



Virtual German Lightweighting Delegation to the United States 2020

Delegation Brochure







German American Chambers of Commerce Deutsch-Amerikanische Handelskammern

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About the Delegation

From October 26 to October 30, 2020, a delegation of 12 German companies from the lightweighting sector will virtually visit the United States to establish or expand business relations with interested US companies.

The delegation is funded by the German Federal Ministry of Economic Affairs and Energy (BMWi), and organized by the German American Chamber of Commerce of the Southern U.S., Inc. (GACC South) in cooperation with the German American Chamber of Commerce of the Midwest (GACC Midwest) and SBS systems for business solutions.

During their virtual visit, the German companies will:

- Obtain an understanding of the US lightweighting market (focus: automotive and aerospace) through regional briefings and virtual site visits at local companies/organizations.
- Participate in two virtual conferences, the German-American Lightweighting Symposium I & II to present their products and exchange insights about the state of the industry with local experts. (Promotional partners: The Institute for Advanced Composites Manufacturing Innovation [IACMI] and LIFT)
- Meet with potential US customers and partners in virtual B2B meetings.

About the Federal Ministry for Economic Affairs and Energy's (BMWi) Foreign Market Entry Programme

The Foreign Market Entry Programme by the Federal Ministry for Economic Affairs and Energy's (BMWi) aims to provide concrete support for small and medium-sized German companies entering or positioning themselves in new foreign markets. The program supports events and projects organized for companies within Germany's traditional sectors (e.g. automotive, machine tools).

Trade missions to selected target countries help companies gain an overview of the economic environment and legal framework. Furthermore, they provide companies with the opportunity to directly meet potential clients, business partners, and public institutions. Showcase events abroad allow German companies to present their products, services, and reference projects to an expert audience.

The Delegation Participants

Autefa



About the Company

Autefa Solutions is a leading solutions supplier for fabric production equipment including carded-crosslapped non-woven lines, needlepunch non-woven lines, spunlace lines, and thermobonding lines. Autefa Solutions represents well-established companies with a long tradition of success in the market. Combining the experience of the companies AUTEFA, Fehrer, FOR, OCTIR and Strahm the company stands for high quality, durability and top performance made in Europe. With two subsidiaries, Autefa Solutions North America and Autefa Solutions Wuxi (China), the company is active globally. Since 2010, the company has been recycling carbon fibers into carbon fiber non-woven fabrics and has successfully opened two industrial production plants and one laboratory plant.

Products & Services

Autefa Solutions production lines offer quality web formation, bonding and active weight regulation while requiring minimal maintenance. The turnkey non-woven production lines include machines for opening and blending, chute feeds, non-wovens cards, crosslappers, needle looms, hydroentanglement equipment, thermo-bonding ovens and dryers. Furthermore, the company has expertise in innovative solutions for processing and recycling carbon fibers, producing custom carbon fiber fabrics for all applications.

Key Advantages

- High expertise in recycled carbon fiber; highly specialized equipment
- Innovative, energy-saving technology
- High efficiency and short ROI
- Custom-tailored product planning and after-sales services
- Product testing facility in Linz, Austria, for potential clients, which can also be toured virtually

Partnership Opportunities

Autefa Solutions is looking for suppliers to the automotive and aerospace industry, composites manufacturers in lightweight applications and carbon fiber processing companies.

More Information

For more information, please refer to: https://www.autefa.com/



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Breyer





About the Company

BREYER is one of the world's leading developers and manufacturers of sophisticated extrusion systems for the plastic processing industry. Located in Singen am Hohentwiel, Germany, BREYER has been successfully active in a world-wide market for almost 70 years.

Products & Services

BREYER extrusion systems for the production of

- High optical quality sheets, e.g. PC, PMMA (Applications: LED panel, backlight sheet for LCD TV, greenhouses)
- Engineered plastic sheets such as ABS, PP, TPU (Applications: automotive, decorating)
- Flat film, e.g. PC, PMMA, PET, EVA, TPU (Applications: optical- and thermoforming, encapsulation of solar modules)
- Tube bodies e.g. PE, PP, single and multilayer (Applications: packaging industry)

Key Advantages

- Customizable, turn-key extrusion line equipment
- High impregnation- and surface quality of the extruded tape, low pore content (entrapped air)
- Processing temperatures up to 400°C (752°F) \rightarrow PEEK
- Flexible fiber volume content (up to 50%)
- Machines are easy to operate, clean, and maintain
- IP65-rated enclosures for carbon-fiber applications
- One extruder can process multiple types of thermoplastics

Partnership Opportunities

- Processing companies in the automotive and aerospace sectors
- Textile companies, granulate or raw material producers
- Companies who will extrude tapes in the future

More Information

For more information, please refer to https://www.breyer-extr.com



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Cevotec







About the Company

Munich-based automation specialist Cevotec offers one of the world's most advanced production systems for complex fiber composites. At the intersection of composites, mechanical engineering, and software, Cevotec develops production systems and software based on Fiber Patch Placement (FPP) technology: SAMBA and ARTIST STUDIO.

