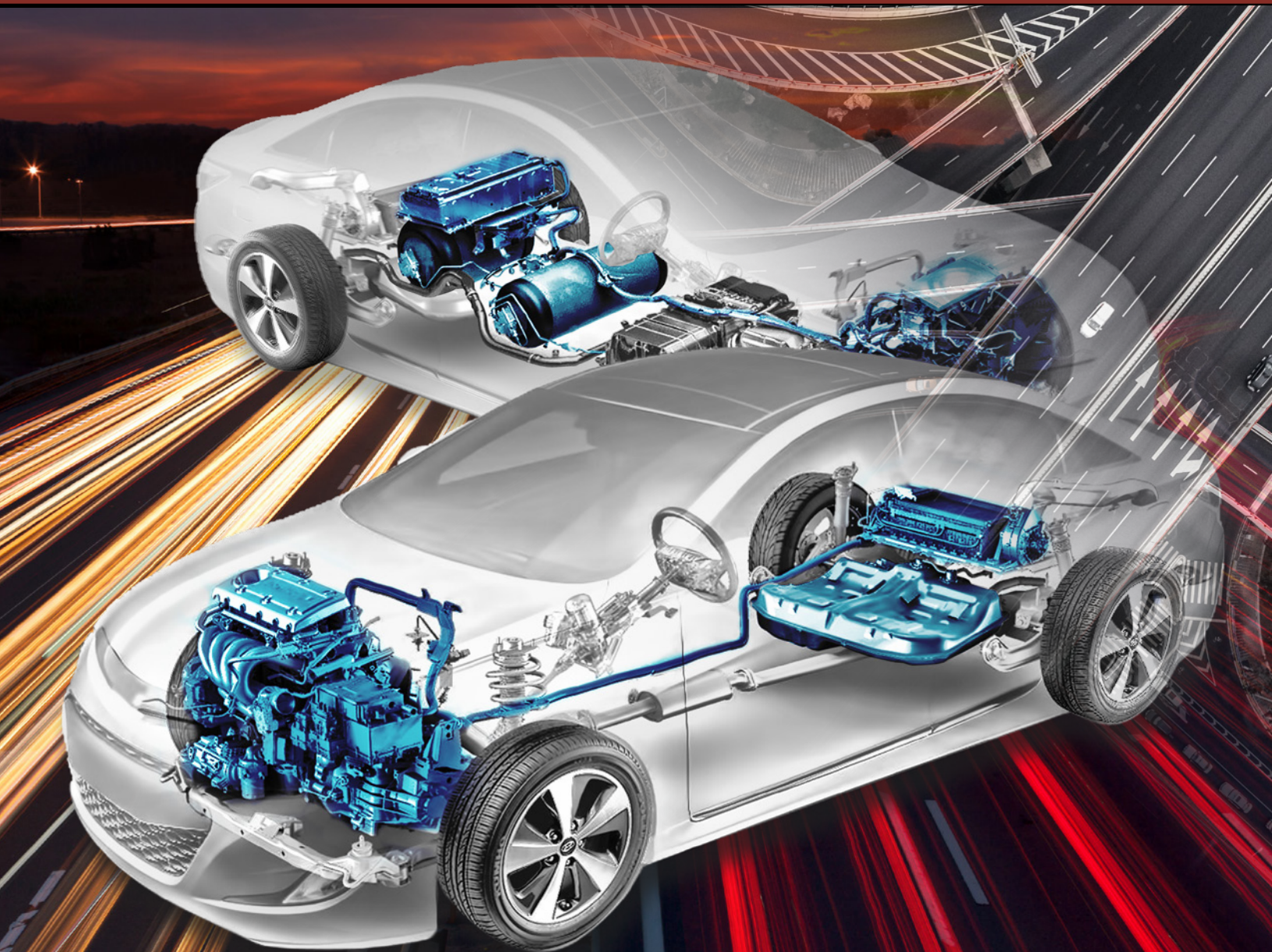


# ADVANCED MOBILITY FUELS SUMMIT 2024

**itB**  
GROUP  
*when technology matters*

**In-Person March 21, 2024**  
**The Sheraton Detroit Novi Hotel • Novi, Michigan, USA**



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# Program Agenda - March 21, 2024

