

BIOSTORE Workshop

Sustainable Battery Technologies and the Raw Materials Transition

6./7. October 2026, University of Münster

The interdisciplinary research project “BIOSTORE / Biologization of Batteries and Materials: Developing the Battery of the Future”, located at the University of Münster, addresses the pivotal challenge of sustainability in the battery sector. BIOSTORE investigates the potential of the so-called biologization of batteries – a technique through which some commonly used battery components are replaced by bio-based alternatives. This process potentially enables the development of more sustainable energy storage devices while ensuring comparable performance. This research project, funded by the Ministry of Culture and Science of the State of North Rhine-Westphalia (MKW NRW), consists of experts from a wide range of disciplines, including biology, chemistry, engineering, political science, economics, and law.

Against this background, the BIOSTORE Workshop “Sustainable Battery Technologies and the Raw Materials Transition” brings together experts from academia, industry, government, NGOs, and the interested public to discuss various aspects and challenges currently being addressed under the heading of “raw materials transition” (*Rohstoffwende*). This term refers to the shift toward a more sustainable use of raw materials such as metals, rare earth elements, and fossil resources. Just as the energy and mobility transition refers to the restructuring of the energy and transportation sectors, the raw materials transition is about reducing the extraction of primary raw materials and keeping existing materials in the economic cycle for as long as possible. In this context, the workshop aims to explore the challenges arising from the raw materials transition for the development and production of more sustainable batteries.

Program

Tuesday, 6. October 2026

venue: IfPol-building am Aasee, Scharnhorststr. 100, 48151 Münster, lecture room SCH 100.2

16:15 – 18:30: Introductory Panel

Welcome & Introduction

Prof. Dr. Jochen **Schmid**, University of Münster, Institute of Molecular Microbiology and Biotechnology, BIOSTORE-Spokesperson

Prof. Dr. Antonia **Graf**, University of Münster, Institute of Political Science & BIOSTORE

Keynote-Lecture: “IRA vs. CRMA: How North America and Europe are Tackling the Build-Up of Upstream Battery Value Chains”

Markus **Hackmann**, Managing Director e-Technologies, P3 Group

Questions & Answers

Keynote-Lecture II: “Opportunities and Challenges in the Development of Bio-Based Batteries”

Prof. Dr. Jochen **Schmid**, University of Münster, Institute of Molecular Microbiology and Biotechnology, BIOSTORE-Spokesperson

Questions & Answers

19:00: Dinner for workshop participants

at Ristorante Moro 112 am Aasee, Mecklenbecker Str. 112, 48151 Münster

Wednesday, 7. October 2026

venue: Akademie Franz Hitze Haus, Kardinal-von-Galen-Ring 50, 48149 Münster

09:00 – 10:30: Panel I: Stocktaking of Raw Material Sourcing from a German/European Perspective

Presentation: “Raw Materials for Battery Production: Global Supply, Dependencies and Reduction Strategies”

Michael **Schmidt**, Senior Analyst, Deutsche Rohstoffagentur (DERA)

Presentation: “Ecological and Social Issues of Raw Material Sourcing”

Dr. Esther **Laabs**, Project Manager Raw Materials & Batteries, WWF Germany

Coffee break

10:45 – 12:15: Panel II: Regionalization & Recycling

Presentation: “Regionalizing the Supply Chain: Opportunities and Limits of European Raw Material Extraction”

PD Dr. Jens C. **Grimmer**, Geologist & Researcher, Karlsruher Institut für Technologie (KIT)

Presentation: “Battery-Recycling”

Dr. Andreas **Flegler**, Head of Department and Head of Processing/Recycling, Fraunhofer Institute for Silicate Research ISC, Würzburg

Lunch break

13:15 – 14:45: Panel III: Geopolitics & Legal Issues

Presentation: “Raw Materials Policy and Governance: Strategies for Geopolitical Independence”

Dr. Jakob **Kullik**, Postdoctoral Researcher, Technical University Chemnitz, Institute of Political Science

Presentation: “The Legal Framework of the Raw Material Supply Chain”

Dr. Giorgia **Carratta**, Assistant Professor in Technology Regulation (Energy Law and Policy), Tilburg University

Coffee break

15:00 – 16:00: Panel Discussion: “How can Europe be successful in establishing a globally competitive battery industry?”

Dr. Lydia **Terborg**, Referentin für Energie und Kreislaufwirtschaft, IHK Nord Westfalen, Münster

Dr. Axel **Thielmann**, Head of the Department of Emerging Technologies, Fraunhofer-Institut für System- und Innovationsforschung ISI, Karlsruhe

16:00 Closing Remarks

Prof. Dr. Thomas **Dietz**, University of Münster, Institute of Political Science & BIOSTORE

REGISTRATION:

👉 Participation is free of charge, but places are limited.

✉ Registration: Please send an email to karsten.mause@uni-muenster.de

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funded by:

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