



energy
saxony

EMPOWERING THE FUTURE

The energy cluster for Saxony



ENERGY SAXONY E. V.

In the energy technology cluster Energy Saxony, stakeholders from industry and science combine their experience and expertise to drive forward the development and marketing of innovative solutions for circular energy technologies and thus sustainably strengthen the Free State of Saxony as a business location.



**ENERGY TRANSITION,
CLIMATE PROTECTION
AND CIRCULAR ECONOMY
WITH TECHNOLOGIES
FROM SAXONY**

OUR MISSION



Energy Transition & Green Economy

- Shaping the **energy system of the future** and contributing to a **green transformation of the economic system**
- Developing an infrastructure for **sector coupling** and **decarbonization** as well as **circular economy** in all economic sectors
- Developing a variety of use cases for **green hydrogen**
- Exploiting the potential of **digitalization** as well as innovative **storage technologies** for resource- and climate-friendly energy supply and mobility

» As an enabler for circular energy technologies, we contribute to the sustainable strengthening of Saxony as a business location. «

OUR MEMBERS



Number of members 93

SME 50

Large scale enterprises 20

Research institutes | Universities | 21

Technologie centers

Economic-political stakeholders 2

Updated: 01/04/2024

OUR COMPETENCES

- Power supply and grid services
- Building energy systems | Production engineering
- Storage Technologies
- Facilities for renewable energy carriers
- Hydrogen and fuel cell technology
- Heating and cooling technology
- Environmental technology | Recycling
- Digitalization in the energy industry
- Innovative mobility
- Education and research
- Consulting and services



OUR FOCUS TOPICS

Hydrogen

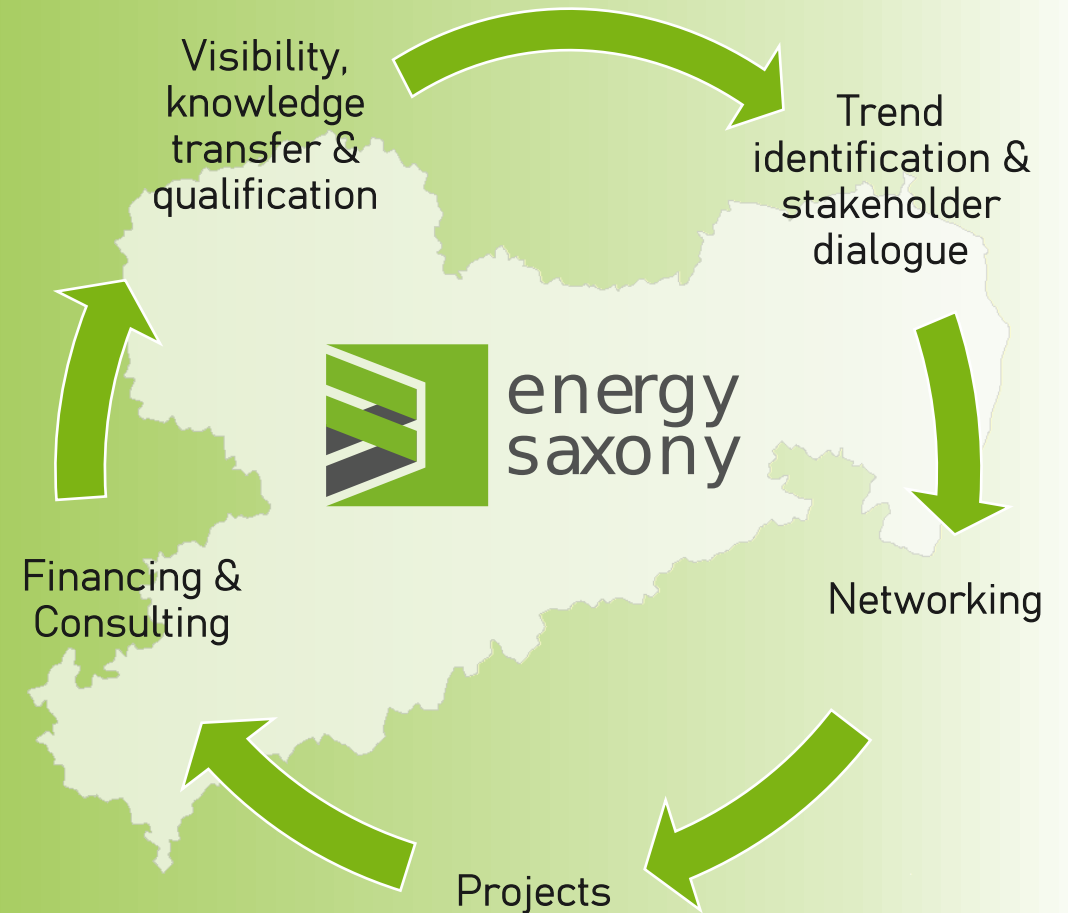
- Efficient sector coupling and climate-neutral economy (decarbonization)
- Establishing a hydrogen economy
- Market ramp-up of hydrogen technologies

