

Help Map the Future of Sustainability!

September 18-20, 2023
Omni Louisville Hotel
Louisville, Kentucky



TRENDS, MARKET DRIVERS, VALUE CREATION, CHALLENGES AND OPPORTUNITIES

Final Program

Special recognition for their guidance and suggestions on the planning of this Summit is given to the members of the ASC Sustainability Task Force:

- Renita Anderson, Ingevity
- Paul Bodager, Avery Dennison
- John Brandt, Covestro LLC
- Sam Brooks, Palmer Holland
- Kristine Brown, Tremco
- Eric Dumain, Arkema
- Gloriamar Gamez, Henkel
- Shaye Hardner, Worthen Industries
- Michaela Hofbauer, Synthomer
- Kylie Kennedy Manning, Dow
- Laura Kovach, Lanxess
- Matthew Kryger, 3M
- Sanjay Luthra, Arkema
- Peter Migchels, Kraton
- Monica Morano, Sika
- Alex Nyarko, Avery Dennison
- Ido Offenbach, Evonik
- Anthony Ostlund, 3M
- Nagesh Potluri, NanoCatalytics
- Blake Rupard, Bostik
- Daniel Sawyer, Natureworks LLC
- Stacy Sherman, The Gorilla Glue Company
- Daniel Sophiea, DuPont
- Joseph Spinnato, Bostik
- Ben Ward, Franklin International
- Erika Wetzel Fiehrer, The Gorilla Glue Company
- Chris White, Exponent

PROGRAM SCHEDULE

*presentation titles and speaker time subject to change

Monday, September 18, 2023

6:30 – 7:30 p.m. **MEET AND GREET RECEPTION**
Speakers and Attendees (optional)
Olmsted Ballroom Prefunction, Level Two

Tuesday, September 19, 2023

7:00 – 8:30 a.m. **REGISTRATION**
Olmsted Ballroom Prefunction, Level Two

7:30 – 8:30 a.m. **CONTINENTAL BREAKFAST**
Olmsted Ballroom 1 & Prefunction, Level Two

8:45 – 9:00 a.m. **WELCOME & OPENING REMARKS**
Bill Allmond, ASC President
Olmsted Ballroom 2 & 3, Level Two

9:00 – 9:45 a.m. **KEYNOTE: Introduction to What is Sustainability**



Ken Alston, Co-founder, Circularity Edge

Olmsted Ballroom 2 & 3, Level Two

This keynote presentation is suitable for both beginners and those with existing sustainability know-how. For the beginner, there is a short review of historical sustainability concepts. Starting with the 1986 report of the United Nations Committee on Environment and Development where the definition of 'sustainable development' was first coined. The presentation transitions quickly into a review of

"business sustainability" including the most used concepts and visualizations of sustainability from 1990 to today. The core of the presentation is focused on business sustainability and what we now call 'the circular economy'. It is ideal for both new and more advanced participants.

9:45 – 10:30 a.m.

ESG Case Study – Role of Sustainability at a Manufacturing and Logistics Company

Maria Dunn, ESG & Sustainability, Emerging Energy & Sustainability, Phillips 66

Olmsted Ballroom 2 & 3, Level Two

Phillips 66, a diversified manufacturing & logistics company, based in Houston, Texas, will lead a case study of the development and integration of sustainability at a new company within a mature sector. As part of the supply chain for adhesives and sealants, Phillips 66 identifies and manages technical and non-technical, e.g., ESG, risks and opportunities. The interactive session will cover a working definition of sustainability, identifying current external drivers and application to business. Economics and ESG measure components of a sustainability strategy. Progressing sustainability from random acts of goodness to prioritized issues, activation with the firm and engagement with identified stakeholder will be illustrated. Measuring the impact of risk avoidance or risk mitigation and other value creation will be identified, including accurate data and disclosures that don't greenwash. The session will wrap up with a discussion of the future of ESG, evolving regulations and the role for continued voluntary disclosures.

10:30 – 10:45 a.m. **BREAK**

10:45 – 11:30 a.m.

Sustainability Unraveled: Circular Adhesive Formulation

Erin L'Hotta, Global Marketing Manager, H.B. Fuller Company

Olmsted Ballroom 2 & 3, Level Two

Within the adhesive industry sustainability remains a popular term, yet its true meaning in relation to adhesive development is still being defined. In this presentation, you'll learn the different approaches to sustainable adhesive design in support of the Ellen MacArthur Foundation Circular Economy. Gain clarity on the definitions of repulpable, compostable, and fossil-free adhesives and greenwashing terminology to avoid.

