

Automated. Connected. Electrified.

Electrification and digitalisation in Baden-Württemberg's automotive sector



© nadla/istockphoto

28.06.2023
Heike Passauer
International Cooperation
e-mobi BW, Stuttgart

e-mobil  BW
State Agency for New Mobility Solutions
and Automotive Baden-Württemberg

Economic Key-Facts Baden-Württemberg

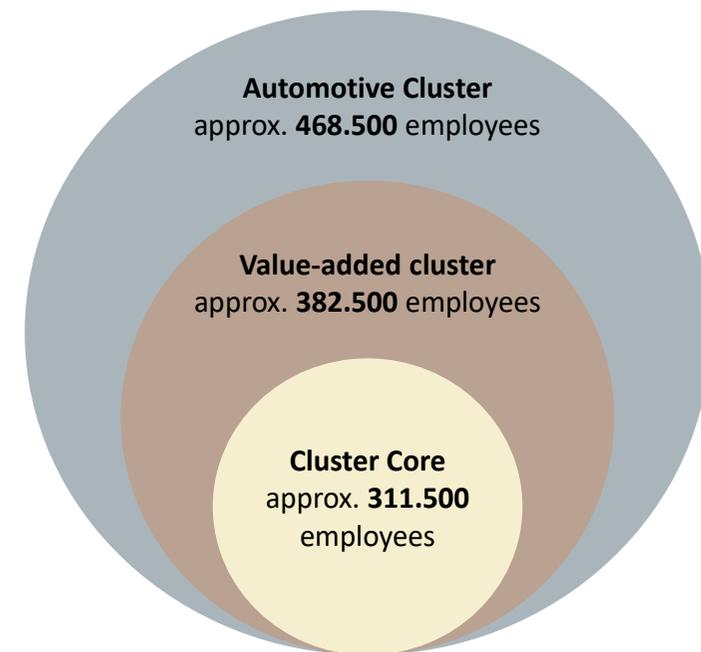
- Located in the Southwest of Germany
- Neighbouring countries/states: Switzerland, France, Bavaria
- 11.2 million inhabitants live in Baden-Württemberg
- High industrial density
- GDP in 2022: 573 bn Euro (14 % of German GDP)
- Most important sectors in turnover and number of employees:
 - Automotive
 - Mechanical Engineering
- Further key-sectors:
 - ICT
 - Environmental Technologies incl. renewable energies
 - Healthcare
- Home to global players like Mercedes-Benz, Porsche, Bosch, Trumpf, SAP
- However: most companies are SME's
- Strong international activities, no matter if SME or global player



Automotive sector in Baden-Württemberg

Major industrial sector and source of innovation

- more than 130 years of automotive engineering
- three large OEMs: Mercedes-Benz, Porsche, Audi
- more than 1000 suppliers
- 25% of German automotive production
- 6% of active population employed in automotive sector
- approx. 470.000 people contribute to the automotive industry
- Automotive sector with the highest export share in BW:
55.3 billion Euro in 2022



Automotive engineering (Production, Parts & Components, etc.)

Cluster core & supplier and other equipment suppliers

Motor vehicle craft & sales and other car related services

External and internal challenges of the automotive industry

Transformations in and around the vehicle meet with reorganisation of supply relationships



