

JOINT PRESS RELEASE WITH THE HIC ALLIANCE

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Making the German Hydrogen Economy Globally Competitive

Broad alliance from industry, research, organizations, and politics wants to establish Germany's hydrogen technology center in Saxony

The federal hydrogen technology center will be established in Saxony – this is the goal for both state politicians and an alliance of Saxon companies, organizations, research institutions, and universities. Today they presented their joint concept for the »HIC – Hydrogen and Mobility Innovation Center« in Chemnitz. The center could begin its work there as early as this year because the location is already a place of research and transfer for hydrogen technologies as well as fuel cell vehicle drives. Numerous research projects with funding from the state, federal, and EU governments are proof of this. A technology campus has also already been fully developed. The HIC would consolidate the existing structures with a state-of-the-art vehicle laboratory, an extensive hydrogen certification center, test benches for fuel cells, and an advanced training center at an international level. Medium-sized companies will be able to develop and certify new products there in order to profit from the future market of hydrogen – also in global competition with Japan, China, or the USA. Saxony's Economics Minister Martin Dulig, Science Minister Sebastian Gemkow, and Chemnitz Mayor Sven Schulze strongly support the application. The HIC is also backed by the innovation cluster HZwo e.V., Chemnitz University of Technology and the TU Dresden, the Fraunhofer-Gesellschaft as well as BMW Leipzig, the automotive supplier Vitesco Technologies, and many small and medium-sized enterprises (SMEs), on which a total of around 10 000 jobs depend.

Research on hydrogen promises carbon dioxide-free mobility and a sustainable industrial upswing. To support industry and society in the transition to this new energy, the German government has launched a competition to find a location for a technology and innovation center for hydrogen technology for mobile application. This center will focus on the entire value chain of hydrogen and fuel cell technology in the field of mobility and ensure that Germany can become an international trendsetter in this industry of the future. Hydrogen

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technologies »Made in Germany« will be competitive all over the world – including Japan, China, and the USA.

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Saxony's »HIC – Hydrogen and Mobility Innovation Center« is up against nationwide competition. In the first stage of the competition, the German Federal Ministry of Transport and Digital Infrastructure (BMVI) will select three finalists from all applications by the end of March 2021. These will then be put through their paces in feasibility studies. The decision on the best concept will be made in late summer.

Ideal location for »Made in Germany« hydrogen technologies

With the HIC, Chemnitz will take the step from a research location to a value-added location for hydrogen and fuel cell technologies. The innovation cluster HZwo e.V., the Saxon competence center for the topics of fuel cells and green hydrogen, is coordinating the HIC application and bundling the strengths of the actors on site and in the region. Together with Chemnitz University of Technology, the TU Dresden, the Fraunhofer-Gesellschaft, BMW Leipzig, Vitesco Technologies, and many other industrial partners, a large vehicle laboratory, an extensive hydrogen certification center, test benches for fuel cells as well as a training center and an experience lab are to be built at the Chemnitz site. Industrial companies, SMEs, and automotive suppliers from all over Germany will have the opportunity to test and further develop the fuel cells, drives, and tank technologies they have developed there, right up to the complete vehicle, in line with requirements. The focus is on tomorrow's mobility for road and rail.

The area around the site is home to five vehicle and engine plants operated by VW, BMW, and Porsche, as well as around 780 suppliers, equipment providers, and service providers for the automotive industry. The companies in the HIC alliance alone currently provide around 10 000 jobs.

Martin Dulig, Saxon State Minister for Economic Affairs, Labour, and Transport, says »The Free State of Saxony has excellent expertise in the field of fuel cell technology. Therefore, we welcome Saxony's application to become the BMVI's national technology and innovation center for hydrogen technology for mobile application. The Saxon Ministry of Economics is pursuing a clear strategy regarding the use of hydrogen. We want to be exemplary for the use of hydrogen – as a building block for sustainable mobility and for the defossilization of the industry. I think the Hydrogen and Mobility Innovation Center is excellently suited to bring precisely these plans to life. At the same

time, it enables young people to further their education in promising technologies and to conduct research on them. Thus, the Hydrogen and Mobility Innovation Center can develop national and international appeal beyond the borders of Saxony and contribute to Saxony's further development into a leading location for hydrogen technology in Germany.«

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Saxony's State Minister for Science, Culture, and Tourism, Sebastian Gemkow, says: »Hydrogen can and should become the energy carrier of the future in Saxony. The Saxon State Ministry of Science, Culture, and Tourism is promoting the research necessary for this. With Chemnitz University of Technology, the Fraunhofer Institutes IWU and ENAS, the innovation cluster HZwo e.V., and a broad alliance of industry, science, associations and further education, excellence in hydrogen research is already gathered at the Chemnitz site, and we support Saxony's application for the BMVI's national technology and innovation center for hydrogen technology for mobile application wholeheartedly. In addition to more sustainable industrial production towards more environmental friendliness and completely new products, the HIC – Hydrogen and Mobility Innovation Center will become the important Saxon generator for hydrogen technologies in Germany and beyond.«