11:30 a.m. – 12:15 p.m.

PFAS Here, PFAS There – PFAS Everywhere

George Pilcher, Vice President, The ChemQuest Group

Olmsted Ballroom 2 & 3, Level Two

With state governments in the U.S., the European Union, China, and APAC all engaging in the race to regulate materials that contain PFAS (and many that do not), few manufacturers can afford to sit back and do nothing because "my products don't contain any PFAS." The fact of the matter is that a huge variety of products either may contain or do contain some level of PFAS, in areas that range from cookware to textiles; coatings for glass bottles to wires & cables; fiberglass & film tapes to artificial turf; caulks & adhesives to lightbulbs; and many, many more products in an extensive number of markets. How are we going to get our arms around "where we are with PFAS," strive to determine "where are we going with PFAS," and finally "how will we replace all vestiges of PFAS in high-performance products?"

12:15 – 1:15 p.m. **LUNCH**

Olmsted Ballroom 1 & Prefunction, Level Two

1:15 – 2:00 p.m.

Navigating Market Drivers for Sustainability: A Deeper Dive into the ASC Value Chain

Nicole Meyer, LCACP, Senior Account Manager, Sustainable Solutions Corporation

Shannon Belfield, EIT, Project Manager, Sustainable Solutions Corporation

Olmsted Ballroom 2 & 3, Level Two

With emerging regulations, standards, reporting frameworks, and science-based commitments, the market drivers for sustainability are increasingly driving organizations to better understand the impacts of their operations and value chain. This session will provide an overview of the current and emerging sustainability drivers for adhesive and sealant products with the construction, transportation, and packaging sectors. The session will include preliminary findings of SSC's 2023 Value Chain Assessment, which includes an overview of Scope 3 emissions, legislation and regulations which may impact the adhesive and sealant value chain, emerging technologies for end-of-life solutions, and end-market expectations for their upstream value chain partners.

2:00 – 2:45 p.m.

Use of Mass Balance Raw Materials for the Production of Adhesives and Sealants

John Brandt, Technical Manager, Adhesives and Sealants North America Coatings and Adhesives, Covestro LLC

Olmsted Ballroom 2 & 3, Level Two

While there has been a great deal of promotion of the Mass Balance approach to improve Sustainability in adhesives and sealants, there is significant misunderstanding across the industry as to what mass balance really means and how (or even if) it contributes to improved Sustainability. We will show how the use of Mass balance materials that offer attributed sustainable content is a necessary transition to a future with widely used sustainable raw materials. The real sustainability benefits that Mass Balance materials bring to our industry will be clarified. The growing range of available Mass Balance raw materials will be explored and the advantages of using Mass Balance products that do not require additional product development, new chemical registration, or end user reapproval will be explained. The importance of understanding what Mass Balance certification signifies for the raw material producer, the adhesive or sealant manufacturer and the end user and the meaning and implication of "attributed content" to each will be highlighted.

2:45 – 3:30 p.m.

Sustainability for Pressure Sensitive Label Adhesives

David Keely, Application Technology Leader, Dow Adhesives North America

Olmsted Ballroom 2 & 3, Level Two

Sustainability is a major driver in many packaging applications and is becoming increasingly important to consumers, brand owners and retailers. Sustainability for pressure sensitive label adhesives is currently not well defined. This presentation will begin with a review of the effects of contamination of label materials in various recycling streams. We will then discuss various routes to removing the labels along the value chain and the various technologies that can achieve this removability. We will then discuss the most common route to removability for labels in North America: wash off. Finally, we will summarize the Association of Plastics Recyclers (APR) test method for wash off for pressure sensitive labels from PET substrates and describe the development of a new product for this application.

3:30 – 4:15 p.m.

GHG Protocol Scope 3 Current Accounting Challenges within a Circular Economy: The Inclusion of Alternative Feedstocks and End of Life Accounting

Gloriamar Gamez, Sr. Sustainability Manager, Henkel Adhesive Technologies

Becky Kristopeit, Senior Manager CO₂ / Footprint Reduction, Henkel Adhesive Technologies

Olmsted Ballroom 2 & 3, Level Two

The chemical industry faces several challenges for the reduction of its carbon footprint. Among those challenges is how the current GHG protocol accounts for alternative carbon origins from bio-, atmo- and technosphere; as well as the end of life of products. Since the GHG Protocol was not designed to reflect circular carbon usage in the context of a de-fossilization of the chemical industry, as the GHG Protocol was set-up in a linear economy context. In this presentation we will explain these accounting challenges and a proposal in how to include circular carbon usage in the GHG accounting.