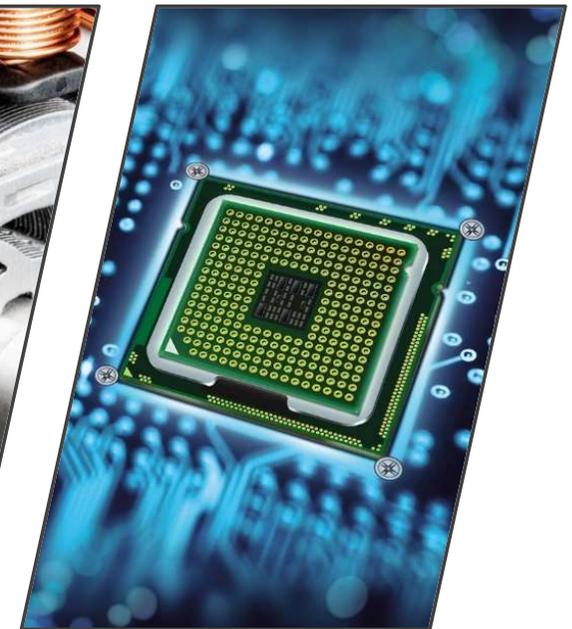
Local for local



Automation



Electrification



Digitalisation

Major initiatives in Baden-Württemberg



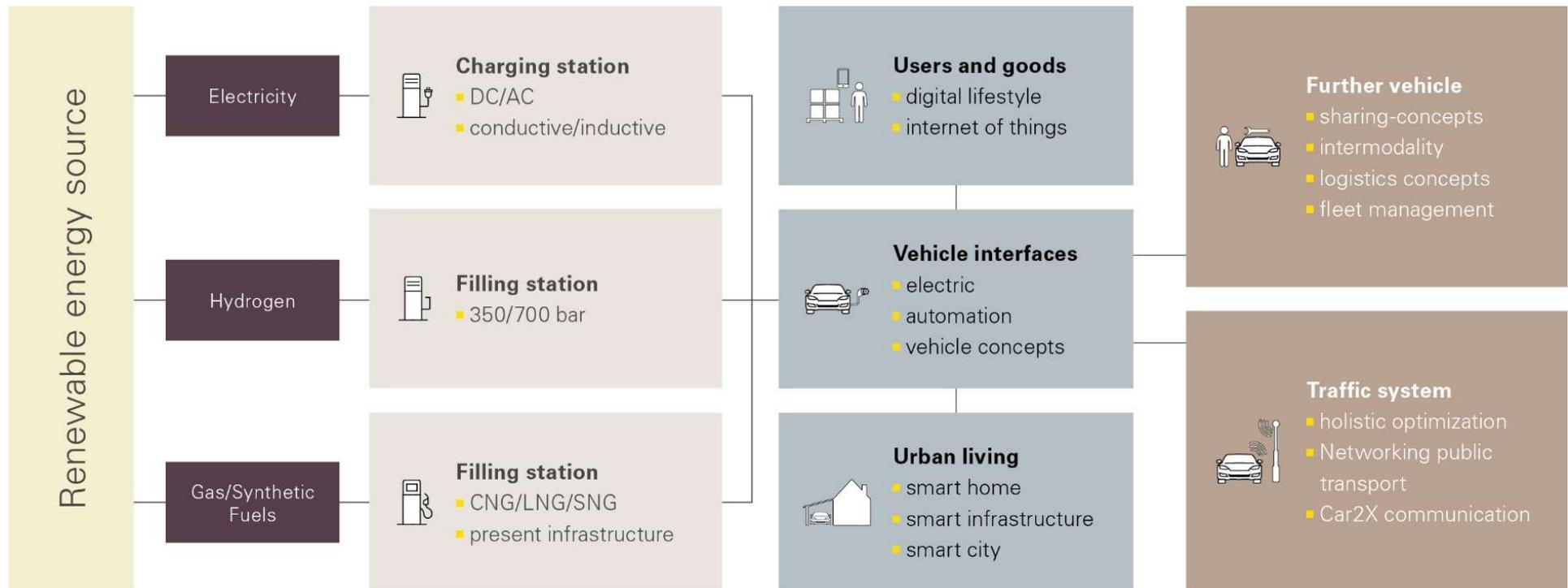
State Agency for New Mobility Solutions
and Automotive Baden-Württemberg

- **founded in 2010 by the State of BW**
- **create an independent competence centre & innovation agency for new mobility solutions**
- **strengthen and promote BW as business and technology location for new mobility solutions**
- **reaction to disruptive changes and climate change**
- **100% publicly financed, BW is our only shareholder**