Circular economy

- Establishing new business models
- Value creation throughout the life cycle
- More resilient supply chains

Battery technology

- Ensuring skilled labor along the entire value chain
- Sustainable knowledge & technology transfer
- Second life- and recycling technology



OUR WORKING GROUPS

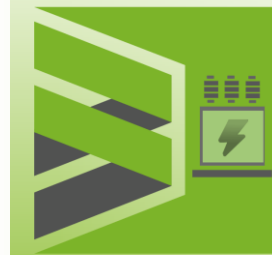


Energy-efficient production

Realization of closed energy cycles



Mark Richter



Components for energy technology

Grid stability and system optimization



Prof. Dr. Stefan Kornhuber



Building energy systems

energy optimization of buildings

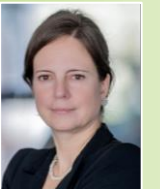


Dr. Andreas Wilde



Storage and grid services

Energy storage for grid stability and business models for grid operation



Claudia Hain



Heating and cooling

Designing the heating transition



Prof. Dr. habil. Tobias Zschunke



Dr. Clemens Schneider



Hydrogen in industry and business

Integration of hydrogen technology in industrial processes



Dr. Stephan Anger



PROJECTS

PROJECT OVERVIEW

Hydrogen

Innovation Cluster
»Wasserstoffland Sachsen«



- Establishing an infrastructure for green hydrogen in Saxony
- Development of components for fuel cell vehicles in cooperation with HZwo e. V.

Circular Economy

Innovation Cluster
»Circular Saxony«



- Sustainable design of production and recycling cycles in Saxony
- Systemic transformation to a circular economy (circular bioeconomy and recycling).

Battery Technology

»BatterieMD education network«



- Development of a systematic, demand-oriented and sustainable qualification concept along the Central German value chain of battery cell production

