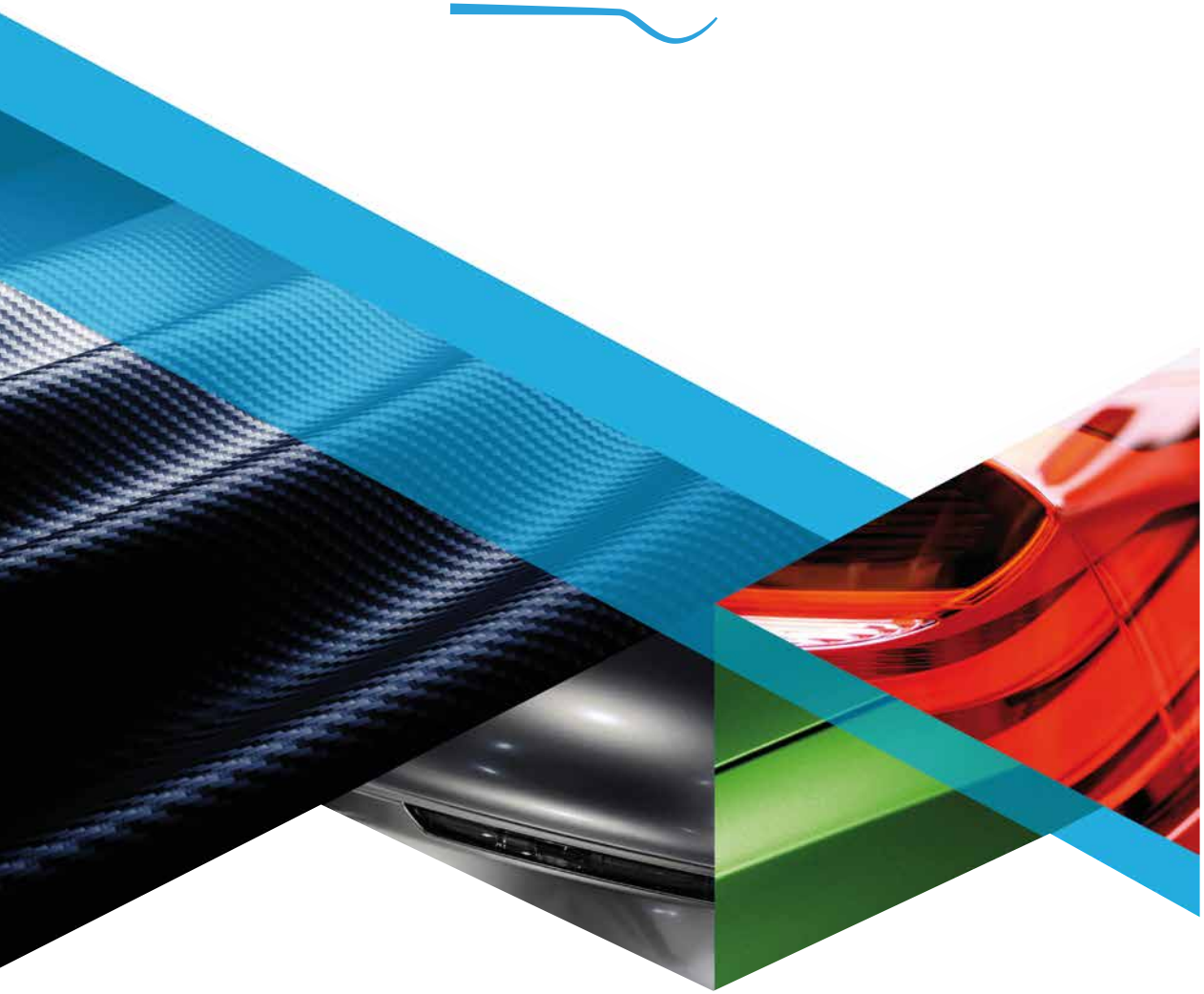
VDI

PIAE EUROPE

International Congress

March 26 – 27, 2025, Mannheim, Germany

VDI Initiative
Meet OEMs in Mannheim!



