Advanced Battery Manufacturing Workshop

Programme

V2.5

Date: 16 – 17 April 2026

Meeting venue:
Homerton College
Hills Road
Cambridge
CB2 8PH
UK

(Hybrid meeting)

Co-organised and supported by:

BATTwin

Flexible and scalable digital-twin platform for enhanced production efficiency and yield in battery cell production lines

AM4BAT

Gen. 4b Solid State Li-ion battery by additive manufacturing

BatCAT

Battery Cell Assembly Twin

Funded by the European Union

BATTwin *project has received funding from the European Climate, Infrastructure and Environment Executive Agency under grant agreement No. 101137954.*

AM4BAT *project has received funding from the European Union's Horizon Europe research and innovation programme under grant agreement No 101069756.*

BatCAT *project as received funding from the European Union's Horizon Europe research and innovation programme under grant agreement No 101137725.*

UKRI Innovate UK

UK Participants are supported by UK Research and Innovation (UKRI) under the UK government's Horizon Europe funding guarantee.

Advanced Battery Manufacturing Workshop

The **Advanced Battery Manufacturing Workshop** will explore how digitalisation and tools such as digital twins are reshaping battery manufacturing by improving efficiency and reducing defects. It will also highlight advances in lithium-ion performance, solid-state technologies, and additive manufacturing that are driving next-generation solutions and strengthening a sustainable European battery value chain.

This workshop is organised by the **BATTwin project**, together with **AM4BAT – Gen. 4b Solid State Li-ion Battery by Additive Manufacturing** and supported by our sister project **BatCAT – Battery Cell Assembly Twin**.

This two-day event will be held in Cambridge, UK as a hybrid meeting and will bring together leading voices from across the battery ecosystem, offering participants the chance to:

- Explore the latest developments from these three EU-funded projects
- Connect with researchers, industry partners, and stakeholders shaping the future of battery manufacturing
- Take part in discussions on innovation, digitalisation, and next-generation cell technologies

Preliminary Programme

Preliminary Programme		
Advanced Battery Manufacturing Workshop **16- 17 April 2026** **Homerton College, Cambridge, UK - ZOOM** **(In person & online)**		
Welcome to the Workshop		
Day 1		
08:30	**Arrival, Registration, Networking & Refreshments (in person participants)**	
08:50	**Opening online session**	
09:00	**Introduction to the Workshop** *Dr Bojan Boskovic, CEO, Cambridge Nanomaterials Technology Ltd, UK. - Event Co-organiser* *Dr Gerhard Goldbeck, CEO, Goldbeck Consulting Ltd. UK - Event Co-organiser*	
Digital, Smart & Circular Manufacturing		
09:15	**Introduction to the BATTwin Project** *Prof. Marcello Colledani, BATTwin Project Coordinator, Politecnico di Milano, Italy*	
09:45	**Digital Twins for Battery Manufacturing on Process Level: A Control-Oriented Perspective** *Prof. Dr.-Ing. habil. Andreas Rauh, Dean of School II - Computing Science, Business Administration, Economics, and Law, Department of Computing Science, Carl von Ossietzky Universität Oldenburg, Germany*	
10:10	**Smart manufacturing in and beyond the battery industry** *Dr Gergely Horváth, Research Fellow, HUN-REN SZTAKI, Hungary.*	

10:35	*Coffee Break and networking*	
11:00	**Multi-Model Simulation Platform Development and Integration for Battery Manufacturing Processes** *Dr Mona Faraji Niri, Associate Professor of Battery Modelling & Prof. Dariusz (Darek) Ceglarek, Professor & EPSRC Star Recruit Research Chair, University of Warwick, UK*	
11:25	**Multiscale interface and transport modelling for battery materials design** *Prof. Qiong Cai, Professor in Sustainable Energy and Materials; Sustainability Fellow; Theme Leader on Chemicals for Net-Zero within the Institute for Sustainability, University of Surrey, UK*	
11:55	**CIRCUBATT-Multi-Life Value in Europe's Battery Chain** *Dr Hetty Wenxian Sun & Mao (Maggie) Xu – CIRCUBATT Project, University of Greenwich, UK*	
12:20	**Physics-based Models and AI for Virtual Manufacturing of Batteries** *Dr Masoud Jabbari, Assistant Professor in Advanced Materials Processing & Simulation, University of Leeds, UK*	
12:45	**Verkor Innovation centre: A Trusted Environment for Innovation & Testing** *Donia Marzougui, Open Innovation Project Manager, VERKOR, France*	
13:10	*Lunch break & networking*	
	Industrial Manufacturing & Scale-up	
14:00	**From Pilot to Giga: Happening now. ElevenEs' LFP Blade Cell – The Blueprint for Scalable European Battery Manufacturing** *Aleksandra Roganovic, Cell Materials Manager, ElevenEs, Serbia*	
14:25	**Chemistry to Commercial Scale: Meeting the demands of Heavy-Duty Electrification** *David Keating, Sales and Marketing Director, ECHION Technologies Ltd. UK*	
14:50	**Developing Advanced Batteries Manufacturing Ecosystem** *Dr Ana Bankovic Cassidy, Senior Innovation Manager, Cambridge Nanomaterials Technology Ltd., UK*	
15:15	*Coffee Break and networking*	
15:45	**Innovation and scale-up** *Erwan Le Bourhis, CFO, N-ABLE, France*	
16:00	**System-Level Digital Twin for Circular Battery Manufacturing Optimization (BATTwin)** *Dr Amirhossein Khezri, Senior Research Associate at LISPEN Ecole Nationale Supérieur d'Arts et Métiers,*	
16:10	**Bridging Lab-to-Industry Gaps in Solid-State Batteries: Comparing Sulfide, Halide, Oxide, and Polymer Electrolytes –** *Online presentation* Dr Artur Tron, Scientist / Project Manager, Frontiers, Austria	
16:35	**BATTwin & Discrete Event Simulation: Flexible and scalable digital-twin platform for enhanced production efficiency and yeld in battery cells production lines** *Alessia Melechì, Digital Engineer & Gianluca Sergio, Digital Engineer, COMAU, Italy*	

17:00	**Closing remarks**	
	Day 2	
08:30	***Arrival, Registration, Networking & Refreshments (in person participants)***	
08:50	**Opening online session**	
09:00	**Introduction to the 2nd Day of the Workshop** *Dr Bojan Boskovic, CEO, Cambridge Nanomaterials Technology Ltd.- Event Co-organiser* *Dr Gerhard Goldbeck, CEO, Goldbeck Consulting, Event Co-organiser*	
	Advanced Manufacturing	
09:15	**AM4BAT Perspective: Anode-Less Solid-State Battery Technology.** *Bastien HUALPA, AM4BAT Project Coordinator, Leitat, Spain*	
09:45	**3D Printing and Solvent Free Battery Electrodes –** *Online* *Dr Anmol Jnawali, Battery Research Scientist, Photocentric, UK*	
10:10	**Introduction to the BatCAT Project** *Dr Martin Horsch, Norwegian University for Life Sciences (NMBU), Norway*	
10:35	*Coffee Break and networking*	
	Materials and Manufacturing	
11:00	**Automation for battery R&D - accelerating materials development** *Dr Robert Mitchell, Principal Scientist, CPI*	
11:25	**The online characterisation of lithium-ion battery electrode manufacturing to support the development of Digital Twin technology. –** *Online presentation* *Fabrizio Bernini, Project Manager, Bi-rex, Italy*	
11:50	**Innovations in Solvent Free Electrode Manufacturing** *Dr Rachel Smith, University of Sheffield*	
12:15	**Li-ion battery electrodes performance improved by atomic layer deposition nanocoatings.** *Dr Karol Frohlich, Deputy Director, Centre for Advanced Materials Application SAS, Slovakia*	
12:40	**High quality energy storage solutions for all** *Dr Dimitris Panagiotis Argyropoulos, Cell Development Engineer & Dionysis Zisis, Dipl. Eng, Junior Engineer in the Lithium Cells, Sunlight Groupenergy Storage Systems Industrial and Commercial Sociate Anonyme*	
13:00	*Lunch break & Networking*	
	Digital Aspects – Modelling and AI	
14:00	**From Accuracy to Guarantees: Neuro-Symbolic Intelligence and Cyber-Graph Architectures for Safe, Real-Time Battery Systems –** *Online presentation* *Assoc. Prof Fadi Al Machot, Associate Professor in Machine Learning, Norwegian University for Life Sciences (NMBU), Norway*	
14:25	**Microstructure-Resolved Simulations of SEI Formation and Cathode Transport in Lithium-Ion Batteries** *Elisa Buccafusco, POLITO, Italy*	
14:50	**Physics-based modelling of electrode microstructure evolution during calendaring** *Dr. David Gonzalez, Universidad Loyola – Sevilla, Spain*	

15:15	*Coffee Break and networking*	
Digital Aspects – Data Management		
15:35	**Datalab: federated data management for materials chemistry and battery research** *Dr Matthew Evans (University of Cambridge and Datalab Industries), UK*	UNIVERSITY OF CAMBRIDGE
16:00	**AI Is Here. Who Needs Data Management Now?** *Dr Timm Fitschen, Indiscale, CTO, Germany*	IndiScale Data Services
16:25	**Data ingest, model and knowledge integration for the minimum viable product of the BatCAT dataspace and digital twin platform** *Sudeepika Liyanapathiranage, NMBU,*	Norwegian University of Life Sciences
17:00	**Closing remarks**	

Advanced Battery Manufacturing Workshop– Speakers

Dr Bojan Boskovic (*BATTwin & AM4BAT Projects – Event* Co-o*rganiser*)
CEO,
Cambridge Nanomaterials Technology Ltd.
Cambridge
UK

Dr Bojan Boskovic is the Founder, Managing Director, and Principal Consultant of Cambridge Nanomaterials Technology Ltd (CNT Ltd). He has more than 20 years of hands-on experience with carbon nanomaterials and composites from industry and academia in the UK and Europe. Previously, he worked as a R&D Manager at Nanocyl, one of leading carbon nanotube manufacturing companies in Europe. He also worked on carbon nanotube synthesis and applications as a Principal Engineer-Carbon Scientist at Meggitt Aircraft Braking Systems, as a Research Associate at the University of Cambridge, and as a Senior Specialist at Morgan Advanced Materials. During his PhD studies at the University of Surrey, he invented low temperature synthesis method for production of carbon nanomaterials that has been used as a foundation patent for the start-up company Surrey Nanosystems. He was a member of the Steering and Review Group for the Mini-IGT in Nanotechnology that advised the UK Government on the first nanotechnology strategy policy document. Dr Boskovic was working as an advisor for the European Commission (EC) on Engineering and Upscaling Clustering and on setting up of the European Pilot Production Network (EPPN) and European Materials Charaterisation Cluster (EMCC). He has experience in exploitation and dissemination management on a number of FP7 and H2020 European projects, including UltraWire, NanoLeap, OYSTER, M3DLoC, Genesis and nTRACK. Also in UK Government InnovateUK funded projects, such as UltraMAT and GRAPHOSITE He is also a leader of two private membership-based consortiums: Nano-Carbon Enhanced Materials (NCEM) and Advanced Materials for Additive Manufacturing (AMAM).

Prof. Marcello Colledani (*BATTwin Project Coordinator*)
Full Professor
Politecnico di Milano
Italy

Marcello Colledani is Full Professor at the Mechanical Engineering Department of Politecnico di Milano, Italy. He has carried out research activities at the Laboratory for Manufacturing and Productivity (LMP) of the Massachusetts Institute of Technology (MIT). He is Fellow Member of the CIRP, the International Academy for Production Engineering. He has scientific responsibility of the inter-departmental laboratory “CIRC-eV: Circular Economy for Electrified Vehicles of the Future” at Polimi. He was coordinating the 2020 Lombardy Region Circular Economy Roadmap. He is the coordinator of

the EU H2020 large-scale demonstration projects FiberEUse, the I3 project DeremCO, and the Horizon Europe projects YourBan and ReBoat, targeting composite recovery and re-use, the EU H2020 project DigiPrime, for the development of a digital platform for circular economy in cross-sectorial sustainable value networks, with a focus on e-mobility. He is co-founder of the start-up FiberEUse Tech. He is in the Board of Directors of APRA Europe - Automotive Part Remanufacturing Association. He is member of the Advisory Board of the Rematec, the most important remanufacturing exhibition in Europe.

Bastien HUALPA *(AM4BAT Project Coordinator)*
Leitat
de Innovació 2
08225 - Terrassa
Spain

Bastien HUALPA is a Senior Project Manager at LEITAT research centre, based in Spain.
Over 10 years' experience in international affairs, and particularly in European Policies and projects (H2020, HE, DIGITAL, SMP, EuropeAid, etc).
With degrees in European Affairs and PMP® Project Management, Bastien embarked on an eclectic career path that has taken him to work within national government agencies, economic operators, chambers of commerce, and key stakeholders for innovation, as currently in LEITAT.

Dr Gerhard Goldbeck (*BatCAT Project – Event Co-organiser)*
CEO
Goldbeck Consulting Ltd
UK

Dr Gerhard Goldbeck is Executive Director of Goldbeck Consulting Ltd. His career encompassed computational and experimental research in solid state physics and polymer materials at Forschungszentrum Jülich, Bristol and Cambridge Universities, as well as software development, product management and marketing of materials modelling software at Molecular Simulations/Accelrys/Biovia. In 2011 he formed Goldbeck Consulting Ltd providing services in materials modelling and digitalisation. He also serves as Executive Secretary of EMMC, the European Materials Modelling Council. In 2025 he launched Semantic Materials, a collaboration for semantic technologies in materials industries.

Dr.-Ing. habil. Martin Thomas Horsch (*Speaker - BatCAT)*
Associate Professor
NMBU - Norwegian University of Life Sciences
Norway

Dr.-Ing. habil. Martin Thomas Horsch is an associate professor for data management within the department of data science. His field of research and development is process data technology, i.e., data management and semantic technology in combination with molecular modelling and simulation with applications in chemical and process engineering. He is involved with groups and initiatives including EMMC, EOSC, ing.grid, Inprodat, and NFDI, and a visiting scientist in computational chemistry at UKRI STFC Daresbury Laboratory.

Dr Anmol Jnawali *(Speaker - AM4BAT)*
Battery Research Scientist
Photocentric
UK

Anmol Jnawali conducted his research on the physical characterisation of commercial cells during his PhD at University College London. Currently, he is working on the additive manufacturing of solid electrolytes and solvent-free cathodes at Photocentric.

Prof. Dr.-Ing. habil. Andreas Rauh *(Speaker - BATTwin)*
Dean of School II - Computing Science, Business Administration, Economics, and Law, Department of Computing Science
Carl von Ossietzky Universität Oldenburg
Germany

Andreas Rauh received his diploma degree in electrical engineering and information technology from the Technische Universität München, Munich, Germany, in 2001, his PhD degree (Dr.-Ing.) from the University of Ulm, Germany, in 2008, and his habilitation (Dr.-Ing. habil.) in Measurement Technology and Automatic Control from the University of Rostock, Germany, in 2017. After a one-year research stay at ENSTA Bretagne (Brest, France), Andreas was appointed Full Professor at the Carl von Ossietzky Universität Oldenburg, Germany, where he is heading the group “Distributed Control in Interconnected Systems” since October 2021. His research interests include modeling, control, as well as state and parameter estimation for systems with stochastic and set-valued uncertainty. Applications of these methods are investigated in the fields of robotics as well as for battery systems, fuel cells, and electrolyzers. Moreover, Andreas was member of the IEEE 1788 Working Group for the Standardization of Interval Arithmetic. He is furthermore member of the scientific committee at Upcell Alliance.