www.e-mobilbw.de

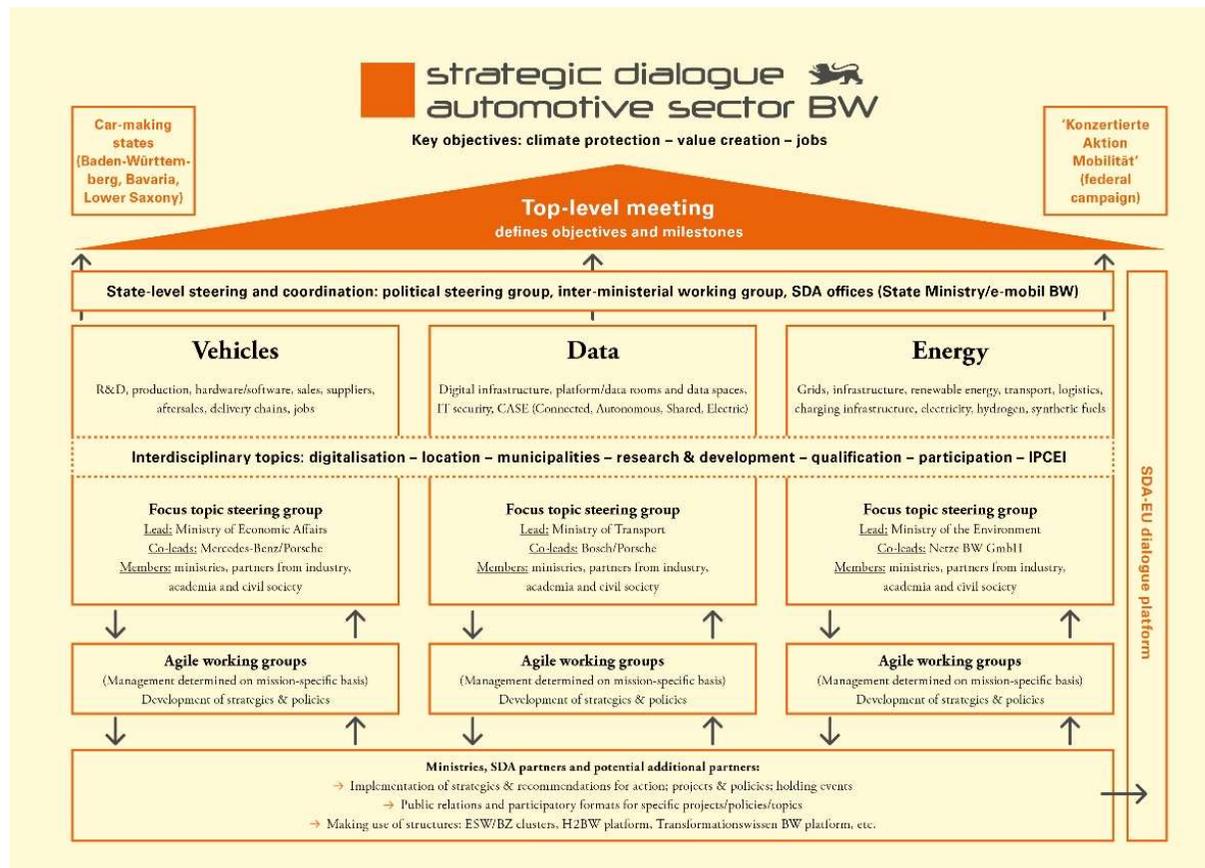
Future mobility solutions

A systemic approach



Strategic Dialogue for the Automotive Sector BW

Managing the transformation process



Intiatives of e-mobil BW



Cluster Electric Mobility South-West

Strong partners for the industrialisation of electric mobility



200 members

from the mobility environment in Baden-Württemberg



Find our members: [competence guide](#)