Top topics

- Lightweight Design: Innovative Materials and Manufacturing processes for CO_2 reduction and increased efficiency
- Surface Technology: Smart coatings and Recycling to improve material quality
- Bio-based Materials: Lignin and bio-based plastics for more sustainable vehicle parts
- Electric Drives: materials and technologies for long-lasting, high-performance Batteries and Electric drives
- Digital Future: AI Design and intelligent Process monitoring for resource-saving production

Your benefits

- Industry meeting-point with 70 Exhibitors
- 47 hand-picked Keynotes & Lectures
- 15 OEM Lectures
- Auto Show
- Networking Party

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Wednesday, March 26, 2025 – 1st Day of Congress

	Mozartsaal *(Level 0)*	Musensaal *(Level 1)*	Stamitzsaal *(Level 1)*
08:50	Keynotes		
10:30	Coffee Break with Visit to the Exhibition & Auto Show		
11:15	Circular Economy	Manufacturing Processes 1	Interior
13:15	Lunch Break with Visit to the Exhibition & Auto Show		
15:00	Exterior	Lightweight Design 1	Plastics Electronics
16:00	Coffee Break with Visit to the Exhibition & Auto Show		
17:00	Sustainability 1	Simulation	Lightweight Design 2
ab 18:00	PIAE Networking Party in the Trade Exhibition and the Eva and Sepp Herberger Lounge		

Thursday, March 27, 2025 – 2nd Day of Congress

	Mozartsaal *(Level 0)*	Musensaal *(Level 1)*	Stamitzsaal *(Level 1)*
09:00	Recyclates	Materials	Manufacturing Processes 2
11:00	Coffee Break with Visit to the Exhibition & Auto Show		
11:45	Materials in Electric Drivetrain	Sustainability 2	Market Requirements in the Plastics Industry
12:45	Lunch Break with Visit to the Exhibition & Auto Show		
	Mozartsaal *(Level 0)*		
14:00	Plenary Session		
15:00	Closing Words		
15:15	End of the Congress		

Wednesday, March 26, 2025 | 1st Day of Congress

Mozartsaal *(Level 0)*

Keynotes
Moderation: Dipl.-Ing. Thomas Drescher, Volkswagen AG

08:50 Welcoming Address by the Congress Chairman
Dipl.-Ing. Thomas Drescher, Head of Pre-development and Vehicle assessment, Body system, Volkswagen AG, Wolfsburg

09:00 After the Crisis is before the Crisis – Optimally prepared keep the Book in your Hand

- Crisis management – before, during and after a Crisis
- Types of crisis and Practical experience
- Implementing strategies consistently and identifying new Business opportunities

Dr.-Ing. Arno Rogalla, CEO, Rogalla Consulting, Bad Bramstedt

09:30 Affordable Sustainable Excellence – Frugality as a new mega trend in product development?

- Advancement through reduction?
- Frugal innovation in global markets
- Cost efficient sustainability through frugality

Timo Achtelik, M. Sc., Sustainability Manager Materials Engineering, Volkswagen AG, Wolfsburg and **Prof. Dr. habil. Rajnish Tiwari,** Professor, Department onlineplus, Hochschule Fresenius Hamburg

10:00 Between Transformation and Disruption: Current political Dynamics in the Context of the EU End-of-Life Vehicles Regulation and the Challenges they pose in Practice

- Current developments in the political context of ELV
- Availability and uncertainties of Plastic recyclates
- Approaches for solutions and opportunities to advocacy

Frank Stammer, Specialist for Circular economy, TecPart – Verband Technische Kunststoff-Produkte e. V., Frankfurt am Main

