



# Critical Technologies for Sustainable Vehicle Production 2023



February 15 and 16, 2023



Sheraton Detroit Novi Hotel  
Novi, Michigan, USA

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# Program Agenda - DAY ONE

Presentations will be made available to conference attendees two weeks after the conference has concluded AND when provided permission by the speaker

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

**8:30 a.m. Welcome and Opening Remarks**  
*Dr. Rose Ryntz, Vice President, Sustainability*  
**The ITB Group**

## 8:45 a.m. KEYNOTE ADDRESS

**Decoding Barriers to Sustainability**  
*Gina Oliver, Durable Markets Advocacy Leader*  
**American Chemistry Council Plastics Division**  
*and Dr. Soydan Ozcan, Sustainable Manufacturing Technologies Group Leader*  
**Oak Ridge National Lab**

The council will share the latest updates on plastic sustainability efforts, including an aggressive end-of-life roadmap for automotive plastics and a Memorandum of Understanding for automotive plastics circularity with Oak Ridge National Lab. This joint presentation will unravel the complex supply chain constraints and considerations contributing to the landfilling of shredder residue, discuss key challenges and development needs to enable circularity for durable automotive plastics, and disclose preliminary results from the ongoing collaboration.

**9:45 a.m. Networking Break**

## Decarbonization In Design and In Practice

**10:30 a.m. Paths to Tackle Scope 1-2-3 GHG Emissions Reductions Towards Final Carbon Neutrality**  
*Sophie Louis, Global Director Energy and Sustainability*  
**Kautex Textron**

Kautex committed to achieving an 80% reduction for Scope 1-2 emissions and a 30% reduction for Scope 3 emissions by 2030 before reaching Carbon Neutrality in 2050. Kautex explains its journey in this sustainable roadmap and practical steps which have been set in place to tackle this challenge at all levels of the organization including Process-to-CO<sub>2</sub>, Procure-to-CO<sub>2</sub>, Design-to-CO<sub>2</sub> and Recycling-to-CO<sub>2</sub>.

**11:00 a.m. Design for Carbon**  
*Carsten Niermann, Application Engineer, Sustainability*  
**AKRO-PLASTIC**

The presentation compares CO<sub>2</sub> footprints of plastic applications. Explanations with examples of different inputs including fillers, additives and the transport of compounds will be included. A guideline, and examples of how to reduce the footprint of the final application by using different polymers, different fillers, blends, and smart processing techniques will be highlighted.

**11:30 a.m. Circularity Adoption in the Auto Value Chain**  
*Frank Schumann, Global Marketing Manager, Automotive*  
**Trinseo**

The industry is facing multiple challenges which can be overcome to fill the gaps and enable solutions for wide scale decarbonization of automotive manufacturing. Hurdles preventing the industry from unlocking the full value of renewables and recycling streams to minimize greenhouse gas emissions will be considered. Furthermore, tools that track sustainability across the value chain, environmental impact criteria, and third-party certification will be addressed.

**12:00 p.m. Lunch**

## Delighting Consumers: Renewable/Recycled A-Surfaces

**1:15 p.m. Feel the Difference**  
*Fernando Caccia, CEO*  
**Bader Leather**

Bader has created a Sustainability Competency Center that supports social responsibility in maintaining a low carbon footprint in leather production. This presentation will discuss Bader's position in maximizing the use of leather, its natural leather recycling strategy in conjunction with upcycler Avema, preventing waste in hides, and creating products with upcycle potential.

**1:35 p.m. Sustainable Interior Surfaces in Artificial Leather**  
*Lynn Kubik, Manager Research & Development, Artificial Leather*  
**Continental Surface Solutions**

Artificial leather materials are being developed with attributes including recycled content, biomass content, and reduced VOCs. Use of recycled and biomass materials reduces reliance on virgin petroleum-derived materials. These concepts reduce the Global Warming Potential of materials with minimal changes to the performance.