7:30 a.m. Registration, Networking, and Continental Breakfast

8:45 a.m. Welcome and Opening Remarks  
*Dr. Joel Kopinsky, Managing Director and Co-Founder - The ITB Group*

## Reducing Greenhouse Emissions from Mobility

9:00 a.m. OEM Perspective on Technical Considerations for B20+ Capable Vehicles  
*Shailesh Lopes, Energy Standards Technical Specialist*  
**General Motors**

As the biodiesel industry increasingly focuses on promoting higher blend levels, it becomes crucial for diesel original equipment manufacturers and fuel system suppliers to understand and prepare for the challenges associated with the adoption of these higher biodiesel blends. This presentation will provide a high-level overview of some of the key challenges involved in adopting biodiesel blends up to B100.

9:30 a.m. Renewable Diesel and the Road Ahead  
*Matt Leuck, Technical Manager, Renewable Road Transportation, NA*  
**Neste**

The transportation sector is one of the largest contributors to greenhouse gas emissions. It is essential to accelerate the phase-out of fossil fuels and transition to a sustainable transportation system. An in-depth discussion will show how Neste's customers, including fleet owners and fleet operators, made the switch to renewable diesel to achieve their climate goals.

10:00 a.m. Oakland County, Michigan's Role in Advancement of Alternative Fuel Deployment  
*Chris Olzem, Mobility Innovations Coordinator*  
**Oakland County Michigan**

An introduction into Oakland County's current landscape of electric and hydrogen mobility initiatives will be discussed. Insights into objectives to foster collaboration with public and private sector partners, drive investment, reduce greenhouse gas emissions, and support the automotive industry will be highlighted.

10:20 a.m. Networking Break

## Developments in Compressed Hydrogen Storage Tanks

11:00 a.m. Benefits of Creating Hydrogen Tank Liners via Extrusion + Welding Compared to Other Common Processing Methods  
*Rob Kaminsky, Business Development Engineer - Arkema*  
*Jessica Kenepf, Applications Engineer*  
**Saint-Gobain**

The processing of Type IV hydrogen tank liners will be reviewed with a focus on the advantages of tank body extrusion with cap welding versus other methods such as rotomolding and extrusion blow molding. Scalability, pricing dynamics, final part consistency, and material considerations will all be discussed.

11:30 a.m. Advancements in BlowView-H2 Simulation Software: Design and Optimization of Thermoplastic Liners for Hyperbaric On-board Hydrogen Storage Tanks  
*Zohir Benrabah, Florin Ilinca, A. Malo, Sylvain Bournival, and Anna Bardetti*  
**National Research Council Canada**

In assessing Type IV tanks, a critical performance metric involves predicting the final shape of the liner and its thickness distribution after the cooling and solidification stage. Utilization of BlowView-H2 simulation software enables efficient prediction of post-blow molding deformation after different cooling cycles and hydrogen diffusion through a multilayer liner under diverse environmental conditions.

12:00 p.m. Fully Thermoplastic Compressed Hydrogen Cylinders  
*Bertrand Florentz, President*  
**BFLC&A (Technical Advisor to COVESS)**

Compressed hydrogen tanks have been developed with thermoplastic carbon fiber composites. Comparisons will be made with thermoset fiber composites. Key performance metrics will be presented together with an outlook to the future with Type 4 and Type 5 tanks.

12:30 p.m. Lunch

1:30 p.m. KEYNOTE ADDRESS

Hydrogen: A Strong and Viable Technology to Decarbonize Automotive Fuels  
*Todd Anderson, Vice President and Chief Technology Officer*  
**Phinia**

The energy sector is undergoing change and fuels have a fundamental role to play (not just



electricity/batteries). There are many net-zero future fuel options and how the market will react is still evolving. Hydrogen has a promising future for mobility whether ICE or fuel cells. The presentation will highlight Phinia's deep system knowledge and capabilities including a discussion of on-road applications of hydrogen components.