4:15 – 5:15 p.m.

GROUP DISCUSSION

Olmsted Ballroom 2 & 3, Level Two

5:15 – 6:15 p.m.

END OF DAY NETWORKING RECEPTION

Olmsted Prefunction, Level Two

Continue the conversation with an end of the day relaxer before heading out to dinner. Visit the registration desk for a list of local restaurants.

Wednesday, September 20, 2023

8:00 – 9:00 a.m.

CONTINENTAL BREAKFAST

Pool Deck Terrace, Level Three
(Weather backup - Distillery Foyer and Rye, Level Three)

9:15 – 9:30 a.m.

DAY TWO OPENING REMARKS

Bill Allmond, ASC President
Wheat Room, Level Three

9:30 – 10:15 a.m.



KEYNOTE: Global Perspectives for Sustainability Across the Acrylic Value Chain for CASE Applications

Eric Dumain, Global Marketing Director, Arkema Coating Resins

Wheat Room, Level Three

Some perspectives as to how Arkema participates in the value chain for Adhesives, Sealants, Coatings and Elastomers as a raw material supplier. The company's approach to Innovation and Sustainability, avoiding green-washing will be discussed.

Opportunities and challenges for reducing carbon foot print and its impact on climate change will be highlighted.

10:15 – 11:00 a.m.

Academia Perspectives: Sustainable Adhesives from Bio-Based Feedstocks and Biomimetic Chemistry

Jonathan Wilker, Professor, Purdue University

Wheat Room, Level Three

Mussels, oysters, barnacles, and kelp making adhesives for staying in place. Modern adhesives have excellent performance but create environmental issues owing to inability to debond substrates, hinderance of materials recycling, and contributions to ocean microplastics. The chemistry of adhesives in sea creatures, such as mussels and oysters, is guiding our efforts to develop new classes of sustainable materials. When combined with catechol chemistry from shellfish, both proteins and vegetable oils can provide the basis for new high-performance adhesives. Bond strengths can compare with epoxies, costs can be low, and precursors are already available on train scale scales. Fundamental studies of how sea creatures stick are now yielding adhesives that can be derived from fully sustainable feedstocks.

11:00 – 12:15 a.m.

RAW MATERIALS SESSION – Wheat Room, Level Three

11:00 a.m. – 11:25 a.m.

Pine Needle Movers - Quantifying CO2 to Meet Sustainability Goals **Laura James, Marketing Specialist, Kraton Corporation**

Historically, sustainability has been viewed by many as a nice-to-have rather than a must-have within various parts of the adhesive supply chain. Now, however, many companies have well-established metrics implemented with fixed timelines. How does the industry meet these goals with reliable, traceable data that is simple to produce and transfer? This discussion will explore topics including LCA, mass balance, recordkeeping, and resource allocation to meet internal targets as well as customer requirements.

11:25 a.m. – 11:50 a.m.

Advanced Mechanical Recycling/Compatibilization of Polymers/Fillers in Adhesives and Sealants Using 1.5-Nanometer Titanates and Zirconates

Salvatore Monte, President, Kenrich Petrochemicals, Inc

Different types of adhesives and sealants use polymers such as polyurethane (PU), epoxies (EP), polyamides (PA), ethylene-vinyl acetate-copolymers (EVA), poly (vinyl acetate) (PVAc), silicones, phenolics, acrylics, cyanoacrylates, and urea-formaldehyde adhesive to name a few. The most common fillers used are CaCO3, BaSO4, ATH, amorphous silica, and kaolin clay. It will be shown that all of the aforementioned polymers and fillers can be catalyzed and coupled "in situ" absent hydrolysis mechanisms using 1.5-Nanometer Titanates and Zirconates to react/compatibilize with each other or with a host recycle binder.

11:50 – 1:15 p.m. **LUNCH –** Pool Deck Terrace, Level Three

(Weather backup - Distillery Foyer and Rye, Level Three)

1:15 – 2:00 p.m.

Materials Selection in Product Design

Leah Sullivan, Business Development Manager, Münzing

Wheat Room, Level Three

Interest in sustainable coatings and adhesives continues to increase. Here, we introduce a snapshot of standards and materials applicable to sustainable adhesives, followed by examples of various additives with substantial bio-based content and no compromise in performance.

2:00 – 2:45 p.m.

GROUP DISCUSSION – Wheat Room, Level Three

2:45 – 3:00 p.m.

