

Unlocking Potential: Designing Better Batteries with The Voltt

About:Energy and Porsche use physics-informed data to unlock more battery performance

THE CHALLENGE

The project addressed the challenges of battery development, which is often expensive, time-consuming, and poses significant risks. By collaborating on this project, the objective was to develop new physics-informed simulation technologies that would enhance the battery value chain. The scope of the joint project involved creating a model of a battery used in a Porsche vehicle, focusing on use cases such as improved cell design, fast charging, and pack performance. Both Porsche and About:Energy recognized the need for a comprehensive solution that would streamline decision-making, reduce investment risks, and optimize battery performance throughout the value chain.

THE SOLUTION

To tackle these challenges, About:Energy deployed bespoke hardware to better characterize thermal and electrochemical performance of EV batteries. The Porsche battery management team collaborated closely on the project. A major barrier was commercializing world-leading UK research from Imperial College London into a viable project. By leveraging The Voltt software platform, the startup provided accurate cell and system models, control algorithms, and access to an extensive battery library. This enabled them to navigate challenges and create a robust solution addressing key pain points in battery development.

IMPACT

The project's outcome was to integrate data and models within The Voltt platform, enabling engineering teams to streamline their development timeline. The expected impact is providing deeper physical insights into battery performance, leading to better, sustainable battery products. This provides a path to achieve the expected impacts of cost reduction and increased efficiency. Future plans include expanding The Voltt to cover more commercial batteries for diverse applications, catering to more customers. The Voltt's successful launch now provides data for numerous commercial cells, accelerating battery product development across industries and showcasing commercialization potential.

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ABOUT:ENERGY

About:Energy's platform improves battery design in electric vehicles by providing access to leading data insights and simulation tools.

About:Energy is mainly targets customers in the automotive, aerospace, manufacturing, storage, and maritime industries. Their focus is on applications in business areas such as manufacturing, design, sustainability, procurement, and R&D.



HEADQUARTERS

United Kingdom, London

FOUNDED

2021

NO. OF EMPLOYEES

11 – 50

WEBSITE

aboutenergy.io

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ABOUT STARTUP AUTOBAHN

STARTUP AUTOBAHN powered by Plug and Play is an open innovation platform that provides an interface between innovative tech companies and industry-leading corporations. The basis of the program is the partnership that develops between startups and the corporate business units. The two entities hold an equal footing from the get-go: together they evaluate the potential for a joint venture, move forward to pilot the technology, and work to achieve the ultimate goal – a successful production-ready implementation. Designed with the intention to exceed startup acceleration, STARTUP AUTOBAHN powered by Plug and Play moderates a community for collaboration with a focus on implementable results. Over the years, the platform has successfully cultivated over 400 projects with more than 300 startups since its founding in 2016.