10:30 Coffee Break with Visit to the Exhibition & Auto Show

Mozartsaal *(Level 0)*	Musensaal *(Level 1)*	Stamitzsaal *(Level 1)*
Circular Economy **Moderation:** Jürgen Gugg, BMW Group	**Manufacturing Processes 1** **Moderation:** Prof. Martin Würtele, Technische Hochschule Rosenheim	**Interior** **Moderation:** Dipl.-Ing. Wolfgang Möller, Volkswagen Osnabrück GmbH
11:15 Development of Sustainable Materials for Driving System-/ Platform-Applications ▪ Recyclates for chassis applications ▪ Sustainable elastomers ▪ Sustainable polyamides ▪ Sustainable polypropylene ▪ Materials for highly functional applications **Dr. rer. nat. Marc Kreye,** Head of Material Development Chassis, Volkswagen AG, Wolfsburg	**Improving Both Efficiency and Quality in Additive Manufacturing – A Reality or Still a Dream?** ▪ Additive Manufacturing ▪ Laser-based Powder Bed Fusion of Plastics and Metals ▪ Productivity and Part Quality **Prof. Dr.-Ing. Katrin Wudy,** Professor and **Jonas Grünewald, M. Sc.,** Research associate, Professorship of Laser-based Additive Manufacturing, both of Technical University of Munich, Garching near Munich	**Vehicle interiors from a sustainability perspective: Alternative trim materials in discussion** ▪ Alternative surface materials for trim applications ▪ Usage and comfort features ▪ Cascade utilisation, recycling and biodegradability ▪ Substitution of non-renewable components **Dr. rer. nat. Sascha Dietrich,** Head of accredited Testing Laboratory and **Dr. rer. nat. Anke Mondschein,** Head of Leather and Leather Processing, both of FILK Freiberg Institute gGmbH, Freiberg
11:45 Future Sustainable Car Materials – a contribution to a sustainable Circular economy for plastics in Automotive engineering ▪ The BMW Group's sustainability strategy ▪ Classification and prioritization of advanced recycling Technologies ▪ Practical examples from the Future Sustainable Car Materials project **Dr.-Ing. Martin Schneebauer,** Project Manager, Materials and Methods, BMW AG, Munich	**Challenges and limits of high-quality PCR regranulates in the interior and exterior according to the expensive regulations of the ELV** ▪ Current practical application of the technology and its potential for development in the future ▪ Applications for the use of recycled materials in the automotive sector ▪ Future legislation and recycling quotas up to 2030 + ▪ Proven CO_2 reduction in view of upcoming legislation (CBAM) **Dipl.-Ing. Daniel Römhild,** Head of Development, WIS Kunststoffe GmbH, Breitungen	**Metallic Surface Design Research plus Trend Overview and Circularity Potential** ▪ Automotive component analysis and visualization of future relevant exterior and interior component areas ▪ Comparison of metal deco surfaces developments from manufacturers in USA/CHINA/EU ▪ Identifying trends and development potential for automotive premium brands ▪ Outlook: View on mechanical recycling and circularity options for POP **Jörg Friedrich,** CEO, Car Men GmbH, Glashütten

12:15 Pilot test successful: Physically recycled post-consumer recyclate from end-of-life vehicles
- Extended plastic sorting from end-of-life vehicles
- Physical recycling as a process for sorted plastic clusters
- Compounding and component sampling
- Testing of material and component properties

Dr. Martin Schlummer, Business Development Kunststoffrecycling, Fraunhofer IVV, Freising and **Jutta Schoberer,** Development engineer, Co-author: Philipp Renner, both of AUDI AG, Ingolstadt

Compound utilizing core-back foam injection molding for automotive interior parts process simplification and recyclability improvement
- Thermoplastic elastomer for automotive interior skin parts
- Molding skin and foam layer together by core-back foam injection molding
- Recyclability improvement

Satoshi Kamimura, Technical Service Engineer, Thermoplastic Elastomer, Asahi Kasei Europe GmbH, Düsseldorf

Safety glass due to TPE!
- Exterior automotive covers made of plastics
- Weatherability, scratch resistance, durability
- Replaced with glass
- Required homologations and compliances

Dipl.-Ing. Erwin Butsch, Director Research & Development Automotive Glass, Technical development

12:45 The concepts of a holistic product sustainability and its trade-offs and a circular economy prediction model
- Trade-off assessment of certain requirements from the upcoming End of Life Vehicle Regulation
- Examples: Substances of Concern and Recycled Plastic Content
- Presentation of possible solutions to overcome these trade-offs
- Introduction of a Circular Economy prediction Model

Dipl.-Ing. Timo Unger, Senior Manager Sustainability & Environmental Affairs, Regulation, Vehicle Safety & Environment, Hyundai Motor Europe Technical Center, Rüsselsheim

New sustainable light-weight design possibilities via foam extrusion of expanded polypropylene beads (ePP)
- ePP foam extrusion process
- Investigated materials and results
- New opportunities for ePP in automotive applications
- Sustainable solutions

Alberto Ballesteros Agudo, PhD, Product Line Manager, Sales and R&D, Sulzer Chemtech AG, Winterthur, Switzerland and **Dipl.-Ing. Georg Grestenberger,** Senior Application Marketing Manager – Interior, Borealis Polyolefine GmbH, Linz, Austria

Automation – One pillar of a sustainable, high quality interior
- Potential of automation in material development
- Automated material test for interior surfaces
- Challenges with the use of cobots

Hagen Meyer, M. Sc., PhD student and **Dr. Thomas Taddigs,** Subdivision Manager, both of Body system – Interior and Surface

13:15 Lunch Break with Visit to the Exhibition & Auto Show

Mozartsaal *(Level 0)*	Musensaal *(Level 1)*	Stamitzsaal *(Level 1)*
Exterior	**Lightweight Design 1**	**Plastics Electronics**
Moderation: Dr. Steffen Hölzel, Dr. Ing. h.c.F. Porsche AG	**Moderation:** Roger Kaufmann, GK Concept GmbH	**Moderation:** Dipl.-Ing. Thomas Drescher, Volkswagen AG

