

# Press release

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## **With cutting-edge research and innovative technologies, BW is putting new energies on the road**

The Baden-Württemberg Pavilion at Hannover Messe is showcasing new vehicle and manufacturing technologies along with efficient charging infrastructures.

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Baden-Württemberg's state agency for electric mobility and fuel cell technology, e-mobil BW GmbH, has the largest pavilion at this year's Hannover Messe. This is not mere chance but a statement, one that highlights e-mobility's growing importance as a development impetus for the automotive industry and its suppliers as well as for energy providers and public transport systems. The Baden-Württemberg Pavilion showcases new vehicle and manufacturing technologies alongside efficient charging infrastructure in Germany's Southwest. Also on display are this region's preparations for the rollout of driverless vehicles on public roadways in the Autonomous Driving Test Area. Under the motto 'Boosting future mobility', Baden-Württemberg's Pavilion is part of the MobiliTec Area and co-organisator of the Hannover Messe MobiliTec Forum – The 'New World of Energy' – which is taking place in Hall 27 from 24 - 28 April 2017.

### **Transitioning to e-mobility 'made in Germany'**

An innovation showcase, SME platform and cluster network — Baden-Württemberg's Pavilion is again set to be the meeting place for the movers and shakers at this annual event. Some 34 exhibitors have more than 600m<sup>2</sup> of exhibition floor space at their disposal to demonstrate how the transition to e-mobility is unfolding in the 'made-in-Germany' value chain.

'Companies and research institutes in this federal state are working flat out to make electro mobility a market success', says Franz Loogen, Managing Director of Baden-Württemberg's state agency for electric mobility and fuel cell technology, e-mobil BW GmbH. 'The Baden-Württemberg Pavilion presents customised e-mobility solutions with Southwest Germany's hallmark combination of SMEs, businesses, cutting-edge research and regional initiatives.'

### **Long-term strategy good for SMEs**

The fact that Baden-Württemberg's supply industry is embracing the transformation process, and thus vehicle electrification and digitalisation, can be seen in the high level of SME involvement in the 'Electromobility South-West' and 'Fuel Cell BW' clusters. Over the past twelve months, the Electromobility South-West Cluster alone has grown to include 120 companies, most of them SMEs. This growth is driven by a greater orientation to the latest trends, such as the electrification of public transport. Thus, the clusters' long-term strategy of harnessing reliable networks to facilitate high-quality exchanges and redirect future activities is proving a success.

### **Expanding the charging infrastructure**

With the help of the regional government, Baden-Württemberg is planning to provide 2,000 new public charging points for e-vehicles over the next three years. EnBW Energie Baden-Württemberg AG operates more than 700 public charge points today, including fast-track chargers on Baden-Württemberg's motorways. And all the signs point to growth. By the end of the year, EnBW will be operating charging points at 119 filling and service stations in Baden-Württemberg and neighbouring federal states.

In Hannover, EnBW AG is building on this success with its charging solutions for private and commercial customers along with its new EnBW solar+ service. Using an interactive model, customers get to

experience their own personal energy transition. Trade-fair visitors can actively experience the many ways in which electricity is used and the many opportunities a networked world of energy has to offer.

Since October 2016, house owners can use EnBW's solar+ to generate, store, share and sell their own electricity. And in future, they can even use this ready-to-go e-mobility technology to charge an e-vehicle. At the heart of the service is a virtual power sharing community where customers can trade their homegrown power or source additional low-priced green power. Alternatively, they can take their electric power with them to their holiday home or share it with their family and friends. Customers join the 'energy community' via an innovative app that keeps them informed of their system's performance.

The storage systems also come from Baden-Württemberg, namely from co-exhibitor ADS-TEC GmbH. The Nürtingen-based manufacturer of stationary storage systems is presenting its new outdoor battery system in Hannover. Its power management product 'PowerBooster' simplifies the installation of e-vehicle fast chargers by resolving the capacity issues currently experienced in some power distribution networks. The threefold advantage: one, the battery system supports network stability while charging. Two, it can be charged using the existing grid network without any further ado. And three, as a booster, the system provides the high capacity needed for fast chargers. A new arrival on the scene is the 'PowerBooster+', which is a closed, fast- charging circuit with several integrated charging units.

