

PRESS RELEASE

Solid-state lithium batteries: scientific collaboration agreement between Blue Solutions and CSEM

Paris, Neuchatel, 20.07.2023 - CSEM, Switzerland's internationally renowned center for technological innovation, is to work for Blue Solutions on two projects aimed at improving solid-state lithium metal batteries.

Blue Solutions, a precursor and manufacturer of solid-state electric batteries using the lithium metal and polymer technology, and entity of the Bolloré Group, has signed a scientific collaboration agreement with CSEM, a research and development center active in precision micro-fabrication, digitization, and sustainable energy.

Concluded in June, this remunerated service contract will provide Blue Solutions with CSEM skills and equipment, from the perspective of improving its solid-state lithium metal polymer batteries:

- **A first project** is aimed at optimizing the lithium metal / solid electrolyte interface using thin film deposition.
- **The second project** focuses on the design of new high-performance, easily integrated polymer electrolytes.

CSEM was created in 1984 from the merger of three microtechnology institutions. It receives one-third of its funding from the French government and specializes in applied R&D for industry. It constantly adapts its research to the needs of industry, for more efficient knowledge and technology transfer from science to business. Although CSEM was initially dedicated to watchmaking, its work has opened up possibilities for use of microtechnology in other fields, including the automotive industry, medicine, machine tools and space exploration, with a wider range of technological solutions.

This new partnership between Blue Solutions and CSEM builds on the numerous international R&D projects already undertaken by the Group with a view to developing the next generation of solid-state batteries, of crucial importance in the all-electric transition of the automotive industry. Blue Solutions hopes that these partnerships will increase energy density to improve vehicle autonomy, and reduce recharging times while ensuring optimum safety. In November 2022, it announced the creation of joint laboratories in Grenoble in collaboration with Grenoble INP - UGA and CNRS, and in Nantes with Nantes University and CNRS.

“This partnership with CSEM marks another important step in our solid-state battery research and development strategy. It is essential that we collaborate with leading international laboratories if we are to make ambitious, fundamental scientific progress; it gives us the means to improve our R&D with the support of leading researchers with close ties to industry. Through these cooperative ventures, and the work carried out by our 250 scientific and technical experts in France, Canada and the United States, we hope to bring a new generation of solid-state lithium metal batteries to market by 2028, meeting the performance requirements of automotive companies.”

Richard Bouveret, CEO & Chairman of Blue Solutions

“We are delighted to announce our collaboration with Blue Solutions as part of a joint mission to stimulate the development of leading-edge safe, high-performance solid-state lithium metal battery solutions. Solid-state lithium metal batteries hold the potential to revolutionize the energy storage industry; they are more efficient and safer than traditional lithium-ion batteries. Blue Solutions is the only company to currently market solid-state lithium metal batteries, which gives our partnership even more weight. Our collaboration underscores CSEM’s mission and passion for innovation, and its commitment to providing functional solutions in line with market needs.”

Andrea Ingenito, Co-Leader of the CSEM Battery Innovation Hub

About Blue Solutions

Blue Solutions, an entity of the Bolloré Group, is a global designer and manufacturer of all-solid-state electric batteries, based in Ergué-Gabéric (Brittany, France) and Boucherville (Quebec, Canada). Since 2011, Blue Solutions has been the only company in the world to mass-produce all-solid-state batteries, using Lithium Metal Polymer (LMP®) technology, to meet the growing needs of sustainable and low-carbon transport. Blue Solutions production sites have ISO 9001 and ISO 14001 certifications. More information at www.blue-solutions.com

About CSEM—Facing the challenges of our time

CSEM is a Swiss technology innovation center developing advanced technologies with a high societal impact, which it then transfers to industry to strengthen the economy. The non-profit orientated, public-private organization is internationally recognized, and works to support the disruptive activities of companies in Switzerland and abroad. CSEM operates in the domains of precision manufacturing, digitalization, and sustainable energy. To accomplish its mission as gateway between research and economy, CSEM's 550 employees from 44 countries collaborate with leading universities, scientific institutions, research institutes, and industrial partners. With its six sites in Allschwil, Alpnach, Bern, Landquart, Neuchâtel and Zurich, CSEM is active all over Switzerland. www.csem.ch



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