The systems, which are particularly suited for automated fiber placement on complex 3D geometries, process carbon fibers, glass fibers, adhesive films, and other technical fibers. They can be used for a broad range of applications. Such flexibility is particularly appreciated by customers from the aerospace and med-tech industries since it enables them to realize cost and time savings of 20%-60% when switching from manual processes to FPP.

Products & Services

Cevotec's Fiber Patch Placement technology enables manufacturers to fully automate complex fiber composite constructions, while remaining flexible and controlling quality. The company provides its SAMBA production systems, ARTIST STUDIO CAD-CAM software suite, and offer services to develop applications and customize machines.

Key Advantages

Automated fiber patch placement for very small surfaces and complex structures. Cevotec's laying heads adapt even to complex-shaped surfaces and therefore enable automation where traditional AFP machines cannot serve and where manual layup is too slow for serial production.

- · Constant high product quality, key process parameter control and defined key characteristics of the parts
- Automatically generated manufacturing protocols for documentation
- Faster production cycle time
- Reduced testing effort
- Equipment and matching specialized software from the same source

Partnership Opportunities

Cevotec is looking to establish contact with new business partners from the industry or composite research centers:

- Civil and military aerospace OEMs, as well as TIER1 and TIER2 suppliers for fiber composite parts
- Urban Air Mobility (UAM) companies
- other unmanned Aerial Vehicle (UAV) OEMs and TIER1 suppliers

More Information

For more information, please refer to: https://www.cevotec.com/



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Cotesa







About the Company

COTESA GmbH is one of the leading manufacturers of composite parts and painted assemblies for the aviation and automotive industries. Headquartered in Mittweida, Germany, COTESA has two factories in Germany and one production facility in China with a total of 50.000 sqm of production area. COTESA GmbH develops and manufactures customer-specific solutions.

COTESA GmbH covers the entire process chain from R&D to manufacturing, up to direct delivery to the final assembly line.

In the aviation industry, COTESA produces aerostructure components, interiors and exteriors and is a qualified Airbus and Boeingsupplier with NADCAP-certification. For the automotive industry, COTESA supplies decorative and structural components made of CFRP for exterior, interior, and structural application with its daughter EC automotive.

Products & Services

COTESA manufactures Carbon-fiber reinforced plastic (CFRP)- and glass-fiber reinforced plastic (GFRP)-components, also with honeycombs. Products include e. g. frames, profiles, and stiffeners for aerostructure, interior parts for lavatories, galleys or overhead compartments, bulletproof cockpit walls, exterior assemblies as fairings and equipment (CFRP water tanks, transmission shafts). Painting and assembly are also part of our services. Automotive products include e. g. diffusors, spoilers, dashboards, interior application or transmission shafts. Our EN 17025 certified material lab is used for material qualification and material selection according to customer requirements and test standards.

COTESA's reference customers include Boeing, Airbus, Airbus Helicopters, DIEHL GmbH, Liebherr, Premium Aerotec and Stelia in the aerospace industry. In automotive, our reference customers are AMG, Bugatti, BMW, Daimler, McLaren and Porsche.

Key Advantages

COTESA is your technology partner to enable your success by innovation. We are capable to manage small and large series production with short ramp up times and to support you in the development phase. With our global manufacturing base in Germany and China, we ensure high quality levels proved by our accreditations and customer certifications (DIN EN 9100:2018, ISO 17025, NADCAP Composites, NADCAP NDT, Airbus and Boeing special processes).

Partnership Opportunities

COTESA is interested in meeting with aerospace and automotive OEMs and T1s for composite parts and assemblies.