15:00 Adaptive front diffusor in the Porsche 911: From the racetrack to the road
- Motivation adaptive aerodynamics at Porsche
- Feature and design of the adaptive front diffusors using the example of:
  - Porsche 911 GT3 RS – Target: Performance on racetrack
  - Porsche 911 GTS – Target: Performance and efficiency for daily routine

Dipl.-Ing. (FH) Stephan Schoell, Development engineer, Development of Body Exterior, Rear and Attachment systems, **Dipl.-Ing. (BA) Sebastian Harter,** Development engineer, Motorsport Development Bodywork GT road vehicles and **Dipl.-Ing. (FH) Christophe Bouvatier,** Head of Front/Rear system, Motorsport development Body Super sports car, Co-author: Dipl.-Ing. (FH) Fuat Kayadere, all of Porsche AG, Weissach

Sustainable load-adapted components from nonwovens with variable basis weight and functionalization
- Lightweight construction through innovative forming technology
- Implementation of novel nonwovens in serial production
- Monomaterial sandwich structures for enhanced recyclability
- Load optimization through local basis weight reinforcements

Dipl.-Ing. Florian Tautenhain, Development engineer, Biopolymers and natural Fiber Composites Research area, Co-authors: Dr.-Ing. Roman Rinberg, Dipl.-Ing. Marcus Hartenstein, Prof. Dr.-Ing. habil. Lothar Kroll, all of TU Chemnitz

Innovative EMI-Shielding plastics: Functional integration enabling weight and cost reduction in the example of a DC-DC converter application
- EMI-shielding plastics as replacement for metals
- Functional integration (EMI, thermal conductivity, assembly steps)
- Light weight design and cost reduction
- EV power module, DC-DC converter

Dr.-Ing. Julian Heinisch, Application Engineer and **Steve Lee, M. Sc.,** Team Leader Application Engineering, both of LG Chem Europe GmbH, Frankfurt am Main

15:30 Use of recycled material and passive safety: Components in the bumper of the new Audi A5
- Highly stressed safety-component based on post-industrial recycled material
- Qualification of the recycled material and final part
- Concepts for an effective quality assurance
- Outlook: Demonstration component based on post-consumer recycled material

Dipl.-Ing. Frank Fischer, Material engineer, Surface/material technology, AUDI AG, Ingolstadt, **Salvatore Cannavò, B. Eng.,** Head of Product Development Exterior, SMP Deutschland GmbH, Bötzingen and **Dipl.-Ing. (DH) Andreas Benndorf,** Senior Business Development Manager/OEM-Manager, PCW GmbH, Eilenburg

Method development for Mapping the Mold Filling Process of thermoplastic molded Parts with continuous Fiber reinforcement and complex Rib structure
- Underride guard in FRP design
- Thermoplastic molding process
- Process simulation
- UD tapes and LFT-D

Dr. Julius Rausch, Development engineer, AUDI AG, Neckarsulm and **Dr. Martin Hohberg,** CEO, SIMUTENCE GmbH, Karlsruhe, Co-authors: Andreas Rau, ElringKlinger AG, Lenningen, Dr. Aaditya Suratkar, Fraunhofer ICT

From ideation to validation – Low-pressure overmolding in ADAS cameras
- Review different automotive application use cases for TMC's Vyloshot grade
- Assessment of the feasibility of low pressure overmolding for automotive ADAS cameras
- Advantages and disadvantages of using an overmolded camera design
- Visualization of the camera design with TMC low pressure molding solution implemented

Oliver Gottschalk, M. Sc., Manager and **Abhishek Sanap, M. Sc.,** Consultant, Co-authors: Michael Reinhold, M. Sc., all of FEV Consulting GmbH, Aachen/Munich, Dipl.-Wirt.-Ing. Johannes Houben, Beyond Materials Corp., Tokyo, Japan

