

# 14 - 15 NOVEMBER 2023

**BORDEAUX, FRANCE AND ONLINE** 











# **CONFERENCE BROCHURE**

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# BATTERY INNOVATION

DAYS

14-15 November 2023

**Bordeaux, France and Online** 

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# About the Battery Innovation Days



After two successful editions, the Battery Innovation Days event is finally coming back with its third edition, hosted in Bordeaux thanks to the Nouvelle-Aquitaine region and taking place on 14 & 15 November in a hybrid format, in France and online.

The Battery Innovation Days event fosters dialogue among the Research community, Policy makers, Industry players and end-users to ensure a constructive feedback loop towards the definition of research and innovation priorities in Europe.

The battery's sector holds the key to reaching a responsible and sustainable future for Europe. This event will increase visibility and encourage exchange around the deployment of cutting-edge technologies for battery materials, cell design, manufacturing and recycling.

The Battery Innovation Days is organised by today's key European Research & Innovation initiatives (Batteries Europe, Battery 2030+ and the Batteries European Partnership Association, in partnership with the Batteries 1st and 2nd IPCEIs).

14-15 November 2023

Bordeaux, France and Online









# BID 2023 at a glance



50 SPEAKERS, MORE THAN 1000 PARTICIPANTS PHYSICAL AND ONLINE



2 DAYS OF CONFERENCE, NETWORKING AND EXHIBITION



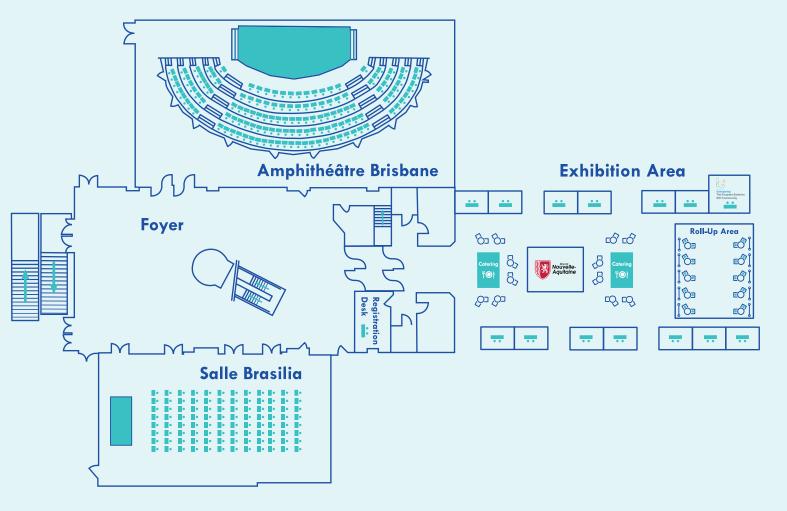
1 WINNER OF THE BATTERY YOUNG RESEARCH AWARD



**7 SPONSORS** 



**26 EXHIBITORS** 





# **BID** Organisers





Batteries Europe is an open and inclusive platform that aims to represent the entire battery value chain from various fields in research, business and academia. Batteries Europe aims to strengthen the synergies and complementarities among initiatives and EU projects within and beyond the European battery ecosystem.

BATTERY 203 (+)

Battery 2030+ is a European research initiative that brings together stakeholders in the field of battery research creating a generic toolbox for transforming the way we develop and design batteries in Europe called the BATTERY 2030+ research roadmap. The overall objective is to address the key challenges in inventing the sustainable, safe, high-performance batteries of the future.



BEPA gathers the European battery community to provide input and advice to the European Commission on identifying priorities of research and innovation activities. The mission is the development of a strong, competitive and sustainable battery value-chain in Europe.



IPCEI - Important Project of Common European Interest. It's a transnational project focusing on growth, employment and competitiveness of the European Union industry and economy funded by state aid. IPCEI has been implemented to promote battery production.



# The Venue

### Cité Mondiale Congress Centre

Located in the heart of Bordeaux, in the Chartrons district, the Congress Centre offers modern infrastructure for top-quality professional events. The auditorium can accommodate 300 people, with sophisticated audiovisual equipment.

- Address: 18 Quai des Chartrons, 33000 Bordeaux
- Website: https://www.beam.fr/en/locations/citemondiale-convention-center/
- Wi-Fi: Wi-Fi is available for BID participants!
   User: BID2023
   Password: BID2023!
- Public Transport: We will provide to the first 300
  participants that check-in at the welcome desk a free 4
  days pass to the public transports in Bordeaux, offered
  by the Convention Bureau of Bordeaux.