CONFERENCE WRAP UP – Wheat Room, Level Three

MEET OUR SPEAKERS & MODERATORS



KEN ALSTON

Cofounder, Circularity Edge, LLC

Ken is an original! Born in the United Kingdom, Ken is a dual citizen and now resides in the United States of America. He has been actively involved with business sustainability from its earliest beginnings. He worked in a major multi-national consumer products company as Director of Sustainable Product Innovation, Worldwide, and now for over 23 years as a consultant. He holds a bachelor's degree in applied chemistry and an MBA from Brunel University in West London and Henley Management College, Oxford, UK. He is recognized as the trusted authority on sustainable business growth. His unique perspectives on 'real sustainability' and 'real circularity' provide valuable insights for executives who want to explore the business benefits of aligning with nature's real sustainability principles.



SHANNON BELFIELD

EIT, Project Manager, Sustainable Solutions Corporation

Shannon is a Project Manager at Sustainable Solutions Corporation. She has experience working on Life Cycle Assessments, Waste Diversion Assessments, and Material Ingredient Reporting. Shannon graduated from Drexel University with a Bachelor of Science in Civil Engineering and a Master of Science in Environmental Engineering.



JOHN BRANDT

Technical Manager, Adhesives and Sealants North America Coatings and Adhesives, Covestro LLC

John received his BS in Chemistry and a Masters in Polymer Chemistry from Carnegie Mellon University. He began his Covestro career in the Coatings laboratory in 1988. In 1997 he became a Key Account Manager for Adhesives and in 2000 transferred to Germany and worked in both Dormagen and Leverkusen, where he was named commercial head of the Adhesives and Sealants business for Europe in 2003. After his return to the US in 2005, John served in a number of roles in the Functional Films, Cosmetic Raw Materials and Carbon Nanotubes businesses. In 2012 John rejoined the Coatings and Adhesives organization and has since served as North American Technical Manager for UV Curable Coatings, Infrastructure and Adhesives and Sealants.



ERIC DUMAIN

Global Marketing Director, Arkema Coating Resins

Eric has been with Arkema for 12 years and in the coatings and adhesives industry for over 30 years. He has held a variety of global technical and commercial leadership roles during his career. He is currently a Global Marketing Director in Arkema's Coating Solutions reporting segment, based in Cary, North Carolina. He has expertise in commercializing new products, new business development, global technology transfer, and has a passion for sustainable development. He has a BS in Chemical Engineering from the University of Rochester and an MBA from the University of North Carolina at Chapel Hill's Kenan-Flagler Business School.



MARIA DUNN

ESG & Sustainability, Emerging Energy & Sustainability, Phillips 66

Maria is Phillips 66 chief governance officer, leading public policy, and sustainability strategy and engagement. Connecting people to improve business is her passion. Maria identifies and mitigates non-financial risk. Alumna of University of Illinois and Boston College, Houston is now home, enjoying free time with family, in yoga, or gardening.



GLORIAMAR GAMEZ

Sr. Sustainability Manager, Henkel Adhesive Technologies

Gloriamar is a Sr. Sustainability Manager at Henkel Adhesive Technologies for North America. In this role she supports the strategic implementation of Henkel Adhesive Technologies Sustainability Ambition 2030. Gloriamar has more than 17 years of professional experience on several sustainability topics, such as: climate change risk assessment, renewable energy procurement, sustainability reporting, advance water treatment technologies, energy recycling, sustainability public policy, among others. She has a Bachelor's degree in Chemical Engineering and a Master's in Sustainability and Environmental Management.



LAURA JAMES

Marketing Specialist – Kraton Corporation

Laura has 11 years of experience with adhesive tackifiers, most of which is focused on waterbased materials. Her experience includes synthesis of pine chemical tackifiers, dispersions, scale-up, formulation, and coating. She continues to work in the adhesives space, but is now focused on marketing and sustainability strategies. She obtained her BS in Chemistry from Georgia Southern University in 2011 and joined Arizona Chemical (later purchased by Kraton) after graduation.



DAVID KEELY

Application Technology Leader, Dow Adhesives North America

David Keely is the Application Technology Leader for Dow Adhesives North America. He is responsible for technical support for label, specialty PSA, graphic arts and other markets as well as development and promotional strategy. He graduated from West Virginia University in 1991 with degrees in chemistry and education. He is the author of numerous professional articles/presentations. Keely has been with Rohm and Haas/Dow for 22 plus years and has a total of 30 years of experience in the adhesives industry in various technical, commercial, and manufacturing roles. He is involved in several industry associations including PSTC and TLMI. In his spare time, he enjoys running, reading and volunteer work.