### **Laboratory network for electro mobility: xiL-BW-e**

The Karlsruhe Institute of Technology (KIT) and the universities of Ulm, Stuttgart, Aalen and Esslingen are in Hannover to present their new research and laboratory network for electric mobility 'xiL-BW-e'. xiL

stands for 'x-in-the-Loop', which stands for the smooth interaction of many spatially separated test rigs and analytical tools. xiL-BW-e provides for the testing of new drive system components with innovative batteries under real conditions at all sites throughout Baden-Württemberg. This means the mechanical, electric and electrochemical components of an e-vehicle can be tested efficiently in a virtual test environment without having to bring all components together a single place. xiL-BW-e also has another special feature: it can be used to research autonomous e-vehicles, too.

### **Test Area for Autonomous Driving Baden-Württemberg (TAF BW)**

This year will see the commissioning of Baden-Württemberg's Test Area for Autonomous Driving agreed on in July 2016. In future, this test area will give firms and research institutions a chance to test their innovative technologies and services for networked and automated driving on a public road system. This applies to driverless cars, buses or utility vehicles, such as road cleaners or delivery vehicles. The development phase is currently preparing a wide range of different transport environments and highly accurate 3-D maps along with sensors for real-time monitoring of traffic and its influencing factors. Also at the Baden-Württemberg Pavilion, the Karlsruhe-based Research Centre for Information Technology (KIT) is presenting the ideas and concepts behind this test area. A virtual test drive over rural roads and across inner-city junctions showcases the data infrastructure and autonomous driving and Car2X functions, especially communications between two vehicles (C2C) and between vehicles and stationary infrastructure (C2I). In various driving scenarios, a roadside unit informs the automated vehicle about traffic light signals via Wi-Fi, facilitating a timely response and contributing to a more efficient and comfortable flow of traffic.

## **E-bus in service**

ebe EUROPA GmbH is presenting its electric BLUE CITY BUS – a key component of which is produced by Baden-Württemberg's ZIEHL-ABEGG, namely the gearless, water-cooled ZAwheel that combines an electrically driven low-floor axle with integrated in-wheel hub motors. Four BLUE CITY buses are already in service in Hohenlohe.

## **SMEs in the new e-mobility value chain**

The Baden-Württemberg Pavilion includes several exhibits that showcase the way in which this region's medium-sized businesses are embracing the advent of e-mobility with great innovative force. Lapp Systems GmbH from Stuttgart is exhibiting the latest range of e-vehicle chargers and charging cable systems designed to make charging simpler and easier. This applies to the new Mode 2 charging concept whose in-cable control and protection device (IC-CPD) makes it possible to charge e-cars safely from home using a standard household socket. On the cusp of its 50th anniversary, ASG, a subsidiary of the Überlingen-based precision components manufacturer, Allweier Präzisionsteile GmbH, is now focusing increasingly on the development of electric drives. This includes driverless transport systems in industrial production lines, components for last mile electric and smart logistics and the electrification of municipal vehicle fleets. ASG developed the electric hub drive for in-company transport systems on show in Hannover together with co-exhibitor and electric engine manufacturer Fischer Elektromotoren based in Billigheim-Allfeld. ASG's high accuracy, (autonomously) controllable, easy maintenance and low-noise drivetrain successfully blends the advantages of electrified drive systems.

## **Further information**

### **Political delegations**

- Monday 24 April: Visit by Maroš Šefčovič, Vice-President of the European Commission
- Tuesday 25 April: Visit by Baden-Württemberg's Minister of Economic Affairs and Member of Baden-Württemberg's State Parliament, Dr. Nicole Hoffmeister-Kraut
- Wednesday 26 April: Visit by Minister President and Member of Baden-Württemberg's State Parliament, Winfried Kretschmann

### **Side-events**

As part of Hannover Messe's MobiliTec-Forum and the Germany-wide cluster week, e-mobil BW and Electric Mobility South-West are organising a theme day under the heading 'Insight into the Cluster Electromobility South-West.'

