



International Conference  
on the Transformation Process in Fluid  
and Energy Systems in Cars and Trucks

# tank.tech

May 7 – 8, 2024

Fürstenfeldbruck (near Munich), Germany

Program



# About the Conference

Under the headline "**tank.tech in transition**", the transformation process in the field of fluid and energy systems will be discussed at the next conference in May 2024.

A new conference concept provides for a joint presentation block as well as topic-specific parallel sessions. This is intended to take account of the diversity of the new topics without losing focus on the common aspects. The accompanying exhibition will be a further connecting element.

## Areas

1. Tank systems for e-fuels and biofuels as well as fossil fuels for applications in combustion engines and hybrid vehicles; SCR systems
2. Tank systems for hydrogen (gaseous and liquid)
3. Battery enclosures / energy storage enclosures for electrified vehicles and their thermal management systems (without battery cell)
4. Active cleaning systems (camera and sensor cleaning systems e.g. for autonomous driving)

## The Conferences is intended for

- OEMs and supplier industries
- Component manufacturers and developers
- Consulting and engineering companies
- Mineral oil industry
- Universities and research institutes
- Authorities and associations

# May 7, 2024

09:45 **Welcome and introduction**  
Walter Reithmaier,  
CEO TÜV SÜD Product Service GmbH (DE)

## Development Strategies in the Transformation Process

10:00 **The revolution of powertrains for the future: how to charge, store and supply energy onboard our vehicles?**  
Thierry Campenon, CTO at Plastic Omnium  
Clean Energy Systems (FR)

10:30 **Implementing technology openness at BMW**  
Carsten Eidmann, BMW Group (DE)

11:00 Coffee break

## Introductory Presentations to the Parallel Sessions

11:45 **Hydrogen in transportation**  
Prof. Dr. Werner Tillmetz,  
h2connect/Bodensee (DE)

12:15 **New approaches and trends in battery research**  
Prof. Dr. Maximilian Fichtner, Helmholtz  
Institute Ulm for Electrochemical Energy  
Storage (DE)

12:45 **Sensor technology for ADAS and requirements for active cleaning systems**  
Tilman Gasche, Director Automotive Business,  
Hesai Technology

13:15 Lunch

# Parallel Session 1

## Tank Systems for Hydrogen

- 14:30 **Hydrogen Storage System diversification for enabling multiple applications**  
Julien Salvat, Toyota Motor Europe (BE);  
Shusuke Inagi, Masashi Nakamura,  
Hiroki Yahashi, Ryoya Kobayashi, Toyota Motor Corporation (JP)
- 14:55 **Accelerated R134 certification of a Type 4 hydrogen tank based on DoE ability**  
Christophe Schwartz, Carolin Cichosz,  
Marcel Stakelies, Anton Stahl, Gordon Transier,  
Voith Composites SE & Co KG (DE)
- 15:20 **Design and type approval according to EU 2021/535 of LH2 storage systems for on-road mobile applications**  
Dr. Thomas Stepan, Dr. Johannes Winklhofer,  
SAG (Salzburger Aluminium Gruppe) (AT)
- 15:45 Coffee break
- 16:30 **Empowering clean energy solutions: advanced integration of gaseous hydrogen fuel subsystems for high-pressure storage**  
Sauhaib Filali, Swagelok Munich (DE)
- 16:55 **Testing and certification of hydrogen components outside the standardized regulatory framework**  
Martin Sekura, TÜV SÜD Product Service GmbH (DE)
- 17:20 **Smart hydrogen storage systems for all hydrogen powertrains**  
Bjorn Criel, Plastic Omnium New Energies (BE)
- 17:45 **End of the first conference day**  
**Evening event**

# Parallel Session 2

## Battery Enclosures for Electrified Vehicles

- 14:30 **Composite battery enclosures on their way to series production**  
Dr. Roman Bouffier, KAUTEX TEXTRON GMBH & CO. KG (DE)
- 14:55 **Light and safe: Function-integrated battery housings made of plastic**  
Felix Behnisch, Christoph Ganthaler,  
Röchling Automotive (IT)
- 15:20 **Transforming electric vehicles with two-phase immersion battery module**  
Eitam Friedman, Carrar (IL);  
Lawrence Mukaronda, Gentherm (DE)
- 15:45 Coffee break
- 16:30 **BEV Thermal management control module**  
Jan Nimrichter, Michael Brock, J. Groom, Stant Manufacturing s.r.o. (CZ)
- 16:55 **Thermal runaway protection for electric vehicles: an approach for composite materials in series production**  
Dr. Maximilian Schäfer, SGL Composites GmbH (AT)
- 17:20 **Economical and ecological lightweight construction of battery housings with high-strength steels**  
Andreas Untiedt, thyssenkrupp Steel Europe AG (DE)
- 17:45 **End of the first conference day**  
**Evening event**

