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# TECHFLASH **Fraunhofer**

## Fraunhofer Research Institution for Battery Cell Production FFB: Efficient Battery Cell

In order to drive innovation in battery cell manufacturing, an interdisciplinary approach is necessary. Fraunhofer FFB a team of experts from various disciplines to work collaboratively under one roof. Fraunhofer FFB specializes in electrochemistry, process engineering, mechanical engineering, sustainability, and economics with a goal to shape the future of the battery industry. Our expertise and services cover all key areas of battery cell production, from individual process steps and complete process chains to cross-cutting issues.

### Areas of expertise of the Fraunhofer FFB

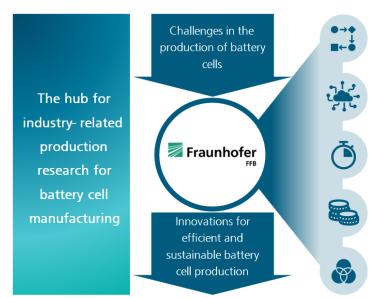


#### Support for: User and Original Equipment Manufacturer (OEM)

Our goal in working with users and OEMs is the strategic transfer of knowledge from a production perspective. Whether you integrate your cells yourself or buy in finished packs – we look at the production of state-of-the-art battery cells and develop concepts together with you, taking into account all parameters, from the production of the starting materials to common integration strategies in the application to sustainable recycling concepts at the end of the battery life cycle. In parallel, we carry out projects for the optimization or industrialization of product and process innovations. In doing so, we take into account the application-specific requirements for the overall system and relate these to the latest scientific findings. In this way, we drive the industrialization of new technologies and accelerate the development cycles of high-performance products.

Sustainability and digitalization are of strong importance to us – for example, we are researching the topic of "Digital Battery Passport", a digital twin of every battery cell produced, which enables the tracking of individual cells throughout their entire life cycle and is an important cornerstone for the realization of efficient recycling and second-use concepts.

Why FFB? The Fraunhofer FFB as a unique research institution in the battery sector



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Risk reduction in battery cell factory planning processes through existing experience in factory planning on MWh and GWh scale.

Transparency and traceability in production through the design and implementation of digital concepts based on the Digital Twin, Artificial Intelligence and Industry 4.0.

Time savings in product and process development thanks to a comprehensive database on technologies, costs & environmental impacts of battery cell production.

Cost reduction through tailored production concepts with a focus on cost efficient and quality-oriented battery cell production

Interface reduction through a holistic partner with competencies ranging from product and process development to education and training.

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Kindly get in touch with us if you are interested in this technology or require further information. Thanks and Regards,

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