Dr Mona Faraji Niri (*Speaker BATTwin)*
Associate Professor of Battery Modelling
University of Warwick
UK

Dr Mona Faraji Niri is an Associate Professor in Battery Modelling at WMG, University of Warwick, and an AI Fellow of the Alan Turing Institute. Mona focuses on the development of artificial intelligence, hybrid modelling, and control methodologies for complex energy systems, with a particular emphasis on lithium-ion battery technologies and their manufacturing processes. Mona’s work integrates digital experimental insights to develop scalable digital solutions for battery systems.
LinkedIn: www.linkedin.com/in/mona-faraji-niri-96154557
Google Scholar: https://scholar.google.com/citations?user=1PK7IocAAAAJ&hl=en

Prof. Dariusz (Darek) Ceglarek (*Speaker BATTwin)*
Professor & EPSRC Star Recruit Research Chair
University of Warwick
UK

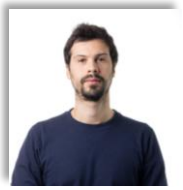
Prof. Dariusz Ceglarek received the Ph.D. degree in mechanical engineering (ME) from the University of Michigan-Ann Arbor, Ann Arbor, MI, USA, in 1994. He was a Professor with the IS&E, University of Wisconsin–Madison, Madison, WI, USA. He is currently an EPSRC Star Recruit Research Chair with the University of Warwick, Coventry, U.K. He has been a Principal Investigator (PI)/Co-Investigator (Co-I) on research grants of over £30M ($41): NSF/NIST/EPSRC/InnovateUK/APC/EU-FP7/Curie and industry. He has authored or co-authored more than 200 articles and is listed by Stanford University among top 2% of the world’s leading scientists. His research interests include smart manufacturing and data mining/AI for root cause analysis across design, manufacturing, and service. He is also a Fellow of the College International pour la Recherche en Productique (CIRP). He was a recipient of several best paper awards, the 2018 JLR “Innovista” Award for the most innovative “piloted technology,” the EPSRC Star Award, and the NSF CAREER Award. He was an Associate Editor of ASTM Smart and Sustainable Manufacturing Systems, the IEEE Transactions on Automation Science and Engineering, and the ASME Journal of Manufacturing Science and Engineering.

Dr Gergely Horváth (*Speaker BATTwin)*
Research Fellow
HUN-REN SZTAKI
Hungary.

Gergely Horváth, currently a research fellow at HUN-REN SZTAKI, conducts research in advanced manufacturing engineering with emphasis on the kinematic modelling and analysis of mechanical systems, machine tools and production equipment. His work addresses motion errors, geometric accuracy, process motion planning and reliability, and the integration of modelling, measurement, and simulation to support precision machining and digitalized manufacturing systems. He develops analytical and data-driven approaches for improving machine performance and enabling robust, high-efficiency production.
To realize computationally intensive simulations and large-scale error analyses, he applies parallel programming techniques, specifically CUDA-based GPU acceleration, as demonstrated in a multitude of his works, enabling high-speed numerical evaluation and real-time capable modelling frameworks. Within the BATTwin project he is the main contact person of SZTAKI, where the institute is responsible for leading the effort on realizing the multiple process level digital twins developed by colleagues from SIVAS, UOL and WMG.

Alessia Melechì (*Speaker BATTwin*)
Digital Engineer
COMAU
Italy

Alessia is currently working in Comau's E-Mobility Global Competence Center, as part of a team focused on Digital developments for battery manufacturing processes. Her core role is to develop 3D Discrete Event Simulations (DES) with related process optimization and RAMS analysis, specifically targeting cell formation processes and energy-saving solutions in this field. Furthermore, she is involved in the digital twin development area within European funded projects. In this context, she develops comprehensive DES simulations covering the entire battery manufacturing value chain, from electrode creation to final cell assembly. Holding an academic background in Robotics and Automation Engineering, she joined Comau in September 2024.



Gianluca Sergio (*Speaker BATTwin*)
Digital Engineer
COMAU
Italy

Gianluca Sergio is a Senior Full-Stack Developer with over eight years of experience in designing and implementing complex digital solutions across diverse industrial sectors. Prior to his current role, he contributed to several high-profile projects in the Fintech sector and participated in European-level initiatives focused on Blockchain technology experimentation.
Currently, he is a Software Developer at Comau, where he specializes in the development and maintenance of In.Grid, Comau's digital IoT platform. His work specifically addresses robot monitoring systems, ensuring seamless data flow and system reliability in highly automated environments.
Within the BATTwin project, he leads the efforts on the cloud infrastructure, focusing on scalable data storage solutions and the delivery of cloud-based services. His expertise bridges the gap between industrial IoT operations and modern cloud architecture, enabling the robust handling of large-scale data sets for digital twin applications.

Donia Marzougui (*Speaker BATTwin*)
Open Innovation Project Manager
VERKOR
France

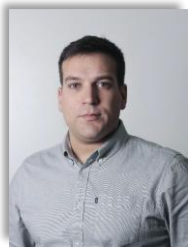
Donia Marzougui is an Open Innovation project manager at Verkor where she leads strategic initiatives to enhance collaboration and innovation in battery manufacturing. With a PhD in civil engineering and a strong scientific background, Donia has built a rich career spanning research, project management, and international development. At Verkor, she focuses on fostering innovation and collaboration and plays a pivotal role in driving forward-thinking initiatives that connect internal teams with external partners and emerging technologies. Her strategic mindset and dynamic approach make her a key contributor to her organization's innovation ecosystem.

Erwan Le Bourhis (*Speaker BATTwin)*
CFO
N-ABLE
France

Erwan Le Bourhis is partner and CFO of N-ABLE and has more than 20 years of experience as Financial Expert. Erwan currently drives the corporate finance activities of our advisory line on behalf of both public (European Commission, Regions...) and private clients. Within that context, Erwan develops scale-up and deployment strategies for companies and projects and operationalises their financing. He also coordinates business and financial modelling and planning as well as our private financing activities.
Before joining N-ABLE, Erwan was Financial Officer in charge of the business line for mobility experiences Michelin – covering 21 countries and €105 million of annual turnover. He oversaw company acquisitions and integrations, including reporting and dashboard set-up, process and standard harmonization, business reviews. He also took part in executive activities such as support and recommendation for growth and new business (M&A, business plan, due diligence, etc…), business planning and medium-term plan, tax management, forecast preparation and follow up processes, and monitor financial and business KPIs. Erwan has accumulated extensive experience in building and transforming administrative and financial systems within private organizations of all sizes.
Since he joined N-ABLE, Erwan unlocked financing for projects and companies across various tech and sectors (natural assets, circular economy, digital health…). He developed financial strategies and financial products on behalf of various clients – from equity and debt to quasi-equity and mixed schemes. He also serves as an expert evaluator for the European Innovation Council (EIC), contributing to the evaluation of proposals or companies under several instruments, including the STEP programme.
Erwan graduated from the ESCP Business School in Finance (MSc) and PSB in Marketing (MSc).

Dr Amirhossein Khezri (Speaker BATTwin)
Senior Research Associate at LISPEN
Ecole Nationale Supérieur d'Arts et Métiers
France

Amirhossein Khezri received his PhD in Mechanical Engineering in 2023 from École Nationale Supérieure d'Arts et Métiers, where his research focused on the development of digital twins and AI-assisted optimization techniques for high-tech precision assembly production. He is currently a Senior Research Associate at LISPEN (Laboratoire d'Ingénierie des Systèmes Physiques et Numériques), a research laboratory of École Nationale Supérieure d'Arts et Métiers, where he contributes to the EU BATTwin project. His work focuses on smart and adaptive production systems and the development of digital twin technologies. His research interests include digital twins for real-time process optimization, circular production, artificial intelligence, and production optimization.



Dr Dimitris Panagiotis Argyropoulos (Speaker BATTwin)
Cell Development Engineer,
Sunlight Groupenergy Storage Systems Industrial and Commercial Sociate Anonyme
Greece

Dr. Dimitris Argyropoulos is an Electrical and Computer Engineer with a field of expertise in Microelectronics and Microtechnology. He received his Doctorate, “Fabrication, Characterization and Modeling of Silicon nanoparticles with graphene shell, as anodes for Lithium-ion cells”, in May 2024.
He has worked as a researcher on various European projects from 2017 till 2023 and from January 2024 he is employed by Sunlight Group as a Senior Engineer in the Lithium Cells, Litharaki Labs R&D Department.
Dr. Argyropoulos scientific interests include but are not limited to, Lithium-ion Cell development with a focus on new materials and Process technology, semiconductor devices with a focus on PVs and testing and characterization methods for lithium-ion batteries and PV systems.

Dionysis Zisis, Dipl. Eng (Speaker BATTwin)
Junior Engineer in the Lithium Cells
Sunlight Groupenergy Storage Systems Industrial and Commercial Sociate Anonyme
Greece

Dionysis Zisis is a Mechanical and Aeronautical Engineer, employed by Sunlight as a Junior Engineer in the Lithium Cells & RnD Department. He is involved in lab to pilot line upscaling, prototype cell development and mechanical components validation & testing.
He practiced research in multifunctional materials with energy storage and structural properties in his thesis “Development of graphene supercapacitors and their integration into fibrous composite materials”.

Dr Ana Bankovic Cassidy (Speaker– BATTwin & AM4BAT)
Senior Innovation Manager.
Cambridge Nanomaterials Technology Ltd.
14 Orchard Way, Cambourne
Cambridge CB23 5BN, UK

Dr Ana Bankovic Cassidy is a Senior Innovation Consultant. She joined CNT team in February 2021. Ana graduated from the Faculty of Physics, University of Belgrade Serbia, winning the award for the best BSc (Honors) Thesis of the year 2007. The main aim of her PhD study and further research was to identify and explain specific kinetic phenomena that occur in positron transport in electric and magnetic field due to non-conservative nature of positronium formation. Ana applied the basic phenomenology of charged particle swarms to study the interaction of positrons with biologically relevant molecules, in order to develop and establish a benchmark for Monte Carlo codes used in positron emission tomography (PET) modelling. Her research activities were undertaken in Centre for Non-Equilibrium Processes at the Institute of Physics in Belgrade, Serbia, a large interdisciplinary group with interests ranging from theoretical, numerical and experimental studies of low temperature plasmas to studies of positron swarms and their applications, modelling particle detectors and conducting experiments at applying plasma physics methodologies to medicine and biological applications. As a Visiting Researcher at the Open University, Milton Keynes in 2014/15, she worked on quantum chemistry treatment of positron interactions with atoms and molecules using the UKRmol quantum chemistry software.

Assoc. Prof Fadi Al Machot (*Speaker - BatCAT)*
Associate Professor in Machine Learning
NMBU - Norwegian University of Life Sciences
Norway

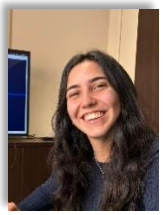
Fadi Al Machot studied computer science at the University of Potsdam between 2005 and 2010. He received his degree “Diploma” in the field of artificial intelligence. He also focused on the field of data mining and computer vision. In November 2013 he finished his PhD at Klagenfurt University. He was a research member in different European projects: Smart resource-aware multi-sensor network (SRSnet), Robust Sensors in Traffics (RoSiT) and Human Behavior Monitoring and Support (HBMS). In 2011 his SRSnet project was awarded as one of the best practice projects in the Interreg IV program. As a researcher, he developed different algorithms in the areas of complex event detection in video surveillance systems, advanced driver assistance systems and human cognitive reasoning. His work has been patented and published in different international conferences and Journals.

Sudeepika Wajirakumari Samarathunga Liyanapathiranage (*Partner - BatCAT)*
Consultant
NMBU - Norwegian University of Life Sciences
Norway

L. S. W. Samarathunga is a researcher affiliated with Norwegian University of Life Sciences. Her work focuses on data ingestion, model integration, and knowledge structuring within the BatCAT project, with an emphasis on integrating heterogeneous modelling outputs into a unified dataspace.
She contributes to the development of interoperable data pipelines and ontology-driven frameworks that enable traceability, semantic consistency, and scalable reuse of models. Her work supports the development of a minimum viable digital twin platform by aligning model workflows, metadata structures, and knowledge integration processes across complex research ecosystems.
Her research interests include digital twins, semantic interoperability, scientific data management, and knowledge graph applications in engineering systems.

Dr Robert Mitchell (*Speaker - BatCAT)*
Principal Scientist
CPI
UK

Dr Robert Mitchell works specifically in the field of energy materials, using firsthand experience of the challenges in scale up of battery technology, recycling processes, or critical minerals extraction to help guide customers and collaborators to effective solutions. He has worked in the field of Inorganic materials chemistry for 16 years, and purely batteries for the last 7 years, including in recent years securing £5.4M+ in collaborative and commercial funding for our research programs. He leads diverse teams within 35 strong battery group to develop internal capabilities to be able to offer improved support externally, utilising skills in strategic development, stakeholder management, communication, and team leadership.



Elisa Buccafusco (*Speaker - BatCAT)*
PhD Student
Politecnico di Torino
Italy

Elisa Buccafusco holds a Bachelor’s and a Master’s degree in Chemical Engineering from Politecnico di Torino. Her Master’s thesis focused on the modelling of NMC cathodes and on the development of machine-learning-based predictive approaches to analyse battery performance.

She is currently pursuing a Ph.D. at Politecnico di Torino, within the MulMoPro (MULtiscale computational MOdels to simulate chemical PROcesses) research group. Her research focuses on microstructure-resolved simulations of lithium-ion and sodium-ion batteries. In particular, she investigates how electrode architecture, material composition, and interfacial phenomena influence electrochemical performance, with the aim of improving the understanding and design of next-generation battery systems.

Timm Fitschen (*Speaker - BatCAT)*
CTO
IndiScale GmbH
Germany

Timm Fitschen is Chief Technology Officer and co-founder of IndiScale GmbH.
With a background in physics, he has over a decade of experience in full-stack development and systems architecture, specializing in data management, automation, and standardization. One of his early projects involved applying unsupervised machine learning methods to explore and analyze experimental data.
His work has since focused on FAIR and semantic research data management for heterogeneous data sources, lab automation, open and controlled data sharing, data sovereignty, and data spaces. While still coding by hand most of the time, Timm is particularly interested in the practical application of machine learning and AI to improve interoperability and efficiency in modern data ecosystems.

Dr Fabrizio Bernini (*Speaker - BatCAT)*
Technical Project Manager
BI-REX
Italy

Fabrizio Bernini is a Technical Lead at the BI-REX Competence Center, where he contributes to advanced manufacturing and digital innovation initiatives. He previously worked as a PhD Researcher at the University of Modena and Reggio Emilia (Unimore), focusing on technical leadership and applied research. Based in the Greater Modena area, he brings experience in hybrid and on-site industrial environments and has developed expertise in technical coordination and engineering-driven problem-solving.