Network connecting business, science and the public sector

R&D projects for the industrialisation of electric mobility

Knowledge transfer with seminars and studies

Internationalisation through projects, match-making and delegation trips

Cluster Electric Mobility South-West

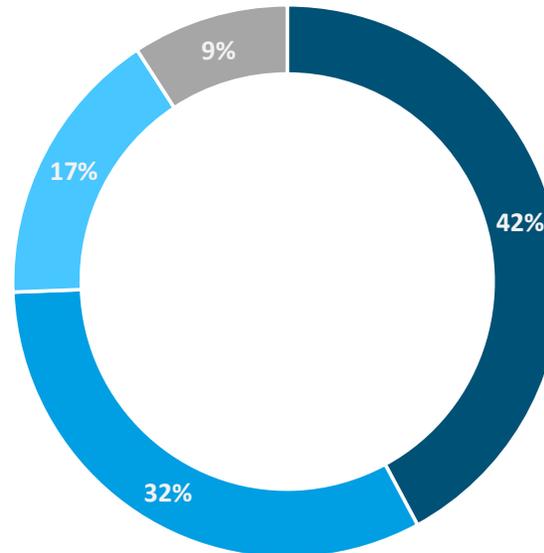
Membership structure

small & medium-sized enterprises <250 employees

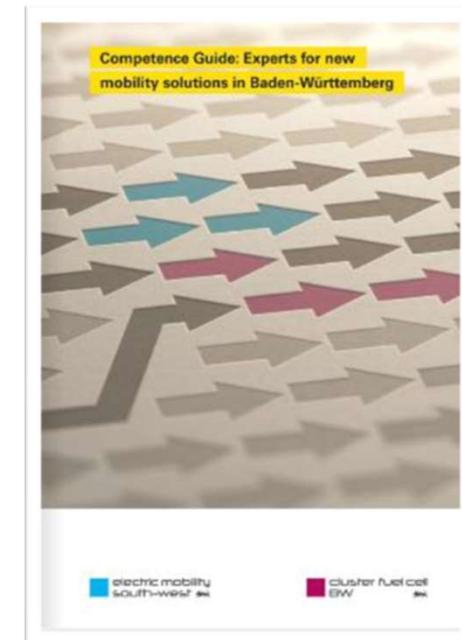
large companies >1000 employees

medium-sized enterprises >250 employees

research institutions/universities



Get to know our [members!](#)



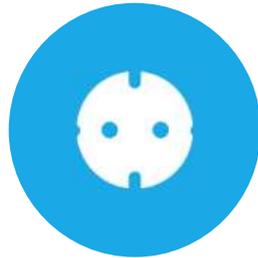
Cluster Electric Mobility South-West

Innovations in four strategic sectors



Vehicle

- modular & autonomous vehicle concepts
- innovative thermal management solutions
- diagnostics & maintenance
- battery, e-motor



Energy

- bidirectional charging
- innovative energy systems
- charging infrastructure for battery-electric trucks



ICT

- new mobility concepts & intermodality
- digitalisation in vehicles and infrastructure
- cybersecurity



Production

- increasing efficiency in manufacturing
- design and production concepts
- circular economy & recycling

knowledge transfer

training and continuing education

internationalisation

Cluster Electric Mobility South-West

Cooperation: task forces and working groups



Commercial Vehicles



**Automated and
connected driving**



**Skilled workforce and
qualification**



E-motor production



**Circular economy (battery,
hydrogen technologies)**

Recycling of hydrogen technologies

Battery recycling

automated disassembly



Internationalisation

You can find further information about the working groups [here](#).

Cluster Fuel Cell BW & Plattform H2BW

Expansion of hydrogen and fuel cell technology in Baden-Württemberg



Over **200 Partners**

Initiation of joint research projects

Search for R&D cooperation partners and suitable funding programs

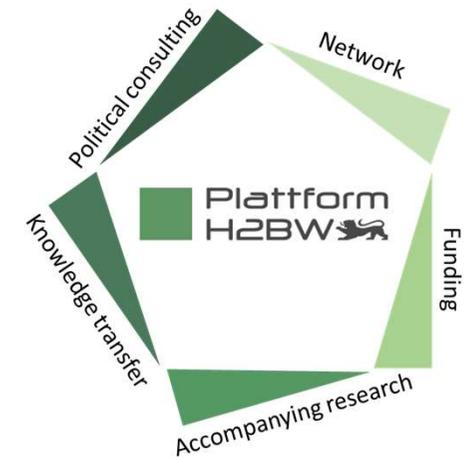
Cooperation with international partners and networks

Participation in national and international events and trade fairs



Plattform H2BW as the first step toward implementing the hydrogen roadmap:

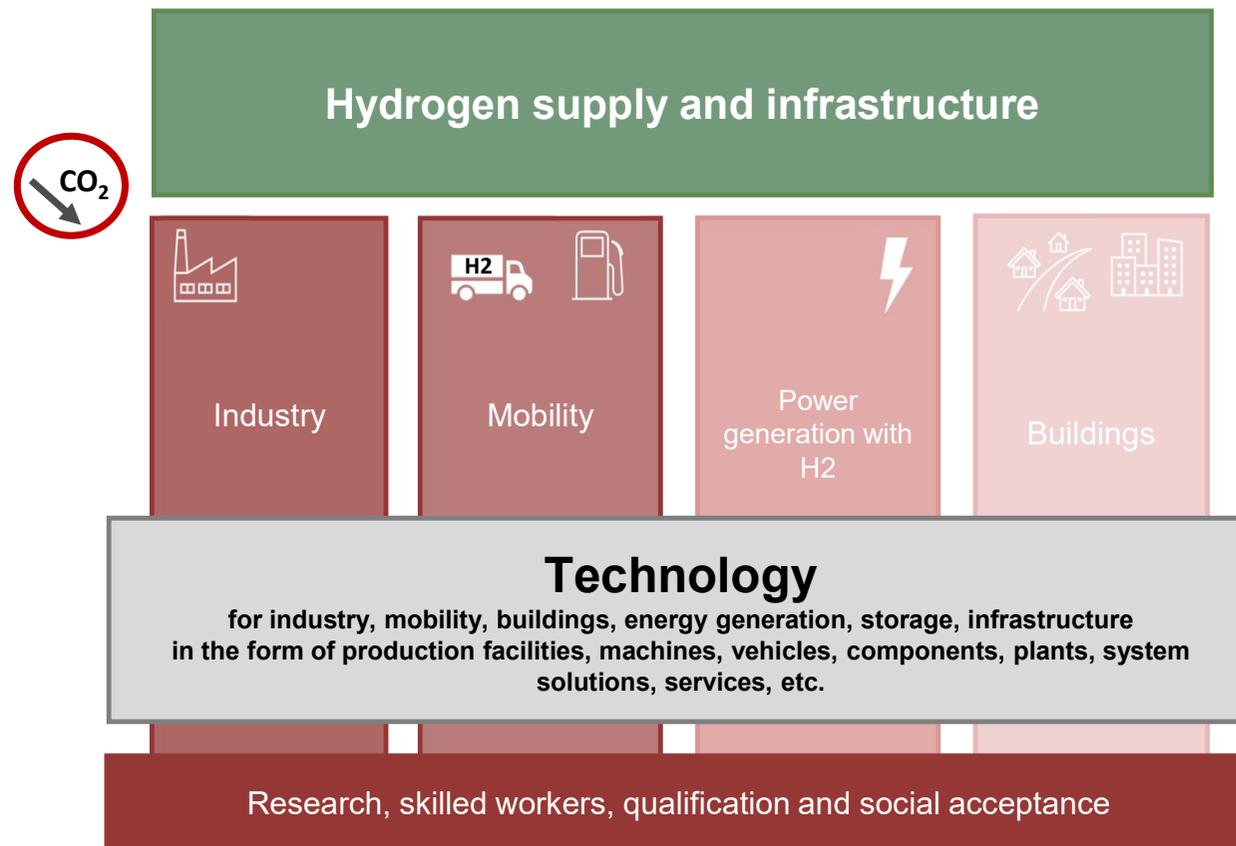
- Cross-sectoral umbrella for hydrogen and fuel cell activities in the country
- Bundling of activities and networking of actors



<https://www.plattform-h2bw.de/>

Platform H2BW

Cross-sectoral umbrella for activities in the area of hydrogen and fuel cell technology



Entire value chain of hydrogen technology is relevant:

- Mobility
- Industry
- Buildings
- Power generation
- Hydrogen production, storage, and distribution

Cluster Fuel Cell BW

Overview

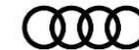
Network of business, science and the public sector

216 partner

of hydrogen and fuel cell technology from Baden-Württemberg

activities along the hydrogen value chain:

Extract of the partners :



Baden-Württemberg
MINISTERIUM FÜR WIRTSCHAFT, ARBEIT UND TOURISMUS



Baden-Württemberg
MINISTERIUM FÜR UMWELT, KLIMA UND ENERGIEWIRTSCHAFT



Cluster Fuel Cell BW

Tasks

Our cluster enables the exchange and knowledge transfer necessary to promote hydrogen and fuel cell technologies with Baden-Württemberg:



Knowledge transfer



Networking



**Information on
available state subsidies**



Education and training



Internationalization



Public relations

Cluster Fuel Cell BW

Key activities and working groups

Generation & Infrastructure

Stationary Power Supply

Industrial Production

Manufacturing Industry

Education, Skills & Training

Mobility

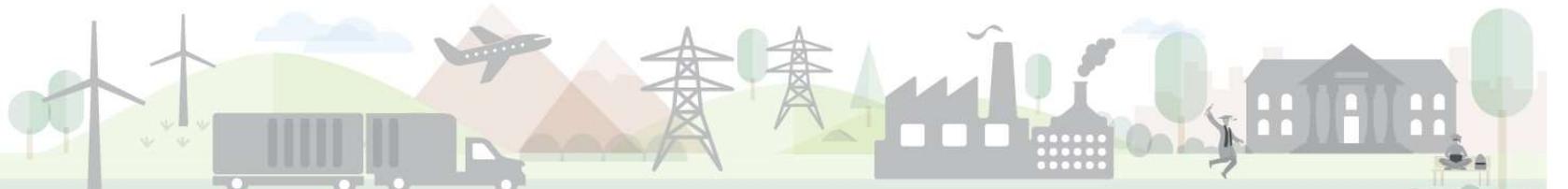
Aerospace



Commercial Vehicles

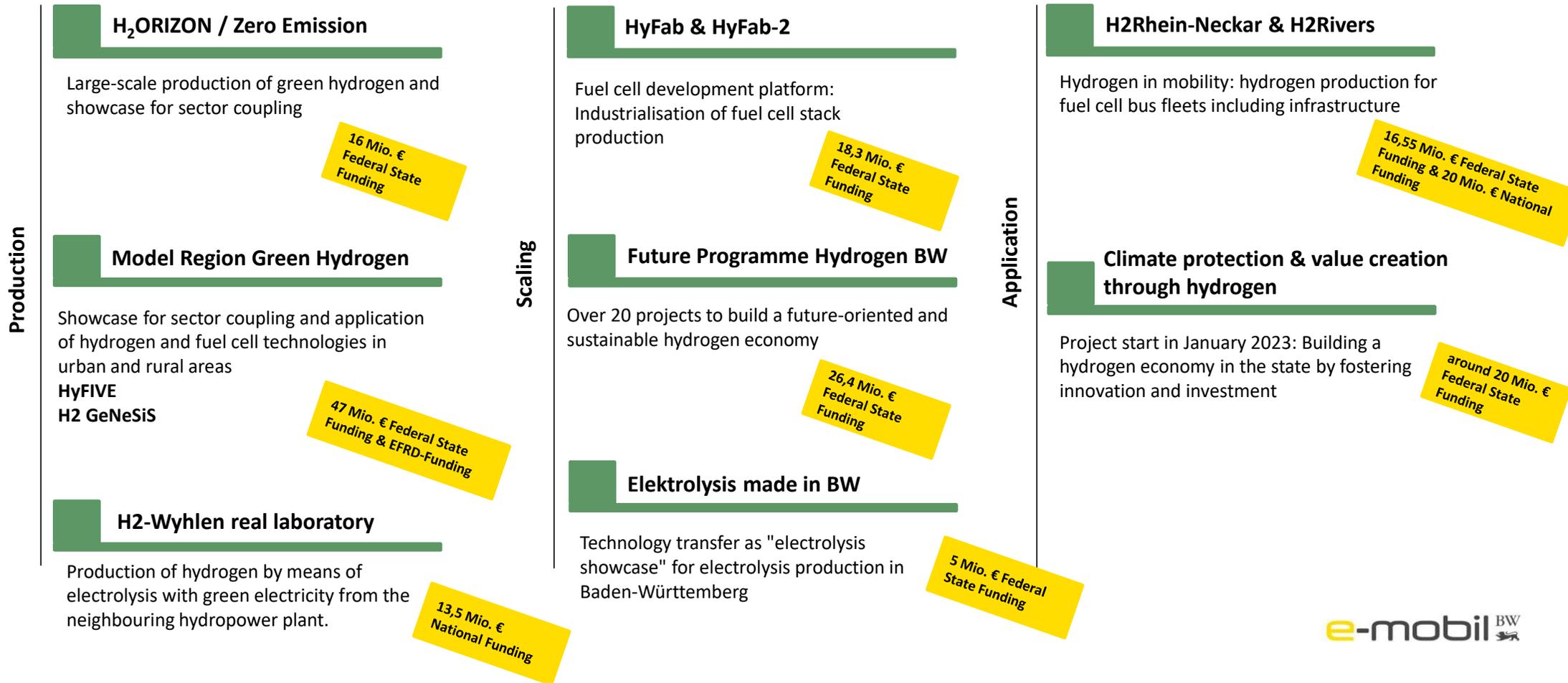
Circular Economy

Internationalization



Current projects in the region

Overview (extract of several projects)



Information centre for the transformation of the automotive sector in BW

Supporting SME's from the supplier sector and the motor industry in Baden-Württemberg



Funded by the Ministry of Economic Affairs, Labour and Tourism Baden-Württemberg and part of the Automotive Strategic Dialogue in Baden-Württemberg

Knowledge and relevant information regarding technical and economic aspects of the transformation of the automotive industry.

Knowledge
Data Base

Advice

Initial consultation by the centre for the transformation Baden-Württemberg. Access to a consulting data base and information about consulting vouchers funded by the Ministry of Economic Affairs, Labour and Tourism.

Various networks and events relevant for the topics of transformation.

Networking

Advanced
Education
& Training

Easy Access to data base containing information about advanced education and training.

The transformation process of the automotive industry can be advanced by using existing potentials in the context of cooperative projects in affected regions

Cooperation Auvergne-Rhône-Alpes / e-mobil BW

overview of activities since 2010

- **joint engagement in European network “Four Motors for Europe” since 2010**
 - working group “Electric and Hydrogen Mobility” with clusters and innovation networks from Catalonia, Lombardy and Flanders (associated region)
- **regular exchange between e-mobil BW and CARA since 2010**
