

THE **BATTERY** SHOW
EUROPE

 **electric
& hybrid** | europe
vehicle technology expo

23-25 May, 2023
Messe Stuttgart, Germany



The Battery Show & EV/H Technology Conference

22nd-25th May, 2023

PROGRAMME

	Day 1 - 23 rd May 2023		
09:00	Registration & Coffee		
09:15-09:20	Chair's Introduction <ul style="list-style-type: none"> Andy Leach, Energy Storage Team, BloombergNEF 		
09:20 - 10:20	OPENING KEYNOTES: Europe's Roadmap to a Competitive and Sustainable Battery Industry Chair: Andy Leach, Energy Storage Team, BloombergNEF <ul style="list-style-type: none"> Benedikt Sobotka, CEO of ERG and Co-Chair, Global Battery Alliance Ilka von Dalwigk, Policy Manager, InnoEnergy Josef Schoen, Corporate Strategy, Audi Nemanja Mikac, CEO, ElevenEs 		
10:20-10:45	Networking Break		
	TRACK A	TRACK B	TRACK C
10:45-12:45	BATTERY & EV SUSTAINABILITY Chair: Dr Philipp Seidel, Principal, Arthur D. Little GmbH 10:45 – 11:05 The EV and Battery Market in 2023 Iola Hughes, Research Manager, Rho Motion 11:05 – 11:25 Why does lithium intensity matter? Easing the lithium supply deficit Edward Rackley, Head of Energy Storage, Exawatt 11:25 – 11:45 EU Battery Regulation & Sustainability: What must battery manufacturers and their suppliers do in 2023 and beyond? Sarah Montgomery, CEO, Infyos Rob Johnson, Automotive Advisor, Infyos 11:45 – 12:05 Novel Recycling Solution for Battery Sustainability and Carbon-Neutrality Dr Xue Wang, Co-Founder & CMO, Botree Cycling 12:05 – 12:25 Sustainable production of battery systems: The Schierling story Christin-Marie Boudgoust, Director Business Development Battery Systems, Webasto Roof & Components GmbH 12:25 – 12:55 The Future in Battery & EV Sustainability Panellists: <ul style="list-style-type: none"> Lukas Lutz, Co-Founder, Sphere Energy Tom Van Bellinghen, Sr. Director OEM Sales & Marketing, Umicore 	BATTERY MARKETS Chair: Jennifer Channell, Innovation Lead - Batteries, Faraday Battery, Innovate UK 10:45 – 11:05 Lithium Metal Battery Processing Prof. Dr. Martin Winter, Münster University 11:05 – 11:25 The Battery Report - A Comprehensive Overview of the Battery Landscape Yen T. Yeh, Executive Director, Volta Foundation 11:25 – 11:45 The mismatch of Li-ion battery supply and demand across regions Alexandre van de Rijt, Solution Associate Partner, McKinsey & Company, Inc 11:45 – 12:05 Challenges and commercialization potential of alternative battery systems Christoph Neef, Senior Scientist, Fraunhofer ISI 12:05 – 12:25 Key Differentiators of Next-Generation Batteries Philipp Wunderlich, Head of Battery Technology, umlaut energy 12:25 – 12:45 The new EU battery regulation framework--assessing impact for businesses Giorgio Corbetta, Director, EUROBAT	BATTERY MANAGEMENT & BATTERY INTELLIGENCE Dr Simon Engelke, Founder & Chair, Battery Associates 10:45 – 11:00 How to deal with and manage the continuous changes in BMS HiL testing Stephan Schmidt, Group Manager Consulting & Services, MicroNova AG 11:00 – 11:20 Efficient cell aging characterization Stefan Scheidel, Senior Development Engineer Methodology, AVL List GmbH 11:20 – 11:40 Accelerate Cell Qualification with The Battery Index Tal Sholklipper, CEO & Co-Founder, Voltaiq 11:40 – 12:00 Unlocking improved capacity, cost, and safety with battery cell-level control Juergen Barth, VP Partnerships, Relectrify 12:00 – 12:20 Forecasting battery performance - from cradle to grave Penelope Jones, CEO, Byterat 12:20 – 13:00 Predicting battery State-of-Health: an open issue with many possible solutions Panellists: <ul style="list-style-type: none"> Dr. Michael Hess, CEO, Battronics Srdjan Mutabdzija, Head of Product Development, Titan AES Matthias Simolka, Senior Technical Solution Engineer, TWAICE Technologies GmbH