More Information

For more information, please visit: http://www.cotesa.de/



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COTESA GmbH Bahnhofstraße 67 09648 Mittweida Germany eepos





About the Company

eepos specializes in modular and innovative manufacturing and assembly plant products. Since the company's founding in 2006, eepos has grown to 18 locations on five continents. eepos offers a wide variety of products and solutions that help bring innovation to manufacturing facilities and assembly lines in relation to industry 4.0. The main product line is the market-leading signature eepos crane systems with innovative ergonomics and modularity to move loads without jamming and superior product quality. eepos also offers products like jib cranes, tooling rail, modular media columns, sanitation columns, power and data solutions, load manipulation devices, and torque tubes.

Products & Services

eepos one

- Aluminum Overhead Crane Systems (up to 2000 kg)
- Aluminum Jib Cranes (up to 500 kg)

eepos nano

- Aluminum Tooling / Festooning
- Aluminum Overhead Crane Systems (up to 75 kg)
- Aluminum Jib Cranes (up to 35 kg)

eepos carbon

• Carbon Fiber Jib Cranes (up to 100 kg)

eepos base

• Aluminum Media Columns (electric, data, pneumatic, gas, sanitation)

• Aluminum or Carbon Fiber Jib Cranes (up to 100 kg)

eepos move

• Aluminum Lifting Axis / Torque Tube (for loads up to 500 kg)

eepos powertrack

• Modular / Customizable Conductor Line for Power and Data

Key Advantages

- Market-leading ergonomics (lowest push-pull forces on the market)
- Constant product innovation and improvement
- Short response and shipping times
- Simple and fast-acting company structure

Reference customers include: BMW, Volvo, Daimler, Hino, Ford, Toyota, KIA, Hyundai, ThyssenKrupp, Freightliner, Benteler, HB&G, SAS Automotive, Otis, Carrier.

Partnership Opportunities

- Processing companies in the automotive, aerospace sector etc.
- Manufacturing Distributors

More Information

For more information, please refer to: https://www.eepos.de/en/



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Gerster





About the Company

Gustav Gerster GmbH & Co. KG is one of the leading European textile manufacturing companies, located in Biberach. In 2004, a new business unit for technical textiles, Gerster TechTex, was established. Gerster uses six textile technologies: yarn twisting, braiding, narrow and broad weaving, knitting (crochet) and coating. By yarn twisting, they produce reinforced and functionalized gussets. Their braiding machines produce a wide range of high-quality hoses for industrial and automotive application. Crochet technology offers vast opportunities in the production of biaxial and multiaxial textile preforms, highly drapable non-crimp fabrics, heating textiles, textile sensors and electronics integration. Many products are produced by narrow weaving. Gerster's exclusive know-how is round-weaving, which enables the continuous manufacturing of carbon fiber spirals. With their broad weaving machines, they produce flax, glass, carbon and aramid fabrics. They are also able to functionalize and process their textiles by thermoplastic and epoxy coating. Gerster's technical textiles are used for the manufacturing of composites, but also for industry and smart solutions.

Products & Services

Gerster TechTex range of products include:

- Resin distribution materials (tape and media for vacuum infusion process).
- Spiral wound ribbons for reinforcement of disks/circular products, shaped ribbons to reinforce curved structures.
- Tapes and ribbons with coatings for thermoplastic or thermoset matrix systems.
- Broadcloth in different width, made from reinforcement fibers like carbon, glass, aramid, flax, and basalt.
- Unidirectional structures (NCF) DRAPTEX with high drapability and no draping failures.
- Unidirectional structures DRAPFIX with high drapability for structures with high degree of deformation
- Hybrid-Textiles from GF/PP or GF/PA-fibers for organo sheets and thermoplastic composites.
- Smart textiles with various abilities: heating, sensors (e.g. temperature, pressure), illuminating textiles, textile antennas.

Key Advantages

- Long standing tradition of providing highest quality products
- Wide range of products for various applications: special products for circular and curved structures and edge reinforcement, preforms for thermoset and thermoplastic composites, knitted textiles with high draping behavior

Partnership Opportunities

Gerster TechTex is interested in meeting composite producers with a broad range of reinforcing textiles and special preforms for industrial applications in the automotive and aerospace industries.

More Information

For more information please refer to: https://gerster-techtex.com/en/267-2/



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Herzog







About the Company

Herzog GmbH was founded in 1861 and Situated in Oldenburg, Germany. Herzog GmbH is a worldwide leader in braiding, winding and rewinding technology with more than 12.000 m² state of the art manufacturing facilities and more than 550 machine types for different applications and materials, full in-house production incl. test and training center. They have over 150 highly skilled and motivated employees

Products & Services

Herzog produces more than 550 braiding, winding and rewinding machine types for different applications and materials.