# Parallel Session 3

## Active Cleaning Systems

- 14:30 **Integrated sensor cleaning system (air & washer) mounted on roof for autonomous vehicle**  
Seongcheol Cho, Hyundai Motor Company;  
Chulyoung Choi, Donghee; Buhyeon Cho,  
Hyundam (KR)
- 14:55 **Definition, architecture and optimization of sensors cleaning systems**  
Bruno Gaignard, Denis Thebault, Valeo Wipers Systems (FR)
- 15:20 **MESHFREE simulations in spray cleaning: from full 3D model to reduced liquid layer model**  
Jörg Kuhnert, Isabel Michel, Benjamin Bock-Marbach, Fraunhofer Institute for Industrial Mathematics ITWM;  
Matthias Joppa, Fraunhofer Institute for Process Engineering and Packaging IVV (DE)
- 15:45 Coffee break
- 16:30 **Autonomous rides need clean view: Ensuring autonomous safety with the ASCS**  
Stefan Kleineberg, Vitesco Technologies GmbH (DE)
- 16:55 **Impact of environmental and dynamic conditions on sensor cleaning performance**  
Björn Stell, KAUTEX TEXTRON GMBH & CO. KG (DE)
- 17:20 **Cleaning System for Automated Mobility (CS4AM): A full system approach to ensure availability of ADAS-Systems in L3/L4 vehicles**  
Anisha Saxena, Lukas Leitz, Robert Bosch GmbH (DE)
- 17:45 **End of the first conference day**  
**Evening event**

# May 8, 2024

## Fuels and Emissions

- 09:00 **Current status of emissions legislation for passenger cars and commercial vehicles**  
Kurt Engeljehringer, AVL List GmbH (AT)
- 09:30 **Handling and fueling – Challenges of future fuels**  
Marcella Frauscher, Adam Agócs, Jessica Pichler, Michael Adler, AC2T research GmbH (AT)

## Simulation and Testing

- 10:00 **Aluminium pressurized fuel tanks system for a high-performance PHEV passenger car (Lamborghini)**  
Giovanni Ceriello, Duerre Tubi Style Group S.p.A.; Silviu Nicolae Dobre, Automobili Lamborghini (IT)
- 10:30 Coffee break

## Sustainability

- 11:15 **Scaling trustworthy product carbon footprints to meet future requirements of automotive supply chains**  
Dr. Max Rehberger, TÜV SÜD Product Service GmbH (DE)

## Outlook: Strategies for the Future

- 11:45 **Direction of development for Multi Pathway Approach**  
Yoshihiro Ota, FTS CO. LTD. (JP)

# May 8, 2024

- 12:15 **BMW iX5 Hydrogen and Future H2-Storage Solutions**  
Dr. Klaas Kunze, BMW Group (DE)
- 12:45 **Outlook and farewell**  
Walter Geier, TÜV SÜD Product Service GmbH (DE)
- 13:00 **Joint lunch / End of the conference**



## Exhibition

Interested companies have the opportunity to present their products and services at the exhibition which will be held in parallel with the conference.

For more details about costs and availability, please contact  
Susanne Zecher  
susanne.zecher@tuvsud.com  
Phone +49 5791 2414

# Program Committee

**Masaki Akagi**, FTS CO.,LTD (JP)  
**Dirk Eulitz**, Kautex Textron GmbH & Co. KG (DE)  
**Dr. Klaas Kunze**, BMW Group (DE)  
**Joël Op de Beeck**, Plastic Omnium (BE)  
**Martin Stickel**, TI Fluid Systems (DE)  
**Timo Wiedel**, Mercedes-Benz AG (DE)

**Chair:**

**Walter Geier**, TÜV SÜD Product Service GmbH (DE)

## Conference languages

The conference languages are German and English. A simultaneous translation into English will be provided for presentations given in German.

## Conference Fee

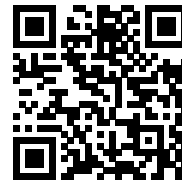
**€ 990,00 plus VAT (if applicable)**

The conference registration fee includes digital conference documentation, lunch, snacks and beverages during breaks as well as the evening event.

### Registration & Information

Scan QR code or visit

[www.tuvsud.com/akademie/tanktech](http://www.tuvsud.com/akademie/tanktech)



## Conference Venue



**Veranstaltungsforum Fürstenfeld**

Fürstenfeld 12

82256 Fürstenfeldbruck (Munich), Germany

**For further information please contact:**

**TÜV SÜD Akademie GmbH**

Westendstr. 160

80339 Munich, Germany

Susanne Zecher

Phone: +49 89 5791 2414

Email: [congress@tuvsud.com](mailto:congress@tuvsud.com)

In cooperation with

**TÜV SÜD Product Service GmbH**