

# Track 3

## Electric & Hybrid Vehicle Technology

Day 2 - Wednesday 8 May

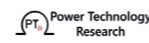
**08:30 Hybridization: Examining the Latest Technologies and Architectures to Deliver Electric Vehicle Efficiency and Meet Customer Demands**

**Moderator** Jared Kearby, Principal Analyst, Power Technology Research

Gereon Hellenbroich, Department, Manager, Transmission Design and CAE, FEV Europe GmbH  
**Outlining the Development of a Powershiftable Two-Speed Electric Drive Unit for High-Performance Applications**

Chris Hilton, Chief Technology Officer, Protean Electric  
**The Role of In-Wheel Motors in Future Transportation**

Han-Hein Spit, Vice President, Bosch Transmission Technology B.V.  
**Evaluating the Potential of CVT Technology in Improving Electrified Powertrains**



**10:30 Networking Break: Coffee & Refreshments in the Foyer**

**11:00 E-Motor Developments: Latest Developments In E-Motors and Powertrain Design Including: Alternatives to Rare Earth Magnets, Axial Flux Motor Technology and Thermal Management**

**Moderator** Jared Kearby, Principal Analyst, Power Technology Research

Christian Pronovost, Sr. Product Manager, Dana Incorporated  
**Motor Topology Selection for Electric Vehicles**

Quentin Werner, Electric Machine Design Engineer, Daimler  
**Determining the Optimum Rotor-Topology for Electric Drives**

Michael Lampérth, CEO, Phi-Power  
**Examining the Latest Developments in and the Potential of Axial Flux Motor Technology**

Peter van Duijsen, Researcher, TU Delft  
**Simulating Thermal Management for E-Motors and Power Electronics**



**12:30 Networking Lunch & Opportunity to Take Advantage of Activities on Show Floor**

**14:00 Powertrain Efficiency: Evaluating the Different Techniques for Improving the Energy Efficiency of The Electric Powertrain**

**Moderator/Speaker** Robert Stanek, Lead Electric Powertrain and Cost Management, P3 Group

Greg Harris, Global Electrification Services Leader, HORIBA MIRA  
**The Development of Efficient Electric Powertrains**

Johan Vanhuysse, Research & Application Engineer, Siemens Industry Software  
**Generative Engineering: Automatically Creating and Evaluating Hybrid Powertrain Architectures**



**15:15 Networking Refreshments in Conference Foyer**

**15:45 Race Track to The Road: Evaluating the Latest Second Generation Race Technology**

**Moderator/Speaker** Jana Kirchen, Consultant, P3 Group

Jason King, Business Development Director, Integral Powertrain  
**Race to the Clouds – From the Record Breaking VW I.D. R Pike Peak Car to the Road**

Rosen Daskalov, Founder, Sin Cars  
**Outlining the L City Is a Multifunctional Electric Vehicle Platform – Charting the Evolution of Sin Cars from Race Track to The Road**

Anthony Law, Head of Motorsport Batteries, McLaren Applied Technologies



**17:00 Close of Day Two and Evening Drinks Reception in Exhibition Hall**

THE BATTERY SHOW  
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EUROPE 2019



# Daily Agenda

## Day 2 - Wednesday 8 May



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# Track 1

Day 2 - Wednesday 8 May

## Optimising Automotive Battery Technology Design

08:30 **Welcome Address** Paul Freeland, Principal Engineer, Cosworth 


08:45 **Balancing Functionality and Application Design in OEM Platform & Battery Development**  
Dr Kai-Christian Moeller, Spokesman, Fraunhofer Batteries   
**Development Perspectives for Cell Formats of Lithium-Ion Batteries in Electromobility**


Karsten Mueller, Senior Vice President High Voltage Systems Management, IAV GmbH   
**EMBATT – A New Approach To Battery Design**


AK Srouji, Director of Battery Cell Technology, Romeo Power 

Dustin Grace, VP of Engineering, Energy Storage and Power Systems, Proterra 

10:30 **Networking Break: Coffee & Refreshments in the Foyer**

11:00 **Electrification for the Masses: Optimising 48V Battery Systems for Mild-Hybrids**  
**Moderator** Paul Freeland, Principal Engineer, Cosworth 


Michael Bassett, Chief Engineer - Research & Advanced Engineering, MAHLE Powertrain Limited   
**48 V High-Power Battery for Mild-hybrid Electric Powertrains**


Ian Braime, Executive Director, Low Voltage Product Management, A123 Systems   
**Key Considerations When Selecting Battery Solutions for 48V Applications**


Phil Shaw, Product Line Director, Johnson Controls   
**Why LTO Based Chemistries are The Future of 48V Batteries**

12:30 **Networking Lunch & Opportunity to Take Advantage of Activities on Show Floor**


14:00 **Investigating Advances in Modular Pack Design and Applications**  
Paul Freeland, Principal Engineer, Cosworth 


