

FVV Newsletter 03/2021

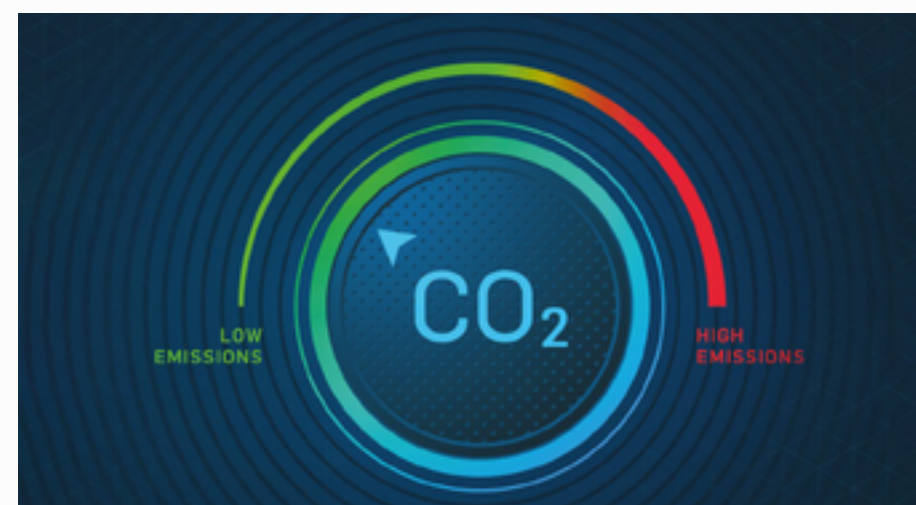
The members of the FVV are resolutely working together, locally as well as globally, to pave the way for a zero-emissions future in energy conversion. Systematic research that involves many different energy sources and converters demands a large, collective network beyond the traditional sector boundaries of energy and transport. So we were very pleased and grateful that the partners of our strong innovation network were able to meet and exchange ideas in person on site at the Nürburgring for the 2021 FVV Autumn Conference. After all, networked actions and knowledge transfer are essential components of Industrial Collective Research (IGF). We are looking confidently to 2022 - a year in which we wish to continue with a meaningful combination of face-to-face and digital meeting formats for our research work, and wish you all a pleasant and restful turn of the year. **Please, stay connected. #staytogether**

RESEARCH PRIORITY ›ALTERNATIVE FUELS‹

Alternative fuels play a central role in the energy transition. Depending on the area of application, biofuels or electricity-based fuels can be used to reduce greenhouse gases and achieve climate protection targets in the corresponding sub-sectors of transport - on the road, on water and in the air.

In the new, fourth FVV Fuel Study conducted by Frontier Economics and ifeu, the expert group «Future Fuels», headed by Dr. Ulrich Kramer (Ford), identified **42 technological transformation paths** that will enable the European transport sector to meet the **climate objectives** set out in the **Paris Agreement**. The analysis shows that it will not be possible to meet the 1.5-degree target without taking existing vehicles into account.

The carbon footprint of the existing fleet is the decisive factor in achieving the climate goals | FVV publishes six theories on climate neutrality in the European transport sector



Electricity, hydrogen or synthetic fuels: When it comes to the energy sources to be used in road transport of the future, there is much debate. A new study by the research association FVV now shows: Powertrain technologies are not the decisive factor for the speed at which transport in Europe can become both sustainable and climate-neutral, but rather the fastest possible departure from fossil energy carriers.

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From Traditional to Wow: FVV at the Handelsblatt Automotive Summit 2021



Sustainability is more than just climate protection // The EU auto industry's contribution to the transformation of the energy and transport systems // The editorial team of the German trade journal Handelsblatt in discussion with Dietmar Goericke, Managing Director FVV, Karsten Schulze, CTO of the German automobile club ADAC, and Adrian Willig, en2x - Wirtschaftsverband Fuels und Energie

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THE PEOPLE BEHIND MODERN RESEARCH



The reliability engineer

Engineer Dr. Zeljana Beslic researches damage to develop more sustainable products.

A single dent on the edge of one tooth; one flaw in the coil of an electrical motor // Although barely visible to the naked eye, these kinds of defects could cause a vehicle to break down – rendering it completely out of action. To prevent this situation, engineers investigate problems, study damage mechanisms, perform complex calculations and measurement series over long time periods, and develop ways to solve the issues. This work is Zeljana Beslic's world. When the 33-year-old mechanical engineer talks about her job, she does so with a smile: »Me, a reliability engineer ...«