Typical end products made with their equipment for industrial applications in the automotive and aerospace industries are:

- Soft and hard wires
- Hoses and filter tubes
- Technical Braids
- Composite preforms
- Harness braids

Key Advantages

- Individual solutions for highly complex requirements.
- Outstanding machine quality and a 100% reliability.
- Reliable guaranteed spare parts supply, even for old machines.
- Fast and unbureaucratic troubleshooting.

Partnership Opportunities

All companies with a textile like background that manufacture the products mentioned above. Herzog's specialty is high end applications (technical textiles) using high end raw materials (carbon, aramide, HMPE)

More Information

For more information, please refer to: https://herzog-online.com/



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Laubinger Rickmann







About the Company

Laubinger + Rickmann is a medium-sized, family owned enterprise located in North-West Germany. The company's first major foothold has been in the manufacturing of non-destructive testing (NDT) mechanisms for various industries, such as automotive, aerospace, steel, and railway. Over the last 15 years, L + R has expanded their activities to the manufacturing of straightening systems for various aluminum castings, mainly for the automotive industry, working directly with the suppliers as well as with large OEMs.

Products & Services

Laubinger + Rickmann designs and manufacturers:

Non- Destructive Testing (NDT) machines:

- Ultrasonic Testing: in cooperation with manufacturers of inspection technology (e.g. Krauthkraemer, Waygate Technologies, Framatome), these systems are used to test CFRP applications in the automotive and aerospace industries.
- Crack detection equipment: These systems are used for mostly fluorescent penetrant testing (PT) in aluminum castings and forgings.

Straightening Machines:

Straightening for: structural components, axle components, control housings, crankshafts and camshafts. L+R systems base their straightening process on the customers RPS system to ensure optimal machining processes.

Additional machines and equipment:

- **Special Purpose Machines:** Examples include machines for high temperature applications such as cleaning and drying systems or various furnaces and rapid cooling.
- Equipment for automatic handling of different components such as pipes, sheets, aircraft and automotive components.

Key Advantages

- NDT machines: individual customer and part specific machines for all sizes. Machines are designed with deep process
 understanding and highest inspection quality.
- Straightening machines: unique self-learning and adaptive software. These machines offer 3-dimensional straightening of parts such as structural parts, chassis parts, or motor components, for example.

Partnership Opportunities

L+R is looking to connect with US manufacturers involved in aluminum casting and/ or forging, aluminum heat treatment providers, CRP / CFRP part suppliers, and aerospace turbine manufacturers.

More Information

For more information, please refer to: www.laubinger-rickmann.de/en/



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About the Company

Roth Composite Machinery plans, designs, and manufactures innovative aggregates, machines, and complete production lines in the sectors Filament Winding & Prepreg, Pleating & Coating, Brushes & Brooms. RCM belongs to the family-owned company Roth Industries GmbH & Co. KG, which has over 1,300 employees worldwide. Roth Industries is one of the most advanced companies for:

- Building Solutions (Energy Systems, Sanitary Systems, Environmental Systems)
- Industrial Solutions (Composite Technology, Plastic Technology and Hydraulic Technology)

Products & Services

RCM provides individual solutions for redesigning and optimizing production processes in the 'Filament Winding & Prepreg' branch. The company's highly productive machine technology, including patented features, accelerates productions to maximize efficiency. With over 50 years of experience and more than 500 machines being operated worldwide, RCM is a global technology leader. In addition to the most renowned university institutes, top companies in the aerospace industry, the wind energy sector, electrical engineering and, most notably, leading manufacturers of pressure vessels, benefit from Roth's reliable technology.

Key Advantages

- Precision by individual design of mechanics and dynamics
- · Flexibility and versatility in the processing of all commercial fibers, towpregs, and tapes
- Single machines up to complete production facilities
- Individual support and service during installation
- Quality and worldwide experience

Partnership Opportunities

RCM is looking to partner with US composites specializing in the composite applications including and not limited to the following:

- Automotive (incl. drive shafts, outer hull parts like hood, roof or trunk lid and hydrogen pressure vessels, etc.)
- Pressure vessels for LPG and CNG (Camping or BBQ gas tanks, industrial gas tanks)
- Aerospace (rocket booster, motor case, composite structures, etc.)
- Commercial applications (composite bearings, water purification and filtration, pipes and tanks, electrical high voltage poles, etc.)
- Mechanical Engineering
- Wind Energy

More Information

For more information, please refer to: https://www.roth-composite-machinery.com



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Germany

Schuler







About the Company

Schuler is the world market leader in metal and plastic forming technology. The company supplies presses, automation solutions, dies, process know-how, as well as services for the entire metalworking and automotive industry. They use this metal forming technology expertise in the field of presses for composite materials. To always stay atop technological developments, Schuler has a strong research focus and is a member of many important research institutes such as NCC, AZL, IACMI. This enables its customers to achieve top performance in the serial production of cars, including the economical serial production of composite parts.