WASSERSTOFFLAND SACHSEN | INNOVATION CLUSTER



Sächsischer Innovationscluster
für Brennstoffzellen und Wasserstoff

Component development for
fuel cell vehicles



Establishment of a supply
infrastructure for green
hydrogen

Funding competition »Innovation Cluster Saxony«

1. Cluster phase:

Innovation cluster »HZwo«

Funding period: 04/2018 – 03/2022

Funding amount: 1,6 Mio. EUR

Funding rate: 50 %

2. Cluster phase:

Innovation cluster

»Wasserstoffland Sachsen«

Funding period: 04/2022 – 03/2025

Funding amount: 1,21 Mio. EUR

Funding rate: 50 %

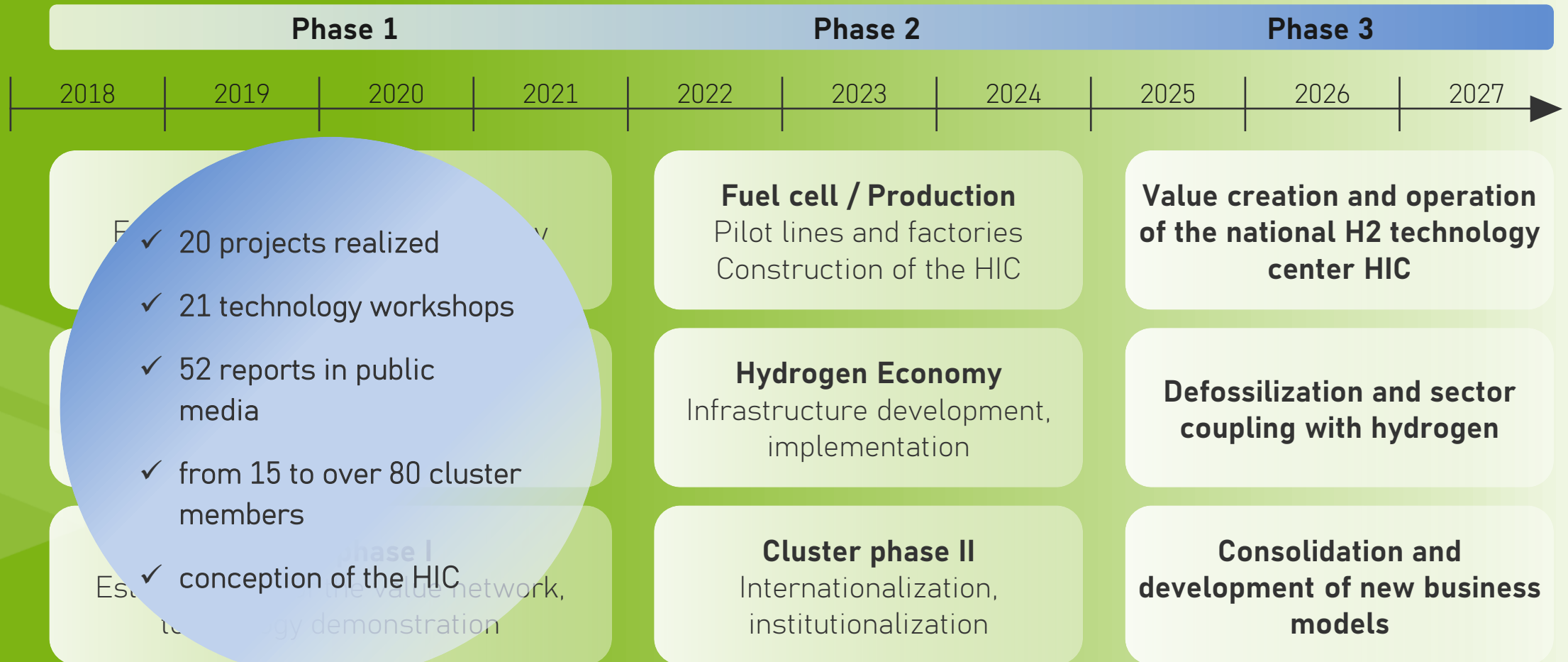
WASSERSTOFFLAND SACHSEN | INNOVATION CLUSTER

The Saxon competence center for hydrogen and fuel cells since 2018



WASSERSTOFFLAND SACHSEN | INNOVATION CLUSTER

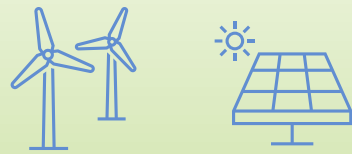
Roadmap



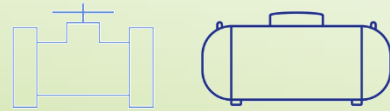
WASSERSTOFFLAND SACHSEN | INNOVATION CLUSTER

Establishing a **supply infrastructure for green hydrogen** in Saxony to create an acceptance base and incentives to produce H₂ vehicles.

Renewable energy sources



Conversion, Transport & Storage



Refueling



Identification, planning and realization of numerous economically attractive **use cases** in the areas of

Mobility



Buildings



Agriculture



Initiation and supervision of **R&D-projects** on numerous topics related to fuel cell vehicle components

Reduction of financial risks through state funding



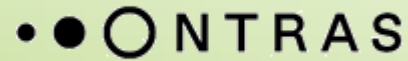
Ensuring economic efficiency with greater demand capacity



Solving the »hen and egg« problem
H₂ vehicles vs. H₂ gas stations

WASSERSTOFFLAND SACHSEN | INNOVATION CLUSTER

Contributing members of Energy Saxony



Energie- und Wasserstoffallianz
im Industriebogen Meißen



WASSERSTOFFLAND SACHSEN | INNOVATION CLUSTER

1. Cluster phase (2018 – 2021)

Supported project initiatives

- **Hydrogen-IPCEI:** Support in the initiation of Saxon consortia
 - H2-SARA (Dresden – Sunfire)
 - LHyVE transport (Leipzig – Ontras)
 - LHyVE production (Leipzig – EDL)
- **Flagship project Dresden:** Electrolysis, gas station, buses (Linde, DVB, DREWAG)
- **Entrepreneur appeal to the regional plan OLNS**
- **Clean Industry Network Saxony:** Initiation for the demonstration of decarbonization in Saxony
- **Concept study LAU-HY:** Investigation of the possibilities of establishing an integrated hydrogen infrastructure in Lusatia by the cluster member DBI