	<ul style="list-style-type: none"> Maarten Langendonk, CTO, Interplex Wolfgang Bernhart, Senior Partner, Roland Berger 		
13:00-14:15	Networking Lunch		
	TRACK A	TRACK B	TRACK C
14:15 – 15:15	LITHIUM – NEXT GENERATION Chair: Jennifer Channell, Innovation Lead - Batteries, Faraday Battery, Innovate UK 14:15 – 14:35 Lithium-ion battery market and emerging battery technologies Dennis Gallus, Senior Project Manager, Roland Berger 14:35 – 14:55 Development of Lithium Ion Battery Materials Roadmap Dr. Ody Paschos, European Business Director, Wildcat Discovery Technologies 14:55 – 15:15 Unlocking Next Generation High Performance Lithium-Ion Batteries Albert Vila, Director of Business Development, StoreDot	BATTERY RECYCLING, SECOND AND END-OF-LIFE OPPORTUNITIES Chair: Núria González-García, Head of Research & Technology, batteries AMPS GmbH 14:15 – 14:35 Battery materials supply vs. demand and impact of US and EU regulations Tim Hotz, Principal, Roland Berger 14:35 – 14:55 Duesenfeld - Ecofriendly Recycling of Lithium-Ion Batteries Till Bußmann, CTO, Duesenfeld GmbH 14:55 – 15:15 Safety Evaluation for Second Life Battery Applications Johannes Roessner, Founder, BT Advisor UG	EUROPEAN POLICIES AND REGULATIONS FOR BATTERIES AND BATTERY MATERIALS 14:15 – 14:35 The role of Battery Storage in the transformation of the European Energy System in the 2020s Carmen Kompatscher, Growth Associate, Fluence Energy 14:35 – 14:55 Raw materials supply vs demand and impact of regulations Konstantin Knoche, Senior Consultant, Roland Berger 14:55 – 15:15 Emission Compliance in Battery Manufacturing and Recycling Dirk Reichert, Business Development Manager, DESOTEC
	TRACK A	TRACK B	TRACK C
15:20 – 16:20	SILICON ANODES Chair: Ines Miller, Team Lead Battery Cells, P3 Group 15:20 – 15:40 Umicore progress in Si-anode materials : To be the 1st European Silicon Anode player at scale Jean-Sebastian Bridel, Senior Scientist, Umicore 15:40 – 16:00 Cutting through the silicon hype - Achieving industrial production of 100% silicon anodes Robert Anstey, CEO and Founder, GDI 16:00 – 16:20 One step to ultra high energy density with silicon anodes Christian Rood, CEO, LeydenJar Technologies	BATTERY RECYCLING, SECOND AND END-OF-LIFE OPPORTUNITIES Chair: Núria González-García, Head of Research & Technology, batteries AMPS GmbH 15:20 – 15:40 The Most Economically Compelling Ways of Returning Recycled Battery Materials Back to the Lithium-ion Battery Supply Chain Tomasz Poznar, General Manager, Europe, Ascend Elements 15:40 – 16:00 Lithium-ion Battery Recycling in India: Challenges and Opportunities Akash Saraf, Sr. Analyst, Customized Energy Solutions 16:00 – 16:20 Battery Debonding on Demand - Solutions for Repairability, Disassembly and Recycling Dr Friederike Kettling, Lab Manager, ePowertrain, tesa SE Dr Marius Böhmer, Global Market Segment Manager ePowertrain, tesa SE	SODIUM INNOVATION Chair: Shazan Siddiqi, Technology Analyst, IDTechEx 15:20 – 15:40 Sodium Ion (Na-Ion) Battery Market 2023 Shmuel De-Leon, CEO, Shmuel De-Leon Energy 15:40 – 16:00 Sodium-ion - the new LFP? Material, cost, and application Jonathan Helbig, Project Manager, umlaut part of Accenture 16:00 – 16:20 Sodium-ion battery cells Hervé Beuffe, CEO, Tiamat

