



Stellantis and Factorial Energy Reach Key Milestone in Solid-State Battery Development

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- Stellantis and Factorial Energy successfully validated automotive-sized solid-state battery cells with 375Wh/kg energy density, a major step toward commercial use
- Breakthrough FEST® technology enables fast charging from 15% to 90% in 18 minutes
- The battery cells can operate in temperatures from -30°C to 45°C (-22°F to 113°F), with potential for further expansion and demonstrate high power capabilities up to 4C discharge
- Stellantis is incorporating Factorial's solid-state batteries into a demonstration fleet by 2026
- Stellantis and Factorial Energy's collaboration extends beyond cell development to optimizing pack architecture, improving vehicle integration, and enhancing overall range and cost efficiency



AMSTERDAM & BOSTON--([BUSINESS WIRE](#))--Stellantis N.V. and Factorial Energy ([Factorial](#)) today announced the successful validation of Factorial's automotive-sized FEST® (Factorial Electrolyte System Technology) solid-state battery cells. This achievement marks a significant step forward on the path to bringing next-generation electric vehicle (EV) batteries to market.

"Reaching this level of performance reflects the strengths of our collaboration with Factorial," said Ned Curic, Stellantis Chief Engineering and Technology Officer. "This breakthrough puts us at the forefront of the solid-state revolution, but we are not stopping there. We continue working together to push the boundaries and deliver even more advanced solutions, bringing us closer to lighter, more efficient batteries that reduce costs for our customers."

Unlike conventional lithium-ion batteries, solid-state batteries offer higher energy density and faster charging. The validated 77Ah FEST® cells demonstrated an energy density of 375Wh/kg with over 600 cycles progressing towards automotive qualification, a milestone for large-format lithium-metal solid-state battery. The cells enable a significant reduction in charging time, from 15% to over 90% charge in just 18 minutes at room temperature. Additionally, the cells deliver high power output with discharge rates up to 4C, supporting greater performance demands in electric vehicles.

Factorial's scientific engineering and AI-driven tools developed the latest electrolyte formulation that allows the battery to perform in temperatures ranging from -30°C to 45°C (-22°F to 113°F). This surpasses previous solid-state limitations and opens the possibility for better performances across various climates.

"Battery development is about compromise. While optimizing one feature is simple, balancing high energy density, cycle life, fast charging, and safety in an automotive-sized battery with OEM validation is a breakthrough," said Siyu Huang, CEO of Factorial Energy. "This achievement with Stellantis is bringing next-generation battery technology from research to reality."

By closely collaborating on pack design and leveraging this disruptive technology, Stellantis and Factorial are optimizing battery pack architecture to reduce weight and improve overall system efficiency for seamless integration. These weight savings directly enhance vehicle range and support more sustainable and affordable EV solutions.

Building on Stellantis' \$75 million investment in Factorial Energy in 2021, this milestone strengthens the strategic collaboration between the two companies. With this achievement, Stellantis will advance its previously announced plan to integrate Factorial's solid-state batteries into a demonstration fleet by 2026. This demonstration fleet represents the next step toward commercializing this promising technology, enabling further validation of Factorial's solid-state batteries and assessment of performance in real-world driving conditions.

About Stellantis

Stellantis N.V. (NYSE: STLA / Euronext Milan: STLAM / Euronext Paris: STLAP) is one of the world's leading automakers aiming to provide clean, safe and affordable freedom of mobility to all. It's best known for its unique portfolio of iconic and innovative

brands including Abarth, Alfa Romeo, Chrysler, Citroën, Dodge, DS Automobiles, FIAT, Jeep®, Lancia, Maserati, Opel, Peugeot, Ram, Vauxhall, Free2move and Leasys. Stellantis is executing its Dare Forward 2030, a bold strategic plan that paves the way to achieve the ambitious target of becoming a carbon net zero mobility tech company by 2038, with single-digit percentage compensation of the remaining emissions, while creating added value for all stakeholders. For more information, visit www.stellantis.com.

About Factorial Inc.

Founded and headquartered in the United States, Factorial is at the cutting edge of solid-state battery technology, developing solutions that offer longer range per charge, increased safety, and cost competitiveness with conventional lithium-ion batteries. The company's proprietary solid-state platforms FEST[®] (Factorial Electrolyte System Technology) and Solstice[™] utilize electrolyte innovations that enable safe and reliable cell performance with high-capacity cathode and anode materials. Factorial's solid-state batteries are designed to integrate seamlessly with existing manufacturing processes, ensuring scalability and efficiency. The company has established joint development agreements with leading global automakers, including Mercedes-Benz, Stellantis, Hyundai Motor Company, and Kia Corporation. For more information, visit www.factorialenergy.com.

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