Pawel Swoboda, Electric Vehicles Business Development Manager, BMZ POLAND   
**Current and Future Modularity Approach in Heavy Electrical Vehicle Battery Systems**

Martin Klein, Senior Vice President of Engineering, XALT Energy LLC   
**Extending Vehicle Mission Capabilities with Adaptive Battery Modules and Controls**


Tobias Mayer, Technical Manager, LION Smart GmbH   
**Modular Battery Packs on the Basis of Different Cell Technologies and Geometries – Outlook to Cylindrical System Design**


15:15 **Networking Break: Coffee & Refreshments in the Foyer**


15:45 **Extending Battery Life, Range and Performance through Battery Management Systems**  
**Moderator** Paul Freeland, Principal Engineer, Cosworth 

Roland Biberger, System Architect Electronics HV-Battery, Audi   
**Future Trends in High-Voltage Battery Electronics**

Joel Sylvester, Chief Technology Officer, Dukosi Ltd   
**BAFTA - A Toolkit for Design and Optimised Operation of EV Batteries**

Oskar Dondelowski, Advanced Operations Engineer, Aston Martin 

Samuel Cregut, Battery Management System Expert, Groupe Renault   
**A BMS Breakthrough: an OEM Theoretical and Proof Of Concept Approach to Wireless BMS**

Alexandre Collet, Chief Technology Officer, ION Energy Inc.   
**Battery Intelligence: Using Data to Make the BMS Smarter and Improve Battery Life and Performance**

17:00 **Close of Day Two and Evening Drinks Reception in Exhibition Hall**

# Track 2


Day 2 - Wednesday 8 May

## Battery Chemistries: Increasing Energy Density & Future Battery Cell Design

08:30 **Moving Toward Higher Nickel Chemistries in Lithium-Ion Batteries for Increased Energy Density**  
**Moderator** Andy Leyland, Head of Forecasting, Benchmark Mineral Intelligence 

Claudio Brivio, R&D Engineer, CSEM   
**The High Energy Density Challenge in Solar-Powered Aviation: The Case Of Solarstratos**

Dr Dee Strand, CSO, Wildcat Discovery Technologies   
**Accelerating Development of High Nickel Cathodes**


Joanna Clark, Head of Product Development, Battery Materials, Johnson Matthey   
**Next Generation High-Energy Low-Cobalt Cathode Materials for Greater Stability and Safety**


Raymond Oei, CEO, PT STERN   
**Considering Manganese As the Key to Lower Cost Per kWh**


10:30 **Networking Break: Coffee & Refreshments in the Foyer**

11:00 **Pushing the Limits of Lithium-Ion Cell Development – Developing Higher Capacity Materials**  
**Moderator** Jim Greenberger, Executive Director, NAATBatt International 


Kenan Sahin, President and Founder, CAMX Power LLC   
**Innovation for Lithium-Ion Batteries: Gaps, Opportunities, Obstacles**

Dr Wasim Sarwar, Technical Specialist – Battery Systems, Williams Advanced Engineering   
**Development of Cutting-Edge Battery Packs Using Next-Generation Cell Chemistries**

Tobias Placke, Head of Division “Materials”, MEET Battery Research Center, University of Münster   
**Towards High-Energy Lithium-Ion Batteries: Reaching the Limits of Intercalation Chemistry**


Andrey Senyut, CEO, OCSiAI Energy   
**Reaching 300 Wh/kg Energy Density with Graphene Nanotubes in High-Energy Si/C/SiO Anodes**

12:30 **Networking Lunch & Opportunity to Take Advantage of Activities on Show Floor**

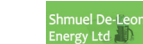
14:00 **Future Proofing 12V Technologies: Lead Acid VS Lithium and Alternative Technologies**  
**Moderator/Speaker** Rene Schroeder, Executive Director, EUROBAT 

**The EU Before the Elections – What’s Next for Batteries on the Legislative Horizon?**  
Christoph Fehrenbacher, Managing Director, A123 Systems 

Jörn Albers PhD, Manager Global Requirements Analysis, Johnson Controls Power Solutions EMEA, Johnson Controls Power Solutions EMEA   
**Are All Battery Technologies Created Equal? Creating a Positive Environment and Regulatory Framework That Enables All Electrification Technologies**

Armin Warm, Supervisor Advanced Power Supply & Energy Management, Ford Research & Advanced Engineering Europe 

15:15 **Networking Break: Coffee & Refreshments in the Foyer**

15:45 **Investigating Technology Readiness Level of Innovative Battery Technologies**  
**Moderator** Shmuel De-Leon, CEO, Shmuel De-Leon Energy 

Laurent Hubard, CEO, Tiamat 

Stephen Voller, CEO & Founder, ZapGo 

David Ainsworth, Chief Technical Officer, Oxis Energy   
**Next Generation Battery Technology**

17:00 **Close of Day Two and Evening Drinks Reception in Exhibition Hall**