



PRESS RELEASE

AZL Aachen GmbH in cooperation with CONBILITY® GmbH and RWTH Aachen University

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International consortium starts study on technological analysis of energy storage systems with 19 participating companies

With a kick-off on January 30, 2018, AZL Aachen GmbH, in cooperation with 19 participating companies as well as RWTH Aachen University and CONBILITY® GmbH, has launched an international market and technology study. Over the next 8 months, the team of experts will work out a detailed insight into the technologies of the diverse energy storage systems. Together with the consortium, the technology experts will analyze established and emerging storage systems, in particular with regard to the materials used and the production technologies for the production of key components. The study results are especially relevant for suppliers of materials, processing technologies and machinery and equipment. Companies wishing to evaluate the potential of their products and production technologies as well as their know-how in the field of energy storage systems are invited to participate in the study.

The kick-off meeting on January 30, 2018 opened the first phase of the study, which focuses on detailed market segmentation, including the identification of market requirements and potentials as well as existing and future technologies and their respective readiness levels. In addition to energy storage in the transport sector, the study will examine storage systems and technologies in other market segments. These include thermal, electrochemical, mechanical and electrical storage systems. At the kick-off meeting, participants were given a first market overview including exemplary market segments and possible storage technologies. The study structure was presented on the basis of the two example technologies and applications of lithiumion batteries in the automotive sector and power-to-gas technologies. In a workshop, the participating





companies raised unanswered questions and provided initial impulses for focusing the study analyses by voting on relevant market segments.

The market and technology study has a strong focus on the technological analysis of established, emerging and evolving systems and technologies. The analyses provide a broad basis for decision-making for the business development of companies. After the market analysis of the first phase of the study, the expert team identifies applications in the field of energy supply, the operation of power grids as well as stationary decentralized and mobile applications. Different system configurations, materials and components are analyzed to identify the respective technological enablers. In the final phase of the study, supply chains (providers of systems, materials and technologies) and business models with future technological potential

and requirements are elaborated.



Thomas Wegman, Marketing Manager at Aliancys:

"As the market will grow significantly in the next few years, we see many applications and parts where we can use our resin systems. Composites score highly in both stationary and mobile storage systems due to their durability, chemical resistance and lightweight potential. We want to learn more about the market and where we can develop new applications for composites. Tackling this in the study together with other companies and their specific interests and insights is a good opportunity for us."



Dr. Reiner Karl, Geschäftsführer of Mahr Metering Systems GmbH:

"At Mahr Metering Systems, it is important for us to gain knowledge about which technologies will be relevant for the production of energy storage systems. This is the only way we can develop the right equipment and offer it to the market. The market is growing – but we see the future not only in lithium-ion technologies. That is why the insight into other technologies is of great interest to us."

The study is designed as a joint consortium study. Participants meet with company representatives from different industries and market segments as well as external

experts in various project meetings and workshops. Study participants thus become a direct part of the study and can influence progress according to their specific requirements.

The study started with the kick-off on January 30, 2018 and has a duration of eight months. Interested companies can still join the consortium. Information about the procedure, the results and the possibilities for participation can be found under this link: http://azl-aachen-gmbh.de/energy-storage-systems-study-brochure

Pictures

Your Contacts:



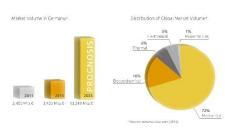


Download of high-resolution pictures (also including portrait pictures):

https://azl-aachen-gmbh.de/wp-content/uploads/2018/02/3_Pictures_Kick-Off-ESS.zip



Picture 1: Representatives from 19 companies took part in the kick-off of the 8-month international market and technology study "Energy Storage Systems", which addresses markets, technology, supply chain and business models in a three-stage process. Copyright: AZL Aachen GmbH/Fröls.



Picture 2: The market volume in Germany for energy storage systems is expected to grow strongly within the next years. *Copyright: CONBILITY® GmbH, Source:* www.statista.com (2015)

About AZL Aachen GmbH:

Partnering closely with the RWTH Aachen University, one of the worldwide leading universities in the field of production technology, AZL Aachen GmbH supports its customers as the interdisciplinary and holistic solution provider to analyze, understand and develop their products, processes and markets. The AZL offers a platform as well as projects to exchange knowledge and to effectively drive innovation by sharing effort. The industrial services include studies and benchmarks, technology advisory as well as development projects. For this, AZL Aachen GmbH its strong network at the RWTH Aachen Campus, which is one of the biggest research landscapes in Europe for enterprises and research institutions. At the Campus, 260 research institutes and more than 4,500 scientists develop the most advanced applications, materials and production methods on over 800,000 m2.

www.azl-aachen-gmbh.com

About CONBILITY®:

CONBILITY® GmbH is an award winning spin-off of RWTH Aachen University, Europe´s leading Excellence University in the field of production technology. Combining market and technology knowledge (material, production methods, production systems) with process optimization along the entire value chain, CONBILITY® consulting services include market analysis, consulting for material selection or qualification, technology consulting, as well as process cost analysis, and process optimization.

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