### The Conference Dinner

Grab your drink and network with speakers and industry peers! Enjoy the social atmosphere of our sit down dinner at la Faïencerie. Pre-registration is required. If you didn't register to the dinner while registering to the conference, and you wish to attend, please get in touch with the Organising team at the Welcome desk. Please remember to wear your badge during the dinner.

Where: 24 Rue de la Faïencerie, 33300 Bordeaux

When: Tuesday 14 November from 19:00







### The Site Visit

The BID site visit will provide the unique opportunity to observe Automotive Cells Company (ACC) laboratories and the production process.

Where: Meeting point for the bus at the entrance of the

Congress Centre

When: Wednesday 15 November at 15:30

**Important:** Pre-registration is required. Those who are registered will receive a separate ticket for this visit. Please

remember to wear your badge during the visit

# Bordeaux, France



Blending tradition and modernity, Bordeaux offer 350 historical monuments, dozens of museums and art galleries, a new wine experience center and some of the best food in all of France.

# HOSTED BY REGION NOUVELLE-AQUITAINE

The Nouvelle-Aquitaine Region is a major innovation hub in the field of batteries, bringing together high-level R&D structures, fast-growing SMEs and internationally known companies.

Fully committed to the environmental transition of its economy, Nouvelle-Aquitaine is focused on becoming the first eco-responsible region in France, making it a perfect fit as host for BID 2023.



# The Agenda



10:00 - 10:30	WELCOME COFFEE	
10:30 - 11:45		
	<ul> <li>Tim Schulze, Policy Officer "Electric Mobility, Alternative Drivetrains, Environmental Innovation", Federal Ministry for Economic Affairs and Climate Actions</li> <li>The Batt4EU Partnership: where are we now and where are we going?</li> <li>Johan Blondelle, European Commission, DG RTD</li> </ul>	
11:45 - 12:30	1.2) ROUNDTABLE – REFLECTIONS ON THE BATT4EU PARTNERSHIP	
	<ul> <li>Michael Lippert, Director Innovations and Solutions for Energy, Saft and Member of BEPA and Batteries Europe</li> <li>Simon Perraud, Deputy Director, CEA-Liten</li> <li>Edel Sheridan, Batteries Europe, SINTEF</li> <li>Kenya Shatani, Project &amp; Innovation Manager EBA250, EIT InnoEnergy</li> </ul>	
12:30 - 14:00	NETWORKING LUNCH	



14:00 - 15:30	1.3) HITTING THE ROAD: WHAT RESEARCH IS LEFT DO FOR MASS EV DEPLOYMENT?	1.4) SELF-HEALING BATTERIES. CAN WE DREAM ABOUT AN EVERLASTING BATTERY?
Batteries, vehi	Salle Brasilia  cles and infrastructure: A system	Amphithéâtre Brisbane  Self-healing batteries: What are we

# Batteries, vehicles and infrastructure: A system approach for road transport electrification

 Stephan Neugebauer, Director Global Research Cooperation BMW AG, 2Zero and ERTRAC Chair

### New chemistries for next generation cells

 Margaud Lecuyer, Head of Electrochemistry Innovation, Blue Solutions

# Scaling-up high performing solid electrolytes for solid state battery in Europe

 Valérie Buissette, Head of the Solid-State Battery Materials Program, Solvay

# Panel – Innovation answering to the different challenges imposed by mobility

- Christophe Bois, Full Professor, Université de Bordeaux
- Bjorn van de Ven, Applied Battery Scientist Cleantron Cleantech and Researcher Eindhoven University of Technology
- Patrick Bastard, Expert Fellow and VP Research, Renault Group

