

Official Media Kit

Powering the  
global energy  
transition for a  
better future

CustomCells



# Energy at its best

CustomCells innovates and industrializes customer-centric premium battery technology and powers the global energy transition for a better future.

Founded in 2012 as a spin-off from the Fraunhofer Institute, CustomCells operates at the intersection of groundbreaking innovation and high-performance volume manufacturing, enabling customers to realize their most technologically ambitious projects.

With its combined strengths in material R&D, cell design innovation, and process and manufacturing technology, the company is uniquely positioned to bring highly differentiated innovations to market and deliver customer-centric premium battery technology at scale.

Based in Itzehoe and Tübingen, CustomCells employs over 200 dedicated professionals and enables customers throughout the entire value chain - from the initial idea, through material selection, prototyping and pilot production, to industrialization, project planning and commissioning of gigafactories.

Built on a foundation of groundbreaking innovation and a profitable core business, the battery pioneer is scaling up rapidly to enable the world's leading mobility providers to fast-track the transition to sustainable electric mobility.

For more information,  
please visit [www.customcells.com](http://www.customcells.com).

# Capabilities and offerings

We innovate and industrialize customer-centric premium battery technology.

CustomCells enables its customers along the entire value chain – from the initial idea, through material selection, prototyping and pilot production, to industrialization, project planning and commissioning of gigafactories. As a recognized premium partner of major automotive manufacturers, we are now also driving the electrification of the aviation sector with our innovations. Based on strong intellectual property, an excellent partnership network, and continuously improved processes, we are first to market with outstanding technology and pioneering solutions.



## Facts & figures

- 10+ years**  
experience in cell & process innovation, design, and production
- 200+**  
dedicated and highly skilled professionals
- 2,000+**  
projects in automotive, aviation, maritime and beyond
- 2,500+**  
tested materials and slurries and growing
- 620,000+**  
meters of electrodes produced

## Accelerator

As a battery development and industrialization accelerator, we offer a full spectrum of capabilities, combining technical acumen, hands-on experience, and process expertise. Bridging the gap between cutting-edge R&D and high-performance volume manufacturing, we help our partners to accelerate and de-risk cell and process design, prototyping, pilot manufacturing, and serial production ramp-up, positioning them at the forefront of battery technology.

Through our customer-centric and integrated approach, from cell design to full-scale production, we ensure enhanced control over pivotal components in the value chain and provide the agility to tap into next-gen premium cell technologies, championing the next wave of battery innovation.

## Products

We specialize in high-performance volume manufacturing of modular cell technology. With our advanced modular tech and manufacturing platform, we combine low complexity with high flexibility, ensuring our cells are meticulously tailored to our customers’ specific needs and preferences. Whether it is power density, energy density, cycle stability, certification and safety, or time-to-market, we fine-tune each aspect to perfectly match performance requirements.

With our products, we create specific USPs for our customers, setting benchmarks in the premium segment that few can match. As part of our commitment, we ensure consistent quality, timely delivery, and cost-effectiveness throughout the product’s lifecycle.

## Projects and services

We deliver services and solutions tailored to our customers’ needs, whether that means spearheading an entire cell development journey or focusing on individual segments of the battery cell value chain as bespoke projects. With a vast experience base from over 2000 projects across diverse industries, we have executed benchmarks for numerous materials, ensured rapid and holistic material sourcing, and provided robust IP protection.

Our approach to cell development begins right from raw materials. Our strong supplier network, IP expertise, commitment to ESG and circular economy approaches, and deep understanding of regulation and certification adherence solidify our position as a trusted and reliable partner in the battery technology landscape.

# Industries and key applications

We enable breakthrough innovations in automotive, aviation and beyond.

CustomCells premium battery technology paves the way for new applications across multiple industries and acts as catalysts for groundbreaking innovations. As a recognized premium partner of major automotive manufacturers and a key enabler in the advanced air mobility sector, the company is at the forefront of the electric mobility revolution. By offering customer-centric premium battery technology and pioneering solutions, CustomCells empowers its clients to realize their most ambitious projects, be it in high-performance electric mobility on the road, in the air or in other domains.



## Main industries



### Premium battery technology for the automotive industry

In the dynamic landscape of e-mobility, CustomCells stands out as a trusted partner for top-tier automotive manufacturers and suppliers. Beyond offering high-performance battery cell technology from early prototypes to advanced development stages, we serve as a technical development and industrialization partner spanning the entire battery value chain.



### Powering the change in aviation

Together with our customers, we are revolutionizing the aviation sector with state-of-the-art battery technology. We produce high-performance pouch and cylindrical cells for the advanced air mobility sector. From eVTOL to eCTOL aircraft, our batteries are setting the standard for safe and certified applications in the future of flight.