Contribution to Saxon hydrogen strategy



- Support of **HyExpert regions** during the application process
- Creation of a **project collection for the catalog of measures** for the Saxon hydrogen strategy
- **Workshop** on hydrogen & fuel cell technologies for the Saxon state government
- Saxon State Ministry for Energy's mandate for **stakeholder dialogue** – preparation of recommendations for action

2. Cluster phase: Project coordination in the industrial complex Meißen

Starting point

2nd Saxon Steel Summit on 11.11.2020

- Concept study for a distribution network as well as the connection to the H₂ backbone based on an analysis of hydrogen requirements by SachsenNetze
- Establishment of the Energy and Hydrogen Alliance in the industrial complex Meissen (EWI) for the bundling of interests and a joint external appearance

Contribution of the Innovation Cluster Hydrogen Country Saxony

- Continuous technical support and project coordination for the development of a regional value chain from the development of renewable energy capacity to the electrolysis, transport and use of hydrogen at several locations

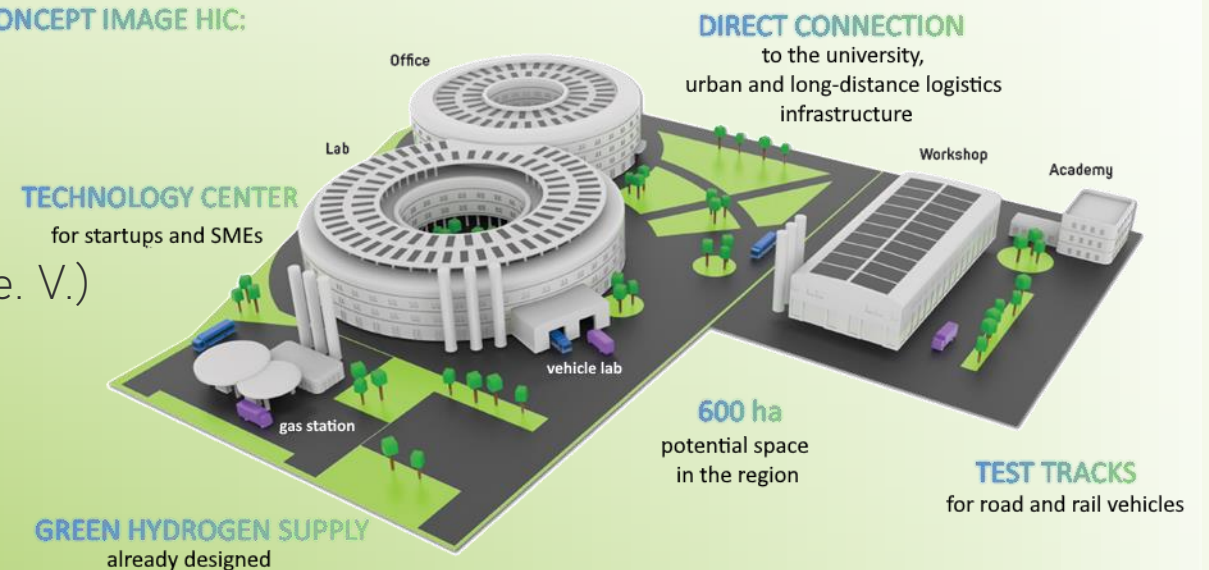
2. Cluster phase: Implementation of the Hydrogen Innovation Center HIC

- one of four sites of the National Innovation & Technology Center for Hydrogen ITZ
- Task: Providing a development & test environment for fuel cell drives & components for the German supplier industry - especially SMEs

Current status

- in implementation since May 2022
- qualified preliminary planning of construction and equipment supported by the state of Saxony (HIC Start at HZwo e. V.)
- Application and approval of €72.5 million in federal funding in 2022/2023
- Exchange with the Saxon State Ministry of Economics and Saxon State Ministry of Science on possibilities of financing the specific equipment for this Saxon hydrogen industry.