	Day 2 – 24th May, 2023		
09:00	Registration & Coffee		
09:10 -09:15	Chair's Introduction <ul style="list-style-type: none"> • Andy Leach, Energy Storage Team, BloombergNEF 		
09:15 - 10:20	OPENING KEYNOTES 09:15 – 09:25 SCALING-UP & REDUCING COST: EV Cell Manufacturing Can Learn From Solar Cell Manufacturing (Session) <ul style="list-style-type: none"> • Dr Jan-Marc Luchies, COO, OneD Battery Sciences 09:25 – 10:20 AFFORDABLE EVs with Silicon-Enabled Longer Range, Smaller, Cheaper, Faster Charging Batteries (Panel Discussion) Moderator: <ul style="list-style-type: none"> • Dr Jeff Chamberlain, CEO and Co-Founder, Volta Energy Technologies Panellists: <ul style="list-style-type: none"> • Dr Dirk Abendroth, CEO, CustomCells • Dr Vincent Pluvinage, CEO, OneD Battery Sciences • Patrice Boulanger, VP of Marketing and Business Development, Nouveau Monde Graphite 		
10:20 – 10:30	India – A land of unlimited opportunities <ul style="list-style-type: none"> • Rajneesh Khattar, Senior Group Director, Informa Markets India 		
10:30-10:45	Networking Break		
	TRACK A	TRACK B	TRACK C
10:45-12:45	BATTERY CHARGING Chair: Dr Philipp Seidel , Principal, Arthur D. Little GmbH 10:45 – 11:05 Battery Technologies for Heavy Duty Applications	BATTERY MANUFACTURING AND QUALITY Chair: Joscha Schnell , Technology Lead, Next Gen Batteries and Production, P3 Group 10:45 – 11:05 How to address sustainability and cost pressure with customized battery interconnect solutions	BATTERY MANUFACTURING AND SCALE UP 10:45 – 11:05 Key aspects of automation in the cell manufacturing process Klaus Petersen , Director Lithium Battery Business EMEA, Mitsubishi Electric

