

# Press Release

## Cutting-Edge Test Facility for Zero-Emission Drive Technologies

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**Coventry (United Kingdom) / Aachen (Germany), February 2023 – The Centre for Advanced Low Carbon Propulsion Systems (C-ALPS), which FEV operates in Coventry together with the local university, offers comprehensive testing capabilities for sustainable propulsion systems. Following a recent modernization, complete propulsion trains as well as fuel cells or hydrogen-powered internal combustion engines (ICE) can be tested on more than 3,700 m<sup>2</sup>.**

At C-ALPS, FEV and Coventry University in 2019 have initially invested £50 million to conduct joint research with international automotive manufacturers and e-mobility startups for the further development of zero-emission drive systems. Thanks to the modern equipment it is possible to test prototypes and pre-production designs of sustainable drive concepts in a 100 m<sup>2</sup> special hydrogen test laboratory and on a total of five test benches. FEV and Coventry University recently upgraded these test benches comprehensively to a state-of-the-art hydrogen facility at a cost of around £3 million. The test beds allow testing of aggregates with an output of up to 650 kW. In the future, these units will be installed in trains, ships, and aircraft. Close collaboration with UK's leading hydrogen refueling business,

“Element 2” ensures that sufficient quantities of low carbon Fuel Cell grade (ISO 14687) hydrogen can always be supplied for the various test scenarios.

As a further unique selling point, C-ALPS offers both scientists and industrial partners excellent opportunities to train and educate their personnel under real-world conditions.

Jörn Behrenroth, Managing Director of FEV UK, emphasizes the importance and advantages of the center: “At C-ALPS, we offer our partners from both research and industry the opportunity to put sustainable hydrogen propulsion systems through their paces throughout the entire development cycle. By providing a continuous supply of low carbon hydrogen from Element 2, we contribute to the center's green footprint already in the development phase.”

With C-ALPS, FEV and Coventry University are addressing the continued growth in demand from vehicle manufacturers for development and testing capacity in the field of sustainable mobility. Both British and international OEMs and developers will benefit from the unique combination of academic expertise, long-term development, and engineering know-how. “The latest contracts with multiple UK industry customers are a sure sign that we have created the environment and the expertise required to enable UK partners to meet future powertrain technology demands,” said Simon Shepherd, Director of the Centre for Advanced Low-Carbon Propulsion Systems.

FEV, as a globally leading engineering service provider, brings its in-depth experience of several decades in the fields of battery development and propulsion systems such as the fuel cell together with the associated power electronics and electric motors to this partnership.

“The joint investment from the university and FEV has been critical to the success of the latest research and development contracts for both partner of £4 million now being delivered from the centre and puts us in pole position to be the leading research centre for hydrogen propulsion development in the UK,” Shepherd said.

For the Aachen-based company, the close cooperation with the university in turn offers the opportunity to recruit graduates that will develop into experts and managers at an early stage. So far, seven engineers have been taken on as FEV employees – three of whom have come through the university’s undergraduate courses – with ten PhD students working on joint projects sponsored and co-supervised with FEV in the UK and Germany.

Footage:



Caption: C-ALPS, one of UK's leading research facilities for hydrogen propulsion systems is jointly operated by FEV and Coventry University.

#### **About FEV**

##### **FEV has always pushed the limits.**

FEV is a globally leading engineering provider in the automotive industry and internationally recognized leader of innovation across different sectors and industries. Professor Franz Pischinger laid the foundations by combining his background in academia and engineering with a great vision for continual progress. The company has supplied solutions and strategy consulting to the world's largest automotive OEMs and has supported customers through the entire transportation and mobility ecosystem.

##### **As the world continues to evolve, so does FEV.**

That's why FEV is unleashing its technological and strategic expertise into other areas. It applies its forward thinking to the energy sector. And its software and system know-how will enable the company to lead the way making intelligent solutions available to everyone. FEV brings together the brightest minds from different backgrounds and specialties to find new solutions for both current and future challenges.

##### **But FEV won't stop there.**

Looking ahead, FEV continues to push the limits of innovation. With its highly qualified 7,200 employees at more than 40 locations globally, FEV imagines solutions that don't just meet today's needs but tomorrow's. Ultimately, FEV keeps evolving – to a better, cleaner future built on sustainable mobility, energy and software that drives everything. For the companies' partners, its people and the world. [#FeelEVolution](#)