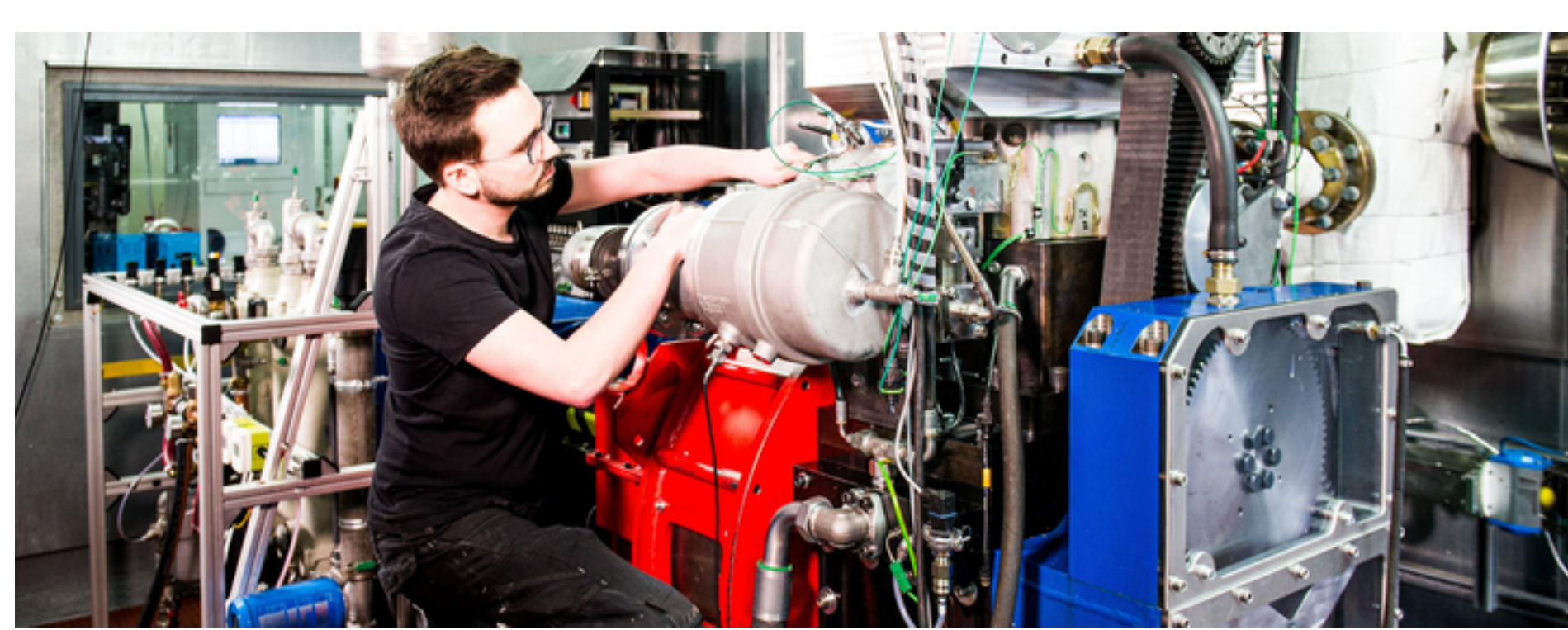
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NETWORKED ACTION FOR ZERO EMISSIONS



To mark the FVV 2021 Meeting of Members, we have published the latest issue of our annual magazine. «PrimeMovers.» is an annual magazine on Industrial Collective Research (IGF) on sustainable and efficient energy conversion systems for mobile and stationary applications. The magazine features a number of selected articles on relevant research topics from throughout the year. Additionally, representatives from business and science share their perspectives on questions around clean energy and mobility. The new magazine 2021 | »**Networked action for zero emissions**« is completed by FVV's annual report 2021 including the complete research programme.

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Industrial Engines as Power Systems – Research for Optimum System Design

MTZ 09/2021 // The latest FVV research priority report in the MTZ Worldwide Magazine is dedicated to industrial engines which are used in a wide range of applications: in work equipment, construction and agricultural machinery, as emergency gensets, as combined heat and power plants, in mining, railways and watercraft. The power spectrum of currently produced four-stroke engines ranges from single-cylinder units with 1.5 kW to 10,000 kW marine engines. This broad range of applications and the long service life of industrial engines call for research to reconcile climate neutrality and economic efficiency. The FVV promotes the use of **climate-friendly energy sources, hybridisation and fuel cells as alternative energy converters**. There is one common challenge for the many different applications: The optimum is not achieved primarily through technical details, but rather through **system design**.

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You will find further technical publications on our website: [FVV Research Priorities](#) | [MTZ Project Reports](#)



THEMIS News

- Face-to-face vs online collaboration: [The best of both worlds](#)
- FVV 2021 Autumn Conference: [Download all presentations](#)
- THEMIS Calendar: [FVV meetings in January/February](#)

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EVENTS

22 - 23 February 2022 | Hybrid Event
International Engine Congress 2022



The International Engine Congress as a knowledge forum and industry meeting place for engine development focuses on the entire system of engine technology: from energy generation to energy storage to energy conversion. With its unique concept, it brings together the current technological state of knowledge of the entire system of non-fossil fuels and internal combustion engines and their holistic evaluation with regard to climate protection. It is thus the central, practice-oriented platform for the exchange of knowledge and suitable strategic strategies for meeting the Paris and Glasgow climate targets. **Dietmar Goericke will host a session on the Defossilisation of the Transport Sector in Europe - LCA (FVV Fuel Study IV/IVb).**

