

Automotive Centre Südwestfalen GmbH

Research and development centre for lightweight automotive construction

About this organisation

Machine translation

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

Automotive Center Südwestfalen GmbH (acs) is a platform for research and development work as well as knowledge transfer between automotive manufacturers, suppliers and university institutes in South Westphalia. The company provides modern infrastructure, equipment, software and specialised personnel for projects and tasks in the field of research and development.

Its expertise covers the fields of bodywork and chassis as well as rational manufacturing processes for metal, plastic and hybrid material combinations. The acs specialises in working on R&D projects for suppliers and car manufacturers. In these projects, acs mostly deals with the challenges of functional and economical lightweight construction. The following six specialised departments have been set up at acs: Computer Aided Engineering Department 1: Technology and Innovation Management Department 2: Forming Technology and Materials Department 3: Plastics Technology and Materials Department 4: Joining and Assembly Technology Department 5: Testing, Metrology and Materials Laboratory

Kölner Straße 125
57439 Attendorn
North Rhine-Westphalia
Germany
www.acs-innovations.de



Organisation type

Small or medium-sized enterprise

Sector



Employees

10 up to 49

Turnover

€2m - €10m

Funding

n/a

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Main areas covered	Component and assembly development
Infrastructure	Forming technology and materials, Plastics technology and materials, Joining and assembly technology, Testing and materials laboratory, Development and CAE
Certifications	ISO 9001:2008
Keywords	Lightweight automotive construction, Plastics technology, forming technology, Joining technology, testing, Injection moulding technology, development, CAE, structural components, crash
Memberships	

Overview of lightweighting expertise

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	Research	Development	Manufacturing & Supply
Offer			
Products Parts and components	✓	✓	
Services & consulting Consulting, Testing and trials, Engineering, Validation, Simulation	✓	✓	

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Overview of lightweighting expertise

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	Research	Development	Manufacturing & Supply
Field of technology			
Design & layout Lightweight manufacturing, Lightweight design, Hybrid structures, Lightweight construction concepts, Lightweight material construction	✓	✓	✓
Functional integration Material functionalisation		✓	
Measuring and testing technology Component and part analysis, Visual analysis (e.g. microscopy, metallography), System analysis, Materials analysis, Destructive analysis, Non-destructive analysis		✓	
Modelling and simulation Crash behaviour, Loads & stress, Life-cycle analysis, Optimisation, Processes, Structural mechanics, Materials, Reliability validation		✓	
<i>Plant construction & factory automation</i>			
<i>Recycling technologies</i>			

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	Research	Development	Manufacturing & Supply
Manufacturing process			
Additive manufacturing 3D printing, Deposition welding, Selective laser melting (SLM, LPBF, ...), Selective laser sintering (SLS)	✓	✓	
<i>Coating (surface engineering)</i>			
Fibre composite technology Fibre spraying, Pre-preg processing	✓	✓	✓
Forming Bending, Compression moulding, Thermal converting, Deep-drawing	✓	✓	✓
Joining Clinching, Hybrid joining, Adhesive bonding, Soldering, Riveting, Screwing, Welding	✓	✓	✓
Material property alteration Heat treatment	✓	✓	✓
Primary forming Injection moulding	✓	✓	✓
Processing and separating Drilling, Turning, Milling, Sawing, Grinding, Cutting			✓
<i>Textile technology</i>			

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	Research	Development	Manufacturing & Supply
Material			
Biogenic materials Bioplastics, Biocomposites, Wood	✓	✓	✓
<i>Cellular materials (foam materials)</i>			
Composites Aramid fibre composites, Basalt fibre-reinforced plastic, Glass-fibre reinforced plastics (GFRP), Carbon-fibre reinforced plastics (CFRP), Natural fibre reinforced plastics (NFRP)	✓	✓	✓
Fibres Aramid fibres, Basalt fibres, Glass fibres, Ceramic fibres, Carbon fibres, Metal fibres, Natural fibres	✓	✓	✓
<i>Functional materials</i>			
Metals Aluminium, Intermetallic alloys, Magnesium, Steel, Titanium	✓	✓	✓
Plastics Thermoset plastics, Elastomers, Thermoplastics	✓	✓	✓
<i>Structural ceramics</i>			
(Technical) textiles Yarns, rovings, Meshes, Laid webs, Crocheted fabrics, Woven fabrics, Knitted fabrics, Nonwovens, mats	✓	✓	✓

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Contacts

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