VOLKSWAGEN GROUP

Media information

NO. 85/2025

Made in Europe: Volkswagen, PowerCo and Elli launch pioneering battery and energy technologies

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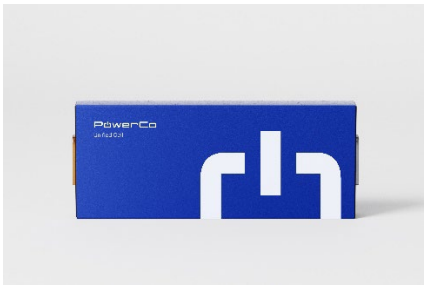
Munich, September 8, 2025 – The Volkswagen Group and its subsidiaries PowerCo and Elli are pushing sustainable mobility "made in Europe" at the IAA Mobility 2025. They are showcasing pioneering technologies for the automotive industry: The world's first Group test vehicle with solid-state battery provides a glimpse of the battery technology of tomorrow. PowerCo's Unified Cell, which will be used for the first time in the Electric Urban Car Family of Volkswagen, ŠKODA and CUPRA, is ready for series production. In combination with the new battery system, it will provide a technological leap in terms of performance, cost efficiency and flexibility. The Volkswagen Group is consistently expanding its know-how in e-mobility and now has the broadest range of technologies on the market – from combustion engines to PHEVs and all-electric vehicles to battery and energy technologies.

Tech Demonstrator: Ducati Bike powered by Solid State Battery Technology



PowerCo Unified Cell

Oliver Blume, CEO Volkswagen AG: "The Volkswagen Group and its brands are pushing ahead with technological progress at full speed. We have taken key technologies of e-mobility – such as battery cells, battery systems and electric drives – into our own hands and can thus develop the best solutions for our customers. At the same time, we are strengthening Europe as an automotive

location through regional, resilient and sustainable development and production. Our first Group vehicle with a solid-state battery, the Electric Urban Car Family equipped with our new Unified Cell and the construction of Elli's first large-scale storage system in Salzgitter are further milestones on our way to becoming a global technology driver in the automotive industry."

World premiere I: First Group test vehicle with solid-state battery

Future of e-mobility: PowerCo, Ducati and Audi have equipped an all-electric motorbike with QuantumScape's groundbreaking solid-state battery for the first time. The tech demonstrator sets the next milestone on the way from the laboratory to series production. It offers a glimpse of the future of e-mobility with even longer ranges and shorter charging times. Further development steps are still necessary before solid state battery cells will go into series production.

The bike is based on Ducati's all-electric V21L, but has been extensively modified. The battery system is designed from scratch to meet the requirements of the solid-state battery and can now be equipped with up to 980 QSE-5 cells from QuantumScape. QuantumScape's solid-state technology with lithium metal anode and ceramic separator is not just an evolution of conventional lithium-ion batteries, but a fundamentally new cell technology. It offers significant advantages in terms of energy density, fast charging capability, safety, and lifecycle.

Thomas Schmall, Group Board Member Technology: "The solid-state battery has the potential to become a game changer in e-mobility. Together with our partner QuantumScape, we aim to industrialize the technology and to take the next step towards series production. With PowerCo's Unified Cell, we have created the perfect match: it is 'solid state-ready' and enables rapid technology transfer to the Group's vehicles as soon as the solid-state battery is ready. The Group's battery strategy is pioneering and at the same time offers unprecedented economies of scale."

Claudio Domenicali, CEO Ducati: "At Ducati, we have a long history of pushing the boundaries of technology to improve the riding experience both on the road and on the racetrack. Our pursuit of innovation has allowed us to achieve incredible results, including the record of six consecutive MotoGP Constructors' titles. The high energy density achieved with solid state technology is a perfect fit for a high-performance vehicle like a sport motorcycle."

Siva Sivaram, CEO QuantumScape: "Today, QuantumScape solid-state batteries moved closer to commercial reality. For more than a decade, we've worked closely with the Volkswagen Group to advance our breakthrough technology that delivers the range, fast charging, and safety that EV drivers want. Our focus now is on bringing this technology to market and redefining what high-performance electric mobility can be."