**1:55 p.m. Enhancing Sustainability and Circularity in the Automotive Industry**  
*Chris Mayville, Market Development Manager*  
**Kraton Polymers**

Technology solutions that enable circularity and lower carbon footprints using recycled and renewable content, such as IMSS, CirKular + and CirKular+ ReNew products, will be discussed. An overview of Kraton's overall commitment to sustainability including approaches to enable the circular economy will be highlighted.

(continued)

## 2:15 p.m. Round Table Discussion

### How to Create Sustainable Options in Manufactured Products

*Kristin Oswick, Sales Director - Monolith*  
*Amy Stephen, Senior Application Engineer - The Materials Group*  
 Speaker TBD

## 3:15 p.m. Networking Break

## Bringing Sustainable Products to Market

### 3:45 p.m. A Plastic Replacement for a Greener Future

*Sanghyeok Lee, CSO*

#### Dongnam Realize

A new material called CXP Wood, the first injectable wood in the market, will be introduced. This technology will allow carbon emission reductions by replacing plastics. Examples of potential automotive applications will be highlighted.

### 4:15 p.m. Decarbonization Beyond Vehicle Electrification: A New Business to Deliver Innovative Sustainable Materials

*Leo Mazurek, Sales Director Interiors North America*

#### FORVIA

The decarbonization of the use phase of automobiles is being addressed by electrification. With approximately 60% of a car's production CO<sub>2</sub> footprint made up of its material, the next step is decarbonizing the production footprint of automobiles. MATERI'ACT, a FORVIA brand, is providing low-emission materials in four categories: compounds, foils as alternative to leather, carbon fibers, and green steel.

### 4:45 p.m. Leveraging Material Developments to Realize Carbon Neutrality and Enhance Vehicle Sustainability

*Drew Geda, Senior Polymer Materials Development Engineer*

#### Hyundai Motor Group

The presentation will outline methods where Hyundai/Kia has embraced sustainable material development through an analysis of commitments made towards these goals. And more importantly, how they are working towards realizing them.

## 5:15 p.m. Closing Remarks - End of Day One

## 8:00 a.m. Registration, Networking, and Continental Breakfast

### 8:30 a.m. Welcome and Opening Remarks

*Dr. Rose Ryntz, Vice President, Sustainability*  
**The ITB Group**

## 8:40 a.m. KEYNOTE ADDRESS

### GM's Supply Chain Sustainability Program

*Fred Gersdorff, Senior Manager, Socially Responsible and Sustainable Supply Chains*

#### General Motors

Topics including the impetus for GM's program, program focus areas, and key building blocks will be discussed. The presentation will conclude with an outlook for upcoming initiatives for the program. GM's multilevel philosophy *Everybody In* will be highlighted with illuminations of where GM seeks supplier input when shaping the program.

## Material Developments for Improved Net-Zero Performance

### 9:20 a.m. Enabling Circularity: Mono-Material Design for Automotive Applications

*David Schmitz, Business Development Manager*

#### Evonik Corporation

Strides towards sustainability and material developments that are enabling Tiers and OEMs to fulfill zero emission targets and achieve full circularity will be discussed. Strategy, challenges, and solutions for materials and applications, including a case study, will be presented.

### 9:40 a.m. Zinc Phosphate Variants and Thin Film Pretreatments Using Life Cycle Analysis

*April Tang, Technical Manager Surface Treatment*

#### Henkel

A cradle-to-grave life cycle analysis of an OEM pretreatment line will be detailed, seeking to replace traditional zinc phosphate pretreatment with Thin Film technology. An evaluation of the technologies' respective environmental footprints is presented. The assessment demonstrates clear gains in sustainability in the transition to Thin Film and provides a methodology for life cycle evaluations of other pretreatment technologies.

### 10:00 a.m. Beyond Bio-Based: Super-Sustainable Polyamide 11

*Rob Kaminsky, Business Development Engineer*

#### Arkema

Arkema will provide updates on its growing recycling business, its new bio-polymer plant, and recent partnerships made with downstream customers to provide sustainable automotive components. An update on Arkema's bio-feedstocks and the reduction in manufacturing carbon footprints will be included.