### Empowering maritime ventures with advanced battery solutions

CustomCells delivers high-performance prismatic lithium-ion secondary cells tailored for the rigorous demands of the maritime sector. From yachts and offshore vessels to ferries and mobile port equipment, our batteries ensure optimal performance and reliability on the high seas and in port operations.



### Customer-centric energy solutions for specialized industries

CustomCells excels in providing advanced energy storage solutions that meet the intricate needs of specialized industries, including the medical sector. Our advanced battery technology empowers a range of critical applications, from high-tech medical devices to other precision-demanding fields.

Key applications and selected partnerships



At the forefront of Formula 1 innovation

As a technical development partner, CustomCells is involved in the evolution of Formula 1 vehicles, leveraging advanced cell technology to power the next generation of high-performance racing. Our expertise not only fuels the competitive edge in Formula 1 but also contributes to the advancement of battery technology in high-stakes racing environments.



Silicon anode battery cells for Lilium’s eVTOL jet

In collaboration with Lilium, CustomCells is intensifying the production pace for high silicon content cells. Our Tübingen facility ensures consistent weekly deliveries, aiming to roll out thousands of cells each year. This venture merges aviation-standard traceability with an advanced pre-lithiation process tailored for high silicon content cells.



Cylindrical cells for Vaeridion’s eCTOL aircraft

CustomCells collaborates with Vaeridion, a Munich-based aviation innovator, to develop cylindrical cells for their electric aircraft project. Meeting rigorous certification standards, our high-performance battery cells are integral to the microliner’s vision, targeting aircraft certification by 2028 and market launch by 2030.



Development partnership with OneD Battery Sciences

Together with OneD Battery Sciences, we develop and produce BEV prototype cells for a global automaker. Utilizing OneD’s SINANODE technology and our industry expertise, this partnership is a significant milestone in CustomCells’ global expansion and a pivotal step in advancing sustainable electric mobility.

