

Battery technology in Germany and Rheinisches Revier Experience new energy in the heart of Europe

Germany is a leader in the research and development of battery technologies. The Rheinisches Revier region follows a holistic approach for the battery industry: from research to battery production and automotive application to recycling. These are just some of the reasons why Rheinisches Revier is Europe's most exciting investment region.

1. Battery technology at federal level

Research and development

Germany is a leader in the research and development of battery technologies, particularly in the fields of lithium-ion and solid-state batteries. Institutions such as the Fraunhofer Institute and the Helmholtz Association are playing a central role.

Industry

In Germany, there are a number of companies that manufacture batteries or are active in battery research. Examples include BASF, which is conducting battery materials research, and companies such as VARTA and BMZ, which produce batteries for various applications.

E-mobility

The German automotive industry is investing heavily in the development of battery technologies for electric vehicles (EVs). Companies such as Volkswagen and BMW are working on improving battery performance and lifespan.

Political support

At the federal and state level, the German government supports battery research and production through funding programs and investments. The aim is to strengthen battery production within Germany and reduce dependence on imports.

2. Be part of committed entrepreneurship

There are a number of companies in the Rheinisches Revier region that are at the forefront of battery technologies. Existing companies include:

Region	Company	Description
Aachen city region	StreetScooter GmbH	Deutsche Post subsidiary that develops and produces electric commercial vehicles. Battery technology plays a central role.





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for Economic Affair and Climate Action

the basis of a decision the German Bundestas





Aachen city region	e.GO Mobile AG	A manufacturer of electric vehicles that specializes in innovative battery solutions.
Aachen city region	cylib	The Aachen-based start-up specializes in recycling lithium-ion batteries. In 2026, Cylib will open a state-of-the-art factory at Chempark Dormagen that will recycle 30,000 tons of end-of-life batteries a year.
Aachen city region	Akasol AG	This company is active in the field of battery systems and has a branch in Aachen.
Aachen city region	ACCURE Battery Intelligence	The tech start-up developed a predictive analytics platform boosting battery performance and safety.
Düren	F&S solar concept GmbH	A company that specializes in photovoltaic systems, but also offers energy storage systems.
Düren	4JET Group	Offers solutions for the laser processing of battery components.
Heinsberg	Aldenhoven Testing Center	A test center for vehicle technology, including battery tests.
Euskirchen	Areva H2Gen GmbH	Produces electrolyzers for hydrogen produc- tion, which is combined with battery technol- ogies for storing surplus energy.
District Rhein-Erft	Q1 Energie AG	Offers energy storage solutions.
Rhein-Kreis Neuss	E.G.O. Elektro- Gerätebau GmbH	Works on innovative solutions in the field of energy storage and battery technology.
Rhein-Kreis Neuss	Encavis AG	A company that is active in the field of re- newable energies and offers battery storage solutions.
Mönchen- gladbach	NEW AG	A regional energy supplier that also deals with the integration of battery storage systems.
Mönchen- gladbach	Linde Hydraulics GmbH & Co. KG	Works on solutions for energy storage sys- tems that are also relevant for battery-based systems.

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3. Be part of an inspiring academic environment

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The scientific foundations for knowledge transfer and research of innovative battery technology are being laid at globally recognized universities and research institutes in Rheinisches Revier.

RWTH Aachen

Various faculties and institutes at the German university of excellence are dedicated to battery technology. The Institute for Power Electronics and Electrical Drives (ISEA), for example, conducts research into battery management systems, cell characterization and battery recycling. The Institute develops innovative concepts for converting and storing energy. The Chair of Production Engineering of E-Mobility Components is also involved in battery research. Meanwhile, the Chair of Electrochemical Energy Conversion and Storage Systems (CEEC) focuses on battery materials, cell technology and system integration. Furthermore, the RWTH has a Center for Ageing, Reliability and Lifetime Prediction of Electrochemical and Power Electronic Systems (CARL), whose research will optimize battery systems.

FH Aachen: Master's program IAE

Aachen University of Applied Sciences offers a Master's degree course in International Automotive Engineering (IAE). In three semesters, students gain knowledge about new and sustainable technologies in the automotive industry. They learn how three things can be combined in this important economic sector: economy, prosperity and climate protection.

Fraunhofer Institute for Laser Technology ILT

ILT researchers develop concepts for the packaging of power electronics, for battery technology and for the construction of drive systems. One focus is on laser-based processes to produce battery modules and battery packs. The ILT also designs processes to produce batteries more economically and recycle them more efficiently.

Fraunhofer Institute for Production Technology IPT

The IPT develops system solutions for the automated, networked production of sustainable and resource-conserving products. Consequently, the institute also aims to optimize the production processes of battery technologies. The experts are currently developing special machines and modules that companies can use to scale up their production sustainably – right through to remanufacturing. There are even systems available for new production tasks, including laser drying of the electrode coating for lithium-ion batteries.

Forschungszentrum Jülich

With around 7,500 employees, Forschungszentrum Jülich is one of the largest interdisciplinary research centers in Europe. The Institute of Energy and Climate Research (IEK) is currently conducting a great deal of materials research and developing cells for various battery types. Their experts also want to make solid-state batteries more competitive, which are intended to give electric cars a significantly greater range. The same applies to redox flow batteries.



4. Be part of a strong network

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Thanks to targeted clustering and networking, Rheinisches Revier combines expertise from the start-up scene, science and established companies. These institutions, among others, ensure a continuous transfer of know-how, and that ideas and innovations from different disciplines come together.

Center of Excellence

In the Center of Excellence project, two pilot plants are being built in Düren to further develop the production of lithium-ion batteries. Innovative materials and components are intended to make production and subsequent operation more environmentally friendly and safer. For example, a new type of cell architecture for lithium-ion batteries could prevent a fire from occurring in the event of a short circuit or damage to the cell. The technology also makes it possible to reduce the weight of cells and modules. The result is lower costs and greater range.

Battery Launch Center

The overarching goal of the Battery Launch Center NRW is to put innovations into practice quickly and cost-effectively. In practical terms, they're finding new ways in which battery modules and packs can be produced more flexibly and more economically. Both manufacturers and users will have the opportunity to develop battery prototypes and first samples and even produce small and pilot series. The renowned Fraunhofer ILT and the Laserbearbeitungs- und Beratungszentrum GmbH (LBBZ) are coordinating the project.

Smart Mobility Campus

In the Prime Site Rhine region between Cologne, Bonn and Aachen, Rheinisches Revier is also planning a Smart Mobility Campus. On its 140 hectares, suppliers of battery technologies and electric vehicles will find the best conditions for their production.

5. Be part of a well-funded project

Funding programs such as STARK, Produktives.NRW or the Regional Economic Development Program (RWP) offer companies investments in Rheinisches Revier up to 200 million euros in individual funding. For example, grants can be applied for under the STARK funding program for measures that contribute to economically, ecologically and socially sustainable structural change in Rheinisches Revier. The Produktives.NRW funding program provides funding for relocations, expansions and investments for the development or production of critical technologies. These include digital technologies and technology-intensive innovations, environmentally friendly and resource-efficient technologies.

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