# Self-healing batteries: What are we talking about?

 Maitane Berecibar, Head of the Battery Innovation Center, VUB

# Self-healing techniques: HIDDEN and BAT4EVER lessons

 Marja Vilkman, Principal Scientist & Project Manager, VTT

### **HEALING BAT - Self-healing lithium**sulfur batteries

 Stefan Palzer, Professor, Technische Universität Dortmund

# Self-healing materials for lithium-ion battery electrodes

 Neslihan Yuca, Associate professor, ENWAIR

15:30 - 16:00	NETWORKING COFFEE	
16:00 - 18:00	1.5) BATTERY YOUNG RESEARCH AWARD	
	Amphithéâtre Brisbane	
	<ul> <li>Battery Young Research Award Winner presentation</li> <li>Romain Wernert, Postdoctoral Research Associate, University of Oxford</li> <li>Educational needs to support the EV industry</li> <li>Annika Ahlberg, Technical Leader Battery Safety, VOLVOCAR Corporation and Legislation and Associate Professor at Uppsala University</li> <li>Panel: Education activities to support the European battery value chain</li> <li>Silvia Bodoardo, Full Professor, Politecnico di Torino</li> <li>Andreas Mersier, Skills Institute Sales Manager, EIT InnoEnergy</li> <li>Didier Duquesne, Responsable ilières vertes, Région Nouvelle-Aquitaine</li> <li>Alejandro Franco, Full Professor, Université de Picardie Jules Verne and Leader of the Theory Open Platform, ALISTORE European Research Institute</li> </ul>	
19:00 - 22:30	COCKTAIL RECEPTION AND SEATED DINNER	
	La Faïencerie, 24 Rue de la Faïencerie, 33300 Bordeaux Grab your drink and network with speakers and industry peers! Enjoy the socio atmosphere of our sit down dinner at la Faïencerie.	

# The Agenda



08:30 - 09:00	WELCOME COFFEE		
09:00 - 10:30	2.1) CREATING A CIRCULAR BATTERY VALUE CHAIN: FROM RAW MATERIALS TO RECYCLING		
	The emerging French battery industry: introducing France for Batteries  • Valerie Petat, Head of the Batteries project, Direction Générale des Entreprises  Schwarzheide: A European success story  • Klaus Kühling, Head of global Product Management Battery Materials, BASF SE  Resilient battery supply chains — Implications of the Critical Raw Materials Act  • Stefan Wolf, Senior Innovation Consultant, VDI/VDE  • Nikolas Oehl-Schalla, VDI/VDE  Panel: Implementing the Critical Materials Act for the EU battery ecosystem  • Fabrice Stassin, Director Government Affairs Electromobility Projects, UMICORE  • Maria Cristina Pasi, Recycling&Sustainability WS EU leader, EUBatln and Head of EuBatln Project, Italmach Chemicals  • Emmanuelle Robins, Project leader — Europe and International, POLE AVENIA		
10:30 - 11:00	NETWORKING COFFEE		
11:00 - 12:30	2.2) TOWARDS A MORE SUSTAINABLE BATTERY: CHALLENGES AND INNOVATION	2.3) SODIUM SOLUTIONS: CAN WE PUSH NA-ION TO THE NEXT LEVEL?	
	PFAS restrictions and the Green Deal - how to move forward from here?  Claude Chanson, General Manager, RECHARGE  Panel: Sustainable Batteries as an integral step in reducing products' carbon footprints  Robert O'Mahony, Head of Sustainability, Global Operations, Logitech  Eliana Quartarone, Full Professor, Chemistry Department, Università di Pavia  Tom Gebauer, CEO, Redoxone  Daniela Fontana, Battery Global Competence Center, Comau	An introduction to sodium-ion batteries and the development of Tiamat  Laurence Croguennec, Deputy Director, ICMCB, CNRS  How material science is pushing the sodium revolution  Montserrat Casas-Cabanas, EES scientific coordinator, CIC energiGUNE  Boosting the Energy Density and Cycle Life of Sodium-ion Batteries  Rasim Batmaz, Electrode Development Engineer, Beyonder  Sodium-ion — next industrial chemistry  Björn Marlid, CEO, ALTRIS	
12:30 - 13:30	NETWORKING LUNCH		



### 13:30 - 14:45 **2.4) CLOSING SESSION**

### Amphithéâtre Brisbane

The competitiveness of European battery value chain at stake – can we secure Europe's competitiveness in a changing world?

• Ilka Von Dalwigk, EBA Policy Manager, InnoEnergy

### Piloting on a giga scale: Fraunhofer FFB

• Thomas Paulsen, Group Manager Business Development, Fraunhofer

### **Lessons from LiPLanet**

• Arno Kwade, Chairman of LiPlanet, TU Braunschweig

Round table: Ensuring access to research infrastructure access for European battery research

- Sandrine Lyonnard, Research Director, CEA
- Stefano Passerini, Vice-coordinator of the StoRIES project, KIT Kalsruhe
- Maria Rosa Palacín, Research Professor, IMCAB

### 14:45 - 14:55 | **FINAL STATEMENT**

### 14:55 - 15:30 NETWORKING COFFEE

### 15:30 - 18:00 | SITE VISIT AT ACC

Automotive Cells Company (ACC) is set to be the European automotive battery leader. ACC is backed by TotalEnergies-Saft, Stellantis, and Mercedes AG, with strong support from European authorities, especially in France, Germany and Italy.

