



FLASH BATTERY'S EXPO DEBUT

Italian lithium battery leader Flash Battery exhibited at GSE Expo Europe for the first time, launching a modular battery architecture to provide OEMs flexibility and a faster route to market.

One of the headline launches at GSE Expo Europe in Lisbon last month was the Flash Series: a high-voltage, modular lithium battery platform developed by Flash Battery for industrial machinery, electric vehicles, and airport ground support equipment (GSE).

Flash Battery has long allowed customers to connect batteries in parallel to add energy. What the market wanted next, CEO of Flash Battery, Marco Righi, explains, was the ability to stack them in series.

"One request we heard from the market was being able to connect more packs in series, so that one standard module can create different voltages. In this case the modules are 150 V, and with series connections, we can go from 150V up to 300V, 450V, 600V, 750V and so on. We allow the OEM to play with our models."

The range launches at 150V and 200V, starting from a 30 kWh module, and can be configured in series or in parallel to suit whatever machine or vehicle.

For OEMs, the biggest gain is the quicker time to market, stresses Righi. "Before the Flash Series, we were developing specific battery packs for specific applications — and we will continue to do that. But with this solution we have modules ready to use, with which we can create whatever voltage the customer needs."

Flash Battery's Business Development Manager Elisabetta Orlandi says the new series was shaped by direct customer feedback. "What we try to do every day is listen to the market, and what we see is that today OEMs need more flexibility and more scalability."

For Flash Battery, its debut at GSE Expo Europe was a long time coming.

"We have visited GSE Expo many times, and we go to the GHI conference every year, but this is the first time we exhibit," says Orlandi.

For Righi, the decision to exhibit reflects his confidence in the sector. "We have invested in this market because we have many customers in it, and think this market will continue to grow in the future," he says.

"The growth isn't a trend, it's a deadline," continues Orlandi. "Over a hundred European airports have committed to net zero by 2030, and their ground operations are where change is happening first. OEMs need batteries that are reliable, scalable and ready today."



“Electrification at airports isn’t a trend, it’s a deadline”

Elisabetta Orlandi, Flash Battery

And he is clear that Flash Battery wants to be more than a supplier. “We don’t want OEMs to have to design their vehicles around our battery pack. We want to be part of the development of the vehicle. We are a partner of the OEM.”

That approach is visible across the hall, Orlandi adds: “We can all be proud. Take a look around and you’ll see Flash Battery powering many different types of GSE.”

Flash Battery’s lithium batteries already power everything from passenger stairs, beltloaders, ambulifts, GPUs, water and toilet service trucks to pushback tugs.

They said GSE Expo Europe was a chance to strengthen existing partnerships and build new ones. “We’ve many customers presenting new vehicles at the show with our batteries, and have existing partners, but we also see many new customers asking questions who want to know more about our technology,” says Righi.

“Today Flash Battery is not only powering GSE by working with OEMs, it is working in close connection with airports and ground handlers,” adds Orlandi.

In-house assembly line

Underpinning their flexibility is the company’s investment in its own production. “In recent years we invested in an automated

assembly line with laser welding, first of all to increase our knowledge,” says Righi. “Now we start from the key element — the single cells, which we can buy from different suppliers — and with our line we have all the knowledge from the cell to the complete battery pack. It means we can create specific packs and specific modules to cover all the needs of the market.”

Orlandi adds: “It’s the first step towards gaining autonomy and flexibility. We can optimise not only production time but also costs.”

Next-generation BMS in 2027

With the production line in place, the focus is shifting to electronics. “We’ve been investing in our batteries since we started out in a garage in 2009,” says Righi. “But now we are investing heavily in electronics. Next year we will present our new generation of BMS.”

The battery management system, due in 2027, will include features for compliance with the EU’s Cyber Resilience Act (CRA). “Cybersecurity goes up to the next level. We are integrating features into the BMS. I can’t share all the specific features of the new BMS yet, but it will be a step beyond the current one,” he explains. “Regulation is reshaping this market: cybersecurity with the CRA, traceability with the EU Battery Passport. Our data platform means our customers will be compliant by design.”

Alongside it, the company continues to develop its data platform and predictive maintenance. “For us this is really important — to be ready and prevent possible failures. Especially for the GSE market, it means having really reliable systems, with the return on investment maximised,” he continues.

Global reach, local support

Because airports are global, after-sales support is central to the company’s plans.

“The GSE market sells all over the world and we need an after-sales support service in every country,” says Righi.

Flash Battery’s European dealer network and US branch reflect the company’s strategic commitment to providing local support in international markets. Its partners are trained in Flash Battery’s technology, enabling them to offer prompt assistance to airports and ground handlers in their own language and time zone.

Remote monitoring is a key part of that. “Airports mean scalability and flexibility, but they also need prompt answers and a presence in the market,” says Orlandi. “Thanks to our remote control system and predictive diagnostics, we know the battery is connected — even if it’s working in Canada, we can monitor it remotely.

“Airports don’t buy batteries, they buy uptime. With remote monitoring and predictive diagnostics we help ground handlers plan maintenance, extend asset life and reduce total cost of ownership, not just emissions.”

Optimism ahead

2026 has been a good year for Flash Battery. “We started operating in the GSE segment in 2018, and now we’re seeing serial production. We’re starting to have fleets, and airports with Flash Battery in different GSE,” says Orlandi.

For 2027, she wants to see the Flash Series in the field. “In 2027, the Flash Series will move into serial production and onto the apron, powering a growing number of GSE applications. This will allow us to work closely with our customers, monitor battery performance in real operating conditions and continuously optimise our solutions.”

She adds: “R&D and innovative technical solutions are our DNA. And beside this, service: it’s not only a matter of selling a battery, it’s a matter of building an ecosystem where we stay together with our customers until the end of the battery’s life.

“I would like to thank all our partners and customers for their trust. I wish that this is just the beginning of our path together and look forward to new opportunities.” **ghi**



“We’ve invested in this market, which will continue to grow in the future”

Marco Righi, Flash Battery