



Blue Solutions and AVL Launch Complete Joint Safety Program to Prepare Next-Generation Solid-State Cell Technology Scale-Up

Paris, France, and Graz, Austria, May 12, 2026 — Blue Solutions and AVL today announced the successful completion of a joint evaluation program dedicated to advancing battery safety for next-generation cell technologies as they move toward industrial scale-up.

This collaborative program set out to anticipate the safety behaviors of solid-state batteries cells under increasingly demanding operational and regulatory conditions, while addressing technology-specific requirements, including pressure management and mechanical integrity at both cell and system levels.

The initiative combined Blue Solutions' proprietary battery cell technology and AVL's globally recognized expertise in battery simulation, validation, and safety assessment. Conducted on a non-exclusive basis, the collaboration allowed both partners to strengthen their program while continuing to support broader industry progress.

Blue Solutions demonstrated a significant technological and industrial edge, particularly in lithium-metal anodes. The company already supplies its batteries to multiple joint-development partners, working on a comprehensive go-to-market approach that considers battery systems, vehicle requirements and real-world operating practices.

Anticipating Safety at Scale

As battery technologies evolve toward higher performance and higher volumetric energy density, the joint program confirmed that safety can be embedded early in the design process. The work focused on:

- Predictive safety simulations during cell technology scale-up
- Evaluation of technology-specific behaviors, including internal pressure management
- Advanced abuse and failure scenario modeling
- Alignment with the most stringent emerging safety regulations

Toward Thermal Propagation-Free Battery Systems

A core achievement of the program was addressing one of the battery industry's most critical challenges: thermal propagation (TP). By combining advanced modeling, pressure-aware design, and safety-first architecture, the collaboration successfully demonstrated pathways towards eliminating thermal propagation risks, widely regarded as the "holy grail" of battery safety.

Simulation-based and validation test results demonstrated positive and consistent outcomes, including compliance even under the latest and most stringent New Energy Vehicle regulations. Notably, the technology fully meets the GB 38031-2025 requirements, underscoring its readiness for future market demands.



Safeguarding High Energy Density

The program confirmed that the intrinsically high volumetric energy density of Blue Solutions' technology is safeguarded, while maintaining robust safety margins. Results demonstrated targets of up to 25% higher volumetric energy density compared to equivalent NMC Li-ion battery packs, alongside an expected 13% increase in gravimetric energy density as well.

Setting a New Benchmark for Battery Safety

With this joint program completed, Blue Solutions and AVL reaffirm their shared ambition to set new benchmarks in battery safety, enabling high-performance energy storage solutions that are both scalable and inherently safe. Results and key learnings will be disseminated at leading international conferences and battery industry events.

"We are very happy to have collaborated with AVL. Their vision and mastery in multiple sectors, combined with our extensive manufacturing experience in solid-state batteries manufacturing and pack integration, including the safety, thermal or mechanical aspects, has enabled us to confirm that our solution is fully aligned with market needs and capable of fulfilling the most stringent safety requirements," announces Olivier Caumont, Battery Systems Director, Blue Solutions.

"Working with Blue Solutions' latest solid-state battery technology is a significant step forward for AVL. It not only deepens our understanding of the specific safety characteristics of this next-generation chemistry, but also actively drives the further development of our safety methodologies and battery design solutions. From advanced simulation-based prediction models to new validation and assessment approaches, this collaboration enables us to systematically embed safety into the development of future high-energy battery systems from the very beginning." Paul Schiffbänker, Director Battery Development, AVL List GmbH.

About AVL

AVL List GmbH ("AVL"), headquartered in Graz, is one of the world's leading mobility technology companies for engineering, simulation, and testing. AVL develops innovative technologies and development tools for sustainable, safe, and digitally connected mobility. The company focuses on electrification, software, artificial intelligence, and automation. With a holistic approach – from the concept phase to series production – AVL develops solutions for all types of propulsion systems as well as for software-defined vehicles and vehicle software. In addition, AVL supports companies in energy-intensive sectors on their path toward more sustainable energy generation and supply. With around 12,000 employees, more than 90 locations, and over 50 tech and engineering centers worldwide, AVL is driving the mobility transformation.

About Blue Solutions

Blue Solutions is a pioneer in solid-state battery design and development, and has been working on large-scale industrialization of solid-state batteries for 15 years. The company is based on two continents, in France (Brittany) and Canada (Quebec). It holds ISO 9001, ISO 14001 and IATF 16949 certifications at its production sites, demonstrating its commitment to quality and environmental responsibility. Its cutting-edge technology and its focus on advancing battery technology put Blue Solutions at the forefront of clean and efficient transport, shaping the future of sustainable mobility. With more than 25 years of research and development experience, Blue Solutions is accelerating the development of its 4th generation of solid-state batteries while setting up joint developments and partnerships to bring the right product to the passenger mobility sphere by the end of the decade. Further information can be found at www.blue-solutions.com