BECKY KRISTOPEIT

Senior Manager CO₂ / Footprint Reduction, Henkel Adhesive Technologies

Becky has worked in the adhesive industry for over 20 years, the last decade with a focus on adhesive solutions for nonwoven and tissue applications. She holds a bachelor's degree in chemical engineering from the University of Wisconsin. Throughout her career, Becky has held various technical and business leadership roles supporting applications in paper converting, packaging, furniture and building components. She has led trainings at various consumer goods companies on adhesive applications and troubleshooting. She has been instrumental in driving the development of sustainable adhesive solutions for the personal hygiene industry. She is currently a member of Henkel's industrial adhesives Circular Economy team with a focus on CO₂ and footprint reduction.



ERIN L'HOTTA

Global Marketing Manager, H.B. Fuller Company

Erin L'Hotta is the H.B. Fuller Global Marketing Manager for Packaging division. Erin has several years of experience in developing award-winning sustainable market leading innovations in Rigid Packaging and 10+ years in the adhesive industry. Erin is passionate about sustainable packaging and how adhesives, coatings and tapes can support sustainable packaging design.



NICOLE MEYER

LCACP, Senior Account Manager, Sustainable Solutions Corporation

Nicole is a Senior Account Manager at Sustainable Solutions Corporation. She is a Life Cycle Assessment (LCA) Certified Professional with experience in international standards for life cycle assessment, environmental product declarations, product category rules, and product stewardship. Since joining the team, Nicole has worked with organizations across a diverse range of industry sectors supporting environmental stewardship and corporate sustainability programs. Nicole graduated from the University of Chapel Hill in North Carolina with a Bachelor of Science in Environmental Science and received a Master of Science in Sustainable Engineering, with a focus in Materials Science, from Villanova University.



SALVATORE J. MONTE

President, Kenrich Petrochemicals, Inc.

President & Owner; B.C.E.; M.S.-Polymeric Materials; P.E.; Member Plastics Hall of Fame 2021; SPE Fellow & HSM; 34-U.S. Patents – most recent US Patent 11,572,309 dated Feb. 7, 2023; Lectured Worldwide on Titanate & Zirconate Coupling agents; Wrote a 340-page Ken-React Reference Manual; Over 450-American Chemical Society CAS Abstracts of published "Works by S.J. Monte"; Testified several times before Congress on Trade and IP Protection; Business Man of the Year 2015-Bayonne Chamber of Commerce; Member: PIA, ACMA, SPE, ACS, ACS Rubber Division, ASCE, AIChE, SAMPE, the GRAPHENE COUNCIL, the Vinyl Sustainability Council.



GEORGE PILCHER

Vice President, The ChemQuest Group

George Pilcher is a vice president with The ChemQuest Group, Inc. With decades of experience and a strong technical background, George has served throughout his career as a strategic leader with P&L responsibility and extensive technical marketing expertise. He has a strong global perspective drawn from frequent visits and varied leadership roles in North and South America, Europe, and the Pacific Rim. George is widely in demand as a speaker at international venues on a broad array of topics, ranging from product durability and regulatory issues to marketing topics and the nature and importance of innovation and creativity. He has also published numerous articles, editorials, and papers in industrial, technical, and scientific journals, and has written several book chapters.



LEAH SULLIVAN

Business Development Manager, Münzing

Dr. Leah Sullivan is the Business Development Manager at MÜNZING North America for the Construction and Coatings group. She has previously led the technical team focusing on identification, troubleshooting and development of the product line. She has extensive experience in new product development, applications troubleshooting, and manufacturing support, and enjoys helping customers identify the best solutions for their needs. Her academic background is in chemistry and polymer technologies.



JONATHAN WILKER

Professor, Purdue University

Jon grew up in the Boston area and was often taken to the beach by his parents. Now at Purdue, his research program focuses on materials produced by marine organisms. A particular emphasis is the adhesives and cements produced by mussels and oysters for sticking to rocks. Ongoing efforts include characterization of these marine biological materials, developing synthetic polymer mimics, and designing applications for these new materials. Projects are often inspired by what is seen while out scuba diving. 1991: B.S. in Chemistry, University of Massachusetts at Amherst; 1996: Ph.D. in Chemistry, Massachusetts Institute of Technology; 1996-1999: Postdoc, California Institute of Technology; 1999-present: Professor at Purdue University.

LEVEL TWO



Tuesday Sustainability Sessions

Tuesday Breakfast & Lunch

- **Receptions** (Monday & Tuesday)
- **Breakfast & Lunch** (Tuesday)

LEVEL THREE



Wednesday Sustainability Sessions

Wednesday Breakfast & Lunch – Pool Deck

(Weather backup - Distillery Foyer and Rye, Level One)