	<p>Volker Schumann, General Manager for Battery Sales, Toshiba Electronics Europe GmbH</p> <p>11:05 – 11:25 Why Opportunistic Charging Solves Public Transportation and Trucking Challenges</p> <p>Alex Livingston, President/Co-Founder, Joule Case</p> <p>11:25 – 11:45 Battery Modelling for Battery Energy Assessment</p> <p>Jürgen Schneider, Senior Solution Manager Virtual Battery Dev., AVL List GmbH</p> <p>11:45 – 12:05 Immersion Cooling - Enabling High Power Charging, Performance, Safety and long Battery life of Li Ion Batteries</p> <p>Christopher Wolter, Senior Technologist PD Driveline & EV Fluids, Castrol Germany GmbH</p> <p>12:05 – 12:25 Factors influencing the implementation of EV charging infrastructure in a leading EV market</p> <p>Ali Adim, Senior Analyst, S&P Global</p> <p>12:25 – 12:45 Controlling EV Battery Temperatures During Ultrafast Charging: Challenges & Solutions</p> <p>Eitam Friedman, VP R&D, Carrar</p>	<p>Randy Tan, Product Portfolio Director, Interplex</p> <p>11:05 – 11:25 3D Electrodes for EV Batteries</p> <p>Sam Jaffe, Director of Strategy, Addionics</p> <p>11:25 – 11:45 Enhancing battery quality control with Computer Tomography and Artificial Intelligence</p> <p>Reda Belarbia, Global Battery and Storage Practice, Hexagon MI</p> <p>11:45 – 12:05 Trustworthy Battery Quality - the Fundamentals for Mastering the Challenge</p> <p>Jochen Weber, CEO, ProNES automation GmbH</p> <p>12:05 – 12:25 In-Line Electrolyte Saturation Monitoring and Cycle Life Prediction with Ultrasound Inspection during Cell Manufacturing</p> <p>Shaurjo Biswas, CTO & Co-founder, Liminal Insights Inc.</p> <p>Austin Dulaney, Principal Data Scientist, Liminal Insights Inc.</p>	<p>11:05 – 11:25 The challenges of scaling up battery technologies – from Lab to Fab</p> <p>Dr Ahmad Mohsseni, Chief Technology Officer, UK Battery Industrialisation Centre</p> <p>11:25 – 11:45 Laser Applications in Battery Manufacturing: High Speed Can-Cap Welding</p> <p>Daniel Fuhrmann, Industry Manager Mobility, TRUMPF Laser- und Systemtechnik GmbH</p> <p>11:45 – 12:05 Innovation in Battery Manufacturing and Scale Up</p> <p>Joe Adiletta, VP of Commercialization, Sylvatex</p> <p>12:05 – 12:25 Large-scale manufacturing and equipment for laminated cells</p> <p>Yang Rukun, CAS Researcher, Shenzhen Geesun Intelligent Technology Co., LTD</p>
12:45-14:00	Networking Lunch		
14:00 – 14:15	<p>Get the full potential of Battery Design and Manufacturing</p> <p>Markus Birkhan, Head of Vertical Battery Germany, Siemens AG</p>		
14:15 – 15:00	<p>KEYNOTE PANEL DISCUSSION: Optimising Battery Production within Europe's Battery Ecosystem</p> <p>Panellists:</p> <ul style="list-style-type: none"> • Dr. Markus Gräf, COO, Cellforce Group GmbH • Dr. Hannes Schmueser, CEO Division Clean Technology Systems, Dürr Systems AG • Prof. Dr.-Ing Dipl. Wirt. Ing. Heiner Heimes Member, Institute Management, PEM RWTH Aachen University • Marc Deyda, Head of Battery Strategy & Communication, Siemens AG 		
	TRACK A	TRACK B	TRACK C
15:00– 16:00	<p>BATTERY DESIGN & MANAGEMENT</p> <p>Chair: Victoria Hughill, Rho Motion</p> <p>15:00 – 15:20 advanced physical simulation models for cell development and characterization</p> <p>Jochen Zausch, Team leader "Electrochemistry and Batteries", Fraunhofer ITWM</p> <p>15:20 – 15:40 Cell to Pack Battery Design and Management</p>	<p>NEXT-GEN BATTERY DEVELOPMENT (BEYOND LI-ION TECHNOLOGY)</p> <p>Chair: Bridget Deveney, R&D Director, Viacode</p> <p>15:00 – 15:20 High-Power, High-Energy Density 3D Rechargeable Batteries</p> <p>Michael Rosenberg, CEO, Prieto Battery, Inc.</p> <p>15:20 – 15:40 How much energy is necessary to manufacture battery cells? Energy consumption of current and future lithium-ion and beyond lithium-ion battery cell production.</p>	<p>GIGAFACTORY</p> <p>Chair: Francisco Carranza Sierra, CEO, Basquevolt</p> <p>15:00 – 15:20 Ensure Efficiency and Sustainability with Virtual Twin of Gigafactory infrastructure</p> <p>Baptiste Cousinery, CATIA Business Consultant for Industrial Infrastructure, Dassault System</p> <p>f Ratinaud, CATIA Industry Process Expert, Dassault System</p>