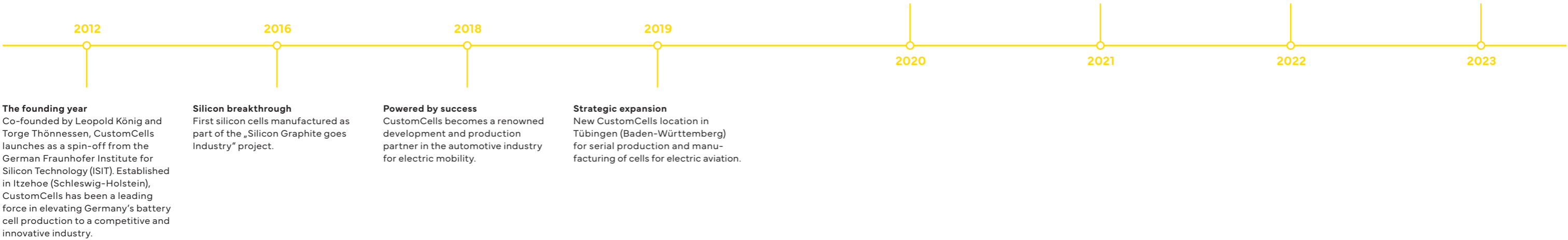


# Our history

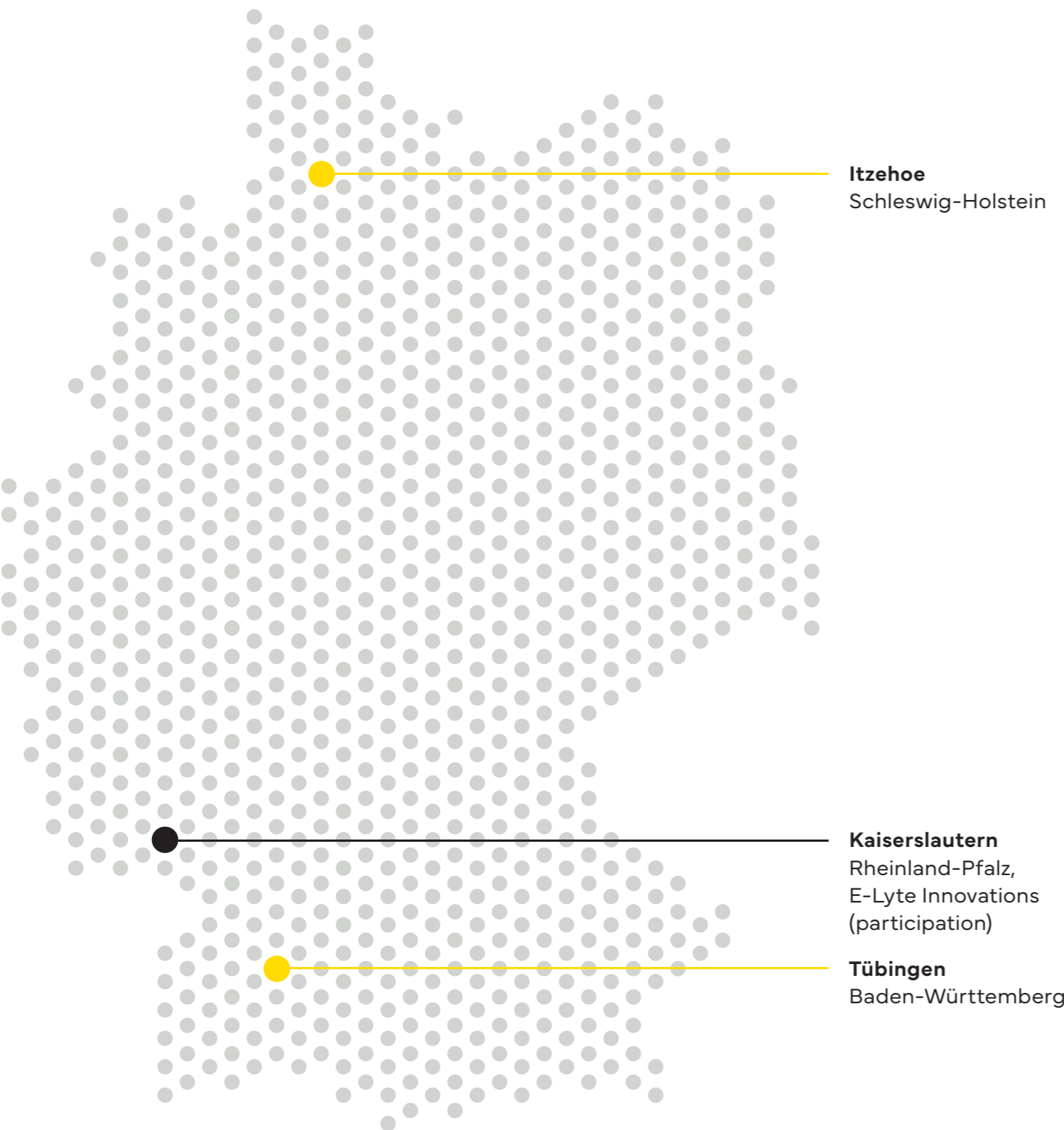


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# Redefining battery technology on a global scale



With roots deeply embedded in Itzehoe and Tübingen, we have cultivated a rich history of battery technology expertise. Here, we have honed our skills, developed category-defining solutions, and set the foundation for our global expansion. As we strengthen our top management and fortify our teams, we are gearing up for a future that transcends borders. Every location, be it in Germany, the US, or elsewhere, is a testament to our commitment to driving the global energy transition.

**Custom solutions and prototyping**

Our Itzehoe location is a focal point for pioneering research and small-scale mass production in the battery technology sector. With state-of-the-art process technologies and a flexible production environment, our experienced R&D team in Itzehoe develops and industrializes customized cell concepts. To maintain its leading edge in innovation, the site is continuously enhanced and rigorously updated with advanced process and plant technology. Founded in Schleswig-Holstein, we are an integral part of the #Energieküste in Northern Germany, reflecting our deep connection to our local roots.

**Next-generation cell production**

At our CustomCells location in Tübingen (Baden-Württemberg), we operate one of Europe’s most advanced cell production lines, offering specialized production of lithium-ion battery pouch cells at the highest technical level. Our use of cutting-edge laser technologies allows for

unparalleled flexibility in meeting our customers’ challenges. Leveraging our expertise and technology, we provide tailored solutions, producing custom battery cells in small to medium runs. Specialized applications are our standard, all delivered with precision-engineered quality.

**Expanding horizons**

Our vision is not confined to one continent. As we set our sights on the global stage, our expansion into the US marks a significant milestone. We are in the process of establishing our first pilot/demonstration plant, aiming to showcase a 1GWh cylindrical cell manufacturing capability by 2026. This move is not just about increasing capacity; it is about planting our flag, building up a robust US team, and expanding our horizons in development, industrialization, and commercialization. Combining rigorous engineering with forward-thinking innovation, we are poised to redefine battery technology on a global scale.

# Responsibility and sustainability

We live up to the values  
of our society and create  
impact on what matters  
most: the well-being of  
our planet and its people.

