

Scalability of mobile micro-CHPs – AGIP research focus including graduated funding (FSP-Pro)

Project management: Prof. Dr.-Ing. Robin Vanhaelst

Summary: The technical possibilities for the scaling of mobile micro-CHPs (micro combined heat and power plants) are to be investigated in the context of the research focus on the scalability of mobile micro-CHPs. Combined heat and power plants use the principle of the cogeneration of thermal and electrical energy, with a high degree of efficiency. On the basis of IAV GmbH's trade fair model of a Power Conditioning Unit (PCU) and well-known 15 kW concepts from the vehicle technology sector, functional samples are to be built based on models and tested in the lab. The results are to be integrated into a new 1 kW version, first theoretically and then in the design phase, and the practical application for the automotive industry checked out on a prototype by way of example. In addition to determining the application limits for different drive technologies, a particular aim is to find the appropriate coordination of system components, for which the optimum energy efficiency will be achieved in this new performance range.

Funding: State Funding
Niedersächsisches Vorab, via Hannover University of Applied Sciences and Arts

Duration: 2013 – 2018

Funding amount: 118.667 €

Organisational unit: Faculty of Automotive Engineering

Research areas: Renewable Energies and Resource Efficiency
Intelligent Systems for Energy and Mobility



Niedersachsen



VolkswagenStiftung

Salzgitter

Suderburg

Wolfenbüttel

Wolfsburg