Products & Services

- Hydraulic and mechanical presses for metal materials
- Lightweight equipment:

0

- O Press system for composite materials
 - Fiber-reinforced plastics
 - SMC, D-FT, GMT and other processes
 - FRP/steel hybrids
 - Hot Stamping equipment for Ultra High Strength Steels
- Hydroforming Press Equipment
- Worldwide Sales, Support & Maintenance Services

Key Advantages

- Schuler has extensive experience in producing presses for automotive applications
- Highly customizable Carbon Fiber Reinforced press systems with highest output
- Smart Press Shop Solutions
- Low maintenance effort and User friendly
- Turnkey production systems from a single source
- Worldwide service network

Partnership Opportunities

- US OEMs (Ford, GM, FCA, Tesla)
- Automotive Suppliers already using FRP part production or interested in getting started
- R&D departments of OEMs and research institutes

More Information

For more information, please refer to: https://www.schulergroup.com/



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STW







About the Company

STW is a decades long experienced manufacturer of customized high-quality fiber. The company produces natural, synthetic, and hightech fibers. They are an industry specialist in fiber fillers, short cut fibers, fibrids, and pulp. STW's unique process of fiber production using residual materials, such as textile waste materials, allows for extremely environmentally friendly production. Often, these fibers are used to replace environmentally harmful substances, such as asbestos found in durable seals. Their innovative process of producing fibrids and pulp, where tiny fibers are fibrillated, enhances and increases fiber surface and utility

Products & Services

STW's fiber fillers, short cut fibers, fibrids, and pulp, and compunds have the following applications:

- Plastics—such as fillers for thermosetting and thermoplastic resins
- Specialty paper— improves dimensional stability and folding strength-- indicator papers in medicine, security papers for banknotes, decorative papers, non-woven wallpapers and friction papers
- Construction products— encourage thixotropic effects and enable easy processing-- plasters, filler compounds, paints
- Filtration—organic and inorganic filters offer an extremely high degree of purity—filter papers for the automotive, industrial, as well as food and water sectors
- Rubber products-fiber provides greater flexibility and durability-- v-belts, toothed belts, household gloves
- Friction lining-brake and clutch linings for passenger cars and commercial vehicles

Key Advantages

- Decades of experience—continuous product research and strong customer orientation
- Produces various fiber types—natural, synthetic, high-tech
- High quality standards—use modern laboratory equipment to ensure highest fiber quality
- Well established international purchasing network-active in over 70 countries

Partnership Opportunities

STW is interested in meeting new potential clients, research organizations, and sales representatives.

More Information

For more information, please refer to: www.stw-faser.com/



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WST



About the Company

WST Group is a market leading manufacturer of customer specific CNC turned and milled parts, delivering innovative, high-quality solutions. Holding more than 600 employees and two production plants in Germany and one in the U.S., WST serves customers in the automotive, aviation, defense, and consumer market. With a vast focus on complex precision parts, the company holds a technology advantage through its inhouse process development, tooling, and automation, achieving cost-efficient high quality and reliable parts.

Products & Services

WST Group produces turned and milled parts from almost any metal-- chromium-nickel steels, case hardening and tempering steels, corrosion-resistant and acid-proof steels, tool steels and free-cutting steels, as well as non-ferrous metals such as aluminum, titanium, brass, and copper.

Their range of manufacturing services include:

- Prototype production: process development, engineering support, virtual simulation
- Flexible series production: short reaction times, broad spectrum of machining options, high degree of standardization
- Product-specific production lines: innovative manufacturing processes, high level of automation, process reliability, solution expertise

Further services include:

 Downstream services: broaching, inductive hardening, gear cutting, grinding, superfinishing and any kind of surface and heat treatment

Key Advantages

- State of the art machining technology
- Competitive market edge through in-depth research and development activities
- Flexible expansion for new products and customers

Partnership Opportunities

WST is interested in meeting new potential customers and expanding U.S. contacts.

