy and Economics, ETH Zurich)

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10:10 MI project presentation: **IARMO** - Interactive augmented reality-guided maintenance, **Dr. Julian Wolf** (Product Development Group, ETH Zurich)

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10:30 *Break*

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11:00 MI project presentation: **LROD-ADAS**, Long-range obstacle detection for early alert in advanced driving assistance, **Dr. Cornelius von Einem** (Autonomous Systems Lab, ETH Zurich)

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11:20 Short pitches - Best poster award (from preselected posters)

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12:00 *Lunch & poster session*

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13:30 Welcome to part II

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13:35 Beyond carbon-neutral mobility – Sustainability in the Volkswagen Group Innovation, **Kristin von Szadkowski** (Lighthouse & Field of Action Lead at VW)

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14:15 Sustainable fuels for the future transportation sector, **Dr. Gianluca Ambrosetti** (CEO and founder of Synhelion)

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14:55 *Break*

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15:20 European rail research advisory council vision for 2030 and 2050 & the relevance for Swiss railway, **Dr. Roland Moser** (Head of Technology Office, SBB)

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16:00 Panel discussion: Research & innovation for sustainable mobility, with **Kristin von Szadkowski** (VW), **Dr. Gianluca Ambrosetti** (Synhelion), **Dr. Roland Moser** (SBB), **Dr. Andreas Mehlhorn** (Siemens Mobility), and moderated by **Prof. Dr. Christopher Onder** (Dynamic Systems and Control, ETH Zurich)

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16:45 Closing remarks

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17:00 *End of conference*

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**ETH**zürich

Prof. Dr.  
**Christopher Onder**

Dynamic systems, control systems, engine systems, vehicle propulsion systems, control oriented modeling and optimisation at the Institute for Dynamic Systems and Control (IDSC), ETH Zurich and member of the CSFM



**ETH**zürich

Dr.  
**Jascha Grübel**

Digital Twin of the Swiss mobility system, Center for Sustainable Future Mobility (CSFM), ETH Zurich



**ETH**zürich

Dr.  
**Davide Cerruti**

Environmental, energy and public economics, with special interest on transportation and taxation at the Centre for Energy Policy and Economics (CEPE), ETH Zurich



**ETH**zürich

Dr.  
**Julian Wolf**

User centered product development at the Product Development Group (pdiz), ETH Zurich



**ETH**zürich

Dr.  
**Cornelius von Einem**

Detection and tracking of objects over long distances at the Autonomous Systems Lab (ASL), ETH Zurich