From these three countries, ACC will develop and industrialize the next generations of cleaner energy sources for transport through sustainable, affordable, high-capacity, longer-life batteries.

During your visit, you will have the unique opportunity to observe ACC's laboratories and the production process. **Important**: Pre-registration is required.

### BEPA INNOVATION UPTAKE WORKSHOP

### Welcome and opening words

• Ilka Von Dalwigk, European Battery Alliance

Panel discussion 1 - Supporting and investing in battery innovations (includes Q&A)

- Sara Hermansson, InnoEnergy
- James Frith, Volta Foundation
- Martin Bracken, H2IF CSA
- Joris de Hoog, Flanders Make

Panel discussion 2: Overcoming the hurdles on the road to battery innovation uptake (includes Q&A)

- Pablo Fernández Santos, Basquevolt
- Paul Schiffbaenker, AVL List
- Christophe Aucher, BATRAW HorizonEurope project
- Boschidar Ganev, 3beLiEVe Horizon2020 project



# The Online Platform

Make the most of the Battery Innovation Days through the online platform.

Schedule meetings with delegates, join online discussion lounges, and access all the important information about the Conference.

On the online platform you will find: Copies of the presentation slides displayed during the conference, video recordings, pictures, delegate lists, conference proceedings, and much more ...

To access the event website, scan the QR code and log in with your email used during registration. The online platform will remain open for three months after the end of the event.



PLEASE SCAN THE QR CODE
TO ENTER THE ONLINE PLATFORM!



Have you liked the Conference? Is there anything you would change? What can we do to improve?

Please share your comments and help us improve the Battery Innovation Days by filling the Feedback Form!

You only have to scan the QR code. It will take you 5 minutes but it will mean to world to us.

Thank you!







# **Battery Young Research Award**

The Battery Young Research Award, presented at Battery Innovation Days 2023, is a testament to the pursuit of excellence in battery technologies and research.

This award acknowledges the dedication and innovation of recent PhD graduates who have made significant strides in the field. It symbolizes a commitment to pushing the boundaries of knowledge, fostering progress, and advancing our understanding of battery science.

The winner was selected from a pool of doctorate thesis of recently graduated PhD students from all over Europe, on the basis of the excellency and contribution of the thesis to the main challenges toward building a competitive and sustainable European battery value chain.

### The Battery Young Research Award provides:

- A dedicated session where the candidate will have a speaking slot to present their thesis
- · A free ticket to the full event
- Travel and accommodation expenses
- A trophy
- A voucher worth 1000 €
- · Visibility in the European battery landscape
- Networking opportunities with key experts in the battery field

### AND THE WINNER IS..

Because of the high level proposals, the decision was not easy. It is Romain Wernert to win the Battery Young Research Award with a doctorate thesis on: "Crystal chemistry and redox mechanisms of vanadium phosphates and Prussian blue analogues for K-ion batteries".

Romain Wernert is currently a postdoctoral research associate at the University of Oxford where he works at making new mixed anion materials. He obtained his PhD in condensed matter chemistry at the University of Bordeaux in 2023, where he developed new positive electrode materials for K-ion batteries.

Do you want to meet him and ask him about his research?

Don't miss the Battery Young Research Award ceremony on Tuesday 14 November at 16:00 in the Auditorium!



**ROMAIN WERNERT** 

WINNER OF THE BATTERY YOUNG
RESEARCH AWARD 2023



# The Sponsors

### **Gold Sponsors**



Blue Solutions is a global leader in all-solid-state battery design and manufacturing, headquartered in Ergué-Gabéric (Brittany) and Boucherville (Quebec). Since 2011, it has been the sole company mass-producing Lithium Metal Polymer (LMP®) all-solid-state batteries, meeting the demand for sustainable and low-carbon transport. It holds ISO 9001 and ISO 14001 certifications at their production sites, reflecting the commitment to quality and environmental responsibility.

The cutting-edge technology and focus on advancing battery technology position Blue Solutions at the forefront of clean and efficient transportation, shaping the future of sustainable mobility.