CONCEPT IMAGE HIC:



2. cluster phase: further objectives

- Strengthening the leading position of Saxon players in the **market ramp-up of hydrogen** in international competition
- Driving the **transformation of the gas network**
→ Gas (distribution) network operators as proactive drivers of market ramp-up
- Generating new value added through **cryogenics** (strongly represented in Dresden) in combination with plant construction
- Use case creation → establishing Saxony as »**Electrolysis Valley**«

Tasks

- Project development & support
- Public relations & networking for the hydrogen sector
- Support in regulatory issues
- Project coordination in the industrial complex Meißen

WASSERSTOFFLAND SACHSEN | INNOVATIONSCUSTER

Contact

Linda Schorer

Project coordinator

☎ +49 (0)179 4813897

✉ schorer@energy-saxony.net

Eva Spickenheuer

Project coordinator in the Meissen industrial arc

☎ +49 (0) 35265 51152

☎ +49 (0) 179 6763588

✉ spickenheuer@energy-saxony.net



Goals

- Establishment of an interdisciplinary and cross-industry office for the development of Saxony as a hydrogen location
- Pooling and coordination of existing initiatives and expertise in the Free State of Saxony and supplementing them with targeted services
- Offering a dialog platform to enable a comprehensive exchange between stakeholders

Tasks

- Central contact point for hydrogen issues in Saxony
- Creating awareness and acceptance for hydrogen
- Information and advice for industry, science and research on all hydrogen-specific issues & advice on funding opportunities



Partners:

HZwo e.V.

WeichertMehner

VDI/VDE-IT

HYPOS e.V.

Project term:

01.01.2023 – 31.12.2024

Contact

Dr. Frances Zedler

Team Leader & Senior Consultant

☎ +49 (0)171 2806608

✉ info@wasserstoff.sachsen.de

Linda Schorer

Consultant

☎ +49 (0)179 4813897

✉ info@wasserstoff.sachsen.de



CIRCULAR SAXONY | INNOVATION CLUSTER

Goals

- Sustainable design of production and recycling cycles in Saxony
- Systemic transformation towards a circular economy

Content

- Establishment & expansion of strategic cooperations between Saxon actors
- Analysis of risks, opportunities, weaknesses and strengths of Saxon actors and derivation of appropriate measures
- Establishment of a strong and internationally perceived cluster
- Development of a knowledge database for new technologies
- Conceptual design of efficient processes and development of ideas for automation and digitalization



Funding competition »Innovation cluster Saxony«

Partner:

Circular MTC e.V.

1. Cluster phase:

Funding period: 03/2022 – 03/2026
Funding amount: 1,48 Mio. EUR
Funding rate: 50 %

CIRCULAR SAXONY | INNOVATION CLUSTER



Roadmap

2021 Launch

- Cluster application, start of member acquisition, start of activities
- Establishment of process chains, data management, project ideas, project initiation

2023 Ramp-up

- Start of projects, development of digital and automated infrastructure
- Marketing and multiplication, internationalization

2025 Establishment

- Establishment of viable business models
- Increase of value creation, project utilization and generation of follow-up projects

CIRCULAR SAXONY | INNOVATION CLUSTER



Working groups

Automation, digitization and data management in the circular economy and cradle to cradle

Biomass

Resources for the energy transition

Water

Circular construction

Participation

eveeno.com/circular-saxony-arbeitskreise

Further information about the working groups

<http://circular-saxony.de/angebote-leistungen/>

CIRCULAR SAXONY | INNOVATION CLUSTER

Circular Saxony annual conference

Best-practice examples of the circular economy in action

- Get impulses for reconciling your economic interests with the transformation to a circular economy!
- Discover innovative approaches along your value chains and business processes!
- Find out about current developments in Saxony!
- Search specifically for cooperation partners for your circular business models, products, processes or ideas!



CIRCULAR SAXONY | INNOVATIONSCLUSTER

Ansprechpersonen

Anne Geißler

Cluster Coordination

☎ +49 (0)179 5466104

✉ geissler@energy-saxony.net

✉ anne.geissler@circular-saxony.de



Lina Staffa

Cluster Coordination

☎ +49 179 7329566

✉ staffa@energy-saxony.net

✉ lina.staffa@circular-saxony.de



BatterieMD EDUCATION NETWORK

Goals

- Development of a systematic, demand-oriented and sustainable qualification concept along the central German value chain of battery cell production

Content

- Identification of current and future qualification needs of companies
- Comparison of competence and qualification needs with existing occupational profiles and potential skilled workforce
- Development of strategies to sustainably secure skilled workforce in the region
- Development of tailored qualification concepts for job seekers and career changers, employees, trainers and managers
- Model testing and implementation of the developed qualification concepts



