

Lightweight Construction Centre Saxony GmbH

About this organisation

Machine translation

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

LZS GmbH was founded in 2003 as part of the TU Dresden Aktiengesellschaft (TUDAG).

Innovative diversity is our strength: LZS GmbH is one of Germany's leading development partners in the field of "function-integrative lightweight system construction in multi-material design". We offer the entire range of services for modern component and system development: from feasibility analysis to design, characterisation, structural and process simulation, production and component testing. Cross-industry product development is supported by certified quality management.

Marschnerstr. 39
01307 Dresden
Saxony
Germany
www.lzs-dd.de



Organisation type

Small or medium-sized enterprise

Sectors

No specific sector

Employees

50 up to 249

Turnover

€2m - €10m

Funding

n/a



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About this organisation

Main areas covered	Feasibility studies and conception, Construction, Structure and process simulation, Material, component and system testing
Infrastructure	Accredited test laboratory, Fibre composite production technologies, Multi-material process technologies, Technology and product consulting
Certifications	DIN EN ISO 9001:2008, Test laboratory: DIN EN ISO/IEC 17025, Rolls-Royce Development Supplier
Keywords	Lightweight construction and multi-material design, Material characterisation, Component and system testing, Design and development, Simulation and method development
Memberships	

Overview of lightweighting expertise

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	Research	Development	Manufacturing & Supply
Offer			
Products Parts and components, Semi-finished parts, Systems and end products, Materials, Tools and moulds	✓	✓	
Services & consulting Training, Consulting, Testing and trials, Engineering, Prototyping, Validation, Simulation, Technology transfer	✓	✓	

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 Actuator technology, Media conductivity, Sensor technology, Material functionalisation	✓	✓	
Measuring and testing technology Component and part analysis, Visual analysis (e.g. microscopy, metallography), System analysis, Environmental simulation, Materials analysis, Destructive analysis, Non-destructive analysis	✓	✓	✓
Modelling and simulation Crash behaviour, Loads & stress, Life-cycle analysis, Multiphysics simulation, Optimisation, Processes, Structural mechanics, Materials, Reliability validation	✓	✓	
<i>Plant construction & factory automation</i>			
<i>Recycling technologies</i>			

Overview of lightweighting expertise

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	Research	Development	Manufacturing & Supply
Manufacturing process			
Additive manufacturing 3D printing, Selective laser melting (SLM, LPBF, ...), Selective laser sintering (SLS), Stereolithography	✓	✓	
<i>Coating (surface engineering)</i>			
Fibre composite technology Fibre spraying, Filament winding, Manual lamination, Resin infusion process, Resin transfer moulding, Pre-preg processing, Vacuum infusion	✓	✓	
Forming Impact extrusion, Compression moulding, Extrusion moulding	✓	✓	
Joining Hybrid joining, Adhesive bonding	✓	✓	
<i>Material property alteration</i>			
Primary forming Extrusion, Pultrusion, Injection moulding	✓	✓	
<i>Processing and separating</i>			
Textile technology Braiding, Preforming	✓	✓	

Overview of lightweighting expertise

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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-fiber reinforced plastics (GFRP), Ceramic matrix composite (CMC), Carbon-fiber reinforced plastics (CFRP), Metal-fibre-polymer composite, Metal-ceramic composite, Metal matrix composite, Natural fibre reinforced plastics (NFRP), Laminates, Textile-reinforced concrete	✓	✓	
Fibres Glass fibres, Ceramic fibres, Carbon fibres, Natural fibres	✓	✓	
Functional materials Shape memory materials, Piezoelectric materials	✓	✓	
Metals Aluminium, Magnesium, Steel, Titanium	✓	✓	
Plastics Thermoset plastics, Thermoplastics	✓	✓	
<i>Structural ceramics</i>			
(Technical) textiles Meshes	✓	✓	

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Contacts

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