16:00 Coffee Break with Visit to the Exhibition & Auto Show

Mozartsaal *(Level 0)*	Musensaal *(Level 1)*	Stamitzsaal *(Level 1)*
Sustainability 1 **Moderation:** Dipl.-Journ. (FH) Daniel Schröder, Verein Deutscher Ingenieure e. V.	**Simulation** **Moderation:** Dipl.-Ing. (FH) Hartmut Häberle, MAN Truck & Bus SE	**Lightweight Design 2** **Moderation:** Dipl.-Ing. (TH) Werner Jakobs, Ford-Werke GmbH
17:00 Uncovering the Material State: Potential of PA66 Fan Modules from End-of-Life Vehicles for Closed-Loop Recycling ▪ Recycling of plastics from ELV ▪ Engineering plastics ▪ Material state after aging ▪ PA66 fan modules **Tobias Baeyens, M. Sc.,** PhD student and **Dr. Daniel Kugele,** Activity Management, Applied Material and Manufacturing Technologies for Metals and Polymers, both of Robert Bosch GmbH, Renningen, Co-authors: Prof. Dr.-Ing. Iman Taha, Hochschule Aalen, Prof. Dr.-Ing. Frank Henning, Karlsruher Institut für Technologie	**Enabling Reliable Virtual Prototyping with Digital Material Twins** ▪ Virtual prototyping ▪ Digital material twins ▪ Material Appearance Capturing ▪ Shorten time-to-market **Dr. Tobias Rausch,** Business Development Manager Digital Sampling, Global Color & Design, Covestro Deutschland AG, Leverkusen	**Sustainable Innovation: Achieving Net Zero through Function-Oriented Plastic Design, Tool Design, and Process Management** ▪ Strongly focused application of Innovation methods ▪ Sustainable Plastic design based on function-oriented Layout ▪ Appropriate technology and tools ▪ Iteratively part-oriented determined Process parameters **Dipl.-Ing. (FH) Bernd Trinkwalter,** Head of Innovation, Innovation management, Motherson DRSC Deutschland GmbH, Kronach-Neuses and **Dr. h.c. Stefan Ostwald,** Specialist in development of Instrument panel design, Volkswagen AG, Wolfsburg
17:30 Lignin – Next generation renewable resource for sustainable plastics ▪ Lignin as sustainable resource ▪ Processing – thermoforming and injection moulding ▪ Physical foaming – KU-Fizz ▪ Environmental performance **Dr. Lars Jerpdal,** Technical Manager, R&D, Scania CV AB, Södertälje, Sweden and **Dr. Christopher Carrick,** CTO, Lignin Industries AB, Knivsta, Sweden, Co-authors: Andreas Åhrlin, Autoform, Malung, Sweden, Dr. Xinfeng Wei, Royal Institute of Technology, Stockholm, Sweden	**Competitive advantages through smart AI-integrated engineering** ▪ AI-based development process for Applications in the circular economy ▪ Efficiency and resource conservation using examples from the automotive sector **Dipl.-Ing. Wolfgang Pelzer,** CEO and **Dipl.-Ing. Ulf Seefeldt,** Business Development Manager, both of M.TEC ENGINEERING GmbH, Herzogenrath	**Ultrasound based measurement of mechanical properties of continuous fiber reinforced thermoplastic laminates** ▪ Fiber reinforced plastics/FRP ▪ Fiber matrix adhesion ▪ Non-destructive Testing ▪ Organo-sheets **Prof. Dr.-Ing. Elmar Moritzner,** University Professor/Chair holder and **Philipp Brandes, M. Sc.,** Research associate, both of Kunststoff-technik Paderborn (KTP) – Paderborn University, Co-authors: Dr.-Ing. Leander Claes, Prof. Dr.-Ing. Bernd Henning, both of Elektronische Messtechnik (EMT) – Paderborn University

ab 18:00 PIAE Networking Party in the Trade Exhibition and the Eva and Sepp Herberger Lounge
All participants are cordially invited to a communicative drink with buffet. Discuss the results of the first day of the event with your professional colleagues and make new contacts. We cordially invite you to join us and look forward to welcoming you there!

