

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

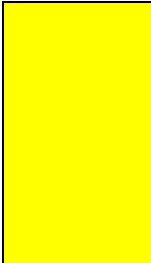
Day 1 - 23 rd May, 2023			
09:00	Registration & Coffee		
09:15-09:20	Chair's Introduction <ul style="list-style-type: none"> Andy Leach, Energy Storage Team, BloombergNEF 		
09:20 - 10:20	OPENING KEYNOTES: Europe's Roadmap to a Competitive and Sustainable Battery Industry		
10:20-10:45	Networking Break		
	TRACK A	TRACK B	TRACK C
10:45-12:45	BATTERY & EV SUSTAINABILITY 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 Sustainability at the Core: Practical Strategies for Sustainable Battery Manufacturers Sarah Montgomery, CEO, Infyos 11:45 – 12:05 Novel Recycling Solution for Battery Sustainability and Carbon-Neutrality Xiao Lin, CEO, Btree 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 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 Managing Risk in Recessionary Times Alex Johns, Business Development Manager, Altelium 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 10:45 – 11:00 Market Session Overview 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 Christianna Lininger, Director of Battery Science & Engineering, 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 Alpha Lee, Faculty Member, University of Cambridge and 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, Batronics Akshay Misra, Technical Marketing Specialist, STMicroelectronics Srdan Mutabdzija, Head of Product Development, Titan AES
13:00-14:15	Networking Lunch		
	TRACK A	TRACK B	TRACK C
14:15 – 15:15	LITHIUM – NEXT GENERATION 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 Deidre Strand, Chief Scientific Officer, Wildcat Discovery Technologies	BATTERY RECYCLING, SECOND AND END-OF-LIFE OPPORTUNITIES 14:15 – 14:35 The new Batteries Regulation sustainability targets: feasibility and implementation Claude Chanson, General Manager, RECHARGE 14:35 – 14:55 Duesenfeld - Ecofriendly Recycling of Lithium-Ion Batteries	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 How to deal with and manage the continuous changes in BMS HiL testing

	<p>14:55 – 15:15 Unlocking Next Generation High Performance Lithium-Ion Batteries</p> <p>Dan Corfas, Director of Product and System Engineering, StoreDot</p>	<p>Till Bußmann, CTO, Duesenfeld GmbH</p> <p>14:55 – 15:15 Safety Evaluation for Second Life Battery Applications</p> <p>Johannes Roessner, Founder, BT Advisor UG</p>	<p>Stephan Schmidt, Group Manager Consulting & Services, MicroNova AG</p> <p>14:55 – 15:15 Emission Compliance in Battery Manufacturing and Recycling</p> <p>Dirk Reichert, Business Development Manager, DESOTEC</p>
	TRACK A	TRACK B	TRACK C
15:20 – 16:20	<p>SILICON ANODES</p> <p>15:20 – 15:40 Umicore progress in Si-anode materials : To be the 1st European Silicon Anode player at scale</p> <p>Myeongjin Choi, Global Sales and Marketing Manager, Umicore</p> <p>15:40 – 16:00 Cutting through the silicon hype - Achieving industrial production of 100% silicon anodes</p> <p>Robert Anstey, CEO and Founder, GDI</p> <p>16:00 – 16:20 One step to ultra high energy density with silicon anodes</p> <p>Christian Rood, CEO, LeydenJar Technologies</p>	<p>BATTERY RECYCLING, SECOND AND END-OF-LIFE OPPORTUNITIES</p> <p>15:20 – 15:40 The Most Economically Compelling Ways of Returning Recycled Battery Materials Back to the Lithium-ion Battery Supply Chain</p> <p>Tomasz Poznar, General Manager, Europe, Ascend Elements</p> <p>15:40 – 16:00 Lithium-ion Battery Recycling in India: Challenges and Opportunities</p> <p>Akash Saraf, Sr. Analyst, Customized Energy Solutions</p> <p>16:00 – 16:20 Battery Debonding on Demand - Solutions for Repairability, Disassembly and Recycling</p> <p>Dr Friederike Kettling, Lab Manager, ePowertrain, tesa SE</p> <p>Dr Marius Böhmer, Global Market Segment Manager ePowertrain, tesa SE</p>	<p>SODIUM INNOVATION</p> <p>15:20 – 15:40 Sodium Ion (Na-Ion) Battery Market 2023</p> <p>Shmuel De-Leon, CEO, Shmuel De-Leon Energy</p> <p>15:40 – 16:00 Sodium-ion - the new LFP? Material, cost, and application</p> <p>Jonathan Helbig, Project Manager, umlaut part of Accenture</p> <p>16:00 – 16:20 Sodium-ion battery cells</p> <p>Hervé Beuffe, CEO, Tiamat</p>
16:25 – 17:00	CLOSING KEYNOTE: Focus on Sustainability, Second-Life and Recycling		