A Swiss company focused on innovation and quality, Logitech designs products and experiences that have an everyday place in people's lives. With products sold in almost every country in the world, Logitech designs products that help businesses thrive and bring people together through music, gaming, streaming, video and computing.

Our purpose is to design possibilities that extend human capability by helping ALL people pursue their passions and doing so in a way that is good for people and the planet.



Progress beyond

Lithium-lon batteries are the future of energy production and storage. However, safety and energy density requirements are continually increasing; especially in relation to batteries used in electric vehicles. Solvay is dedicated to providing material solutions for batteries that allow our customers to produce energy stoarge systems that are safe, reliable, and long-lasting.

To enable high-voltage solutions and increase capacity, Solvay offers high-performance electolyte ingredients, electrode binders, separator coatings, and higher-performance polymeric material for battery modules/packs. A unique series of cost-competitive solutions aiming to further improve battery cyclability and safety.

### **Silver Sponsor**



Comau, a Stellantis company, is a worldwide leader in delivering sustainable advanced automation solutions. Backed by a continuous commitment to designing and developing innovative and easy to use technologies, its portfolio includes products and systems for vehicle manufacturing, with a strong presence in e-Mobility, as well as advanced robotics and digital solutions to address rapidly growing markets in industrial sectors.

### **Bronze Sponsors**



Manz AG is a globally active high-tech engineering company with a focus on the automotive industry and electromobility, battery production, electronics, energy, and medical technology, Manz develops and builds innovative and efficient production solutions: From customized single machines for laboratory production or pilot and small series production, to standardized modules and systems, to turnkey lines for mass production.



Umicore is a leading circular materials technology company with an extensive expertise in the fields of material science, chemistry and metallurgy. Our overriding goal of sustainable value creation is based on the ambition to develop, produce and recycle materials in a way that fulfils our mission: "materials for a better life".



Within over 125 years od experience, Waygate Technologies, part of Baker Hughes, is the industrial inspection solutions provider and world in non-destructive testing. Next to remote visual inspection, ultrasound, robotic inspection, and data management solutions, such as the next-generation inspection management eco-system InspectionWorks, we offer premium X-ray and Computed Tomography solutions that support quality control and failure analysis at every stage of a battery's lifecycle - helping manufacturers increase load capacity, extended lifecycles, and comply with all safety and quality standards.



# The Exhibitors

### **Stand Exhibitors**













The Bavarian Research Alliance GmbH (BayFOR) is a private company that supports Bavaria as a centre for science and innovation. BayFOR is funded by Bavarian universities (of applied sciences) and by the Bavarian State Government. BayFOR assists researchers from academia and the private sector with acquiring European funds for research and innovation projects. The focus is the Framework Programme for Research and Innovation "Horizon Europe".

CoFBAT project aims to develop the next level of battery storage with a modular technology, suitable for different applications that can meet the need for decentralised energy production and supply for private households and industrial robotised devices. CoFBAT also intends to allow Europe to become more independent from raw material supply. Indeed, Cobalt is a key material for the production of Li-ion batteries.

Institut Laue Langevin (ILL) and European Synchrotron Research Facility (ESRF), both based in the same campus in Grenoble, France, are world-leading international centres of excellence in scientific research using, respectively, neutrons and x-rays. The ILL and ESRF offer a rich and complimentary array or material characterisation tools crucial to addressing current and future battery R&D challenges.

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"Saft specializes in advanced technology battery solutions for industry, from the design and development to the production, customization and service provision. For more than 100 years, Saft's innovative, safe and reliable technology have delivered high performance on land, at sea, in the air and in space. Bordeaux is the home of Saft's corporate research and development teams with a broad range of experts including chemists, material scientists, mechanical engineers, electronic and software engineers.





Voltéo is a group of batteries specialists based in Bordeaux. In all 24 Voltéo shops across France and Spain, we provide with any kind of batteries, chargers, solar panels for every need. As a true specialist and leader on this market, Voltéo advises customers, fits batteries and collects the used ones to put them back to certified recycling companies.

# **Roll-Up Exhibitors**

**ASTRABAT** 



**EMITECH** 



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**SUNERGY** 



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EUROPEAN INNOVATION COUNCIL



ISP AQUITAINE



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# **Media Partners**





















**REVOLVE** 





Sustainability.

# **Notes**



# **CONTACT US!**

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