The project partners will continue to test and advance the solid-state technology in the coming months. The next milestone is the development of a race bike for testing on the race track. In parallel, PowerCo and QuantumScape are already working on the integration of solid-state technology into the Unified Cell and thus into the car. The goal is to develop a commercial solution by the end of the decade. The two companies have been working together for several years in

close development cooperation and have established a joint industrialization team at QuantumScape's headquarters in San Jose, California.

World premiere II: PowerCo Unified Cell and Cell-to-Pack battery for Electric Urban Car Family

Technological leap for series production: Volkswagen Group and PowerCo today presented the series version of the new Unified Cell. It will make its debut in the Electric Urban Car Family of Volkswagen, ŠKODA and CUPRA. The first cells will be produced by the end of the year at the Salzgitter Gigafactory, followed by Valencia (Spain) and St. Thomas (Canada). Precursors such as the cathode material also come from European production. This will make the Unified Cell a milestone for the European Automotive Industry, which has hardly been represented in battery technology so far.

Technologically, PowerCo's Unified Cell is a big leap forward. Energy density of around 660 Wh/l makes it one of the most powerful battery cells in the volume segment. This corresponds to an increase of around 10 percent compared to previous cells. The battery system has also been completely new developed and now utilizes cell-to-pack technology.

Battery system and prismatic Unified Cell are perfectly synchronized and enable the Electric Urban Car Family to have a range of up to 450 kilometers and charging times of less than 25 minutes (forecast values). Gigacasting processes are used for key components, further reducing the weight. At the same time, costs have been significantly reduced compared to previous batteries. Volkswagen is thus setting new benchmarks in terms of range, charging speed and efficiency in the small car segment and making e-mobility affordable for everyone.

The Unified Cell serves as a global technology platform within the Volkswagen Group and will be used in up to 80 percent of electric vehicles across brands and regions. It can be equipped with various cell chemistries from LFP and Sodium-Ion to NMC and Solid-State, thus offering maximum flexibility despite standardization. It is developed and produced by PowerCo as well as by external suppliers.

Frank Blome, CEO of PowerCo: "The battery cell is a key technology of the 21st century and plays a crucial role for the future of the European automotive industry. Today, we are taking a big step towards our goal of establishing battery technology in Europe. Technologically, our first series battery cell is absolutely on par with the established competitors. And we are already working on new customer products with LFP or Sodium-Ion chemistry. PowerCo is rapidly developing into a global cell manufacturer and the European Battery Tech Driver."

World premiere III: Elli builds first large-scale storage system at the Salzgitter site

With the PowerCenter in Salzgitter, Volkswagen's charging and energy subsidiary Elli will connect the first stationary large-scale storage system to the grid in December 2025. The storage system with a capacity of 20 MW and a storage capacity of 40 MWh is based on battery packs from

PowerCo and serves as a scalable platform for energy trading. The Volkswagen Group and Elli are thus positioning themselves at the interface between the automotive industry and the energy sector. In the coming years, a comprehensive build-up of energy storage capacity will be required to harmonize the fluctuating supply of wind and solar energy with demand.

Giovanni Palazzo, CEO of Elli: "With the construction and operation of large-scale storage systems, we are making a decisive contribution to the energy transition and security of supply in Europe. The opening of our first PowerCenter in Salzgitter marks the starting point of long-term planning for further storage projects."

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VOLKSWAGEN GROUP

About the Volkswagen Group:

The Volkswagen Group is one of the world's leading car makers, headquartered in Wolfsburg, Germany. It operates globally, with 115 production facilities in 17 European countries and 10 countries in the Americas, Asia and Africa. With around 680,000 employees worldwide. The Group's vehicles are sold in over 150 countries.

With a comprehensive portfolio of strong global brands, leading technologies at scale, innovative ideas to tap into future profit pools and an entrepreneurial leadership team, the Volkswagen Group is committed to shaping the future of mobility through investments in electric and autonomous driving vehicles, digitalization and sustainability. The goal: As a "Global Automotive Tech Driver", to make the best automotive technologies accessible to customers worldwide - from entry-level mobility to the luxury segment.

In 2024, the total number of vehicles delivered to customers by the Group globally was 9.0 million (2023: 9.2 million). Group sales revenue in 2024 totaled EUR 324.7 billion (2023: EUR 322.3 billion). The operating result in 2024 amounted to EUR 19.1 billion (2023: EUR 22.5 billion).

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