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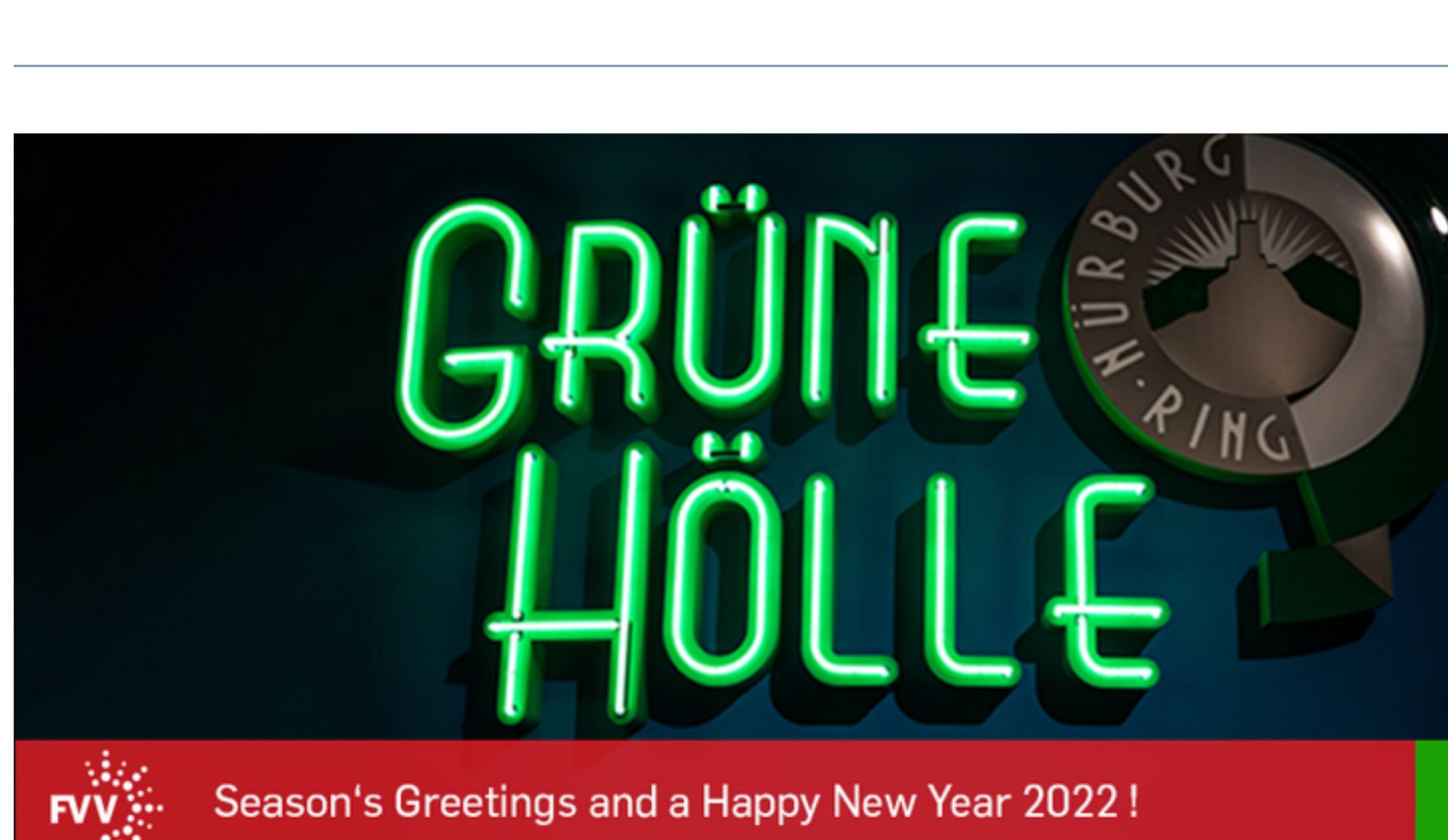
10 – 11 May 2022 | Hybrid Event
Powertrains and Energy Systems of Tomorrow 2022



The technological transformation in individual mobility on the basis of regenerative primary energy requires an intensified technical exchange of ideas between leading representatives of the automotive and energy industry on the one hand and politics on the other. For that reason, this congress will focus on topics that not only describe the change in vehicle powertrains, but also present technological solutions in the associated infrastructure, including the provision of primary energy. Discussions will concentrate on political framework conditions as well as on systemic innovations for the future and digital solutions.

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You will find further information on our websites: [Events](#) | [THEMIS Calendar](#)



The FVV would like to thank you very much for the great projects we have been working on together during this year, for the trust you have placed in us and especially for your valuable cooperation. It was a great pleasure for us to meet again with all of you in November for the FVV 2021 Autumn Conference and the Meeting of Members. **We are very grateful to take these special moments into 2022!** Since the FVV is keen for the member companies to get involved, we would like to invite you to keep contributing new forward thinking topics and ideas to our research work in 2022 and to collectively create knowledge for the transformation that lies ahead.

We wish you and your loved ones a Merry Christmas and much happiness, good health and success in the New Year!

Dietmar Goericke - Martin Nitsche - Matthias Zelinger
and all of the FVV Team

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For questions regarding your newsletter subscription, please contact Petra Tutsch or Stephanie Smieja at newsletter@fvv-net.de