Thursday, March 27, 2025 | 2nd Day of Congress

	Mozartsaal *(Level 0)*	Musensaal *(Level 1)*	Stamitzsaal *(Level 1)*
	Recyclates **Moderation:** Robert Someschan, Ford-Werke GmbH	**Materials** **Moderation:** Jochen Hardt, Covestro Deutschland AG	**Manufacturing Processes 2** **Moderation:** Dipl.-Ing. (FH) Hartmut Häberle, MAN Truck & Bus SE
09:00	**R5CYCLED POLYMERS – The R5VOLUTION** ▪ How R5 fits into an overall RENAULT's ECO-DESIGN approach ▪ How will R5 and its successors respond to the future European regulations ▪ How R5 is meeting these customers' new environmental expectations **Dr. Gerard Liraut,** Expert for Technical Polymers, Engineering Department, Co-author: Gabrielle Gauge, both of Renault Group, Guyancourt, France	**Tier 1 Supplier Role in Boosting PCR Integration in Automotive Injection-Molded Products for a Circular Economy** ▪ Product Innovation/Emission stability ▪ Recycled Materials & Recycled Products for Automotive ▪ Sustainable Manufacturing/OEM's requirements/Supply Chain Performance ▪ Circular Economy/End of Life Vehicles/Environmental Benefits **Dipl.-Ing. Mariusz Nowak,** Project Manager Research & Innovation and **Dipl.-Ing. Antonio Avides,** Key Account Manager, Sales, both of Simoldes Plastics, Wolfsburg/Barcelona, Spain	**BIOPOLYMER PBS – the foreseeable Future of Plastics: From Vision to concrete Applications** ▪ Introduction – bio-based and biodegradable – specifically Biopolymer PBS ▪ Presentation of the RUBIO project – with AR, integrated system, complete value chain ▪ Exipnos GmbH Biopolymer Compounding – BioCelain series ▪ Application examples ▪ Possibilities in Automotive engineering – specifically comparison of PP T20 with BioCerlain A 120 **Peter Putsch,** CEO and **Max Putsch,** Sales Manager, both of Exipnos GmbH, Merseburg
09:30	**A contribution to sustainable development – the use of recyclates in highly loaded applications** ▪ Recycling plastics ▪ Longtime Durability ▪ Additives and Stabilizers ▪ Fatigue of Polymers **Dr. rer. sust. Dominik Spancken,** Research associate, Plastics processing and Component design, Co-authors: Julia Decker, M. Eng., Dr. rer. nat. Elke Metzsch-Zilligen, all of Fraunhofer LBF, Darmstadt	**Sustainability and Circular Economy – Applying new sustainable materials into plastic parts – upscaling challenges** ▪ Recycled content ▪ Biobased materials ▪ Carbon reduced application ▪ Sustainable design **Yann Schnerb, MBA,** Vice President of Sales Europe, UBQ Materials Ltd., Bergen op Zoom, The Netherlands	**TPE as recyclable alternative for sealings and haptic parts** ▪ Replacement of cross-linked foams and elastomers ▪ Compatibility of TPE in the PP waste stream ▪ TPE from PCR sources **Kathrin Heilmann, B. Eng.,** Product Manager, Co-authors: Florian Dresel, Dr. Thomas Köppl, all of Hexpol TPE GmbH, Lichtenfels
10:00	**Risk potential use of Post-consumer recyclates – what the Automotive industry can learn from the Food and Hygiene products industry** ▪ Contaminants in raw Materials and finished Products ▪ Possible sources ▪ Identification of critical points in production ▪ The GALAB SOI program of the food and hygiene industry **Hans Wunsch,** CEO, GALAB Laboratories GmbH, Hamburg and **Martin Doedt, B. Sc.,** Authorised representative, Testing laboratory, KIMW Prüf- und Analyse GmbH, Lüdenscheid	**TPE Foam: more than just a "gapfiller"** ▪ Material properties TPE foam vs. PUR ▪ Acoustic requirements of Wire harness dashwall wall grommets ▪ Material qualification release of new Materials ▪ Cooperation with OEM's to establish New innovative solutions **Matthias Dietz,** Director Business Development and Technology, Noise Vibration Harshness and Sealing, Woco Industrietechnik GmbH, Bad Soden-Salmünster	**Intelligent Process Monitoring to reduce rejects in Thermoplastic injection molding using specific, Automated anomaly detection** ▪ Assistance systems in Injection molding ▪ Automated Anomaly detection ▪ Downtime reduction **Yannik Lockner,** CTO, Co-authors: Dipl.-Ing. Mauritius Schmitz, both of OSPHIM GmbH, Aachen, Jan Wolters, Institute for Plastics Processing (IKV) in Industry and Craft at RWTH Aachen University
10:30	**Reliable component quality despite PCR recycled materials** ▪ General conditions recycling ratio/end-of-life vehicle directive ▪ Characterization of PCR-materials during processing ▪ Using KI for process control **Prof. Dr.-Ing. Sascha Englich,** Schwarz Plastic Solutions GmbH, Gilching, Co-authors: Dr.-Ing. Alexander Chaloupka, Dr.-Ing. Natalie Rudolph, both of NETZSCH Process Intelligence GmbH, Selb	**Reduction of greenhouse gas emissions through the use of recyclates with GSG technology** ▪ Recyclate quantities and European framework conditions ▪ Material properties and characteristics ▪ Reducing GHG-emissions starts with design 4 Recycling ▪ Success stories **Frank Schockemöhle,** Head of Technology Management, Pöppelmann Kunststoff Technik, Lohne	**Closing the Loop for Automotive Plastics – Sustainable Paint-Removal Technology to Realize Car-to-Car Recycling with High-Quality PCR** ▪ Recovery Technologies ▪ Mechanical treatment of Waste-plastic, paint removal ▪ ELV directive ▪ "Smart sustainability" solutions **Dipl.-Ing. Martin Klocke,** Vice General Manager Automotive Business Europe and **Nicole Thormann,** Technical Marketing Manager, both of KINGFA Sci. & Tech. (Europe) GmbH, Wiesbaden/Guangzhou, China, Co-author: Li Cong, M. Sc., KINGFA Environmental Sci. & Tech. Spain
11:00	**Coffee Break with Visit to the Exhibition & Auto Show**		