Dr David Gonzalez (*Speaker - BatCAT)*
Researcher
Universidad Loyola – Sevilla
Spain

Dr David Gonzalez has over 15 years of experience using finite elements for describing multi-scale plasticity, image-based models, creep as well as thermomechanical manufacturing processes to predict residual stress and distortion. He modelled additive manufacturing and different joining methods for metals. His background is mixed between mechanical engineering and materials science. He has modelled deformation and residual stress for metals (e.g. steels, aluminium, nickel alloys) but also for ceramics (alumina, NMC) and composites (CPRPs) at the microscale.
Dr Gonzalez has extensive experience in building computational tools that can study the relationships between manufacturing routes microstructure and material properties.

Invited Guest Speakers

Aleksandra Roganović (*Guest Speaker*)
Cell Materials Manager
ElevenEs
Serbia

Aleksandra Roganović is a Cell Materials Manager at ElevenEs and a PhD candidate in Chemistry, specialising in battery materials and LFP cell development. With experience spanning electrode formulation, materials characterisation, and manufacturing scale-up, she contributes to advancing sustainable battery technologies. With a background in Analytical Chemistry and ongoing PhD research, Aleksandra leads battery materials R&D at ElevenEs, where she drives materials-level improvements and innovation—from performance optimization to scalable implementation within the supply chain.
Her expertise in lithium-ion battery materials plays a key role in accelerating sustainable energy technologies and Europe's growing battery industry.

David Keating, (*Guest Speaker)*
Sales and Marketing Director
Echion Technologies
UK

David Keating is Sales and Marketing Director at the supplier of the world's leading niobium-based anode materials, Echion Technologies.
He has over 10 years' experience of driving growth through innovative approaches and empowering teams to exceed targets in the most dynamic and competitive industries.
Enabling industries that rely on heavy-duty, energy intensive vehicles to electrify operations effectively, efficiently and economically through harnessing the power of XNO®.
Providing differentiated performance for cell manufacturers and end users in markets that require the highest safety, lowest total cost of ownership, and highest productivity.

Dr Hetty Sun (*Guest Speaker*)
Associate Head of School - Research and Knowledge Exchange
Executive Business Centre
University of Greenwich
UK

Dr Hetty (Wenxian) Sun is an Associate Professor and Associate Head of the Executive Business Centre. She is a Senior Fellow of the Higher Education Academy (HEA). Hetty is passionate about diversity recognition and social value. As an academic entrepreneur, she innovates her portfolio by integrating real-life projects to promote SMEs and make useful contributions to society. She is one of the judges for the Best of Royal Greenwich Business Awards 2024. Hetty has played a leading role in several pioneering initiatives, including securing multi-million funding from the European Commission. Before joining academia, she worked in the UK FinTech business and contributed to government-funded projects in China, obtaining a government reward for remarkable success.

Prof Qiong Cai (*Guest Speaker*)
Professor in Sustainable Energy and Materials; Sustainability Fellow; Theme Leader on Chemicals for Net-Zero within the Institute for Sustainability
University of Surrey
UK

Prof Qiong Cai is specialised in multiscale materials design for sustainable energy storage and conversion applications including batteries, electrolysers, fuel cells, and catalytic conversion of

chemicals. Her group work at nano-scale materials synthesis and design, and meso-scale electrode engineering and 3D microstructure modelling. She has been involved in multiple major projects worth a total of around £40 million funding, including the UKRI EPSRC funded UK-HyRES project (https://ukhyres.ac.k/) in which she is the theme leader for hydrogen and alternative liquid fuel end use, the Faraday Institution funded LiSTAR project (https://www.listar.ac.uk/), and the Horizon Europe funded OPERA project (https://horizon-opera.eu/) in which she is the workpackage leader on AI-assisted multiscale materials modelling. She has published over 160 papers with an h-index of 52 and i10-index of 120. She is currently sitting on the Strategic Advisory Board for the FULL-MAP project, and is an Associate Editor for Energy Z, and ASME Journal of Electrochemical Energy Conversion and Storage.

Mao (Maggie) Xu (*Guest Speaker*)
Lecturer in Business Operations and Supply Chain Management
University of Greenwich
UK

Mao (Maggie) Xu is a Lecturer in Business Operations and Supply Chain Management at the University of Greenwich and Co-Investigator of the CIRCUBATT project. Her research specialises in secondary data analysis in operations and supply chain contexts, with a particular focus on sustainability-related misconduct, business crises, and the use of social media and digital trace data for empirical analysis. Her work has been published in leading journals, including Technovation, International Journal of Production Economics, Transportation Research Part E: Logistics and Transportation Review, Enterprise Information Systems, and Journal of Retailing and Consumer Services.

Dr Masoud Jabbari (*Guest Speaker*)
Assistant Professor in Advanced Materials Processing & Simulation
University of Leeds
UK

Dr Masoud Jabbari is an Assistant Professor in the School of Mechanical Engineering at the University of Leeds, and a visiting researcher at the School of Physics, and Engineering, at the University of York. He is specialised in computational modelling of advanced materials processing with a particular focus on ceramics and battery materials. His research integrates computational fluid dynamics (CFD), multiphysics simulation, and data-driven approaches to understand and optimise key stages of battery manufacturing (such as slurry mixing, coating & 3D printing, drying, and calendering) across lithium-ion and emerging chemistries. Leading the APMS Research Group, Masoud has been collaborating closely with industry to ensure his modelling work supports scalable and high-performance energy storage solutions.

Prof. Rachel Smith (*Guest Speaker)*
Professor of Particulate Manufacturing
University of Sheffield
UK

Rachel Smith is Professor of Particulate Manufacturing in the School of Chemical, Materials and Biological Engineering at the University of Sheffield, with expertise in industrial particulate manufacturing across battery manufacturing, pharmaceutical, agrichemical and food iundustries. Her research focuses on the development of micro-scale understanding of particle-particle and particle-fluid interactions, and applying this to advance prediction and design of particulate manufacturing processes and product performance. Processes of interest include granulation, spherical agglomeration, fluidized bed processes and tableting/compaction. Rachel holds a BEng (Hons) and PhD from the University of Queensland, Australia, and joined the University of Sheffield in 2012.

Dr Matthew Evans (*Guest Speaker)*
Research Fellow / Director
University of Cambridge / datalab industries ltd.
UK

Dr Matthew Evans is a Leverhulme Trust Early Career Research Fellow in the group of Professor Dame Clare Grey FRS in the Yusuf Hamied Department of Chemistry at the University of Cambridge. His research focuses on the development of the open source datalab platform and infrastructure for experimental data management in materials chemistry as a substrate for data- and AI-driven approaches to materials discovery and design.
Previously, he was a BEWARE Research Fellow in the group of Prof Gian-Marco Rignanese at UCLouvain, where, jointly with the company Matgenix, he worked on high-throughput workflows, machine learning and associated software for computational materials discovery and design.

Dr Karol Frohlich (*Guest Speaker)*
Deputy Director,
Centre for Advanced Materials Application SAS
Slovakia

Karol Fröhlich is a senior research scientist at the Centre for Advanced Material Application (CEMEA), Slovak Academy of Sciences. His interests include thin film preparation and application in energy storage. At present he is involved in the research and development of Li-ion batteries. He is author or co-author of more than 140 publications in international peer-reviewed scientific journals. He received more than 1800 citations registered by the Web of Science database (HI 28). Dr. Fröhlich has been responsible scientist for several projects in EU Framework Programmes and national projects (APVV, VEGA). At present he is a leader of the Slovak part of 2 Horizon Europe projects focused on battery research and development. He was a supervisor of 8 PhD thesis.
From 2002 - 2012 he was appointed as a director of the Institute of Electrical Engineering, Slovak Academy of Sciences. From 2015 to 2017 he was Vice-president of the Slovak Academy of Sciences. Since 2019 he is a vice-director of the Centre for Advanced Material Application, Slovak Academy of Sciences.

Dr Artur Tron (*Guest Speaker - Online)*
Scientist / Project Manager,
Frontiers
Austria

Artur Tron Ph.D. is a research scientist with over 15 years of experience in lithium-ion and solid-state battery research. He carried out his Ph.D. degree at the Ukrainian State University of Chemical Technology (Ukraine) in 2011. From 2011, Artur spent 2,7 years working at Samsung SDI (the Republic of Korea), for 4,2 years at Incheon National University (the Republic of Korea), and for 2.5 years at SINTEF Industry (Norway). Since 2020, he has been working as a Scientist at AIT Austrian Institute of Technology (Austria) in the Solid State Battery Team related to the optimization and fabrication of solid-state battery components and R&D project management. He currently has 6 patents, 1 book chapter, over 40 high-level peer-reviewed publications in the field (5 of Cover Images and 1 of Editor’s Choice), and over 25 communications at scientific meetings.

Advanced Battery Manufacturing Workshop – Projects organisers

BATTwin - Flexible and scalable digital-twin platform for enhanced production efficiency and yield in battery cell production lines - www.battwin.net

The **BATTwin** is a 42-month project, which received funding from the European Climate, Infrastructure and Environment Executive Agency under grant agreement No. 101137954 (€ 6,355 million grant). This project is led by *Politecnico di Milano,* and has the involvement of 19 participating organisations.
The objective of **BATTwin** is to support the high demand for battery manufacturing equipment in Europe, by developing a novel Multi-level Digital Twin platform towards Zero-Defect Manufacturing in battery production, that will reduce defect rates in battery production lines.

AM4BAT – Gen. 4b Solid State Li-ion Battery by Additive Manufacturing - www.am4batproject.eu https://3dprintingexpo.net/exhibition_a4b/

AM4BAT project founded by the European Commission under the Horizon Europe programme (grant agreement No 101069756). with a total budget of €4,8M. The 4-year project is coordinated by the Technological Center Leitat and is integrated by 11 partners from 7 different countries. AM4BAT main objective is to develop an anode-free all-solid-state batteries made by 3D Printing

AM4BAT Virtual Exhibition

BatCAT - Battery Cell Assembly Twin - www.batcat.info

BatCAT is a research and innovation project funded by the EU's Horizon Europe programme (grant agreement No 101137725). The project is a collaboration between 18 partner organisations from 9 European countries, coordinated by NMBU. The project aims to create a digital twin for battery manufacturing by developing a cross-chemistry data space for two technologies: Li-ion and Li-S coin cells and redox flow batteries. The project will also address three challenges in digital manufacturing: Design, operation, and trust.

Advanced Battery Manufacturing Workshop – Other participating projects

CIRCUBATT (Circular Economy Innovations for Resilient, Competitive and Sustainable Battery Technologies)

Web: https://circubatt-project.eu/

The future of battery technology is here! The European Commission (EC) has awarded **€5 million** in Horizon Europe funding to the **CIRCUBATT Project**, with €4.3 million contributed by the EC and €0.7 million by Switzerland. This revolutionary initiative promises to reshape Europe's battery industry with cutting-edge technology, circular business models, sustainability, and innovation.
Set to begin in January 2025, this three-year project brings together 10 leading organisations from eight countries, uniting their expertise to create smarter, greener, and more resilient batteries that drive both environmental and economic transformation.

ALD-protected Next Generation Lithium-Sulfur battery Cell, ANGeLiC

Web: https://angelic-project.eu/

At **ANGeLiC** we're developing breakthrough Generation 5 Lithium-Sulphur (Li-S) batteries specifically designed for heavy-duty vehicles and mobility applications. Our mission: create safer, more sustainable, and cost-effective alternatives to current Li-ion technology. Our 13-partner consortium brings together leading research institutions and industry experts to solve critical challenges in electric mobility. Our goal is to contribute to a sustainable, circular, and competitive European battery value chain by advancing post-Li-ion technology that enhances energy density, safety, and recyclability while minimizing environmental impact. ANGeLiC stands for ALD-protected Next Generation Lithium-Sulphur Battery Cell and our name reflects our core innovation.

Opera

Web: https://horizon-opera.eu/

Green, safe and high-performing batteries based on abundant materials are a key element in the transition to a carbon-neutral future. So-called zero excess solid-state batteries are one of the most promising technologies that meets these criteria.
For their development, the processes within the battery need to be understood on a fundamental level. Therefore, in OPERA, state-of-the-art experimental and computational methods are combined to gain these insights by partners from all over Europe.
The consortium includes seven leading research institutes, two synchrotron radiation facilities, a small-medium sized enterprise and a large technological company, all from complementary research fields. They proposed a unique strategy to face the challenges of this technology. It relies on the development of novel experimental techniques with a resolution down to the atomic scale. They provide information on multiaxial stress fields, chemical composition, nucleation and growth kinetics, structural defect formation and degradation of model cells. These insights are used for a novel multiscale modelling approach supported by machine-learning algorithms.
The project goals ultimately lead to a deep conceptual understanding and innovative improvement approaches for this type of energy storage technology. This will be an important step towards increasing the global competitiveness, resilience, and independence of the EU.

MaterialsCommons4EU

Web: https://materialscommons4.eu/

We are a strategically composed and highly complementary consortium in the Grant Preparation Phase for the call HORIZON-CL4-INDUSTRY-2025-01-MATERIALS-45: Materials Commons for Europe (IA). Our shared mission is to drive forward innovation and cross-sector collaboration in materials science by establishing a federated digital infrastructure that seamlessly connects researchers from both industry and academia. We are building on strong synergies with key initiatives such as Material Digital, DIADEM, MaX, CaPeX, and numerous other national platforms. Furthermore, our approach is fully aligned with relevant innovation strategies, policies, and programmes across Europe, ensuring coherence, scalability, and long-term impact.

SOLBAT project

Web: www.solbat-faraday.org

The SOLBAT project makes up one of the Faraday Institution's 4 parallel 'Fast Start' projects. Started in March 2018 and now extended until April 2025 it is a collaboration led by The University of Oxford, with Newcastle University, Diamond Light Source Ltd. and three other industrial partners, to break down the barriers that are preventing the progression to market of solid-state batteries, that should be lighter and safer, meaning cost savings and less reliance on cooling systems.
The ambition of this project is to demonstrate the feasibility of a solid state battery with performance superior to Li-ion in EV applications.

Battereverse

Web: www.battereverse.eu/

BatteReverse aims to develop the technologies, processes, and partnerships necessary to build a reverse logistics (RL) value chain for batteries, from end-of-first-life to decision-making on their future use. The project consortium strives to lower costs and time consumption, while ensuring maximum safety, efficiency, and sustainability. In order to do so, BatteReverse project partners are working on the following innovations:
Battery assessment: We're creating a faster and more precise techniques for battery discharge, first SoX assessment and evaluation of remaining usefult life using acoustic testing and machine learning algorithms.
Safety packaging: We're working to increase the safety of Li-ion battery transportation by designing a monitoring system integrated into safe packaging to minimise thermal runaway risks.
Automated dismantling: Our team is developing advanced, precise methods for automated dismantling and sorting of battery components via human-robot collaboration.
Battery Data Space: We're developing a comprehensive system with standardised labelling and battery passport functionalities to streamline battery identification and data sharing among stakeholders.
These innovations will be demonstrated in two use cases involving the recycling and repurposing of end-of-first-life electric vehicle batteries. The use cases will be replicated within a **digital twin simulation**, with insights gained from this process informing an industrial pilot for next-generation RL processes. Ultimately, BatteReverse's innovations aim to validate and optimise the RL value chain.