	<p>Sian Wyles, Lead Engineer- Battery Integration, WAE</p> <p>15:40 – 16:00 How to test and design a safe battery system with advanced materials?</p> <p>Dr. Kim Kresiköther, Specialist Battery Safety, Henkel AG & Co. KGaA</p>	<p>Florian Degen, Division Director, Fraunhofer Research Institution for Battery Cell Production FFB</p> <p>15:40 – 16:00 Whats happening in battery technology innovation?</p> <p>Alex Holland, Principal Analyst, IDTechEx</p>	<p>15:20 – 15:40 Reducing costs of quality control in a Gigafactory</p> <p>Albert Groebmeyer, Strategic Portfolio Planner, Keysight Technologies</p> <p>15:40 – 16:00 Accelerate the development of batteries with Virtual Twins from Cell Innovation to Gigafactory Scale-Up</p> <p>Nicolas Vallin, Battery Solution Manager, Dassault systemes</p>
16:00 – 17:00	<p>ADVANCEMENTS IN GRID SCALE BATTERY STORAGE AND BATTERY ENERGY STORAGE SOLUTIONS</p> <p>16:00 – 16:20 Advances in Stationary Storage Systems in the ASG region</p> <p>László Eifert, Project Manager, umlaut energy GmbH</p> <p>16:20 – 16:40 A Battery Intelligence Platform to transform large-scale energy storage</p> <p>Christoph Birkel, CEO & Co-Founder, Brill Power</p> <p>16:40 – 17:00 Battery energy storage role in energy transition</p> <p>Sepehr Soltani, Analyst, Rystad Energy</p>	<p>GLOBAL ELECTRIC AND HYBRID MEDIUM & HEAVY-DUTY VEHICLES</p> <p>Chair: Bridget Deveney, R&D Director, Viacode</p> <p>16:00 – 16:20 Modular Power Pack and High Performance Cooling</p> <p>Aimen Souissi, Manager battery thermal engineering, Valmet Automotive</p> <p>16:20 – 16:40 Effects of the Inflation Reduction Act (IRA) on the US battery industry and required countermeasures for the European battery economy</p> <p>Ferdinand Ferstl, Team Lead E-Mobility Industrialization, P3 automotive GmbH</p> <p>16:40 – 17:00 Charging in <60 seconds: High utilization energy storage using Superbatteries</p> <p>Sebastian Pohlmann, Vice President Business Development, Skeleton Technologies Group</p>	<p>BATTERY CHEMISTRY EVOLUTION</p> <p>Chair: Francisco Carranza Sierra, CEO, Basquevolt</p> <p>16:00 – 16:20 Solid Electrolyte / Active Material Permutations for Improved Energy Density</p> <p>Pirmin Ulmann, Co-Founder & CEO, b-science.net LLC</p> <p>16:20 – 16:40 Liquefied Gas Electrolytes for Next-Generation EV Batteries</p> <p>Jungwoo Lee, CTO, South 8 Technologies</p> <p>16:40 – 17:00 Benefits of Lenzing™ Lyocell based cellulosic separators for Lithium Ion Batteries</p> <p>Simon Liebentritt, Product & Business Development Manager, Lenzing AG</p>

	Day 3 – 25th May, 2023		
09:00	Registration Coffee		
09:15-09:20	<p>Chair's Introduction</p> <ul style="list-style-type: none"> Andy Leach, Energy Storage Team, BloombergNEF 		
09:20 – 10:20	<p>KEYNOTE PANEL DISCUSSION: Scaling Up Europe's Production Capabilities</p> <ul style="list-style-type: none"> Sebastian Wolf, Head of Operations Battery Cell, PowerCo Dr Esther Quintanilla, Global Automotive Strategic Mobility Leader, Dow MobilityScience Andreas Weiglein, Vice President Operations, SVOLT 		
10:20-10:35	Networking Break		
	TRACK A	TRACK B	TRACK C
10:35 – 12:05	<p>BATTERY AND EV THERMAL MANAGEMENT</p> <p>Chair: Bridget Deveney, R&D Director, Viacode</p>	<p>BATTERY RAW MATERIALS AND SOLID STATE BATTERIES</p> <p>Chair: Andy Leach, Energy Storage Team, BloombergNEF</p>	<p>COMMERCIAL VEHICLE DEVELOPMENT, ELECTRIC MOTOR DESIGN AND ELECTRIC POWERTRAIN</p> <p>Chair: Luke Gear, Principal Analyst, Head of EV Research, IDTechEx</p>

