

Understanding European battery regulations

EU REGULATION 2023/1542 INTRODUCES BINDING REQUIREMENTS FOR BATTERY TRACEABILITY, ETHICAL SOURCING AND END-OF-LIFE MANAGEMENT ACROSS THE ENTIRE SUPPLY CHAIN. FLASH BATTERY PROVIDES AN INSIGHT INTO WHAT THE EUROPEAN BATTERY INDUSTRY CAN EXPECT

With the entry into force of Regulation (EU) 2023/1542, the European Union is significantly raising the bar on sustainability, responsibility and innovation in the battery supply chain. For the first time, the regulation is introducing a set of binding rules covering the entire life cycle of batteries, marking a major turning point in the management of batteries within the European Union. One of the key pillars of the new regulation is the obligation to ensure transparency and traceability.

Given the profound transformation set to impact all sectors in the market, iVT asked Flash Battery, an Italian manufacturer of lithium batteries for the industrial sector, to shed light on the key points of this regulation: a cornerstone of the European Green Deal that involves every single player in the value chain—from manufacturers and importers, to distributors and retailers.

Digital Passport

As of August 2024, every battery must bear the CE marking, and from 18 February 2027, all rechargeable industrial batteries with a capacity greater than 2kWh will be required to include this electronic document, accessible via QR code. It will contain detailed information about the battery's composition, the carbon footprint related to the manufacturing process, the content of recycled materials, traceability and instructions for proper end-of-life management.

Due diligence

Manufacturers will be required to implement due diligence policies throughout the entire raw material supply chain (lithium, cobalt, nickel, and graphite), ensuring that extraction processes are ethical, traceable, and respectful of the environment and human rights, in accordance with OECD guidelines.

The issue of safety will be addressed through a series of specific measures aimed at establishing strict limits on the presence of potentially harmful heavy metals such as lead, cadmium and mercury. The batteries must pass these mandatory safety requirements and specific tests to ensure the reliability of the system.



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Commitment to innovation

In the context of these new regulations, Flash Battery stands out for having already paved the way towards responsible and sustainable operations well in advance. The Italian company, which specialises in the production of customised lithium batteries for industrial machines and vehicles, has long integrated the principles of circular economy and traceability into its processes, making sustainable design and traceability two key features in its approach.

The Flash Battery lithium batteries are designed to be easily disassembled, facilitating maintenance and recycling at the end of their life cycle. The proprietary remote control system, the Flash Data Centre, enables predictive maintenance and constant remote monitoring of the batteries, extending their useful lifespan. This is an approach that goes far beyond the minimum requirements set by the regulation, resulting in greater efficiency, reduced waste, and an extended product life cycle.

Flash Battery's commitment also extends to the supply chain. The company collaborates with certified and traceable partners, promoting transparent and ethical practices throughout the entire supply chain, from raw material sourcing to after-sales support.

A fundamental shift

Regulation 2023/1542 is a strategic turning point for the European battery industry, which is called upon to evolve towards a more ethical, transparent, and circular production model. In this new landscape, simply being compliant is no longer enough; actively contributing to shaping a more sustainable industrial ecosystem is essential. The transition is not only necessary, but also strategic. It serves as a competitive advantage for companies like Flash Battery that anticipate regulations and turn challenges into opportunities for innovation. iVT



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