AID4GREENEST

Web: https://aid4greenest.eu/

AID4GREENEST is a three-year (September 1, 2023 – August 31, 2026) Horizon Europe project with a budget of around 5 million EUR. It aims to develop a range of new Artificial Intelligence-based rapid characterisation methods and modeling tools for the steel sector. The scope of the tools developed through the AID4GREENEST project includes the steel design (chemistry and microstructure), process design (processing parameters), product design (processing and heat treatments), and product performance stages.

BASE

Web: https://www.base-proj.eu/

The BASE project, in response to the European requirement of reforming the whole scholastic disciplinary system identifies in the proven US-born concept of the Positive Behaviour Approach (PBS) one possible solution, and tries to adapt its practical and evidence-based principles to the heterogeneous European school settings.
In this scenario, the targets of the project will be mainly school leaders, teachers and all students including those coming from vulnerable groups. Recently, scientific studies (Sugai, Horner, 2016) have emphasized the promising role of PBS in reducing the occurrence of behavioural problems by setting up a preventive, proactive and multilevel system based on the direct involvement of the entire work team: starting from teachers, school leaders until all actors of the community involved in the educational processes. The features of PBS are rooted in the behavioural science and in the practice of Functional Behaviour Analysis (FBA). It works very well in coping with challenging behavioural problems in everyday school life. The growing expectation is that schools will deliver socially acceptable, effective, and efficient interventions to ensure safe and productive environments where the prosocial behaviour is promoted and pupils can become successful adults.
With the purpose of achieving these goals, the rationale for this project is to combine the PBS approach with the FBA practice, taking advantage of the previous positive experience of the partnership. Specifically, the results of the WHAAM (Web Health Application for ADHD Monitoring), funded by the EACEA in Transversal Programme KA3: ICT – LLL 2007-2013) and PBS Europe project (509966-LLP-1-2010-NL-COMENIUS-CMP, KA Multilateral Projects - www.europbs.com) as the bulk of the knowledge base for the new project.

Lasers4NetZero

Web: www.lasers4netzero.com

Approximate 30% of the emissions of e-vehicles comes from the manufacturing processes, due to un-optimised material utilisation, low process efficiency, product defects and waste.
Current state-of-the-art identifies laser material processing technologies the heart of e-vehicles manufacturing. Advances in laser technologies and new generation scanning optics in fuel cell and battery manufacturing have the potential to offer enhanced utilisation of materials, improved process efficiency and product quality, allowing significant reduction in CO2 equivalent. Lasers4NetZero will establish an innovative training programme that aims at coaching a new generation of creative, entrepreneurial and innovative doctoral candidates (PhDs) focused on laser material processing, artificial intelligence for quality control, advanced process simulation and predictive lifecycle and sustainability analysis for e-vehicles manufacturing. This novel programme will contain both scientific and transferable training activities and will benefit from training across the network (e.g. secondments). In total, 12 PhDs will be enrolled, developing individual research projects within the project. Individual

PhD projects will integrate novel methods and approaches for laser material processing (cutting and welding) aided by laser beam shaping and ultra-fast scanning technologies with the ultimate goal to enhance utilisation of materials, improve process efficiency and product quality and reduce defects and waste. The consortium involves 6 Academic partners and 10 Industrial partners guaranteeing that final solutions will be close to the market. The close cooperation among multidisciplinary partners will ensure knowledge transfer to cross the valley-of-death between research and implementation. To maximise impact, two demonstrators (fuel cells and battery systems) will be developed in conjunction with the Industrial partners.

Advanced Battery Manufacturing Workshop - Participating organisations

Schneider Electric Automation GmbH

Web: www.se.com

Schneider's purpose is to create Impact by empowering all to make the most of our energy and resources, bridging progress and sustainability. At Schneider, we call this Life Is On.

Our mission is to be the trusted partner in Sustainability and Efficiency.

We are a people company with an ecosystem of 150,000 colleagues and more than a million partners operating in over 100 countries to ensure proximity to our customers and stakeholders. We embrace Inclusion and Care in everything we do, guided by our meaningful purpose of a sustainable future for all.

Verkor SA

Web: www.verkor.com

Verkor is a young French industry founded in 2020 focused on accelerating the production of low-carbon batteries for electric vehicles and large-scale stationary storage. They are based in Grenoble and are building their gigafactory in Dunkirk which will have an initial production capacity of 16 GWh per year. The company aims to contribute to sustainable mobility and the energy transition in Europe.

Politecnico di Milano

Department of Mechanical Engineering, Manufacturing and Production Systems Unit, Smart and Sustainable Manufacturing Research Group

Web: www.mecc.polimi.it

Politecnico di Milano is a technical-scientific University that offers education programmes for future engineers, architects and designers.

The Department of Mechanical Engineering counts 148 Professors and researchers, 30 research fellows and 282 PhD students. In 2025, according to the *QS World University Ranking by Subject – Mechanical, Aeronautical and Manufacturing Engineering*, Politecnico ranks 1st in Italy, 5th in Europe and 12th worldwide. The researchers of the Department of Mechanical Engineering work together accordingly to their research areas, each part of a different Research Unit (Mechanical Systems, Machine and Vehicle Design, Materials, Manufacturing and Production Systems, Measurements,

Methods and Tools for Product Design. Further details on the Department's organisation are available on the website: Organization | Dipartimento di meccanica

Leitat Technology Center

Web: www.leitat.org

Leitat is the oldest technological center in Europe, with over 100 years of history and a reference point at both the national and European levels. It has a team of more than 400 professionals, experts in applied research, technical services, and the management of technological and innovation initiatives. Leitat's primary mission is to become a tool to improve the competitiveness of the country's companies through innovation and technology transfer. Leitat provides social, industrial, economic, and sustainable value, offering comprehensive solutions to multiple sectors and fields: health and biomedicine, development of new materials, eco-sustainable production, occupational health prevention systems, waste revaluation and utilization of natural resources; interconnectivity and digitization of industry, green energy, and maximization of energy efficiency. Leitat develops R&D&I projects for companies and institutions, as well as leads research projects with competitive funding both within the framework of the European Union and the Ministry of Science, Innovation, and Universities.

Visit their virtual exhibition at: LEITAT –EXPO

Siemens - Digital Industries Software

Web: www.siemens.com

We help organizations of all sizes digitally transform using software, hardware and services from the Siemens Xcelerator business platform. Our software and the comprehensive digital twin enable companies to optimize their design, engineering and manufacturing processes to turn today's ideas into the sustainable products of the future. From chips to entire systems, from product to process, across all industries. We help transform the everyday as part of @Siemens, To learn more, visit http://sw.siemens.com.

ElevenEs

Web: https://elevenes.com/

ElevenEs is Europe's leading manufacturer of LFP (Lithium Iron Phosphate) battery cells, dedicated to delivering clean, robust, and cost-effective energy storage from the heart of Europe. Backed by global industrial leaders like Caterpillar Venture Capital, Inc.; BST (HK) Ltd.; we have successfully developed our proprietary LFP Edge technology. Our prismatic cells are specifically engineered for the most demanding applications - including construction and mining equipment, industrial vehicles, energy storage systems (ESS), and electric cars/buses/trucks. Born as an industrial spin-off from Al Pack

Group, a leader in aluminum processing, we combine deep manufacturing expertise with cutting-edge electrochemistry. We are currently scaling our mega-factory in Subotica, Serbia, to power the industrial electrification revolution.

Warwick University

Web: https://warwick.ac.uk/fac/sci/wmg/

WMG (Warwick Manufacturing Group) is a world-leading research and education group at the **University of Warwick,** UK. focused on transforming organisations and driving innovation through a unique combination of collaborative research and development, and pioneering education programmes.
As an international role model for successful partnerships between academia and the private and public sectors, **WMG** develops advancements nationally and globally, in applied science, technology and engineering, to deliver real impact to economic growth, society and the environment.
WMG's education programmes focus on lifelong learning of the brightest talent, from the **WMG** Academies for Young Engineers, degree apprenticeships, undergraduate and postgraduate, through to professional programmes.
An academic department of the **University of Warwick,** and a centre for the HVM Catapult, **WMG** was founded by the late Professor Lord Kumar Bhattacharyya in 1980 to help reinvigorate UK manufacturing and improve competitiveness through innovation and skills development.

ARIA Hauts-de-France

Web: https://www.aria-automobile-hdf.fr/

ARIA Hauts-de-France, created in 1996 under the impetus of the Renault and Peugeot groups, celebrated its 25th anniversary in February 2021. One of the first to have been created on the national territory, ARIA Hauts-de-France supports companies in the automotive industrial sector.
Faced with new challenges, ARIA Hauts-de-France is at the side of the companies it supports to increase their competitiveness and to sustain their activities and jobs in the region.
Today, the ARIA Hauts-de-France network is made up of manufacturers, equipment manufacturers, suppliers of capital goods and services, as well as universities and schools in the Hauts-de-France region. All of them contribute to the development of the regional automotive sector.

ZEISS

Web: https://www.zeiss.com/microscopy

ZEISS is one of the world leading manufacturers of microscopes. In addition to excellent light and electron/ion microscopes, ZEISS also offers a broad range of optical sectioning systems as well as high-resolution X-ray microscopes. ZEISS Microscopy is a leading provider of microscope solutions in the life sciences, materials research, routine and industry markets. Our microscope systems are much more than just hardware. A dedicated and well-trained sales force, an extensive support infrastructure, and a responsive service team enable customers to use their ZEISS instruments to their full potential.

Vrije Universiteit Brussel - VUB

Web: http://vub.be/en

VUB is an Urban Engaged University in Brussels, the heart of Europe. 20,000 students, nearly a quarter of them from abroad, are engaged in building their future and that of the world. With top-quality scientific research and customised education, VUB makes an active and engaged contribution to a better and more sustainable society.
The MOBI research group of VUB is the innovative research hub for electromobility in Europe, and aims to make a strong contribution to a more sustainable society. With more than 100 specialists, we form a multidisciplinary team that supports the transition to a more environmentally friendly and electrified mobility and transport system. A unique mix of technical, environmental and socio-economic skills is the strength of our research group. MOBI is the technological expertise center in many areas ranging from electric and autonomous driving, to innovative batteries, intelligent drive systems and energy management, power electronics and charging infrastructure.

Visit their virtual exhibition at: VUB-EXPO

Photocentric Ltd

Web: https://photocentricgroup.com
Parts on demand producer, award-winning specialist resin and 3D printer manufacturer **Photocentric** is the inventor of LCD-based 3D printing. Based in UK and USA, Photocentric has a vision of enabling custom mass manufacture by making additive parts using disruptive photopolymers and LCD 3D printers, an industrial method of making parts in volume. Photocentric's large format LCD printer range includes Liquid Crystal Magna, which delivers significant speed, large print volume and cost savings to business around the world in a range of industries. Photocentric is a patent holder in visible light curing technologies and specialises in photopolymerisation, manufacturing an innovative range of photopolymer resins compatible with any printer.

Visit their virtual exhibition at: Photocentric EXPO

Echion Technologies Ltd

Web: www.echiontech.com
Echion Technologies Ltd is a Cambridge (UK)-based spin-out company from the University of Cambridge with expertise on high power anode materials for Li-ion batteries. Ground-breaking multi-

disciplinary research lead to the development of new battery materials whose manufacture can be easily scaled to industrial levels. These foundations enabled us to become a world-leading innovator in

BI-REX

Web: https://bi-rex.it/en

BI-REX (Big Data Innovation and Research Excellence) is one of the 8 national Competence Centers founded by Ministero delle Imprese e del Made in Italy (ex MISE) within the Industry 4.0 National Plan and our main focus is on Big Data.
Our public-private Consortium, born in 2018, has its headquarter in Bologna (Italy) and gathers in partnership 64 players among Universities, Research Centers and Companies of excellence. BI-REX is the only industry-led Competence Center.

Ansys UK Ltd., part of Synopsys

Web: www.ansys.com

Our Mission: Powering Innovation That Drives Human Advancement
When visionary companies need to know how their world-changing ideas will perform, they close the gap between design and reality with Ansys simulation. For more than 50 years, Ansys software has enabled innovators across industries to push boundaries by using the predictive power of simulation. Ansys offers a comprehensive software suite that spans the entire range of physics, providing access to virtually any field of engineering simulation that a design process requires. Our open ecosystem connecting computer-aided design, computer-aided manufacturing, and computer-aided engineering providers means Ansys software integrates seamlessly into existing platforms. Organizations around the world trust Ansys to deliver the best value for their engineering simulation software investment.

Visit their virtual exhibition at: Ansys –EXPO

JRL

Web: www.jlr.com

At **JLR,** we create exceptional experiences through our brands: Range Rover, Defender, Discovery and Jaguar. As the corporate home of these iconic British brands, we bring together world-class design, pioneering innovation and the creative ambition that drives our business forward. Our heritage matters, but it's our future that excites us. We're transforming at pace, shaping new technologies, electrifying our products and reimagining how people move through the world. None of this happens by accident. It happens because of our people – creators, problem-solvers and pioneers who bring bold ideas to life every day. Everyone at JLR plays a role in building an enterprise that is as exceptional as the experiences we deliver. Here, you'll find the scale of a global organisation and the opportunity to make a meaningful impact from day one. We are proud of the brands we steward, but even prouder of the culture we're building – one where curiosity is encouraged, craftsmanship is celebrated and every colleague is supported to grow. If you would like to be part of our journey, you can explore our business

areas and current opportunities right here on LinkedIn. You can also connect with our teams, ask questions and hear from the people who make JLR what it is.

China Windey

Web: https://windeyenergy.com/en

Windey is a comprehensive renewable energy service provider headquartered in Hangzhou, China. It stands as one of China's earliest wind turbine manufacturers, pioneering and innovating within the country's wind energy sector. The company achieved a significant milestone by developing one of China's first grid-connected wind turbines five decades ago, marking its deep involvement in the renewable energy industry for over half a century. With more than five decades of experience in renewable energy operations, Windey has solidified its position as a seasoned player in the field.
Windey has six main business areas: wind turbine OEM, renewable energy investment, energy storage systems, EPC (Engineering, Procurement, and Construction), intelligent service O&M, and technology transfer. This diverse portfolio underscores the company's commitment to holistic solutions within the renewable energy landscape. Our expertise in wind energy technology is complemented by ventures into cutting-edge energy storage solutions, comprehensive project development, and strategic investments in renewable energy initiatives.

University of Leeds

Web: www.leeds.ac.uk

Leeds is among the top ten universities for research power in the UK. Our academic breadth, commitment to quality and determination to make a genuine impact on the world around us enables us to achieve extraordinary results in:

- Creating knowledge through research and innovation.
- Disseminating it through excellent student education.
- Applying it to make a difference to society, culture and the economy.

We have over 34,000 students, over 7,000 members of staff and a global network of more than 240,000 alumni.

Integrating research and learning and teaching is at the heart of our strategy. Our courses are taught by staff who are engaged in world-class research and cutting-edge professional practice.

Conservatoire National des Arts et Métiers (Cnam)

Web: www.cnam.eu

The Conservatoire national des arts et métiers (Cnam) is a leading institution, and the foremost higher education one, dedicated to lifelong learning in France. Cnam was founded in 1794 by Abbé Grégoire to improve national industry. Today, it is a public institution of a scientific, cultural and professional nature under the supervision of the Ministry of Higher Education and Research. It is where the worlds of academics and professional activity come together.
The Cnam proposes study courses which are developed in close collaboration with companies and professional organizations in order to respond to their needs and to those of their employees. The Cnam has grown considerably both nationally and internationally and now has 20 French regional and overseas centers. It also has an extensive number of partner institutions around the world. The Cnam's staff in Paris, Ile de France and other regions includes permanent teaching and non-teaching members. It also welcomes visiting scholars including those from the business world.