This event is scheduled to take place on Thursday 27 April, starting at 11 am in Hall 27 (ENERGY) on the forum stage (stand no. H79).

e-mobile BW's theme day features top-class speakers who will give talks on a range of topics, including innovative charging technologies, block chain solutions and autonomous driving. Find out about the latest research results, projects and developments in Germany's leading cluster for innovative e-mobility solutions. For more information on the programme, go to (<http://www.e-mobilbw.de/de/aktuelles/termine-veranstaltungen/termine-detail/InsightClusterElektromobilitaetSuedWest.html>)

### **List of exhibitors**

- ADS-TEC GmbH (Nürtingen)
- ASD Automatic Storage Device GmbH (Umkirch)
- ASG Allweier Systeme GmbH (Überlingen)
- Cluster Fuel Cell BW (Stuttgart)
- Cluster Electric Mobility South-West (Stuttgart)
- CTC cartech company GmbH (Böblingen)
- Dr. Ing. h.c. F. Porsche AG (Stuttgart)
- ebe EUROPA GmbH (Memmingen)
- e-mobil BW GmbH – Baden-Württemberg state agency for electric mobility (Stuttgart)
- EnBW Energie Baden-Württemberg AG (Karlsruhe)
- Fischer Elektromotoren GmbH (Billigen-Allfeld)
- Flughafen Stuttgart GmbH (Stuttgart Airport)
- FKFS Research Institute of Automotive Engineering and Vehicle Engines Stuttgart
- FZI Research Center for Information Technology, KIT (Karlsruhe)
- GreenIng GmbH & Co. KG (Leutenbach)
- highQ Professional Services GmbH (Stuttgart)
- Karlsruhe Chamber of Commerce and Industry (IHK)
- IPEK Institute of Product Engineering, KIT (Karlsruhe)
- J. Schmalz GmbH (Glatten)
- Kleiner GmbH Stanztechnik (Pforzheim)
- Landesmesse Stuttgart GmbH
- Lapp Systems GmbH (Stuttgart)
- NEUBER GmbH & Co. KG (Kornwestheim)
- PBW Parkraumgesellschaft Baden-Württemberg mbH (Stuttgart)
- Robert Bosch GmbH (Stuttgart)
- Swarco Traffic Systems GmbH (Unterensingen)

- Tamagawa Europe GmbH (Ulm)
- Technische Akademie Schwäbisch Gmünd e.V.
- Economic promotion agency, Wirtschaftsförderung Region Stuttgart GmbH
- Center for Solar Energy and Hydrogen Research Baden-Württemberg (ZSW) Baden-Württemberg ZSW (Ulm)
- Zuweso GmbH – Station i (Stuttgart)



### **e-mobil BW GmbH: Baden-Württemberg's state agency for electric mobility and fuel cell technology**

As the innovation agency of the German federal state of Baden-Württemberg, e-mobil BW is actively involved in the rollout of e-mobility systems. Committed to Germany's energy transition, it networks with partners in business, science and the public sector to drive forward the industrialisation and market launch of cutting-edge mobility solutions. Its long-term mission is to strengthen Baden-Württemberg's position as a location for industry, business and science. e-mobil BW's strategy has a regional bias that involves working with municipalities to introduce e-mobility across the board in Baden-Württemberg. Furthermore, it also coordinates the 100-strong cluster of industrial and scientific actors that make up Electromobility South-West, one of the most important regional networks in the field of e-mobility. Furthermore, e-mobil's Fuel Cell Cluster BW brings together more than 60 actors from industry, science and politics to advance the development of hydrogen and fuel cell technology.

Find out more at:

[www.e-mobilbw.de](http://www.e-mobilbw.de)

### **Baden-Württemberg International**

Baden-Württemberg International (bw-i) is Baden-Württemberg's competence centre for the internationalisation of business, science and research. bw-i is the central contact hub for German and foreign companies, clusters and networks as well as universities and research institutions in all matters concerning internationalisation. Our remit is to assist Baden-Württemberg's companies to harness foreign markets and to secure our federal state's position worldwide as a place of choice for business and science. Our work aims to sustainably secure and strengthen Baden-Württemberg as a business location – by attracting foreign investment and business settlements and by fostering corporate cooperation and promoting measures as part of Baden-Württemberg's Skilled Specialists' Alliance. For more information, go to [www.bw-i.de](http://www.bw-i.de).

## **WRS – the business promotion agency for the Stuttgart Region**

The Stuttgart Region Economic Development Corporation (WRS) is the central point of contact for investors and companies in the city of Stuttgart and its five surrounding administrative districts. WRS champions the advantages of this business location, assists companies with settlement and relocation and promotes state-of-the-art technologies. WRS is engaged in numerous projects designed to assist regionally based companies to transition from a modern automotive manufacturing centre to a viable mobility region, for example as part of the regional programme 'Model Region for Sustainable Mobility' or the national programme 'Stuttgart – Model Region for Electromobility.' Central aspects here include alternative propulsion systems, new mobility concepts for people and goods as well as autonomous driving.

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