### **Powertrain Developments for Hydrogen Vehicles**

- 2:00 p.m. The Regulator Revolution – Building Efficient, Reliable Hydrogen Vehicles**  
*Dillon McLaughlin, Regional Sales Manager*  
**TESCOM**  
This presentation delivers expert guidance on selecting and configuring pressure regulators for optimal hydrogen vehicle performance. Discover key regulator features that will keep your vehicle on the road for longer distances, while allowing the fuel cell or hydrogen combustion engine to operate with peak efficiency.
- 2:20 p.m. Vehicle-Hydrogen Refueling Station Connectivity Analysis Tool**  
*Johan Bruyninx, Senior Technical Manager Fuel Systems and Pablo Lopez, Laboratory Supervisor Fuel Systems*  
**IDIADA Automotive Technology**  
SAE J2601 for hydrogen refueling is monitored to assure a safe charge and a full tank in the shortest time. The communication between the Hydrogen Refueling System (HRS) and vehicle is unilateral, from vehicle to HRS defined by SAE J2799. The HRS is fully responsible for the safe fueling of the vehicle. The presentation will show verification scenarios of real-life refueling events on the Hyundai Nexo.
- 2:45 p.m. Is there a Use Case for Hydrogen in Medium Duty Trucks?**  
*Charles Shappell, Engineering Director*  
**Forvia**  
FORVIA has established its capabilities on heavy duty fuel-cell vehicles providing customers with full hydrogen powertrain together with a complete 700 bar storage system. Ranges equivalent to diesel powertrains are accomplished. This presentation outlines challenges and opportunities that exist today with BEVs and the benefits of FCEVs for medium-duty trucks.
- 3:15 p.m. Challenges and Opportunities in Development of Heavy-Duty Hydrogen Internal Combustion Engines (Virtual)**  
*Dr. Aleš Srna, Senior Member, Technical Staff*  
**Sandia National Laboratories**  
This presentation will provide a summary of the advantages and challenges related to

the development of hydrogen-fueled internal combustion engines, including associated emissions. Current legislation and development statuses, along with an overview of opportunities for innovation and collaborative research will be highlighted.

### **3:45 p.m. Networking Break**

### **Material Challenges for Fuel Systems**

- 4:15 p.m. VESTAMID® Solutions for PFAS Free, Low Extractable Fuel Lines**  
*Dr. Christian Kochanek, Business Development Manager*  
**Evonik**  
Evonik's approach that PFAS is not needed to meet the requirements of low permeation, low extractable and even conductive fuel lines will be discussed. Comments on contemporary multi-layer fuel lines, complying with all requirements of present and future generations of gasoline engines, along with development insights and test data, will be provided.
- 4:35 p.m. Automotive Fluid Transport System: Performance Improvements through Material Innovation**  
*Anindya Banerji, R&D Coating Specialist*  
**Martinrea**  
Efforts to consistently meet and exceed OEM performance requirements for fluid transport hoses and tubes, as well as complying with stringent government regulations for evaporative emissions are driving material innovations. This presentation shows various instances of polymer systems incorporating graphene as an additive for improved lubricity, mechanical, and barrier properties for fluid systems.
- 4:55 p.m. Syensqo and PFAS: A Responsible Innovation Journey**  
*Greg Poterala, eMobility Marketing Manager*  
**Syensqo**  
Fluoropolymers and fluoroelastomers play a critical role for a sustainable future due to their unique chemical and temperature resistant properties. A broad PFAS restriction proposal is being considered in the EU, with inclusion of fluoropolymers even though fluoropolymers meet the OECD criteria of Polymers of Low Concern. This presentation will highlight the critical role of fluoroelastomers in mobility. Strategies for phasing out the use of fluorosurfactant in production processes will be addressed.
- 5:15 p.m. Closing Remarks**

# Advanced Mobility Fuels Summit

In-Person March 21, 2024

Sheraton Detroit Novi Hotel • 21111 Haggerty Road, Novi, Michigan 48375

Register On-line to Attend at [www.itbgroup.com](http://www.itbgroup.com)

\$900 (USD) Per Person