Cnam is also home to the Musée des Arts et Métiers, located in the heart of Paris, which houses the oldest industrial and technological collection in the world.

University of Surrey

Web: www.surrey.ac.uk/ati/about

The Advanced Technology Institute at the University of Surrey is a multidisciplinary research centre, housing some 160 researchers: engineers, physicists, materials scientists, biologists and chemists. Approximately half of these researchers are PhD students who will drive the next generation of innovation and technology. Our strategy is based on having selective and focussed programmes of research, each of critical mass, which embrace in their investigations the full spectrum of fundamental science through to applied engineering. From our contributions to the design of the first strain layer laser in the mid 80's to rapid thermal annealing and production of SIMOX for semiconductors in the 90's to nano-materials and nano-technologies in the last decade, our researchers have been at the forefront in helping to solve some of the most challenging problems in industry today. We currently examine issues such as the fabrication of cheap (printed) renewable energy sources, work in making affordable 'quantum computers' (single ion implantation), develop novel, high-performance materials for space applications, invent and commercialise new electronic devices (source-gated transistors) and create new materials and metamaterials for optical computing, tissue and cell engineering and retina prosthetics.

Soongsil University

Web: https://eng.ssu.ac.kr/

Soongsil University's roots trace back to 1897, when Dr. W. M. Baird, an American missionary started teaching from his residence in Pyongyang. Soongsil was then given the title of the first university in Korea. Later during the Japanese occupation when Korea lost its sovereignty, Soongsil University made national liberalization its top priority and took the lead in the national independence movement. In 1938, the school even decided to close itself down in protest against forced worship at Japanese shrines. Even throughout Korea's tumultuous history, Soongsil has always striven to be the first.
Soongsil University is pursuing global competitive power through specialization. As highly qualified faculty and unique educational programs are customized for each department with alliances between businesses and other universities worldwide, Soongsil is able to meet its goal of producing much needed global talents. It nurtures men and women of faith and ability by building on its long-standing strengths. Thus, it makes giant leaps towards a brighter future.

The Royal Institute of Technology (KTH) - Kungliga Tekniska Högskolan

Web: www.kth.se/en

The KTH group leads the research within Wireless Internet of Things in the School of Electrical Engineering and Computer Science at KTH. The group brings together expertise in control theory, signal processing and wireless systems to develop scalable, resilient solutions for wireless IoT infrastructures. The group has a strong track record in distributed optimization, wireless systems, real-time data analytics and Industry 4.0 applications, collaborating closely with both academic and industrial partners to push forward Europe's leadership in high-tech manufacturing.

Upcell Alliance - European Battery Manufacturing Alliance

Web: https://upcell.org/

Upcell Alliance is a purpose-driven organization focused on accelerating growth & innovation in the global battery manufacturing industry. By helping to solve the critical challenges facing the sector through collaboration, innovation, and entrepreneurship, Upcell is working to improve long-term energy resiliency and enable a more sustainable future.
Our alliance is an independent association of 120+ battery manufacturers, machine builders, chemicals & materials suppliers, universities, research centers, and public institutions around the world, encompassing the entire value chain for battery manufacturing.

University of Greenwich

Web: www.gre.ac.uk/

We are a multi-faculty university, which provides high-quality teaching, research and enterprise, and puts student satisfaction at the heart of our work. We welcome everyone who shares our passion for remaking the old and imagining the new. Our university community includes staff, students and other stakeholders in the UK and around the world.

With subjects ranging from accountancy to science, we are proud of our excellent standards of teaching.

We are based on three attractive, historic campuses in London and Medway, Kent, at the centre of an international network of partners and clients. The university is home to a diverse community of nearly 28,000 students studying in the UK and overseas, one in five of them postgraduate.

University of Oldenburg

Web: https://uol.de/en

Research Group Distributed Control in Interconnected Systems (DCIS), Carl von Ossietzky Universität Oldenburg, Department of Computing Science
In recent years, the **Carl von Ossietzky Universität Oldenburg** has developed a strategy fostering its strength in the following profile lines in both research and education: Environment and Sustainability; Humans and Technology; Society and Education
The Department of Computing Science of the University of Oldenburg essentially contributes to each of these profile lines. Major contributions within the profile line **environment and sustainability** can be found by the focal points sustainability and future energies. Here, the **focal point** future energies integrate university research in particular with non-university players such as the associate institute OFFIS and the DLR Institute for Networked Energy Systems. The overarching goal of this collaboration, from the point of view of DCIS, is the integrated operation of networked energy system components, control technologies, control-oriented modelling of complex and large-scale systems and their order reduction as well as the assistance of the transition of existing structures into networked, digitalized energy systems by means of control techniques. In addition, DCIS contributes to the other two profile lines by control engineering techniques. These techniques are integrated into human cyber-physical systems that can be found in the areas of Industry 4.0 (i.e., cyber-physical production systems), as well as transportation and human assistance and healthcare technologies.

CESI School of Engineering

Web: www.cesi.fr
https://lineact.cesi.fr/en/

With 25 campuses around France, CESI supports engineering students through a customizable five-year education leading to the Master's-level Engineering Degree accredited by the French state. Students can enroll after high school to start their academic career with two years of undergraduate studies. After these first two years, they continue on to complete their graduate studies in one of our four majors: Industrial engineering; Civil engineering and construction; IT – Computer science; Embedded systems.
CESI LINEACT (Digital Innovation Laboratory for Companies and Learnings at the service of the territories competitiveness) is the CESI laboratory whose activities are implemented on CESI campuses. CESI LINEACT anticipates and accompanies technological changes in sectors and services related to industry, construction and digital technology. CESI.

Ecole Nationale Supérieur d'Arts et Métiers

Web: www.artsetmetiers.fr/en

A leading science & technology Grande École in France with an international reputation in education and research, Arts et Métiers (ENSAM stands for Ecole Nationale d'Arts et Métiers) is one of France's oldest and best engineering schools specializing in mechanical, industrial and energy engineering. Arts et Métiers has more than 250 years of tradition in technical innovation and industrial engagement.
We strive to educate Europe's future engineers to face global challenges, particularly those linked to the industry of the future, with programs at the Bachelor, Master & PhD levels.
Industry is set for a real revolution. Technological change is creating historic shifts in industry footprints. Advanced technology adoption will be at the heart of future competitiveness.
Digital technologies and connectivity, collaborative robotics (cobotics), virtual reality and additive manufacturing will change fundamentally the way industrial processes work. The relationship between man and the production process will radically change.

University of Oxford – Department of Physics

Web: www.physics.ox.ac.uk

We aspire to be one of the best physics departments in the world by conducting cutting-edge research and by teaching and developing the careers of the next generation of physicists.
We seek to promote the public understanding of the achievements and potential of physics.
We work on major facilities worldwide, develop the most advanced experimental techniques and the most sophisticated theoretical methods to investigate nature at every scale

- from the unimaginably large, probing the earliest epochs of the universe
- to the everyday scale of the earth's climate
- to the unimaginably small, hunting for the Higgs boson at the LHC

and at every temperature

- from the plasmas created using powerful lasers
- to the search for room temperature superconductors
- to quantum phenomena only observable close to absolute zero.

We pursue fundamental science and in doing so make discoveries that enable us to contribute directly to tackling the challenging problems facing society.

Sunlight Groupenergy Storage Systems Industrial and Commercial Sociate Anonyme

Web: www.the-sunlight-group.com/en/global/

Sunlight Group Energy Storage Systems is a world-leading technology company and provider of energy storage solutions with decades of experience. We specialize in the development, production, and dissemination of lead-acid and lithium-ion batteries for industrial mobility and Energy Storage Systems. We also offer a complete range of chargers and IoT solutions for the monitoring and management of batteries, and consider Recycling a vital and indispensable part of our operation. Our innovative products are manufactured and assembled in 35+ state-of-the-art facilities across four continents and distributed to more than 115 countries. Sunlight Group is a global leader in motive power batteries for the intralogistics sector and in Energy Storage Systems for on-grid, off-grid, and residential applications.

COMAU SPA

Web: www.comau.com/en/

Comau is a global leader in advanced industrial automation solutions and products, with its headquarters in Italy and a presence spanning over 14 countries. Comau boasts decades of experience in designing, manufacturing, and deploying automated systems for the automotive, manufacturing, logistics and energy sectors. The company is recognized for its commitment to innovation, technology and sustainability, providing tailored solutions that enhance productivity, flexibility and efficiency for clients worldwide.

Syxis Vsi

Web: https://syxis.eu/

Syxis is a European Innovation Hub which aims to enable a systemic transformation through digital, circular and collaborative innovation. With a Cross-sectoral approach (in Construction, Buildings, Neighborhoods, Textile and Manufacturing), Syxis has a vibrant portfolio of EU project participations and a core mission to support and connect SMEs, organizations and research centers across Europe, providing them with methods, tools and technologies to strengthen their innovation capacity. Syxis is an active member of ECTP and ETP, B4PIC perspective partner and hosts the AI4manufacturing community, consolidating its role as a catalyst for innovation and cooperation at European level.
With a network of more than 4000 contacts and long-term partnerships, Syxis co-creates concepts, incubates solutions and brings innovation to reality.

HUN-REN Computer Science and Control Research Institute

Web: https://sztaki.hun-ren.hu/

The **HUN-REN SZTAKI** is a research institute, governed by the Hungarian Research Network (HUN-REN). SZTAKI is the acronym of the Hungarian name of the institute, while its full English name is “Institute for Computer Science and Control”. The Institute was founded in 1964. Its staff consists of more than 300 full-time employees, more than 200 with university diploma and more than 70 with scientific degrees. The fundamental task of the Institute is to perform basic and application-oriented research in an interdisciplinary setting in the fields of computer science, engineering, information technology, intelligent systems, process control, wide-area networking and multimedia. Contract-based

target research, development, training and expert support for domestic and foreign industrial, governmental and other partners are important activities at the Institute.

Daido Steel Group Europe GmbH

Web: www.daido.co.jp/en/

Daido Steel engages in the manufacture and sale of steel products. It operates through the following segments: Specialty Steel, High Performance Materials & Magnetic Materials, Parts for Automobile & Industrial Equipment, Engineering, and Trading & Service. The Specialty Steel segment deals with the manufacture of specialty steel for automotive and industrial machinery parts. The High Performance Materials & Magnetic Materials segment offers stainless steel, high alloy, magnet materials, titanium products, and powder metals. The Parts for Automobile & Industrial Equipment segment provides die-forged parts, forging products, and engine valves. The Engineering segment covers the manufacturing and maintenance of steelmaking and environmental equipment, industrial furnaces, and its related equipment. The Trading & Service segment includes real estate-related services and welfare programs. The company was founded by Momosuke Fukuzawa on August 19, 1916 and is headquartered in Nagoya, Japan.
commercial battery electrode materials.

Centre for Advanced Materials Application SAS - CEMEA

Web: https://cemea.sav.sk/en/

CEMEA is a joint Centre of Excellence for advanced materials application, focusing on research of advanced materials and nanotechnology, biomedicine, biotechnology and sustainable energy as application areas for advanced materials.

N-ABLE

Web: https://n-able.io/

N-ABLE aims to accelerate sustainable innovation investments. Our experts are active in natural assets with distinctive experience in raw materials, ranging from resource-efficient mining to circular raw materials across various application areas.
Circular economy is at the core of our activities: we coordinated partnerships such as the European Industrial Circular Economy Investment Alliance (ICEI-A), the European Advanced Materials for Batteries Partnership (AMBP) on behalf of the European Commission, and are a partner of the RISE Consortium funded by the Commission under the I3 to initiate and develop circular investments in raw materials and bioeconomy (lead by Cleantech Bulgaria). We supported several countries with the design of their circular strategy (e.g., Slovenia, Bulgaria) and facilitated the financing of various circular investments with special emphasis on raw materials (e.g., I4GREEN), batteries (e.g., BATMASS). We also designed the industrial symbiosis guidelines of the EREK (JRC) platform and are currently carrying out the EIB analysis of investment prospects in EU raw materials resilience.

Bureau Veritas Italia Spa

Web: www.bureauveritas.it

Bureau Veritas - A business to business to society company
Bureau Veritas is a world leader in laboratory testing, inspection and certification services. Created in 1828, the Group has more than 83,000 employees located in more than 1,600 offices and laboratories around the globe.
Thanks to our unrivalled expertise, independence and worldwide presence, we support our clients to navigate technological and societal changes to transform and perform sustainably.
Our testing services offer state-of-the-art laboratory equipment and field-specific technical expertise to verify that products and commodities are compliant with regulations and specifications. Leveraging on-site inspections, we aim at making sure products, services, assets and installations are manufactured or operating as intended. Moreover, as an independent third party and accredited certification body, we attest that management systems, services and people comply with specific standards, allowing companies to access new markets, fortify their brands or simply operate.

Volta Foundation

Web: https://volta.foundation/

Volta Foundation is the world's largest network of battery professionals. As a global not-for-profit association of more than 75,000+ battery professionals and 200+ member companies, Volta Foundation produces publications, networking opportunities, and industry resources to foster collaboration, innovation and advocacy within the battery industry.

CPI

Advanced Materials Battery Industrialisation Centre

Web: www.uk-cpi.com/about/national-centres/advanced-materials-battery-industrialisation-centre

The Advanced Materials Battery Industrialisation Centre (AMBIC), funded by UKRI's Faraday Battery Challenge and delivered by Innovate UK, is a dedicated environment to design, develop, test and commercialise new battery materials and technologies. Its unique setup provides critical capabilities to bridge the gap between battery materials research and cell prototyping. This includes lithium-ion, solid-state batteries (SSBs) and other alternative battery technologies.
Based at CPI in NETPark, County Durham and at **WMG**, University of Warwick in Coventry, the Centre provides access to state-of-the-art facilities and technical expertise. It accelerates the journey from concept to commercialisation and will help ensure that the UK remains at the forefront of the global battery industry, driving sustainable solutions for a cleaner, more efficient future.

Simperler Consulting

Web: www.simperler-consulting.com/

Simperler Consulting is an independent scientific consultancy with experience in materials modelling software and a training,exploitation, and dissemination specialist for inter(national) scientific projects.
Simperler Consulting is offering a variety of services around Materials Modelling in Collaboration with Goldbeck Consulting.

SERIC

Web: www.seric-med.co.uk

SERIC is an independent research and innovation consultancy offering tailored technical support, international market insight, and access to a broad supply-chain network.

University of Cambridge / datalab industries ltd.

Web: https://datalab.industries

The open source scientific software and data consultancy lead by Dr Matthew Evans, King's Lynn, UK. We primarily offer data consultancy and managed hosting based around services that we continue to develop and maintain:
datalab - an open source data management platform for materials and chemistry,
OPTIMADE - an open standard for materials data exchange.

Lightning Tree (LT)

Lightning Tree (LT) is an advanced materials company and spin out from the University of Cambridge. It uses proprietary technology to engineer the surface of cathode active materials to enhance the performance of next-generation batteries. LT is applying advanced computational techniques, including AI, to design and optimise engineered surfaces for a variety of chemistries and applications, including electric vehicles.