Funded by
 Federal Ministry
for Economic Affairs
and Climate Action

On the basis of a resolution
of the German Bundestag

Funding

»Qualification measures for battery cell production«

Project term: 01.03.2023 – 29.02.2028

Terms of funding:

Funding amount: 1.037.750 EUR

Funding rate: 100 %

BatterieMD EDUCATION NETWORK | PARTNERS

Innovation clusters

- **Energy Saxony e. V. (coordination)**
- Automotive Cluster East Germany GmbH
- ELMUG Electronic Measurement and Device Technology Thuringia eG



Education providers

- Berufsbildungswerk (Non-profit educational institution of the DGB GmbH)
- ERFURT Educational Center gGmbH
- Welding Training and Testing Institute Halle GmbH
- VHS Educational Center GmbH
- Dual University Gera-Eisenach
- University Erfurt, Department of Vocational Education and Continuing Education

Scientific institutions

- Fraunhofer Institute for Ceramic Technologies and Systems IKTS
 - Fraunhofer Institute for Material and Beam Technology IWS
 - Technical University Dresden
 - TU Mining Academy Freiberg
 - Technical University Ilmenau, Electrochemistry and Electroplating Department

BILDUNGSVERBUND BatterieMD

Contact

Constantin Wolf
Project Coordination

☎ +49 (0)179 6822805

✉ wolf@energy-saxony.net

Linus Dornack
Working Student

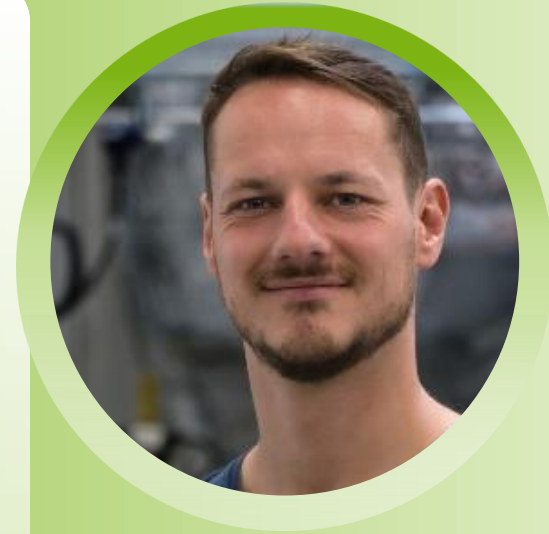
✉ dornack@energy-saxony.net

Funded by



Federal Ministry
for Economic Affairs
and Climate Action

On the basis of a resolution
of the German Bundestag





CLUSTER SERVICES

OUR SUPPORT & OFFERINGS

Members of Energy Saxony e. V. are supported according to their individual needs in the following areas:

- **Networking**
Connecting business and cooperation partners
- **Marketing**
Promoting products, services & events of our members
- **Increase in sales**
Information towards market trends, innovation, transfer of know-how & initiation of projects
- **Lobbying**
Dialogue with policy-makers and acquisition of fundings

Events



Political dialogue



Fairs



Projects



Newsletter



Marketing



OUR CLUSTER SERVICES

Energy Saxony ThinkTank



- Topic-specific networking to support industrial companies on their way to becoming a »Smart Green Factory«
www.energy-saxony.net/en/services/energy-saxony-thinktank.html

B2B Energy Matchmaking



- Targeted networking of technology and service providers with users
www.energy-saxony.net/en/services/energy-matchmaking.html

SERVICES | ENERGY SAXONY »THINKTANK«

ThinkTank clients



Industry



Building sector



Energy supplier



Agriculture



- Energy Saxony members
- Working groups
- Cooperation partners



energy saxony

ThinkTank




Integration of cooperating networks, external consultants, funding bodies, promoters & investors

EVENTS

Current events:

<https://www.energy-saxony.net/en/events.html>

EVENTS | ENERGY SAXONY #ENERGYTALK

Energy Saxony #ENERGYTalk

- Presentation of solutions, products, research results, funding programs
- Discussion of industry-relevant issues
- Registration as speaker or online participant at:
www.eveeno.com/ENERGIETalk



Online series
varied mix of topics
every two weeks on
Wednesdays 15 to 16 pm

Program and documentation:
[www.energy-saxony.net/en/
events/energietalk.html](http://www.energy-saxony.net/en/events/energietalk.html)

ENERGY SAXONY SUMMIT



- **Energy Saxony annual conference on current trend topics** with accompanying advertising campaign
- **Practical tours, innovation forums & exhibition** on the current state of research and presentation of commercial providers
- **Marketing, dialogue and networking**

Documentation
of past events:

www.energy-saxony.net/events/energy-saxony-summit.html





MEMBERSHIP

BECOME A MEMBER

Send your filled out membership application to info@energy-saxony.net.


