

Closing the Loop: Powering the Circular Economy Transformation of the Largest Chemical Producer in the World

How a digital platforms for effective battery component recycling helped the chemical giant towards achieving critical environmental, social, governance (ESG) goals and to meet EU Battery Passport regulations.

A top European supplier of chemicals in the automotive industry, our client consistently showcases the ability to surpass market growth expectations and a commitment to bring down its CO2 footprint.

Challenges

The client wanted to create an effective repurposing method for the components used in the production of lithium-ion batteries, to create a more sustainable and eco-conscious future.

Recycling battery components is complex given their hazardous nature

Resource reclamation from batteries without a recycling system is difficult

Improperly disposed batteries contributed to soil contamination and environmental peril

Collaboration

Xoriant team, leveraging its strong technical expertise and experience, offered a comprehensive solution for sustainable battery management and compliance

Workbench

Implement ESG compliance with our battery recycling platform—streamlining transfer, dismantling, and component segregation for sustainability

Catena-X

Help build Catena-X solution to ensure collaboration and data consistency, emphasizing carbon footprint reporting using Catena-X

Battery Passport

Integrate Battery Passport, adhering to EU standards to ensure cross-border compliance and enable full battery history extraction

Battery Box Tracking

Develop battery box tracking to ensure optimal battery health, monitoring voltage levels for reliable power supply to critical equipment

Business Value

Enhance

Data integrity, real-time analytics, visibility, and traceability with all data consolidated.

Slash

CO2 footprint by reusing and recycling valuable battery resources to create new ones.

Achieve

A faster time-to-market, establish a circular economy, and meet immediate sustainability goals.

Ensure

Compliance readiness, streamline processes, reduce regulatory risks, and boost operational efficiency.

Technology Stack

Java | Springboot | ReactJS | Postgres | Azure Event Hub | MongoDB Power BI | Python

Xoriant provides advanced technology solutions and software development services for global banks, software product companies and F500 market leaders. Based in the U.S. with 17 global offices and 5000+ engineering professionals, Xoriant demonstrates exceptional experience in banking and finance infrastructure modernization and cloud migration. We deliver expert digital engineering, as well as offsite and offshore services, across high tech, healthcare, pharma, industrial manufacturing, telecom, and automotive sectors. Customers credit technological innovation and delivery excellence for our shared success over three decades.