RWTH Aachen University

Web: www.rwth-aachen.de

With 260 institutes in nine faculties**, RWTH Aachen University** is one of Europe's leading institutions for science and research. Currently about 45,000 students are enrolled in over 150 academic programmes. Over 9,000 of them are international students hailing from 120 different countries.
The scientific education students receive at RWTH Aachen is firmly rooted in real-world applications. As a result, our graduates are highly sought after by businesses as trainees and for executive positions.

University of Roma Tre

Web: www.uniroma3.it/int/

The **Roma Tre University (RM3)** was founded in 1992 and has rapidly grown both in terms of students and courses of study offered. The research group in Materials Science and Technology (STM), which is part of the Department of Civil Engineering, Computer Science and Aeronautical Technologies, is characterised by important skills in the field of design, production, characterisation and testing of materials. The group boasts a large park of state-of-the-art tools for microstructural, compositional and mechanical characterisation that are integrated and complementary, on which original and innovative methodologies and techniques for the analysis and manipulation of materials have been developed.

Visit their virtual exhibition at: UniRomaTre –EXPO

Queen Mary University of London

Web: http://www.qmul.ac.uk/

Queen Mary University of London is a world-leading research-intensive university with over 32,000 students representing more than 170 nationalities.
A member of the prestigious Russell Group, we work across the humanities and social sciences, medicine and dentistry, and science and engineering, with inspirational teaching directly informed by our research.
In the most recent exercise that rated research in the UK, we were ranked 7th in the country for the proportion of research outputs that were world-leading or internationally excellent. We offer more than 240 degree programmes and our reputation for excellent teaching was rewarded with a silver in the 2017 Teaching Excellence Framework (TEF) awards.
Queen Mary's history dates back to 1785, with the foundation of the London Hospital Medical College. Our history also encompasses the establishment of the People's Palace in 1887, which brought accessible education, culture and recreation to the East End of London. We also have roots in Westfield College, one of the first colleges to provide higher education to women.

NMBU - Norwegian University of Life Sciences

Web: www.nmbu.no/en

Interdisciplinary research at **NMBU** integrates biosciences with social sciences and technology to create solutions for a sustainable future. NMBU provides knowlegde for life through more than 60 study programs.
The university has around 5200 students and employs around 1700 people.
NMBU's research is enabling people all over the world to tackle the big, global challenges regarding the environment, sustainable development, how to improve human and animal health, renewable energy sources, food production, and land- and resource management.

C2CNewCap

Web: www.c2cnewcap.com

Born out of the Instituto Superior Técnico (University of Lisbon), which is ranked among Europe's top engineering schools**, C2C-NewCap** has developed breakthrough supercapacitor. Our company's goal is to have a high impact in the energy storage market and contribute to an efficient use of energy with lower environmental and operational costs. Energystorage devices are the key enabler for a sustainable energy future.

Voltpile

Web: www.voltpile.com

Voltpile is a solid-state battery company on a mission to deliver sustainable and safer energy storage solutions to the market. Our batteries are designed to deliver longer service life, high reliability with reduced weight, volume and recycling costs. Voltpile's innovative battery design approach integrates advanced materials, proprietary advanced manufacturing tools, state-of-art electronics and software to deliver next-generation energy solutions.

University of Sheffield - School of Chemical, Materials and Biological Engineering

Web: https://sheffield.ac.uk/
https://sheffield.ac.uk/cmbe/

The **University of Sheffield is** a world-class university.. Sheffield is a research university in the Russell Group with a global reputation for excellence.
Formed in 2024, the **School of Chemical, Materials and Biological Engineering (CMBE)** is based in the Sir Robert Hadfield Building. The school formed when the Departments of Chemical and Biological Engineering and Materials Science and Engineering were amalgamated. The new school also incorporated learning and teaching from Biomedical Engineering and the Science and Engineering Foundation Year.
The new school is a powerhouse of research, learning and teaching looking to address some of the grand challenges that affect society and the world around us including climate change, energy poverty, energy storage, affordable medicine, sustainable agriculture, novel materials and green manufacturing.

Politecnico di Torino

Web: www.polito.it

The **Politecnico di Torino** is one of the most important universities in Europe for engineering and architecture studies, strongly committed to collaboration with industry. Politecnico is a research university that participates at the highest levels of international scientific research. Research activities, are structured in four macro-areas: Industrial Engineering; Information Technology; Management and Mathematical Engineering; Civil, Environmental, Architecture and Design Engineering.
The new campus hosts the Business Research Center that provides partners with office space and laboratories for innovation and technology transfer.
Politecnico di Torino supports companies in order to develop a connection between demand and supply of employment opportunities. Our services aim to provide different activities to ease recruitment and propose employer branding activities. Our units offer customized activities to respond to your recruitment needs. Together we can identify the most efficient strategies to increase your visibility and recruit the most suitable Politecnico students for your company.

Hohai University

Web: https://en.hhu.edu.cn/

Situated in the old capital city Nanjing, Hohai University was founded as Hohai Civil Engineering School in 1915.

Hohai University is a state key university under the direct administration of the Ministry of Education of China, and is on the State "211 Project". It is a comprehensive university with research and study of water resources as its main focus, education of engineering subjects as its first priority, and coordinated development of a wide array of disciplines, ranking among China's top universities in its teaching indexes and overall strength. Nowadays, HHU offers 72 undergraduate programs, 82 master programs, 44 PhD programs, and has 16 post-doctoral stations. The discipline of Hydraulic Engineering and Environmental Science and Engineering were selected by the State Government to be on the Double Firs-Class Program in 2017. Disciplines of Engineering, Environment/Ecology, Geoscience, Material Science, Computer Science, Chemistry, Agricultural Science, Mathematics, General Social Science and Plant & Animal Science rank top 1% on ESI, among which Engineering and Environment/Ecology rank top 1‰. The discipline of Hydraulic Engineering ranks No. 1 nationwide at the National Discipline Evaluation conducted by the Ministry of Education of China. Civil Engineering and Environmental Science & Engineering rank top 10 in China.

Central South University

Web: www.csu.edu.cn

CSU was formed in April 2000 through the amalgamation of three institutions - Hunan Medical University (HMU), Changsha Railway University (CRU), and Central South University of Technology (CSUT). The predecessor of CSUT was the Central South Institute of Mining and Metallurgy founded in 1952 and that of CRU was the Central South College of Civil Engineering and Architecture formed in 1953. Their main disciplines originated from Mining & Metallurgy and Civil Engineering - two disciplines of Hunan Industrial College established in 1903. The predecessor of HMU was Xiangya Medical University founded in 1914, which was one of China's earliest colleges offering Western medicine courses.

İzmir Institute of Technology

Web: https://en.iyte.edu.tr/

Izmir Institute of Technology is one of the state universities in Turkey and one that was established in 1992 with a view to offering a high level of education and carrying out research in technological fields. The medium of education at the Institute is English. It iwas founded as a technology institution which are the most advanced models of technical universities in today's world. Having first started with graduate programs in 1994 in the center of Izmir, the faculties have been admitting students to undergraduate programs as well since 1998. By 1999, the institute gradually started moving to its campus area in Urla near GulbahCe village from the center of İzmir, where it had functioned since its foundation. Our institute, covering approximately 3,500 hectares of land, has a closed area of about 132,000 square meters for educational and research activities and it is still developing. Izmir Yüksek Teknoloji Enstitüsü" is abbreviated as "IYTE" nationwide and as "IZTECH" in international contexts.

SOLiTHOR

Web: www.solithor.com/

SOLiTHOR was founded in September 2021 by Huw Hampson-Jones and Dr Fanny Bardé and has been fully operational since early 2022. A Partnership Agreement with imec of Belgium, paves the way for SOLiTHOR to be solely responsible for developing, manufacturing and commercialising intrinsically safe all-solid-state lithium cell technology for the world's electromobility markets.

Korea Institute of Science and Technology

Web: https://kist.re.kr/eng/index.do
Established in 1966, amid a recovering post-war economy, **KIST** was South Korea's first multi-disciplinary research institute. Its creation was pivotal, marking the nation's proactive shift from industrial follower to technological innovator. Funded initially by the South Korean government and various international agencies, KIST's mission was to drive advances in science and technology and spearhead economic development through innovation.

Universidad Loyola - Sevilla

Web: www.uloyola.es
La **Universidad Loyola** es una iniciativa social de carácter privado impulsada por la Compañía de Jesús, que recoge la mejor tradición de su misión educativa sustentada en el humanismo, la competencia profesional, la justicia y la inspiración cristiana como principales valores.
Es fruto de la colaboración entre laicos y jesuitas para formar personas comprometidas con el desarrollo de la sociedad y crear pensamiento.
Situada en Sevilla, Córdoba y Granada, la Universidad Loyola forma parte de UNIJES, la federación que integra a las universidades y centros universitarios jesuitas de España, así como a la red mundial de universidades de la Compañía de Jesús.

University of Kent

Web: www.kent.ac.uk

The **University of Kent** (formerly the University of Kent at Canterbury) is a public research university in Kent, United Kingdom. Founded by royal charter in 1965, Princess Marina, Duchess of Kent served as its first Chancellor. The university's principal campus occupies 300 acres of land overlooking the World Heritage Site of Canterbury Cathedral and maintains a campus in Medway and a postgraduate centre in Paris. The university is international, with students from 158 different nationalities and 41% of its academic and research staff being from outside the United Kingdom It is a member of the Santander Network of European universities encouraging social and economic development.

Al-Mustaqbal University

Web: wwww.uomus.edu.iq/En/Default.aspx

Al-Mustaqbal University (UOMUS) is a prominent institution of higher education located in Iraq, specifically in the city of Babylon. Established with a commitment to academic excellence and innovation, the university offers a range of undergraduate and graduate programs across various fields, including engineering, medical sciences, humanities, and administrative sciences.

Luleå University of Technology

Web: www.ltu.se/en

Luleå University of Technology experiences rapid growth with world-leading expertise within several research areas. Our scientific and artistic research and education are conducted in close collaboration with international, national and regional companies, the public sector and leading universities. The university has an annual turnover of almost SEK 2.1 billion. We have around 1,900 employees and over 18,700 students.

Newcastle University

Web: www.ncl.ac.uk

Newcastle University is a Russell Group university in the North East of England with a thriving international community of some 27,750 students from over 130 countries worldwide. As a member of the Russell Group of research intensive universities we have a world-class reputation for research excellence in the fields of medicine, science and engineering, social sciences and the humanities. Our academics are sharply focused on responding to the major challenges facing society today. Our research and teaching are world-leading in areas as diverse as health, culture, technology and the environment. We are committed to providing our students with excellent, research-led teaching delivered by dedicated and passionate teachers. Newcastle is among the top 20 universities in the country for our employment rate with 95% of our graduates going on to employment or further study, more than three quarters in graduate-level jobs. We are also one of the top 20 universities targeted by graduate employers in the UK.

New York University Abu Dhabi

Web: https://nyuad.nyu.edu/en/

NYU Abu Dhabi is pioneering a new model of higher education for a global world, dedicated to excellence in teaching and research and to advancing cooperation and progress on humanity's shared challenges.
Drawing on the strengths of the NYU global network, it offers an outstanding liberal arts and sciences education to students from the United Arab Emirates, the United States, and around the world, with a distinctive focus on intercultural understanding and leadership.
It supports innovative research and graduate education programs that push forward the frontiers of knowledge and respond in powerful and interdisciplinary ways to vital global and local challenges.
NYUAD advances NYU as a model university for the 21st century and contributes in multiple ways to the development of a sustainable, knowledge-based economy in Abu Dhabi.

Imperial College London

Web: www.imperial.ac.uk/

Imperial College London, we are a world-leading university for science, technology, engineering, medicine and business (STEMB), where scientific imagination leads to world-changing impact.
We were founded in 1907 with a mission 'To be useful', but we know that before anyone can usefully change something, they first need to understand it. That's what we do.
We use science to try to understand more of the universe, and improve the lives of more people in it. Across our London campuses, and throughout our international network, we ask bigger questions and so we shape the future.

Frontiers

Web: www.frontiersin.org
Frontiers is a leading research publisher. Our role is to provide the world's scientists with a rigorous and efficient publishing experience.

Scientists empower society and our mission is to accelerate collaboration and discovery by making science open – enabling researchers to find the solutions we all need for healthy lives on a healthy planet.
Powered by custom-built technology, artificial intelligence, and a collaborative peer review, our community journals give experts in more than 1,800 academic fields an open access platform to publish high quality, high impact research.
Through our outreach work to build strong partnerships with businesses, policymakers, and educators, we're leading the transition to open science.

GC University Lahore

Web: https://gcu.edu.pk/

After 161 Years of its wonderful history, the **Government College, Lahore** was raised to the status of a University in 2002. It was renamed as the GC University Lahore. The academic life here has been re-shaped in accordance with its new challenges and we hope to fulfill the expectations that go with a University. The GCU is committed to act as a promoter of quality education for all.
This Institution is one of the oldest seats of learning in the Muslim world. As a seat of higher learning GC University blends grand old traditions and modern educational standards to meet the ideals set by persons like Dr. Leitner, philosopher the poet, Dr. Muhammad Iqbal and the Noble Laureate, Dr. Abdus Salam.
We have redesigned our syllabi and courses to prepare the young minds for productive careers. The University offers B.A/B.Sc. (4-year Hon.), M.A, M.Sc. (in some selected disciplines), M.B.A., M.Phil, and PhD programmes in all major disciplines. We also take steps to sensitize our students about the meaning of the University Motto: "Courage to Know". We try to make the students inquisitive, thoughtful and independent in pursuit of knowledge. Special measures are taken through discussions, co-curricular activities, writing of term papers and dissertations to make the learners confident in their understanding of innovative themes and topics. Every student is thus brought into the mainstream of the grand academic culture of the GC University. During their stay, the students are bound to benefit from the academic, intellectual and cultural environment of this celebrated educational institution.

Keysight Technologies GMBH

Web: https://www.keysight.com/zz/en/home.html

Keysight Technologies (Keysight) is the world's premier electronic measurement company with 13.500+ employees which generated revenues of $4.2B in fiscal year 2020. Keysight delivers advanced design and validation solutions that help accelerate innovation to connect and secure the world. Keysight's dedication to speed and precision extends to software-driven insights and analytics that bring tomorrow's technology products to market faster across the development lifecycle, in design simulation, prototype validation, automated software testing, manufacturing analysis, and network performance optimization and visibility in enterprise, service provider and cloud environments. Our customers span the worldwide communications and industrial ecosystems, aerospace and defense, automotive, energy, semiconductor and general electronics. Keysight offers a portfolio of different electronic measurement equipment, calibration devices, software packages, and data analytics, including high speed oscilloscopes and performance network analysers (PNA) that are in many aspects leading the edge on performance, speed, and sensitivity in the broad frequency spectrum. Recently, Keysight extended the automotive and battery division by adding automotive battery test systems on top of power supplies and source measurement units SMUs. Keysight aims to lead software and hardware development in energy storage and battery quality test via combined hardware and software algorithms for battery quality control, products and services to gigafactories. Hereby, Keysight is working on the development of impedance calibration and high-throughput measurements, as well as the battery self-discharge methodology that improves cell production efficiency significantly.

