AZL reveals its founding partners and announces the launch of its unique Composites Academy

The Aachen Center for Integrative Lightweight Production (AZL) of RWTH Aachen University is delighted to announce its founding partners. In a kick-off meeting on February 6th 2013, representatives of the 33 founding companies came together to start the cooperation in Aachen.

In the framework of the Excellence Initiative by the German Government, new clusters will be established on the campus of the University of RWTH in Aachen in the next 10 years: 19 new institutions will be set up on 800,000 m². As one of the first institutions on the new Campus, the Aachen Center for Integrative Lightweight Production (AZL) will be set up. The AZL, founded by Prof. Dr. Christian Brecher¹ and Prof. Dr. Christian Hopmann², is part of the faculty of mechanical engineering, with 62 professorships and more than 10,000 students.

The aim of AZL is to develop the automated production of load-and cost-optimized lightweight components, suitable for mass production and versatile process chains in composite and multi-material design. In addition to the existing excellence in production technology of the RWTH Aachen, this network of competence in lightweight production at one single location is unique: All the necessary expertise along the entire value chain is within walking distance on the campus assembled around the AZL, where over 700 scientists are working on production technologies, lightweight materials and applications. The expertise covers the production from carbon- and glass fibers, textile preforming, high-volume capable plastics processing, automation, machining and testing to applications ranging from oil, water, gas, infrastructure, buildings to and automotive engineering.

Dr. Michael Emonts, CEO of AZL, explains the unique research environment: “AZL is set up within the new cluster “Integrative Production Technology”, which additionally offers approximately 25,000 m² laboratory space for 800 scientists, at the Campus Melaten in Aachen. Within the Campus, companies have the possibility to open own branches or complete development laboratories. The advantage of the direct contact to the staff and the equipment of the excellent research institutes – and especially the close contact to highly qualified students as potential staff after graduation – is already used by major companies from different industrial sectors.”

¹ Professor for Machine Tools at the Laboratory for Machine Tools and Production Engineering WZL, Member of the Board of Directors of Fraunhofer IPT, Speaker of the Cluster of Excellence “Integrative Production Technology for High-Wage Countries”

² Head of the Institute of Plastics Processing – IKV
One of the first projects with the founding partners of AZL is a strategic market and technology study over 12 months (starting in March 2013), focussing essentially on the evaluation of the technical feasibility for mass production of new applications for lightweight materials to establish the institute’s activities. This study identifies applications, components, distribution channels, number of pieces, economic potential, requirements for materials and process chains in 5 major market segments.

Dr. Kai Fischer, Divisional Director Composite Production Technology of AZL, explains: “The unique aspect of this study is that new markets for composites are being identified which are not yet accessible for these materials. The study therefore provides an ideal basis for the development of new strategic business areas for the participating companies all along the value chain.”

„We are delighted to announce today at the JEC Show in Paris 33 founding partners for the launch of the AZL, covering the whole value chain. Most of them are revealed below, some of them will stay anonymous“, announces Dr. Kai Fischer. “From materials suppliers over moulder, manufacturing suppliers, tier 1 and tier 2 to OEMs, we are proud and happy to have with us AFPT, Ashland, DSM, DuPont, EMS Chemie GmbH, EM-Systeme, FA Kümpers, Future Fibres, Gurt, Henkel AG & Co. KgaA, Johnson Controls GmbH, Kegelmann Technik, Lamilux, LANXESS, Laserline GmbH, Lürssen Werft, Mahr Metering, Opel, Röchling, SABIC, Siemens, Tencate, ThyssenKrupp AG, Ticona, Toyota Motor Europe (alphabetic order).“ Dr. Fischer continues: “The cooperation of this fantastic network is the foundation of the AZL and its future projects (see companie’s testimonials attached).”

In summer 2014, the AZL will open its doors with the result of the study. But already since 2012, AZL is working in industrial projects and public research projects. Additionally the targeted projects resulting from the market- and technology study will be developed and implemented.

Michael Effing, CEO of AMAC, who supports the AZL, comments: „Many of the current mainly thermoset-driven applications still have significant labour costs and we see them step by step moving to Middle East and Asia. The Composite technology is of imminent importance for Western Europe and North America, like for lightweight Automotive applications or others. We need to ensure that this technology can stay in Europe and that is why we build on the promising value of the integrated manufacturing of composite systems at the AZL. This is how we want to support the future of Composites in the Western World“.

Together with the opening of the AZL, the unique Composite Academy will be launched.

Dr. Michael Emonts explains: “The AZL’s Composite Academy will offer various disciplines for extra-occupational training, education, seminars or in-depth qualification of experts on all levels, like technicians, lab workers, engineers, and managers. Participants will be able to pass specific education in the field of composite technologies and extra-occupational education. “ Dr. Emonts continues: “With the background of the current shortage of experts and the need for restructuring industrial companies in the future with the introduction of new materials, this Composite Academy will provide essential services, which complete the unique One-stop-shop offer of the AZL. We expect the Composite Academy to take off in 2015“.
AZL
"Aachen Center for Integrative Lightweight Construction" (AZL) - demonstrates lightweight expertise in research and development. The aim of AZL is to develop automated production of load-and cost-optimized lightweight components, suitable for mass production and versatile process chains in composite and multi-material design. This will be done in close interdisciplinary cooperation between material science and manufacturing technology.

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AMAC
AMAC GmbH is an Industrial and Business Consulting Company in the field of lightweight construction materials, based in Aachen, Germany. The business model of AMAC is based on three pillars: establishment and development of networking and clusters between universities and industrial companies, training in Sales and Marketing excellence, as well as Management of Industrial projects.

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