Thursday, March 27, 2025 | 2nd Day of Congress

	Mozartsaal *(Level 0)*	Musensaal *(Level 1)*	Stamitzsaal *(Level 1)*
	Materials in Electric Drivetrain **Moderation:** Dipl.-Ing. Fabian Groh, AUDI AG	**Sustainability 2** **Moderation:** Dr. Christian Bornhorst, Volkswagen AG	**Market Requirements in the Plastics Industry** **Moderation:** Klaus Münker, Magna Exteriors GmbH
11:45	**New Bonding Technology Opens New Technical Opportunities for Hybrid Power Electronic Housings** ▪ Reduce costs of EV applications ▪ Improve Manufacturing efficiency ▪ Incorporate more function through new Design options **Dipl.-Ing. Andre Lambrecht,** Development engineer, Application Development Engineering Team, Celanese AG, Sulzbach and **Lukas Malfatti,** Product Manager Propulsion Global, Röchling Automotive srl, Laives, Italy	**Driving Sustainability with Simulation – Mercedes-Benz frontend crash absorber structure with Borealis Fibremod PP** ▪ Simulation driven engineering and Part design ▪ Safety relevant crash structure with PP compounds ▪ Correlation of Simulation and Part test (different PP GF30) ▪ Sustainability with savings in weight and CO_2 emission **Tobias Epple, M. Sc.,** Application Marketing Manager – Automotive Under the Hood, Borealis Polymere GmbH, Burghausen and **Dipl.-Ing. (BA) Klaus Heldmaier,** Development engineer, Development Exterior, Mercedes-Benz Group, Sindelfingen, Co-author: Robert Raulf, HBPO GmbH, Lippstadt	**Implications of increasingly diverse markets & customer requests on a globally active automotive tier 1** ▪ Evaluation of the different Market and Customer requirements from different perspectives using individual Examples ▪ Summary and Abstraction of the examples based on the VUCA concept ▪ Implications for globally active Companies & recommendations for Action **Konstantin Schmidt, M. Sc.,** Manager Advanced Development Europe, JOYSONQUIN Automotive Systems GmbH, Rutesheim
12:15	**Sustainable, new and useful: Plastic Battery Housing Pentatonic Green +** ▪ Thermoplastic battery enclosure ▪ Mechanical and physical recycling ▪ Design and Manufacturing for recycled Materials **Dr.-Ing. Moritz Lipperheide,** Director Research, Co-authors: Jürgen Pfaff, Sophie Louis, all of Kautex Textron GmbH & Co.KG, Bonn	**Use of Recyclate in painted Radiator grills for the Audi A3 by implementing a "Post-industrial closed loop"-concept** ▪ Requirements/qualification at material and component level ▪ Recycling concept for paint-stripped PC/PET radiator grills ▪ Concepts for quality assurance **Dipl.-Ing. (FH) Wolfgang Dorfner,** Development engineer, Development of Exterior add-on parts, AUDI AG, Ingolstadt, **Werner Meschitz,** Development engineer, Innovation, Diepersdorf Plastic Manufacturing GmbH, Leinburg and **Christoph Metzker,** Account Manager, MOCOM Compounds GmbH & Co KG, Hamburg	**Method for determining the Cost impact of Tolerances on Plastic components – What does precision cost? How much does Precision cost in the Injection Moulding Process?** ▪ Cost reduction through appropriate Tolerances ▪ Avoidable Production costs in the Injection Moulding Process ▪ Function-orientated tolerancing ▪ Mould sampling & Approval **Anja Falke, M. Sc.,** PhD student, Friedrich-Alexander Universität Erlangen-Nürnberg (FAU)
12:45	**Lunch Break with Visit to the Exhibition & Auto Show**		
	Mozartsaal *(Level 0)*		
	Plenary Session **Moderation:** Dipl.-Ing. Thomas Drescher, Volkswagen AG		
14:00	**Mobile injection-molding opens up new opportunities in Cable customization and Assembly technology** ▪ Mobile injection-molding Technology ▪ Automation in Cable customization ▪ Assembly-molding of complex hybrid profiles **Dr.-Ing. Michael Krahl,** CEO/Co-Founder and **Dr.-Ing. Michael Stegelmann, MBA,** CEO/Co-Founder, both of ANYBRID GmbH, Dresden		
14:30	**Challenges and Assumptions in Developing Closed Loop Automotive Materials** ▪ Sustainability ▪ Development of materials ▪ Post consumer and closed loop recyclate ▪ Reduction of CO_2 Footprint **Dr. Tereza Silovská,** Development Engineer and **Dalibor Kopáč, Ph.D.,** Coordinator of Material Development, both of Škoda Auto a.s., Mladá Boleslav, Czech Republic		
15:00	**Closing Words**		
15:15	**End of the Congress**		