- **MoU between e-mobil BW/Cluster Electric Mobility South-West and CARA (formerly: LUTB-RAAC) signed in October 2013**
- **delegation visits and conference/trade fair participations from both networks**
- **German-French Alliance for Innovative Mobility Solutions (AllFraTech), 2017-2021**
 - including letter-of-intent on intensified cooperation
- **hEVy Charge EU initiative (cross-border charging infrastructure for long-haul battery electric trucks)**



Cooperation CARA / e-mobil BW

Perspectives for future cooperation

■ Common initiatives

- hEVy Charge EU initiative (cross-border charging infrastructure for long-haul battery electric trucks)
- European Automotive Cluster Network (EACN)

■ Cluster management

- Regular exchange
- Identifying common topics of interests

■ Knowledge transfer & initiation of projects

- Working groups
- Workshops on funding calls
- Trade fairs (Hannover Trade Fair, Battery Show Europe, Automotive Suppliers' Day)
- ClusterXchange programme/company visits

Bundled expertise from Baden-Württemberg

Competence Atlas of the Electromobility South-West and Fuel Cell BW Clusters

Competence Guide

brennstoffzelle BW elektromobilität süd-west

Bundled expertise from Baden-Württemberg

The Competence Guide is a joint reference work of the Cluster Electromobility South-West and the Cluster Fuel Cell BW. It shows competencies in the business location Baden-Württemberg and supports the search for suitable cooperation partners.

▼ Filter

Querschnittsthemen ▾ ⓘ

Sektor ▾ ⓘ

Tätigkeitsfeld ▾ ⓘ

Cluster ▾ ⓘ

Suchbegriff 🔍



ADS-TEC Energy
Cluster Elektromobilität Süd-West

Michael Spurr
Telefon +49 1511 0670601
E-Mail m.spurr@ads-tec-energy.com
Web www.ads-tec-energy.com



AIT Goehner
Cluster Brennstoffzelle BW
Cluster Elektromobilität Süd-West

Fernando Schneider
Telefon +49 711 23853911
E-Mail fernando.schneider@ait.de
Web www.AIT.de



Scan the QR code now and find cooperation partners from Baden-Württemberg with the Competence Guide!



Thank you!

www.e-mobilbw.de

© AdobeStock/Jonathan Baier

...