CustomCells is a catalyst for innovation and positive change, enabling the electrification of mobility in previously unelectrified areas through its pioneering technology, while aspiring to the highest Environmental, Social and Governance (ESG) and Environmental, Health and Safety (EHS) standards. CustomCells’ commitment to excellence and innovation, paired with its strong focus on sustainability, positions the battery pioneer as the trusted choice for stakeholders and its passionate team alike.

**Pioneering tech in the global energy transition**

Recognized as one of Europe’s most innovative and fastest-growing climate tech companies in 2023, CustomCells is intensifying its efforts to power the global energy transition. CustomCells is setting new industry benchmarks with pioneering battery technology, fostering transformative change for a better future, while also delivering lasting and differentiating value to its customers and stakeholders.

**Accelerating the decarbonization of the transport sector**

The transformation of the energy and transportation sectors stands as one of the most pressing challenges of our time. There are still many areas which today are excluded from electrification simply because the right technology is missing. As a key enabler for the electrification of the transport sector, CustomCells’ pioneering and innovative battery products and services are laying the foundation for the next era of sustainable and smart electric mobility on the road, in the air, and on the water, playing a pivotal role in the global drive towards decarbonization.



AI-generated image by FAKTOR 3 using Midjourney

# Leadership

## Executive board



**Dr. Dirk Abendroth,**  
Chief Executive Officer

Dirk serves as the CEO of CustomCells with the mission to substantially grow the business and elevate the organization to the next level. Leveraging his extensive background in sustainable mobility, IT, and automotive sectors, he has previously served as CTO at Continental, was a founding member of BYTON, and was a key executive in the launch of BMW’s i3 and i8 programs. Dirk holds a PhD in Digital Communication Networks and owns over 12 international patents in smart mobility solutions.



**Dr. Christoph Falk,**  
Chief Operating Officer

Christoph is President of Product Business at CustomCells, responsible for the development, industrialization, and marketing of premium high-performance battery cells. A mechatronics engineer with a PhD in computer science, he has held pivotal roles at Bosch, Valeo, MBtech, Alten and served as Managing Director at Continental Engineering Services. He also serves on CustomCells’ Executive Board.



**Dr. Amir Ghoreishi,**  
Chief Financial Officer

Amir serves as the CFO at CustomCells, bringing with him an impressive 30-year track record in C-level roles spanning CEO, CFO, and MD positions. Amir’s expertise extends beyond traditional CFO duties, encompassing strategic areas like IPOs, M&A, and ESG. His global acumen is shaped by executive roles across diverse industries and regions.

## Chairman of the advisory board



**Dr. Reinhard Ploss,**  
Advisory Board Chair

Dr. Reinhard Ploss serves as the Board Chair of CustomCells, bringing his extensive experience as a DAX executive to help the company expand into international markets. Formerly the CEO and CTO of Infineon Technologies AG, Ploss has been instrumental in operations and innovation in the semiconductor industry. He holds a degree in process engineering and a doctorate in engineering.

## Founders



**Leopold König,**  
Co-Founder and President System Business

Leopold serves as a Co-Founder of CustomCells and is currently spearheading the establishment of a new branch focused on battery systems. He played a pivotal role in swiftly establishing and growing a profitable business shortly after the company’s inception, uniquely positioning CustomCells between laboratory research and mass production of battery cells. Leopold is recognized in the industry for his pragmatic and efficient pioneering work. He is actively engaged as a business angel in various companies throughout the battery value chain.



**Torge Thönnessen,**  
Co-Founder and Member of the Advisory Board

Torge is a Co-Founder and Member of the Advisory Board of CustomCells, combining his profound chemistry knowledge from Philipps University Marburg and Lund University with a passion for innovative battery technology. His professional career as a scientist began at Fraunhofer ISIT, where he worked on scaling lithium battery cell manufacturing from laboratory experiments to industrial production. Beyond CustomCells, Torge served as the CTO of Cellforce Group. He supports numerous startups in the battery technology ecosystem as both a co-founder and business angel.

# Contact us

Interested in learning more about CustomCells and how we are powering the future of sustainable mobility? Reach out to us today to discuss your project, ask questions, or explore partnership opportunities. Let us shape the future of energy together.

Discover the world of CustomCells: Stay informed about the latest developments at our company through the press section of our website: **customcells.com/news**

Dive into the heart of our operations with current insights and engaging news snippets about CustomCells and the world of battery technology, all shared through our social media channels. From LinkedIn to Instagram, YouTube and X/Twitter, we're sparking excitement across the digital landscape:

- LinkedIn: @customcells
- Instagram: @customcells\_news
- Youtube: @customcells
- Twitter/X: @custom\_cells

For specific press inquiries or interview requests, reach out to us directly at **contact@customcells.com** or feel free to contact our PR agency Faktor 3 via **customcells@faktor3.de**. We would love to hear from you.



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