Marketplace Plastics in Automotive Engineering

The trade show accompanying our PIAE congress has become one of its highlights. More than 70 national and international exhibitors display their innovative plastics solutions. The exhibition is one of the largest in the field of automotive plastics!

Information

If you would like to exhibit or sponsor at this VDI congress please contact:

Anika Wissing
Project consultant Exhibitions & Sponsoring
Phone: +49 211 6214-8635 | Email: wissing@vdi.de

You would like to present your car model or concept study at the Autoshow during the show? Please contact:

Elena Langenfels
Project consultant Exhibitions & Sponsoring
Phone: +49 211 6214-8662 | Email: langenfels@vdi.de

Sponsors

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Autoshow

Within the scope of the Autoshow, where current models and concept studies of the car manufacturers are shown, you will have the opportunity to study the plastic components directly on the following vehicles onsite:
BMW Vision neue Klasse, Porsche 911 GT3 RS, Porsche 911 GTS,
Porsche Cayenne Turbo GT, MAN SZM, Audi A5 Limousine, Audi S6 Avant e-tron

Exhibitors PIAE 2025 (as at March 2025)

AKRO-PLASTIC GmbH
almaak international GmbH
ANYBRID GmbH
Asahi Kasei Europe GmbH
Aurora Kunststoffe GmbH
Avient Luxembourg S. à. r. l.
Bole Intelligent Machinery CO., LTD
Borealis AG
Brain of Material AG
BYK-Chemie GmbH
Cannon Deutschland GmbH
Chemische Fabrik Budenheim KG
CONSTAB Polyofin Additives GmbH
Covestro Deutschland GmbH
Dow Europe GmbH
ELIX Polymers S.L.
ENGEL AUSTRIA GmbH
Ensinger GmbH
Envalior Deutschland GmbH
Epsan Deutschland GmbH
Evonik Industries AG
Gear Motion GmbH
Geba Kunststoffcompounds GmbH
GKG Goldmann Kunststoffe GmbH & Co. KG
GRAFE GmbH & Co. KG
hapego plastics GmbH
Hoffmann + Voss GmbH
JENOPTIK Automatisierungstechnik GmbH
Kautex Textron GmbH & Co. KG
KINGFA Sci. & Tech. (Europe) GmbH
LG Chem Europe GmbH
LOTTE Chemical Deutschland GmbH
MF SOFTWARE GmbH
MOCOM Compounds GmbH & Co. KG
PCW GmbH
Polykemi AB
Polyram plastic industries LTD
Pöppelmann Kunststoff-Technik GmbH & Co. KG
PRET Europe GmbH
Profol Greiz GmbH
Propex Furnishing Solutions GmbH & Co. KG
RadiciGroup High Performance Polymers
Ravago Manufacturing Europe
ROMIRA GmbH
RÜHL PUROMER GmbH
SHPP Germany GmbH
Sirmax SPA
SORTCO GmbH & Co. KG
Sumika Polymer Compounds Europe
Techniplas Schwäbisch Gmünd GmbH
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Congress Chairman

Dipl.-Ing. Thomas Drescher, Head of Pre-development and Vehicle assessment, Body system, Volkswagen AG, Wolfsburg

Supporting panel of experts





1. L to R

Jochen Hardt, Covestro Deutschland AG, Leverkusen

Roger Kaufmann, GK Concept GmbH, Dresden

Klaus Münker, Magna Exteriors GmbH, Altbach

2. L to R

Stefan Schierl, KraussMaffei Technologies GmbH, Parsdorf

Prof. Martin Würtele, Technische Hochschule Rosenheim

Technical Sponsor

VDI Society for Materials Engineering

The VDI Society for Materials Engineering makes a point of networking experts both from business and from scientific fields close to actual applications in order to allow discussion of current questions about components and products from the point of view of materials and the corresponding technologies and also to enable engineers in this field to access via the network the approaches to solutions which have been worked out.

www.vdi.de/gme

Program committee












1. L to R

Pascal Bertens, DAF Trucks N. V., Eindhoven, The Netherlands

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Dipl.-Ing. Fabian Groh, AUDI AG, Neckarsulm

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