	10:35 – 10:55 Recent advanced in Li-ion battery pack thermal management-immersion cooling technology Bahareh Yazdani , Global Head of Batteries-Technical Authority, Ricardo	10:35 – 10:55 Enhanced cycle life of LIBs using cellulose-based non-woven separator Saurabh Suresh Bopte , Materials Engineer, Soteria Europe GmbH	10:35 – 10:55 The next generation of commercial vehicle electrification Nico Münch , Business Line Manager Battery Systems Commercial Vehicles, Webasto Roof & Components GmbH
	10:55 – 11:15 Thermally conductive gap filler for the Electric Vehicle (EV) battery assembly Praveen Agarwal , Research Scientist, Dow	10:55– 11:15 Delivering Integrated Graphite Anode Active Material Production outside China Simone Diem , GM of Sales and Marketing, Syrah Global DMCC	10:55 – 11:15 Rapid Growth in Marine Fuel Cell Markets: Technologies, Markets, Opportunities Luke Gear , Principal Analyst, Head of EV Research, IDTechEx
	11:20 – 11:40 Battery Thermal Runaway CFD Prediction Including Solid Ejecta Rejection Adam Skála , Senior CFD Analyst, Ricardo plc	11:15 – 11:35 Challenges and Opportunities for Solid-State Battery Manufacturing and Scale-Up Alex Yu , Founder & CTO, Factorial Energy	11:15 – 11:35 Holistic approach of process and resin influence on electric lifetime expectation of an e-drive motor Alexander Teufl , Global Technical Expert, VonRoll Deutschland GmbH
		11:35 – 11:55 Building the Solid State Battery Factory John Tinson , VP Sales & Marketing, Ilika Technologies Ltd 11:55 – 12:15 Solid-state battery development at Basquevolt Vincent Giordani , Director of R&D, Basquevolt	11:35 – 11:55 Efficient In-Wheel motors with low production costs Stefan Ender , Co-Founder & Managing Director, DeepDrive GmbH
12:05 – 13:20	Networking Lunch		
	TRACK A	TRACK B	TRACK C
13:20 – 14:30	ELECTRODE MANUFACTURING 13:20 – 13:45 Application of a novel light scattering technique to the study of Li-ion dynamics & characterisation of electrode materials <ul style="list-style-type: none"> Christoph Schnedermann, Faraday Entrepreneurial Fellow, University of Cambridge Alice Merryweather, NanoDTC PhD student, University of Cambridge 13:50 – 14:30 Inline detection of smallest particles on electrodes Jochen Sander , Product management New Energy, Dr. Schenk GmbH	DIGITALISATION 13:20 – 13:40 Lessons learned from the BMWk 'Battery Pass' Demonstrator Lead Luise Müller-Hofstede , Business Development Director, Circular 13:40 – 14:00 How to use AI & machine learning to predict battery lifecycles. Kai-Philipp Kairies , CEO, ACCURE Battery Intelligence GmbH 14:00 – 14:20 Raising the Standard and Unlock Opportunities with AI and Machine Learning Frank Sieker , Service Sales Manager Europe, Baker Hughes	ELECTRIC VEHICLE COMPONENT TECHNOLOGY DEVELOPMENTS 13:20 – 13:40 Power Electronics Markets, Technologies, Trends: The New EV Battery Luke Gear , Principal Analyst, Head of EV Research, IDTechEx 13:40 – 14:00 Adapting multi-functional venting units to new battery safety requirements Michael Harenbrock , Principal Expert Electric Mobility, MANN+HUMMEL GmbH 14:00 – 14:20 Highly dynamic BMS HiL test system with real-time electrochemical impedance simulation Franz Dengler , Senior Expert Systems Engineering, MicroNova AG Dr. Michael Schwalm , Deputy Head of Energy Storage Department, Fraunhofer IEE 14:20 – 14:40 Functional Safety for Electric Vehicle Switching and Protection Technology Kevin Calzada , Global Product Strategy Manager, Eaton

WORKSHOPS**Monday 22nd May, 2023****Battery Show & Electric & Hybrid Vehicle Technology Show Pre-Conference Workshops****CONGRESS WEST – W1****(09:30-12:30)****Battery Safety Tutorial****Shmuel De-Leon, CEO, Shmuel De-Leon Energy, Ltd.****CONGRESS WEST – W2****(09:30-12:30)****BatteryMBA Masterclass****Dr Simon Engelke, Founder & Chair, Battery Associates****Mariano Sydney Rubio, Programme Manager, Battery Associates****Céline Büchel, Senior Associate, Roland Berger****Networking Lunch (12:30-13:30)****CONGRESS WEST – W1****(13:30-16:30)****Electromagnetic and cooling performance of e-motors – integrated approach for increased efficiency****Jan Majer, Chief Analyst, Ricardo****Ozge Taskin, Senior Engineer – Electric Machine Designer, Ricardo****CONGRESS WEST – W2****(13:30-16:30)****Live Battery Modelling for Fast Charging and Energy Assessment****Philipp Wieser, Solution Expert, AVL Deutschland GmbH****End of Workshops 16:30**