Day 2 – 24 th 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 (<i>Session</i>) <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 (<i>Panel Discussion</i>) 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 Michal V. Wolkin, Director of Battery Investments Technology Acceleration and Commercialisation, General Motors • Dr Dirk Abendroth, CEO, CustomCells • Dr Vincent Luvinage, CEO, OneD Battery Sciences • Jaguar Land Rover 		
10:20 – 10:30	BATTERY SHOW INDIA <ul style="list-style-type: none"> • Rajneesh Khattar, T, Infoma • Julian Thomas, Senior Project Director, Energy Portfolio – India, Infoma 		
10:30-10:45	Networking Break		
	TRACK A	TRACK B	TRACK C
10:45-12:45	BATTERY CHARGING 10:45 – 11:05 Battery Technologies for Heavy Duty Applications Volker Schumann , General Manager for Battery Sales, Toshiba Electronics Europe GmbH 11:05 – 11:25 Why Opportunistic Charging Solves Public Transportation and Trucking Challenges Alex Livingston , President/Co-Founder, Joule Case 11:25 – 11:45 Battery Modelling for Battery Energy Assessment Philipp Wieser , Solution Expert, AVL Deutschland GmbH Jürgen Schneider , Senior Solution Manager Virtual Battery Dev., AVL List GmbH 11:45 – 12:05 Immersion Cooling - Enabling High Power Charging, Performance, Safety and long Battery life of Li Ion Batteries Christopher Wolter , Senior Technologist PD Driveline & EV Fluids, Castrol Germany GmbH	BATTERY MANUFACTURING AND QUALITY 10:45 – 11:05 Redefining EV Battery Interconnects - So Logistical and Sustainability Advantages May Be Realised Randy Tan , Product Portfolio Director, Interplex 11:05 – 11:25 Challenges and commercialization potential of alternative battery systems Christoph Neef , Senior Scientist, Fraunhofer ISI 11:25 – 11:45 3D Electrodes for EV Batteries Gilad Fisher , Director of Marketing, Addionics 11:45 – 12:05 Enhancing battery quality control with Computer Tomography and Artificial Intelligence Reda Belarbia , Global Battery and Storage Practice, Hexagon MI 12:05 – 12:25 Trustworthy Battery Quality - the Fundamentals for Mastering the Challenge Jochen Weber , CEO, ProNES automation GmbH	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 11:05 – 11:25 Pathways to reducing energy consumption in battery manufacturing Dr Ahmad Mohsseni , Chief Technology Officer, UK Battery Industrialisation Centre 11:25 – 11:45 Laser Applications in Battery Manufacturing: High Speed Can-Cap Welding Daniel Fuhrmann , Industry Manager Mobility, TRUMPF Laser- und Systemtechnik GmbH 11:50 – 12:35 Innovation in Battery Manufacturing and Scale Up Panellists: <ul style="list-style-type: none"> • Virginia Irwin Klausmeier, President & CEO, Sylvatex

	<p>12:05 – 12:25 Factors influencing the implementation of EV charging infrastructure in a leading EV market</p> <p>Claudio Vittori, Associate Manager, Supply Chain & Technology Group, E-Mobility Components Research, S&P Global Mobility</p>	<p>12:25 – 12:45 In-line Electrolyte Saturation Monitoring 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>	<ul style="list-style-type: none"> Matthias Simolka, Senior Technical Solution Engineer, TWAICE Technologies GmbH Yang Rukun, CAS Researcher, Shenzhen Geesun Intelligent Technology Co., LTD Michael Hahn, Technology Field Manager, SEW-EURODRIVE GmbH & Co KG
12:45-14:00	Networking Lunch		
14:00 – 14:45	KEYNOTE PANEL DISCUSSION: TBC		
	TRACK A	TRACK B	TRACK C
15:00– 16:00	<p>BATTERY DESIGN & MANAGEMENT</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>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>Keon Woo Lee, Sr Manager PD Battery Solutions, Henkel AG & Co. KGaA</p>	<p>NEXT-GEN BATTERY DEVELOPMENT (BEYOND LI-ION TECHNOLOGY)</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>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>GIGAFACTORY</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>Alain Ratinaud, CATIA Industry Process Expert, Dassault System</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>16:00 – 16:20 Modular Power Pack and High Performance Cooling</p> <p>Toni Ahvenlampi, Senior Manager, Product Management, Valmet</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>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 Liebenritt, Product & Business Development Manager, Lenzing AG</p>