Visit their virtual exhibition at: Keysight –EXPO

CIDETEC

Web: http://www.cidetec.es/

CIDETEC is a private organization for applied research founded in 1997 that seeks to contribute value to companies by harnessing, generating and transferring technological knowledge. Located in the Donostia-San Sebastian.
CIDETEC comprises three international technological reference institutes in energy storage, surface engineering and nanomedicine. Each institute has its own offices and installations furnished with top-of-the-line equipment, among them a pilot plant for integrated battery manufacture; equipment to synthesise, characterise and process polymers and advanced composites; laboratories completely equipped for surface study, characterisation and treatment; and 150 m2 of rooms classified and prepared for GMP-standard product manufacture in the biopharmaceutical sector.
Since 2001 up to now, CIDETEC has developed R&D projects with 450 companies working in different productive sectors. At the same time, in collaboration with other industrial partners, CIDETEC has set up 4 new companies that industrialize a number of developments and complement the canter's activity.

Visit their virtual exhibition at: CIDETEC –Expo

Université de Pau et des Pays de l'Adour

Web: www.univ-pau.fr/

The University of Pau and Pays de l'Adour (UPPA) is one of the 17 French universities (out of 54) to have received the IDEX or I-SITE (Science-Innovation-Territories-Economy Initiative) label of excellence. The latter was awarded by the government for its E2S project, Solutions for Energy and the Environment, led by the UPPA, INRAe, Inria and CNRS consortium.
It is also the winner of other Investments for the Future programmes: MARSS equipment of excellence (Equipex label), SPACE personalised student support programme (NCU label), GREEN university research school (SFRI label), doubling of the number of staff on the Basque coast IREKIA (ExcellenceS label). In 2022, it was also awarded the "Science with and for Society" label.
Located between the sea and the mountains, on the Spanish border, UPPA benefits from an exceptional working environment with its 5 human-sized campuses: Pau, Bayonne, Anglet, Mont-de-Marsan and Tarbes. Two research teams are also established in Saint-Pée-sur-Nivelle, in the heart of the Basque Country.

Technical University Munich

Web: www.tum.de/en/

Our university combines top-class facilities for cutting-edge research with unique learning opportunities for 52,000 students. Whether our researchers are investigating the origins of life, matter and the universe or looking for solutions to the major challenges for our society, people lie at the heart of our research and innovation agenda. Our goal is to create lasting value for society through excellence in education and research, the active promotion of next-generation talents and a strong entrepreneurial spirit. All of which combine to make TUM one of Europe's leading universities.

Tecnicas Reunidas

Web: https://www.tecnicasreunidas.es/es/

TR is an international general contractor engaged in the engineering and construction of industrial facilities in the fields of:
-Oil & Gas
-Refining & Petrochemical
-Power Generation
-Infrastructures and industries
-Energy Transition
Engaging in the engineering, design and construction of various types of industrial facilities for a broad spectrum of customers throughout the world, including many of the principal national oil companies and several multinational companies.
Leader for engineering and construction in the oil and gas sector in Spain, one of the leaders in Europe in the design and construction of oil and gas facilities, and one of the world leaders in the refining sector. Specialized on large turnkey industrial projects, although we also provide engineering, management, start-up and operating services for industrial plants.

TaiSan

Web; https://taisan.co.uk/

TaiSan is a Cambridge, UK based battery materials company founded in 2022 and led by experts in polymer science and battery technology.

CIC energiGUNE

Web; https://cicenergigune.com/en/

CIC energiGUNE, a member of the Basque Research & Technology Alliance- BRTA, is a benchmark research center in Europe in the field of electrochemical and thermal energy storage. The center counts with the backing of the Basque Government, the Provincial Council of Alava, as well as the basque companies directly associated with the energy storage industry. CIC energiGUNE focuses the activity on: * Excellent and breakthrough research in energy storage. * Cooperation with the leading institutes and companies in the field. * High impact results linked to technology transfer to industry.

IndiScale GmbH

Web: www.indiscale.com

We at **IndiScale** assist you on your journey to individual and scalable data management. Together we make your data, which is probably already being ubiquitously generated, accessible and future-proof. With our open source solution LinkAhead, your data management is adaptable at any time and will evolve as new requirements arise. IndiScale offers you consulting, customization and software development with regard to data management as well as specifically of the software toolkit LinkAhead. With our scientific consulting we support you, for example, in preparation and presentation of your results and generally in the analysis of your data. We are also happy to develop custom software according to your needs, offline and for the cloud, for anything data related and beyond.

AAU Energy

Web: www.energy.aau.dk

AAU Energy (Department of Energy) carries out research and education within a broad field of Energy Technology, covering both Electrical, Thermal and Mechanical Energy. The Department's research focuses on efficient energy production based on renewable energy sources and optimal use of energy for various purposes, hence also energy saving technologies. The research is centred around a number of interdisciplinary research programmes continuously adapted to current needs.

Munster Technological University

Web; www.mtu.ie

Munster Technological University is a multi-campus technological university, with 6 campuses across the South-West region in Cork and Kerry.
Established on 1 January 2021, Munster Technological University is a multi-campus technological university, contributing to the region through the provision of academic programmes that support student development and opportunities, education and research. MTU has six campuses across the South-West region in Cork and Kerry, and a student body of 18,000.

Sustainable Energy Efficient Designed Structures Ltd (SEEDS)

Web: https://seeds.technology

SEEDS are Sustainable Energy Efficient Designed Structures. We provide energy generation and capture solutions by formulating printable inks using advanced carbon based nano-structures.
These are formed into bespoke auxiliary power systems to support power demands.

Sri Venkateswara University

Web: https://svuniversity.edu.in/

Sri Venkateswara University was established in 1954, in Tirupati to cater the educational needs and aspirations of people of the Rayalaseema Region of Andhra Pradesh. After completing 68 years of excellence in teaching, research, extension and outreach activities, the University is committed to cater the needs of higher education offering a full range of post-graduate programs in Arts, Sciences, Law, Management, Education, Physical Education, Engineering and Pharmacy disciplines. From a humble beginning of one College with six departments, the University has now grown into the second largest University in Andhra Pradesh having five constituent Colleges Viz. College of Arts, College of Sciences,

College of Commerce, Management & Computer Science, College of Pharmacy, and College of Engineering accommodating 52 departments offering 88 programs.
The University has made rapid strides in the field of higher education and research and is adjudged as one of the best Universities in the country and got ACCREDITED with 'A+' GRADE BY NAAC-2023.

Hellenic Mediterranean University

Web: https://hmu.gr/

The **Hellenic Mediterranean University-HMU** was founded during the reformation process of the Hellenic Higher Education system, which took place in Greece in 2019, as the evolution of the Technological Educational Institute of Crete (TEI-C, founded in 1983).
HMU has its main campus in Heraklion, Crete, and branches in Chania, Rethymno, Agios Nikolaos and Sitia. It currently consists of 5 Faculties and 11 Academic Departments, with approximately 12,000 undergraduate and postgraduate students and around 400 permanent and part-time teaching and research staff. The University provides high-quality undergraduate, postgraduate and doctoral education in the fields of Engineering, Management and Economics, Health and Welfare, Agriculture and Music & Opto-acoustics Technology, and conducts high-impact research in the aforementioned subjects, which is reflected in scientific publications in high-profile scientific journals and in the success in undertaking and participating in research programs, both national and international.
HMU utilizes the research outcomes for the benefit of the society, contributes to the professional specialization of young scientists, develops collaborations with educational and research institutions in Greece and abroad and undertakes research, development and consulting activities in cooperation with national and international organizations.
HMU is a member of the ATHENA European University consortium (Advanced Technology Higher Education Network Alliance). The ATHENA European University aims to deliver inclusive, innovative, high quality international education & research permanently aligned with global market needs, addressing societal and environmental challenges as well as European research priorities, thus granting the highest employability standards, effective career transitions to our students and added value to our educational ecosystem.

XTRA Energy Ltd

Web: https://xtra.energy/

Founded by professionals with deep industry insight, we help customers reduce energy costs, cut carbon emissions and take control of their energy future.
We works in line with recognised industry bodies to ensure every system we design and install meets the highest technical, safety and consumer protection requirements.

Green & Noble Energy

Green & Noble Energy was founded in 2025 with the vision of revolutionizing on the cost and sustainability of automotive battery cell manufacturing in Europe. Green & Noble is located at 29 Langstraße, 52477, Alsdorf, Germany.

Amrita University

Web: www.amrita.edu

Amrita Vishwa Vidyapeetham is a multi-campus, multi-disciplinary research academia that is ranked as one of the best research institutions in India. Amrita is spread across eight campuses in five states of India - Kerala, Tamil Nadu, Karnataka, Andhra Pradesh, Haryana and Uttarakhand with the headquarters at Ettimadai, Coimbatore, Tamil Nadu. Amrita Vishwa Vidyapeetham continuously collaborates with top US universities including Ivy League universities and top European universities for regular student exchange programs. Amrita has emerged as one of the fastest growing institutions of higher learning in India.

SparkNano

Web: www.spark-nano.com

We are the leading OEM of spatial Atomic Layer Deposition (ALD) systems and the expert technology partner. Our innovative patented spatial ALD systems are and expert team are key to enable high-precision deposition of nano-scale thin film layers on large surfaces at industrial speed. From lab to fab, together with our partners, we help our customers to scale manufacturing of next-gen products, shaping a clean world for life. SparkNano spatial ALD systems With our SparkNano Labline, SparkNano Vellum Sheet2Sheet and SparkNano Omega Roll2Roll devices we support customers looking to research and scale manufacturing of products in Energy and storage, as well as Electronics. With our expert team and trusted partners, such as Air Liquide, we support our customers with expert advise during the whole life cycle, as well as the initial sampling tests to support their purchase.

University of Tehran

Web: https://ut.ac.ir/

Despite a tradition of education that dates back to the Sassanid period (224 – 651 AD), the University of Tehran as it is known today wasn't established until 1934, making it the country's oldest modern university. Also referred to as Iran's 'mother university', it is a government-funded, public institution.
Catering for more than 50,000 students, the university comprises nine colleges within which 46 schools, 133 educational departments, 55 research centres and 550 labs exist. Maintaining this large-scale operation is an academic faculty of over 2,000 and around 5,000 administrative staff.

Italian Institute of Technology, Genova

Web: https://www.iit.it/

The **Istituto Italiano di Tecnologia (IIT**) is a scientific research center established by law in 2003 by the Italian Ministry of Education, University and Research, and the Ministry of Economy and Finance. Its mission is to promote excellence in both basic and applied research and to facilitate national economic development. IIT began its scientific activities in 2006 at its Central Research Laboratory in Genoa (IIT headquarters), with additional research conducted at 11 satellite centers across Italy and two outstations in the U.S., at MIT and Harvard University.
IIT employs 1880 people, with about half of the researchers coming from abroad: 31% are scientists from more than 70 countries, and 20% are Italian researchers who have returned after professional experiences abroad. IIT has extensive experience in managing and supervising research projects, with a portfolio of over 860 externally funded projects, including those financed by EU funding programs and

the European Research Council (ERC). IIT has produced more than 20400 publications, 421 inventions, and 34 start-up companies.
Currently, IIT is implementing its 2024-2029 strategic plan, which prioritizes artificial intelligence as a fundamental tool in addressing two of the most pressing social challenges of our time: health (Healthcare) and sustainability (Earthcare).

Please visit our virtual expo booth at: IIT – Expo

Warsaw University of Technology

Web: https://eng.pw.edu.pl/

Warsaw University of Technology builds upon the traditions of Polish technical universities that used to function in Warsaw – the Polytechnic Institute founded in 1826 thanks to the efforts of Stanisław Staszic and the School of Hipolit Wawelberg and Stanisław Rotwand established in 1895.
Warsaw University of Technology started on its own in 1915 thanks to the efforts of the Association for Scientific Courses and the Citizens' Committee of the City of Warsaw. Working uninterruptedly, the University has been producing generations of graduates and has had an increasing number of scientific and technical achievements.
It is not only the oldest, but also the best technical university in Poland; in the ranking of Polish universities, it has taken the first place in its category for seventeen years. At Warsaw University of Technology, over 160 student research groups, organisations and associations are active, and the educational offer includes many fields of study (also with English as a medium of instruction).

Vellore Institute of Technology

Web: https://vit.ac.in/

VIT was established with the aim of providing quality higher education on par with international standards. It persistently seeks and adopts innovative methods to improve the quality of higher education on a consistent basis.The campus has a cosmopolitan atmosphere with students from all corners of the globe. Experienced and learned teachers are strongly encouraged to nurture the students. The global standards set at VIT in the field of teaching and research spur us on in our relentless pursuit of excellence. In fact, it has become a way of life for us. The highly motivated youngsters on the campus are a constant source of pride. Our Memoranda of Understanding with various international universities are our major strength. They provide for an exchange of students and faculty and encourage joint research projects for the mutual benefit of these universities. Many of our students, who pursue their research projects in foreign universities, bring high quality to their work and esteem to India and have done us proud. With steady steps, we continue our march forward. We look forward to meeting you here at VIT.

CSIR-CECRI

Web: https://www.cecri.res.in/

Council of Scientific and Industrial Research (CSIR), India, established in 1942, is an autonomous Society with the Prime Minister of India as its President. An ensemble of 37 state-of-the-art institutes and 3 distinct units, CSIR is amongst the foremost scientific and industrial research organizations in the world. CSIR's expertise and experience are embodied in its ~4600 scientists, ~8000 scientific and technical support personnel and ~8000 research students. Having sophisticated infrastructure and scientific and technical manpower, CSIR covers practically the entire spectrum of scientific and industrial R&D of national and international importance. This ranges from aerospace to ocean exploration, micro-electronics to structural and environmental engineering, smart affordable materials to mechatronics, petrochemicals to synthetic biology, and from robotics and micro machines to drugs, pharmaceuticals and energy technology.
CSIR-Central Electrochemical Research Institute (CSIR-CECRI) was founded at Karaikudi. Today, CSIR-CECRI, a proud family of 700 members (120 of whom are scientists), is the largest research establishment for electrochemistry in South Asia.

CONICET

Web: https://cidmeju.unju.edu.ar - www.conicet.gov.ar

CONICET is the main organization dedicated to the promotion of science and technology in Argentina. **CIDMEJu** is a young research and development center. The original creators of this project joined at the end of 2015, and in August 2017, our building was inaugurated. Today, we are nearly 30 researchers, fellows, and support staff.

Johannes Gutenberg University Mainz - JGU

Web: www.uni-mainz.de/

With around 32,000 students from over 120 nations, **Johannes Gutenberg University Mainz (JGU**) is one of the largest and most diverse universities in Germany. JGU unites almost all academic disciplines under one roof with its University Medical Center, its Academy of Arts and School of Music and the Faculty of Translation Studies, Linguistics and Cultural Studies in Germersheim. In over 150 institutes and clinics, 4,400 academics, 560 of whom are professors, teach and carry out research. JGU offers 75 subjects and numerous combinations, meaning students can obtain degrees in more than 260 disciplines. As the only German university of its size, nearly all of the institutions of JGU are located on one single campus near the city center, which is also home to four partner institutes involved in top-level non-university research: the Max Planck Institute for Chemistry (MPI-C), the Max Planck Institute for Polymer Research (MPI-P), the Helmholtz Institute Mainz (HIM) and the Institute of Molecular Biology (IMB). The campus of the University Medical Center is only about a kilometer away and both Mainz Leibniz Association institutions – the Institute of European History (IEG) and the Roman-Germanic Central Museum (RGZM) – are located slightly further away in the inner city. In addition to this, many local businesses also carry out research, making Mainz a uniquely dynamic research hub.

