

About this organisation

Machine translation

This organisation has been machine-translated based on data provided in German.

As part of RWTH Aachen University, the Institute of Automotive Engineering (ika) researches the entire vehicle, including its systems and their interactions. From the initial idea through innovative component and system concepts to vehicle prototypes, we are shaping the vehicle of the future. To this end, we work in public and bilateral projects with and for automotive manufacturers and suppliers.

As part of national and international research projects, ika is pursuing approaches to develop solutions to these challenges both at the conceptual level and to research the necessary methods. The ika has access to an extensive infrastructure, from high-performance simulation capacities for the virtual design and validation of vehicle structures to a variety of test benches and test tracks for the validation and evaluation of concepts. In addition, the ika has interdisciplinary links with colleagues in materials science and production engineering.

Steinbachstr. 7
52074 Aachen
North Rhine-Westphalia
Germany
www.ika.rwth-aachen.de



Organisation type

University or higher education institution

Sectors



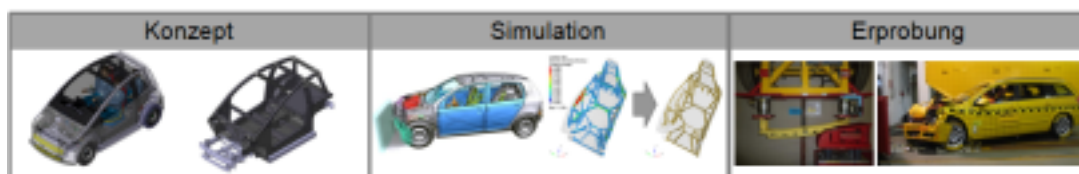
Employees

50 up to 249

Turnover

n/a

Funding



About this organisation

Main areas covered	Conception and construction, Calculation and testing, Passive security, Life cycle analysis (LCA), Benchmarking
Infrastructure	Servohydraulic test centre, Crash system, Drop tower test rig, Benchmarking centre, CAE tools
Certifications	
Keywords	Multi-material construction methods, Vehicle concepts & benchmarking, Crash simulation and testing, Battery box, Life cycle analysis (LCA)
Memberships	AZL GmbH, Centre for Metallic Structures e.V., AMAP GmbH, ACAM GmbH, EARPA

Overview of lightweighting expertise

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	Research	Development	Manufacturing & Supply
Offer			
<i>Products</i>			
Services & consulting Training, Consulting, Testing and trials, Engineering, Validation, Simulation	✓	✓	

Overview of lightweighting expertise

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	Research	Development	Manufacturing & Supply
Field of technology			
Design & layout Lightweight design, Hybrid structures, Lightweight construction concepts, Lightweight material construction	✓	✓	
<i>Functional integration</i>			
Measuring and testing technology Component and part analysis, System analysis, Destructive analysis	✓	✓	
Modelling and simulation Crash behaviour, Loads & stress, Life-cycle analysis, Optimisation, Structural mechanics, Materials	✓	✓	
<i>Plant construction & automation</i>			
<i>Recycling technologies</i>			
Manufacturing process			
<i>Additive manufacturing</i>			
<i>Coating (surface engineering)</i>			
<i>Fibre composite technology</i>			
<i>Forming</i>			
<i>Joining</i>			
<i>Material property alteration</i>			
<i>Primary forming</i>			
<i>Processing and separating</i>			
<i>Textile technology</i>			

Overview of lightweighting expertise

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	Research	Development	Manufacturing & Supply
Material			
Biogenic materials			
Cellular materials (foam materials)			
Composites			
Fibres			
Functional materials			
Metals			
Plastics			
Structural ceramics			
(Technical) textiles			

Contacts

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