The Mayor of Chemnitz, Sven Schulze, emphasizes the advantages of the planned location: »The city and the region have an excellent and future-oriented network of up-and-coming companies and strong research institutions, which are already working intensively on the transition to the hydrogen economy with success. This is an excellent basis for the development and operation of the hydrogen technology center. The city has also developed the Technology Campus South, a 23-hectare research-oriented industrial park in the immediate vicinity of Chemnitz University of Technology with ideal conditions for hydrogen research.«

Prof. Dr. Gerd Strohmeier, President of Chemnitz University of Technology, emphasizes: »Chemnitz University of Technology supports the application for the national technology and innovation center for hydrogen technology for mobile application with the utmost vigor. Hydrogen and fuel cell technology is absolutely the technology of the future, which has been a focal point in Chemnitz and at Chemnitz University of Technology for years with regional, national, and international appeal. Under the leadership of Prof. Dr. Thomas von Unwerth and embedded in an extremely large network of science, industry, and politics, it has been possible to create ideal conditions for the HIC – Hydrogen and Mobility Innovation Center at the Chemnitz site.«

The Rector of TU Dresden, Prof. Ursula M. Staudinger, says: »Hydrogen is of great importance for increasing the sustainability of our energy systems. Hydrogen – its research and application – are important building blocks for climate protection but also for structural change in Saxony. Due to its long tradition in energy technology, TU Dresden is conducting targeted research on this topic, from hydrogen liquefaction to storage optimization. In association with our partner institutions in the DRESDEN-concept Alliance, we ensure the direct implementation of research results in practice through close coordination with Saxon industry.«

Using existing structures immediately and setting new standards

SMEs, suppliers, and vehicle manufacturers are already testing and developing their components, fuel cells, and vehicle drives in existing facilities of the HIC Alliance. Experts are already on site because of the Technology Campus' proximity to Chemnitz University of Technology and the Fraunhofer Institutes for Machine Tools and Forming Technology IWU and for Electronic Nano Systems ENAS. As recently as the end of 2020, Saxony's state government granted Chemnitz University of Technology and Fraunhofer IWU eight million euros to further expand their fuel cell and hydrogen laboratories. Together with the investments of Vitesco Technologies, a total of around eleven million euros flowed into the location.

If the application is successful, the work already underway at an international level in the HIC Alliance's facilities for transfer and value creation could be expanded immediately to test, inspect, and certify many more innovations and jointly develop new norms and standards. This is especially critical for success in world markets.

Prof. Welf-Guntram Drossel, Director of the Fraunhofer IWU: »Chemnitz has developed into an important research location for hydrogen technology. The combination of system development, the investigation of innovative application scenarios, and production research is unique. Only this synergy enables rapid and efficient implementation in industry.«

Prof. Thomas von Unwerth, Chairman of the Board of HZwo e.V. and Head of the Institute for Automotive Research at Chemnitz University of Technology, is convinced of the right approach of the HIC: »We are facing an extremely important task. We must close the gap that arises in the conversion of the economy to hydrogen. SMEs cannot build the test capacities they need on their own. We noticed this again at the top-level HZwo CONNECT meeting

last fall. That is why we at HZwo e.V. are taking the next step and preparing to establish the HIC. With the support of the BMVI, it will reach the German supplier industry far beyond Saxony.«

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Karl Lötsch, managing director of HZwo e.V. and spokesman for the HIC alliance, is entering the location competition full of confidence: »Although we have strong competition, I believe we can look forward to the decision-making phases with confidence. Our application is convincing because we have an excellent location with perfect transport links. We have strong research partners right on site to offer companies first-class support and fresh know-how along the entire hydrogen value chain. If we succeed, this would be possible as early as this year. Last but not least, we also have support at the every political level – from the municipal to the state level.«

Dates, schedule and more information

More information on the HIC concept, its supporters, and the schedule for the location competition is available in the digital press kit:

<http://hzwo.eu/media/HIC-Pressemappe.pdf>

Details on the federal government's site competition for the national technology and innovation center for hydrogen technology for mobile application are available online:

<https://www.bmvi.de/SharedDocs/DE/Pressemitteilungen/2020/059-scheuer-zentrum-wasserstofftechnologie.html>

Picture:

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(1) The »HIC – Hydrogen and Mobility Innovation Center« includes a large vehicle laboratory, an extensive hydrogen certification center, test benches for fuel cells, as well as a training center and an experience Lab. © HZwo