The annual membership fee is based on the number of employees.

6 months
free trial membership

▶ Download membership application

▶ Download fee regulations

Energy Saxony e.V.
Tatzberg 47
01309 Dresden
☎ +49 (0)351 79 65 110
✉ info@energy-saxony.net

 energy saxony
Register of associations: VR 4858
www.energy-saxony.net

Application for membership in Energy Saxony e.V.

I hereby apply for membership in Energy Saxony e.V.

for my organisation as a legal entity as a supporting member

as a full member with voting rights

as a full member with voting rights within the framework of a six-month free trial membership with a special right of termination no later than two weeks before the end of the six months after joining. If the membership is not terminated in due time, the trial membership becomes a full membership with obligatory membership fees. During the trial membership period, participation in the ENERGY SAXONY ThinkTank and the Circular Saxony innovation cluster is not possible.

Title, first name, last name: _____

Organisation: _____

Function: _____

Address: _____

Phone, Fax: _____

E-mail: _____

Number of employees

total		of which in Saxony	
<input type="checkbox"/> 1 – 10	<input type="checkbox"/> 250 – 700	<input type="checkbox"/> 1 – 10	<input type="checkbox"/> 250 – 700
<input type="checkbox"/> 11 – 50	<input type="checkbox"/> 701 – 2.000	<input type="checkbox"/> 11 – 50	<input type="checkbox"/> 701 – 2.000
<input type="checkbox"/> 51 – 249	<input type="checkbox"/> > 2.000	<input type="checkbox"/> 51 – 249	<input type="checkbox"/> > 2.000

Annual turnover:

Annual turnover up to 50 million € Annual turnover > 50 million €

Interest in working in innovation clusters

Innovation cluster H2wo (Green hydrogen for Saxony) - separate cluster fee

Innovation cluster Circular Saxony (Circular economy for Saxony) - no additional fee

Contacts:

for press/public relations: for trade fair organisation:

Name: _____

E-mail: _____

Phone: _____



Membership fees

Companies:

Company size by employees	Annual membership fee in Euro
1 – 10 employees	700,00*
10 – 50 employees	1.300,00*
50 – 250 employees	2.500,00*
250 – 700 employees	3.500,00*
700 – 2.000 employees	4.700,00*
ab 2.000 employees	7.400,00*

Research Institutions:

Type of institution	Annual membership fee (new)
Colleges and universities up to 5 participating chairs	1.000,00
Colleges and universities from 6 participating chairs	2.000,00
Colleges and universities with 10 or more participating chairs	by agreement
Non-university research institutions per participating individual institute	1.000,00

Public institutions:

Type of institution	Annual membership fee
Other public institutions	1.000,00

* Plus statutory VAT

KONTAKT



Dr. Frances Zedler
Managing Director

☎ +49 (0)171 2806608
✉ zedler@energy-saxony.net



Christiane Demmler
Cluster Management

☎ +49 (0)163 700 73 73
✉ demmler@energy-saxony.net



Anja Günther
Cluster Management

☎ +49 (0)179 7311697
✉ guenther@energy-saxony.net



Constantin Wolf
Project Coordination BatterieMD

☎ +49 (0)179 6822805
✉ wolf@energy-saxony.net



Eva Spickenheuer
Cluster Coordination
Wasserstoffland Sachsen

☎ +49 (0)179 676358
✉ spickenheuer@energy-saxony.net



Linda Schorer
Consultant of the Saxon
Hydrogen Competence Center

☎ +49 (0)179 4813897
✉ schorer@energy-saxony.net



Anne Geißler
Cluster Coordination
CIRCULAR SAXONY

☎ +49 (0)179 5466104
✉ geissler@energy-saxony.net



Lina Staffa
Cluster Coordination
CIRCULAR SAXONY

☎ +49 (0)179 7329566
✉ staffa@energy-saxony.net