More Information

For more information, please refer to: http://wst-willmann.com/



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Event Details: German American Lightweighting Symposia I&II

Symposium I - Composite Materials: Tuesday, October 27, 2020

The first webinar in the series will provide attendees with the chance to hear about the latest developments and trends in processing and using composite materials in Germany and the U.S., particularly as they pertain to aerospace and automotive markets. Our speakers will highlight innovative solutions, technologies, and materials.

Meeting Time: 09:00 am EST **Meeting Location:** Goto

German-American C	Inline Lightweighting Symposium I
09:00 am	Welcome Ms. Michaela Schobert, Director, Consulting Services German American Chamber of Commerce of the Southern US, Inc.
09:05 am	The Federal Ministry for Economic Affairs and Energy's Lightweighting Initiative today and tomorrow - A German-American Perspective Mr. Werner Loscheider, Head of Division IVB4 Construction, Light-Weighting / New Materials, Resource efficiency Federal Ministry for Economic Affairs and Energy
09:25 am	Introduction to the Lightweighting Industry in the U.S. & Virtual facility tour of SURF Detroit Mr. Dale Brosius, Chief Commercialization Officer Mr. Raymond Boeman, Director, Vehicles Technology Area Institute for Advanced Composites Manufacturing Innovation (IACMI)
Introduction to Pane	el I Members
09:40 am	Schwarzwälder Textil-Werke GmbH Mr. Dominik Barucha
09:45 am	AUTEFA Solutions Mr. Dan Feroe
09:50 am	Herzog GmbH Mr. Bert van den Hout
09:55 am	Roth Composite Machinery GmbH Mr. Joe Jansen
10:00 am	Panel Discussion I Moderated by Mr. Dale Brosius, Chief Commercialization Officer Institute for Advanced Composites Manufacturing Innovation (IACMI)
10:20 am	Composite Manufacturing Needs – An Automotive OEM's Perspective Mr. Venkat Aitharaju, Staff Researcher in Polymer Composites Group <i>General Motors</i>
10:35 am	Opportunities and challenges for composites in the Advanced Air Mobility market

Mr. Kevin Cain, Chief Technical Officer *Aria Group*

Introduction to Panel II members

10:50 am	Gerster TechTex Mr. Mario Krupka
10:55 am	Cevotec GmbH Mr. Felix Michl
11:00 am	Cotesa Composites Dr. Steffen Kress
11:05 am	Panel Discussion II Moderated by Mr. Adam Halsband, Managing Director Forward Engineering North America, LLC (FENA)
11:20 am	Q&A and Wrap up

Symposium II - Metals: Thursday, October 29th, 2020

The second webinar in the series will provide attendees with the chance to hear about the latest developments and trends in processing and using metal materials in Germany and the U.S., particularly as they pertain to aerospace and automotive markets. Our speakers will highlight innovative solutions, technologies, and materials.

Meeting Time: 09:00 am EST Meeting Location: Zoom Meeting

German-American Online Lightweighting Symposium II		
09:00 am	Welcome Ms. Brooke Rupprecht German American Chamber of Commerce of the Midwest	
09:05 am	The Federal Ministry for Economic Affairs and Energy's Lightweighting Initiative Today and Tomorrow: A German- American Perspective Mr. Werner Loscheider, Head of Division IVB4 Construction, Lightweighting / New Materials, Resource efficiency Federal Ministry for Economic Affairs and Energy	
09:25 am	Introduction to the Lightweighting Industry in Michigan Mr. Joe Steele, Director, Communications and Legislative Affairs LIFT- Lightweight Innovations for Tomorrow	
Introduction to Panel members		
09:40 am	Eepos US, LLC Mr. Jason Steinbaum	
09:45 am	Laubinger + Rickmann GmbH & Co. KG Mr. Philipp Hettich	
09:50 am	Schuler Pressen Mr. Paul Thom	

09:55 am	WST Präzisionstechnik Mr. Manuel Willmann
10:00 am	Panel Discussion Moderated by Mr. Adam Halsband, Managing Director Forward Engineering North America, LLC (FENA)
10:15 am	Impact of Lightweight Metals in the Automotive Industry Mr. John K Catterall, Vice President Automotive Program American Iron and Steel Institute (AISI)
10:30 am	Q&A and Wrap up

Our Speakers



Werner Loscheider

Head of Division IVB4 Construction, Light-Weighting / New Materials, Resource Efficiency, *German Federal Ministry for Economic Affairs and Energy*

Werner Loscheider is Head of Division IVB4 for construction industry, lightweight construction/new materials, resource efficiency since 2014 at the Department of Industrial Policy of the Federal Ministry of Economic Affairs and Energy.