Day 3 – 25 th May, 2023			
09:00	Registration Coffee		
09:15-09:20	Chair's Introduction <ul style="list-style-type: none"> • Andy Leach, Energy Storage Team, BloombergNEFs 		
09:20 – 10:20	KEYNOTE PANEL DISCUSSION: Scaling Up Europe's Production Capabilities <ul style="list-style-type: none"> • Sebastian Wolf, Head of Operations Battery Cell, PowerCo • Dr Esther Quintanilla, Global Automotive Strategic Mobility Leader, Dow Mobility Science • SVOLT 		
10:20-10:35	Networking Break		
	TRACK A	TRACK B	TRACK C
10:35 – 12:05	BATTERY AND EV THERMAL MANAGEMENT 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 10:55 – 11:15 Thermally conductive gap filler for the Electric Vehicle (EV) battery assembly Praveen Agarwal , Research Scientist, Dow 11:20 – 12:10 Advancements in EV Thermal Management <ul style="list-style-type: none"> • Adam Skála, Senior CFD Analyst, Ricardo plc • Chris Churchill, Technical Service Manager, Rogers Corporation • Alvaro De Leon, Global Project Manager, Automotive refrigerants, Daikin Chemical Europe 	BATTERY RAW MATERIALS AND SOLID STATE BATTERIES 10:35 – 10:55 Enhanced cycle life of LIBs using cellulose-based non-woven separator Saurabh Suresh Bopte , Materials Engineer, Soteria Europe GmbH 10:55– 11:15 Delivering Integrated Graphite Anode Active Material Production outside China Joe Williams , Technical Marketing Manager, Syrah Global DMCC 11:15 – 11:35 Challenges and Opportunities for Solid-State Battery Manufacturing and Scale-Up Alex Yu , Founder & CTO, Factorial Energy 11:35 – 11:55 Building the Solid State Battery Factory Denis Pasero , Product Commercialisation Manager, Ilika Technologies Ltd 11:55 – 12:15 Solid-state battery development at Basquevolt Vincent Giordani , Director of R&D, Basquevolt	COMMERCIAL VEHICLE DEVELOPMENT, ELECTRIC MOTOR DESIGN AND ELECTRIC POWERTRAIN 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 Rapid Growth in Marine Fuel Cell Markets: Technologies, Markets, Opportunities Luke Gear , Principal Analyst, Head of EV Research, IDTechEx 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 The myths around in-wheel motors and how DeepDrive actually makes the concept work Alexander Rosen , Co-Founder & Powertrain System Engineer, 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"> • Cathryn Langley, Product Manager, Illumion • Christoph Schnedermann, Faraday Entrepreneurial Fellow, University of Cambridge • Alice Merryweather, NanoDTC PhD student, University of Cambridge 13:50 – 14:30 Quality Assurance and Latest Innovation in Electrode Manufacturing	DIGITALISATION 13:20 – 13:40 Lessons learned from the BMWk 'Battery Pass' Demonstrator Lead Doug Johnson-Poensgen , CEO and Founder, 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 – 14:40 Raising the Standard and Unlock Opportunities with AI and Machine Learning	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



Panellists:

- **Hiroki Murayama**, Battery business marketing, **Yokogawa Electric Corporation**
- **Jochen Sander**, Product management New Energy, Dr. Schenk GmbH
- **Patricia Hubbard**, CTO, **Cabot Corporation**

Panellists:

- **Leo Vinzenz**, Head of AI.SEE Customer Solutions, **elunic AG**
- **Frank Sieker**, Service Sales Manager Europe, **Baker Hughes Digital Solutions GmbH**
- **Gerald Sammer**, Principle Business Development Manager, **AVL**

14:00 – 14:20 Highly dynamic BMS HiL test system with real-time electrochemical impedance simulation

Franz Dengler, Senior Expert Systems Engineering, **MicroNova AG**
Abdulkerim Dagli, Sales Manager, **MicroNova AG**

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 – W2

(09:30-12:30)

Battery Safety

Shmuel De-Leon, CEO, Shmuel De-Leon Energy, Ltd.

CONGRESS WEST – W3

(09:30-12:30)

Live Battery Modelling for Fast Charging and Energy Assessment

Philipp Wieser, Solution Expert, AVL Deutschland GmbH

Networking Lunch (12:30-13:30)

CONGRESS WEST – W2

(13:30-16:30)

Electromagnetic and cooling performance of e-motors – integrated approach for increased efficiency

Jan Majer, Chief Analyst, Ricardo

CONGRESS WEST – W3

(13:30-16:30)

BatteryMBA Masterclass

Dr Simon Engelke, Founder & Chair, Battery Associates

End of Workshops 16:30