Hithium

Web: www.hithium.com

Founded in 2019, **HiTHIUM** is a leading global company in new energy technology, dedicated to delivering advanced energy storage battery and system solutions to global markets. Supported by four R&D institutes and a team of over 1,100 engineers, we focus on core innovations across materials, battery cells, systems, and control technologies.
As a vertically integrated energy storage battery factory, we offer a comprehensive product portfolio ranging from 50Ah to 1175Ah lithium-ion and sodium-ion batteries, along with modules, battery packs, and advanced liquid-cooled systems such as the ∞Power 6.25MWh. Our solutions are fully customizable to meet the needs of utility-scale, commercial & industrial (C&I), and residential applications.
HiTHIUM has established strong capabilities in R&D, manufacturing, sales, and service across global markets. As the only energy storage–focused company to achieve GWh-scale global shipments of lithium-ion ESS batteries, HiTHIUM delivers customer-driven innovations and solutions in over 20 countries and regions.

Holyvolt GmbH

Web: https://holyvolt.com/

Holyvolt was founded in Sweden in 2022 to revolutionize the world's transition to renewable energy by transforming how battery and photovoltaic solar cells are manufactured. Our screen-printing manufacturing platform, combined with high-throughput material discovery, enables a new generation of high-performance, economically disruptive and sustainable energy cells.

kgvt:nano | ElevenEs d.o.o | aBases

Web: www.kgvtnano.net

Consultancies and Strategic Partnership Management | energy . nano . materials . digital . additive manufacturing . flexible packaging | clean . renewable . regenerative

Pleione energy S.A

Web: www.pleione-energy.com

Pleione Energy is an International Joint Venture between the Greek company ADAMANT COMPOSITES LTD and the German company OMNIDEA-RTG Gmbh. The company was established in 2015 and is located in Athens, Greece. It is part of the New Science & Technology Park of Attica "Lefkippos" of the National Center for Scientific Research (NCSR) "Demokritos". Our mission is to grow our position as an innovative company that develops and provides state-of-the-art technological applications for the energy and space sector. Our approach for achieving our goal is to identify time-tested, leading-edge technologies and synthesize them into industrial applications and products, maximizing their exploitation potential. We focuse on the development of innovative and cost-effective applications and systems for energy conversion, distribution and storage through the use of enabling technologies that can benefit both the industry and society at large.

Eurecat Technology Centre

Web. https://eurecat.org/home/en/

Eurecat is Catalonia's leading technology center and the second largest private research organization in Southern Europe.
It brings together the expertise of more than 750 professionals, generating €62 million in annual revenue and serving nearly 2,000 companies.
Applied R&D, technology services, highly specialized training, technology consulting, and the valuation and exploitation of intellectual property are some of the services Eurecat offers to large, small, and medium-sized enterprises (SMEs) across all sectors.
The technology center participates in more than 200 major national and international collaborative R&D&I projects of high strategic value and holds 200 patents and has launched 10 spin-off companies. The added value provided by Eurecat accelerates innovation, reduces spending on scientific and technological infrastructure, mitigates risks, and delivers specialized knowledge tailored to each company's needs. Eurecat has twelve centers in Spain and opened its first international office in Chile in 2020.

RT Advanced Materials

Rongtong Hi-Tech Material specializes in the research and development, production, recycling, sales, and service of lithium battery cathode materials. The company develops high-pressure lithium iron phosphate cathode material. The company's products use in energy storage systems such as new energy vehicles, power energy storage, and communication backup power. The company was founded in 2016 and is based in Daye, China.

University of Montpellier

Web: www.umontpellier.fr/en/

The **University of Montpellier** is the 6th largest university in France. It was created on January 1, 2015, from the merger of the University of Montpellier 1 and the University of Montpellier.

KULeuven

Web: www.kuleuven.be

Founded in 1425, the multidisciplinary and research-driven **University of Leuven (KU Leuven)** has been a centre of learning for almost six centuries. Today, it is Belgium's largest university and is one of the oldest and most renowned universities in Europe.

Customized Energy Solutions

Web: Ces-ltd.com

Customized Energy Solutions is at the forefront of competitive energy markets. Established in 1998, CES was created to assist clients in managing the changes in the wholesale and retail electric markets. As the industry restructured, many participants recognized the value of creating sound market rules and

staying abreast of market changes. Thus, Customized Energy Solutions was created to address the need to simplify, analyze, and influence the markets on behalf of our clients. Our clients can focus on running their businesses, while we focus on removing barriers to them doing so.

Burkert UK

Web: www.burkert.co.uk

Bürkert Fluid Control Systems is one of the leading manufacturers of control and measuring systems for fluids and gases. The products have a wide variety of applications and are used by breweries and laboratories as well as in medical engineering and space technology. The company employs over 2,500 people globally and has a comprehensive network of branches in 36 countries world-wide.

Worley

Web: www.worley.com

Worley is a global professional services company of energy, chemicals and resources experts headquartered in Australia.
We're bridging two worlds, accelerating the shift to more sustainable energy sources, while helping our customers provide the energy, chemicals and resources society needs now.
We partner with customers to deliver projects and create value across the life of their asset portfolios. From consulting and engineering to installation, commissioning, decommissioning and remediation, we provide integrated, data-centric solutions that help solve complex challenges, including those in renewable energy, energy storage, and carbon capture, utilization and storage (CCUS).

Constantia Flexibles

Web: www.cflex.com

Constantia Flexibles is the world's third-largest producer of flexible packaging. Based on the guiding principle of 'People, Passion, Packaging', about 8,500 employees manufacture tailor-made packaging solutions at 37 sites in 18 countries. Many international companies and local market leaders from the consumer and pharma industries choose the innovative products of Constantia Flexibles. Sustainability is a top priority in product development at Constantia Flexibles: the company was rated Platinum by EcoVadis in 2024 and 2025 and earned an A rating for climate change from CDP.

Caterpillar

Web: www.cat.com

At **Caterpillar**, our purpose is clear: we build a better, more sustainable world. We are further guided by our mission of solving our customers' toughest challenges.
Our strategy for long-term success for profitably growing sales volume centers on gaining a deeper understanding of customers through commercial excellence, being a leader in advanced technology and transforming how we work.

National Institute of Technology Goa

Web: https://nitgoa.ac.in/index.html

National Institute of Technology Goa (also known as NIT Goa or NITG) is an engineering institution in the Indian state of Goa. It was founded in 2010 being one of the 31 National Institutes of Technology in India and is recognised as an Institute of National Importance. It admitted its first batch of students in 2010-11.

Geely

Web: https://global.geely.com/

Geely was founded in 1986 as a refrigerator parts company, before transitioning to motorcycles in 1994 and entering the automotive industry in 1997. ZGH as a holding company was founded in 2003.
Geely has vehicle and powertrain manufacturing facilities all over China in places such as Hangzhou, Ningbo, Taizhou, Chengdu, Jinzhong, Xi'an. Geely currently uses these facilities to produce a full range of models including SUVs, sedans, crossovers.

Green Testing Lab GmbH

Web: www.greentestinglab.com

Green Testing Lab specializes in development-accompanying battery testing
As a high-tech company our focus is on development of battery test rigs and battery testing.
In 2020 the company was founded by Max Hofer. At the beginning of 2023, we moved to our new premises in Greinbach.

Universite Freres Mentouri Constantine 1

Web: www.umc.edu.dz/index.php/fr/

Since 2012, **Frères Mentouri Constantine 1 University** has implemented a training strategy in ICT and pedagogical practices for newly recruited teachers to ensure quality teaching that meets the requirements of educational programs.
This innovative techno-pedagogical approach aims to develop teachers' skills in educational technologies to improve their teaching practices and introduce them to the various mechanisms of university pedagogy in both distance and face-to-face teaching. This training enables high-quality blended learning that meets the demands of society in the digital age.
Today, in response to the support program launched by the Ministry of Higher Education (Decree No. 932 of July 28, 2016), UFMC1 is sharing its expertise with universities across the country under the guidance of a team of specialists in the field.

Hitachi, Ltd.

Web: www.hitachi.co.jp/rd/
For over 100 years, **Hitachi** has been committed to developing innovations that improve lives. Today, this means creating superior technology and products that balance environment, well-being, and economic growth.

We integrate IT, operational technology (OT), and products to transform critical infrastructure and industrial systems. Through Hitachi's process for creating value from data, which we call Lumada, we combine rich industry insight and infrastructure expertise to create measurable, positive change.
We operate across four global sectors – Digital Systems & Services, Energy, Mobility, and Connective Industries – plus a Strategic Social Innovation Business Unit developing next-generation solutions. With over 280,000 employees across 618 consolidated subsidiaries in over 140 countries, we partner with our customers to create a harmonized society and build what's next for people and planet.

UKRI STFC

Web: www.ukri.org

Launched in April 2018, **UK Research and Innovation (UKRI**) is a non-departmental public body sponsored by the Department for Science, Innovation and Technology (DSIT).
Science and Technology Facilities Council - STFC's mission is to deliver world-leading national and international research and innovation capabilities and, through those, discover the secrets of the Universe. Our major research and innovation campuses at Harwell, Daresbury and research facilities across the UK and overseas support fundamental research in astronomy, physics, computational science and space science.

University of Michigan

Web: https://umich.edu/

The mission of the is to serve the people of Michigan and the world through preeminence in creating, communicating, preserving, and applying knowledge, art, and academic values, and in developing leaders and citizens who will challenge the present and enrich the future.

ePotentia

Web: www.epotentia.com

ePotentia is a scientific and industrial AI consultancy company based in Flanders, Belgium. Our focus is on building robust AI workflows by combining state-of-the-art models with expert knowledge, supported by explainable AI and uncertainty estimation. Our IT services encompass the full flow of data, including automated data processing workflows, model refinement and scalable deployment of models in the cloud or on the edge made accessible through cross-platform apps.

Nalón Innova

Web: http://naloninnova.com/en/home/

An R&D&I and business development centre to support the 3-pronged strategy of Química del Nalón: sustainability, transformation and growth and of its current and future investee companies.

UCLouvain

Web: www.uclouvain.be/

Louvain-la-Neuve, Brussels (Woluwe Saint-Gilles), Mons, Tournai and Charleroi, six locations where the « Université Catholique de Louvain » provides higher education programmes to regular students

and to professionals and develops high-level research activities both in close collaboration with socio-economic and cultural sectors and by hosting researchers and students from around the world.
UCL is highly placed in international rankings. Multicultural and multilingual, open to the world, UCL is one of the largest employer of the French speaking part of Belgium (Wallonia) and a major player in the Brussels region where both the Woluwé and Saint-Gilles campuses hosts a significant portion of its activities.
In the six locations, around 6 000 employees bring their experience, competence and motivation to operate faculties, research institutes and administration to fulfil the three missions of the university: teaching, research and service to the society.

next Coatema Technologies GmbH

Web: https://coatema.de/en

More than 40 years of success in machinery construction for coating, printing and laminating systems. Our corporate vision of lab2fab (from small samples to the finished product) forms the basis for tapping new markets and creating new products. It is the primary focus of our service to our customers.
Coatema Coating Machinery GmbH designs and produces Sheet-to-Sheet and Roll-to-Roll equipment for the coating, printing and laminating sectors.
For more than 40 years Coatema has designed and built laboratory equipment and pilot/production plants for traditional markets such as the textile sector and the materials converting market.
The laboratory and pilot machinery product lines were expanded more than 20 years ago making Coatema a market leader in emerging technologies such as advanced batteries, solar, prepregs, medical and pharmaceuticals, fuel cells and printed electronics. New and evolving technologies are a primary focus of Coatema's fab2lab concept, offering significant advantages to customers wanting to upscale initial prototypes all the way to production of mature, marketable products.

Fraunhofer SCAI

Web: www.scai.fraunhofer.de

The **Fraunhofer Institute for Algorithms and Scientific Computing SCAI** excels at combining expertise in mathematical and computational methods. It focuses on developing and implementing innovative algorithms in industrial practice, delivering substantial benefits to its customers and partners. One of the institute‘s key specialties is the development of professional software.

The twelve business areas of Fraunhofer SCAI encompass the entire spectrum from research to customer-specific solutions: Biomedical Data Intelligence, Optimization, Multiphysics, Fast Solvers, High Performance Computing, Network Evaluation Technologies, Virtual Material Design, Numerical Data-Driven Prediction, Meshfree Multiscale Methods, Computational Finance, AI-driven Scientific Discovery, and Algorithms for the energy industry.

Fineline Global

Web: www.fineline-global.com/technology-portfolio/bess-battery-energy-storage-system/

As a leading provider of PCBs, we can provide you with a diverse portfolio of technologies and address any technical challenges and deliver flexible solutions that meet your exact requirements. With a global presence, more than 350 expert employees worldwide, and market solutions for over 50 countries, we know the unique nuances and requirements of local markets. No matter your location, we are committed

to meeting you in your language and time zone - supporting your journey every step of the way. As your trusted partner, we will leverage our extensive network and strong supplier relationships to provide you with the confidence and peace of mind you need!

Blagden Specialty Chemicals Ltd.

Web: www.blagden.com/

Blagden is a leading supplier of specialty chemicals for the UK and Ireland. We provide a comprehensive product range across key market sectors supported by technical expertise and in-depth knowledge of applications and benefits. Our market sectors are:

- Coatings
- Graphic Arts
- Food and Nutrition
- Pharmaceutical
- Personal Care
- Plastics Additives
- Industrial Applications

CNT Innovation

Web: www.cnt-innovation.com

The **CNT Innovation** team is formed of experts with a vast experience in innovation management support of multinational companies, SMEs and research institutions, individually or in European funded consortiums, especially related to commercialisation of nanomaterials.
Through the work that have been carried out at the sister company CNT Ltd in Cambridge, we have been involved in many European funded projects.

Visit their virtual exhibition at CNT Innovation Expo

CNRS

Institute of Condensed Matter Chemistry of Bordeaux

Web: www.icmcb-bordeaux.cnrs.fr/en/

The "**Institut de Chimie de la Matière Condensée de Bordeaux**" (UMR5026) is a Joint Research Unit of the **CNRS**, of the University of Bordeaux and Bordeaux INP.
The ICMCB has strong expertise in solid state chemistry, materials science and chemical processing. It uses this know-how for the development of new materials and new concepts for materials synthesis, shaping and recycling, covering the application fields energy, environment, health, electronics and photonics. Recently, the ICMCB has also become active in machine learning and artificial intelligence.

Goldbeck Consulting Ltd

Web: https://materialsmodelling.com

Goldbeck Consulting Limited (**GCL)** is an SME based in Cambridge, United Kingdom, providing business and technical consulting services in the field of materials modelling, informatics and digitalisation to universities, science and engineering software companies, manufacturing industry and public bodies. Services include strategies for integration and increased impact of materials modelling and informatics in industry, materials modelling translation as well as coaching for industrial staff and commercialisation and business development for science and engineering software.

Visit their virtual exhibition at: Goldbeck –EXPO

Cambridge Nanomaterials Technology Ltd

Web: www.cnt-ltd.co.uk

Cambridge Nanomaterials Technology Ltd (CNT Ltd) is an innovation management and nanotechnology consulting company based in Cambridge, UK.
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