Prior to this role, he was Head of the LA2 Political Coordination Division and Head of Division IIA4 Tourism Policy at the Federal Ministry of Economic Affairs and Technology.

Mr. Loscheider holds a Diploma in Agricultural Engineering from the Rheinische Friedrich-Wilhelms-University, Bonn.



Raymond Boeman

Director, Vehicles Technology Area, *Institute for Advanced Composites Manufacturing Innovation (IACMI)*

After 27 years at Oak Ridge National Laboratory (ORNL), Ray Boeman joined the Michigan State University (MSU) in May 2018. He holds a joint appointment as the MSU-ORNL Research Professor for Composites Materials and Manufacturing and serves as the Director for the Institute for Advanced Composites Manufacturing Innovation (IACMI) Scale-up Research Facility (SURF) in Detroit, Michigan.

His responsibilities for MSU and IACMI include directing a public-private collaboration facility with production-scale composite processing equipment for collaborative projects with the automotive composites value chain. He has a long history working with State & Federal Government, as well as industry to develop public-private partnerships that match RD&D capabilities with industry needs to address the nation's energy challenges.

Prior to his current position, Boeman held various responsibilities at ORNL including Director of Energy Partnerships for the Energy and Environmental Sciences and Director of the Sustainable Transportation Program. He was previously assigned in Detroit, Michigan from 1999 to 2004 as DOE technical liaison to the Automotive Composites Consortium (ACC) of the United States Council for Automotive Research (USCAR).

Boeman holds a Ph.D. in Engineering Science and Mechanics from Virginia Polytechnic Institute and State University.



Dale Brosius

Chief Commercialization Officer, *Institute for Advanced Composites Manufacturing Innovation (IACMI)*

Dale Brosius is Chief Commercialization Officer for the Institute for Advanced Composites Manufacturing Innovation (IACMI), focused on composites technologies for more energy efficient vehicles, wind turbines and compressed gas storage.

Mr. Brosius has more recently been involved in the production of class A carbon fiber components for a U.S. OEM, and development work with automotive and aerospace OEMs in Europe, Japan and the U.S. Prior to joining IACMI, he spent 10 years with Australia-based Quickstep Technologies, setting up demonstration sites in the U.K., Germany and the U.S. for Quickstep's innovative out-of-autoclave curing technology.

He has intimate knowledge of all composite processes, from injection molding to textile preforming to autoclave, as well as glass and carbon fibers and a wide range of thermoset and thermoplastic polymers. He served two years as Chair of SPE's Composites Division and four years as chair of SPE's Automotive Composites Conference and Exhibition.

Mr. Brosius has a B.S. in Chemical Engineering and an M.B.A. and over 30 years of industrial experience in the composites industry.



Venkat Aitharaju

Staff Researcher in Polymer Composites, General Motors Global Research and Development

Dr. Venkat Aitharaju is a Staff Researcher in Polymer Composites group at General Motors Global Research and Development.

He is currently responsible for development of advanced math modeling tools for simulation of composite materials. He has over 22 years of experience in General Motors in the area of design, manufacturing and CAE of metals and composites.

Dr. Aitharaju is currently the Principal Investigator for a multi-year Department of Energy funded project to develop computational simulation tools to accelerate the implementation of composites in automobiles for next level of lightweighting.



Kevin Cain

Chief Technology Officer, Aria Group

Kevin Cain has been following his passion for innovation in the transportation field his whole career and is currently the Chief Technology Officer for Aria Group.

Mr. Cain was a major contributor to the creation of the 1993 National Champion Solarcar for the University of Michigan and later of the Reva Electric Car, the most successful electric car on the market for many years.

In 1997, Kevin Cain joined Clive Hawkins in founding Aria Group (originally DZN Studio) and was able to share his expertise with the world's leading transportation companies in providing them groundbreaking solutions to the creation of their design prototypes.

While the specifics of his work must remain hidden due to the confidential nature of the programs that Aria undertakes, the impact of Mr. Cain's work can been seen across many fields from private space exploration, autonomous vehicles, advanced composite manufacturing methods, and even motion pictures.



Joe Steele

Director of Communications and Legislative Affairs, LIFT

Joe Steele is a veteran communications and public affairs leader with a track record of developing and executing successful plans, strategies and delivering legislative victories, employee engagement and building key stakeholder relationships for Fortune 500 companies, statewide political campaigns, nonprofits and startups.