**10:20 a.m. Networking Break**

**10:50 a.m. Advanced Recycling: Opportunities for Sustainable Vehicle Production**  
*Timothy Dean, Senior Market Development Lead*  
**ExxonMobil Product Solutions**

Automotive OEMs intend to meet sustainability goals while maintaining product performance. A discussion on how to leverage mechanical and advanced recycling to help support automotive OEMs as they work to achieve these objectives, as well as an introduction of Exxtend™ technology for advanced recycling, will be provided.

**11:10 a.m. Into the Future: Lifting Sustainability to Scale**  
*Chris Johnson, Director of Sustainability*  
**Ascend Performance Materials**

The presentation will disclose bringing low-carbon materials to scale and improving material performance through mechanical recycling. A new toolkit will be formulated including Bio and Carbon credits, and keeping a high emphasis on clean energy and lowering emissions on prime products.

### Analytical Approaches to Measurement

**11:30 a.m. Life Cycle Assessment of Chemical Recycling**  
*Dr. Christoph Koffler, Technical Director, Americas*  
**Sphera**

The capabilities and limitations of the globally accepted life cycle tools will be explored. System boundary impacts will be detailed, including systems expansion through both additive and subtractive means. Finally, the potential associated risks of misinterpretation by non-technical audiences will be discussed.

**12:00 p.m. Traceability in Automotive Supply Chains and Empowering Suppliers**  
*Dr. Shyaam Ramkumar, Lead Business Developer and Strategy North America*  
**Circularise**

Through traceability and accounting of the materials, processes, and impacts at each step of the value chain, automotive suppliers, OEMs, and other stakeholders can make informed decisions to make vehicle production more sustainable. This will aid in compliance with emerging regulations and extract greater value through improved part reuse and material recovery.

**12:30 p.m. Lunch**

**1:30 p.m. Strategic Use of LCAs - A Comparative Review of Leather and Alternatives**  
*Katie Kutskill, Technical Director*  
**Sustainable Leather Foundation**

Life Cycle Analyses (LCAs) provide a tangible context and a definable output, supporting the industry on sustainable decision-making globally. However, these practical applications largely miss the grander concept of what LCAs, and comparative data provide. The comparative nature of leather and its alternatives provide a timely example for how LCA data should be calculated, interpreted, and utilized in purchasing, development, and strategic decisions.

### Re-Imagining Multi-Layer Electronics

**2:00 p.m. A Solution for Increased Use of Automotive Electronics: A New, Low-carbon Circuit Board**  
*Shinya Shimizu, Co-founder, CEO and CTO*  
**Elephantech**

Elephantech invented a novel process to manufacture low-carbon circuit boards with inkjet printing technology. The technology reduces CO<sub>2</sub> emissions by 77% and water consumption by 95%. Mass-production began in 2020 and is growing to meet the increasing demand for low-carbon techniques.

**2:30 p.m. Monetizing Sustainability with IMSE**  
*Janne Jääksä, Manager Product Planning and*  
*Karthikesh Raju, SVP, Marketing*  
**TactoTek**

Independent Life Cycle Analysis (LCA) studies show that IMSE can reduce CO<sub>2</sub> emissions in the manufacturing phase by up to 60%. There is financial value in recovering the metals and the plastics, unlike the conventional recycling practice which burns plastics. Preliminary results from chemical recycling studies provide a strong indication for economically viable plastics recovery. By combining the intrinsic benefits of IMSE, material savings, thinness, and simplified manufacturing, cost savings are being realized.

**3:00 p.m. Closing Remarks**

### Connect with Leading Companies in the Exhibit Hall

- Arkema
- Evonik
- Kraton Polymers
- Trinseo
- Covestro
- FORVIA
- Monolith



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In-Person on February 15 and 16, 2023

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

**Register to Attend at [www.itbgroup.com](http://www.itbgroup.com)**

\$900.00 (USD) per person to attend the conference