As director of communications and legislative affairs at LIFT, Joe is responsible for building media and stakeholder relationships, as well as supporting the sales and marketing teams.

Over his career, Joe has led the public affairs strategy for a large telecommunications company, managed internal communications for a large financial institution as it transitioned through an Initial Public Offering (IPO) and built a Political Action Committee (PAC).

Joe began his career as a reporter for several newspapers across Michigan, before moving to politics to lead the communications for a U.S. Senate campaign and then as a staff member in the Michigan House of Representatives followed by serving as an appointee of the Michigan Secretary of State.



Adam Halsband

Managing Director, Forward Engineering North America, LLC (FENA)

Adam Halsband is Managing Director of Forward Engineering North America the North American Division of Forward Engineering GmbH, a Global Design and Engineering firm based in Munich, Germany that specializes in enabling cost effective inclusion of fiber reinforced composites in serial mass produced automotive and mobility structures.

He holds a Bachelor of Science in Mechanical Engineering from GMI Engineering and Management Institute in Flint, MI (Kettering University) and an MBA from Webster University.

Mr. Halsband began his career at the GM Tarrytown, NY assembly plant with the search for more capable means of high-volume mixed material vehicle manufacturing which has been central to his roles throughout his career.

As FENA MD, Adam is able to leverage decades of experience, working together with colleagues and customers to maximize Quality, Performance and Cost around some of the most challenging automated manufacturing applications.



John K. Catterall

Vice President Automotive Program, American Iron and Steel Institute (AISI)

John Catterall is the vice president, automotive program for the American Iron and Steel Institute, where he is responsible for leadership of the Automotive Applications Council, a group of member steel producers, in automotive research, education and technology transfer activities. He also coordinates the steel input to the Auto/Steel Partnership (which has car company members including FCA US LLC, Ford Motor Company and General Motors Company), and other steelrelated consortia.

Mr. Catterall was formally the executive director of the Auto/Steel Partnership (A/SP). In this role, he was responsible for maintaining and enhancing the partnership between auto and steel members and executing strategic projects to develop lightweight steel solutions to meet the current and future needs of automakers. He held this role from March 2017 until March 1st, 2020.

Previous experience includes the position of global innovation manager for body systems at General Motors and global technical lead for chassis and later underbody structures. Prior to GM, his career experience has been in project execution, management, coordination and technical leadership.

About the Organizers

German American Chamber of Commerce of the Southern US, Inc.

The German American Chamber of Commerce of the Southern United States, Inc. (GACC South) was founded in 1978 to promote and support bilateral trade between Germany and the U.S. The GACC South is headquartered in Atlanta, Georgia, with a branch office in Houston, Texas. The GACC South serves eleven Southern states - Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee and Texas, and Puerto Rico and the U.S. Virgin Islands.

The GACC South is a private, non-profit organization and serves as the official representative of German industry and trade in the Southern U.S. It is part of an international network composed of 140 German foreign chambers of commerce and government offices in 92 countries. The GACCs are one of the largest bi-national chambers in the U.S.

For more information, please visit: www.gaccsouth.com.

German American Chamber of Commerce of the Midwest, Inc.

The German American Chamber of Commerce of the Midwest (GACC Midwest), headquartered in Chicago with a branch office in Detroit, was founded in 1963. GACC Midwest is an integral part of the German Chamber Network (AHKs) with 140 offices in 92 countries around the globe. Our continuing mission is to promote German-American business relations and to support trade and investment between Germany and the United States, especially the Midwest. Our organization combines elements of a trade commission, a membership association, and professional consulting services for market entry, apprenticeships in the US, and more.

With this unique concept in international trade promotion, GACC Midwest's territory covers 14 US states: the 13 states of the Midwest (Illinois, Indiana, Iowa, Kansas, Kentucky, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin) and Colorado, comprising together approximately one quarter of the nation's geographical area, its population, and its GDP. Main industries include advanced manufacturing in the US, automotive, medtech, agriculture and food processing.

For more information, please visit: www.gaccmidwest.org

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SBS systems for business solutions Soc. Coop. is a private enterprise, specialized in consulting and international project management. SBS applies cross-cultural thinking, and custom-made solutions that overcome intercultural borders to find the right partners in the most emerging and attractive markets. SBS has a head office in Rome, Italy and an office in Berlin, Germany, and both offices equipped by multilingual personnel, project managers as well as marketing collaborators. In 2015 SBS systems for business solutions GmbH was founded in Munich, Germany to give support to German companies.

For more information, please visit: https://www.sbs-business.com/

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