

EDAG Engineering GmbH

Competence Centre Lightweight Construction, Materials & Technologies

About this organisation

Machine translation

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

EDAG is the leading independent development company in the automotive industry and develops on behalf of leading vehicle manufacturers. Its core business is the development of vehicles, bodies and modules, model and prototype construction, testing and trials. With our Competence Centres CC Lightweight Construction, Materials & Technologies, CC Electromobility, CC Integral Safety and CC Lighting Technology, we are recognised in the field of innovation.

In addition to technology scouting and carrying out feasibility studies, our lightweight construction expertise lies in the development and testing of new lightweight construction methods, from concept to demonstrator on behalf of customers. Our innovation division is a sparring partner for well-known technology companies and research institutions. Promising technological approaches are identified in order to bring them into series production through innovative pilot projects. Our regular concept studies communicate future potential and encourage dialogue. The EDAG team has many years of experience in steel-intensive lightweight construction, light metal construction methods and FRP technologies. We also have expertise in additive manufacturing. We have access to process and production planners as well as our own materials testing laboratory with various accreditations. This enables us to integrate new material concepts into the CAx process chain and realise lightweight construction methods from the idea to the demonstrator.

Reesbergstraße 1
36039 Fulda
Hesse
Germany

www.edag.de/de/edag.html



Organisation type

Large enterprises

Sectors



Others: Engineering Automobil

Employees

500 and more

Turnover

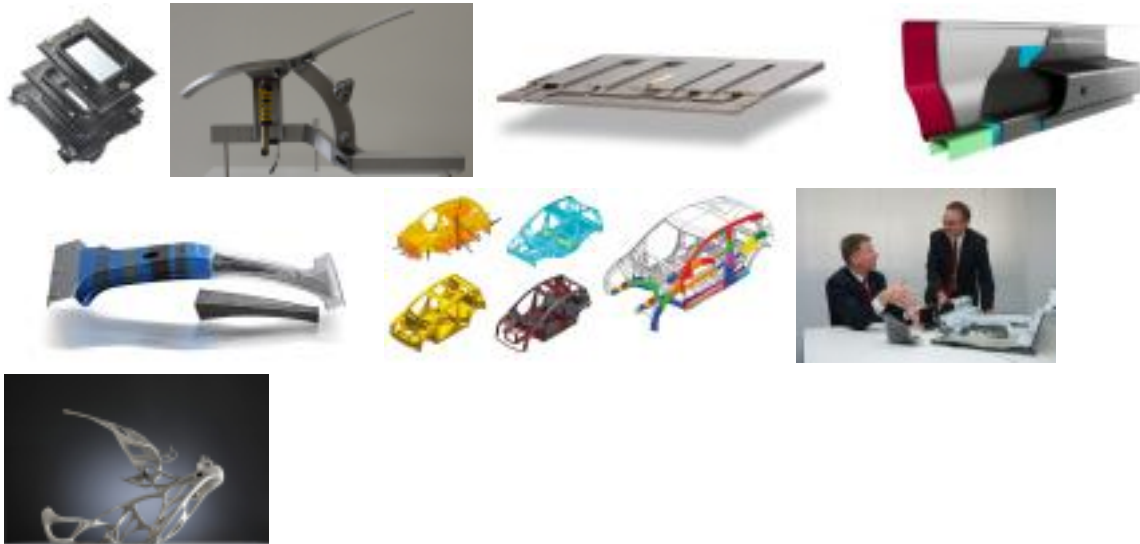
More than €50m

Funding

EDAG Engineering GmbH

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About this organisation



Main areas covered

Innovation Technology management, Conception, design, calculation, Technology planning, Test laboratory, DAR accreditation, Model and prototype construction

Infrastructure

CAD/CAE, Laboratory areas, Competition analysis, Innovation management

Certifications

available, see website

Keywords

Lightweight steel construction, Light metals, Fibre composite, Additive manufacturing, Research co-operations

Memberships

EDAG Engineering GmbH

Competence Centre Lightweight Construction, Materials & Technologies

Overview of lightweighting expertise

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	Research	Development	Manufacturing & Supply
Offer			
Products Parts and components, Machines and plants, Tools and moulds, Others (Factory concepts, virtual factory, production processes)	✓	✓	
Services & consulting Consulting, Testing and trials, Funding, Engineering, Prototyping, Validation, Simulation, Technology transfer, Others (Engineering services, technology consulting, feasibility studies, competition analyses, market entry strategies)	✓	✓	✓

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, Others (Our technology projects are generally intended to demonstrate the potential of these construction methods, illustrate the high demands on design and engineering and encourage dialogue between all those involved in the value chain.)	✓	✓	✓
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, Optimisation, Processes, Structural mechanics, Materials, Reliability validation, Others (the systems commonly used in the automotive engineering industry are applied and further developed)	✓	✓	✓
Plant construction & automation Plant construction, Automation technology, Handling technology, Robotics		✓	

Recycling technologies

Overview of lightweighting expertise

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	Research	Development	Manufacturing & Supply
Manufacturing process			
Additive manufacturing 3D printing, Deposition welding, Electron beam melting, Laminated object manufacturing (LOM), Fused deposition modeling, Selective laser melting (SLM, LPBF, ...), Selective laser sintering (SLS), Stereolithography, Others (We develop new solutions and potential studies from the idea to the prototype. We involve our network in this process, but we are not a contract manufacturer.)	✓	✓	
<i>Coating (surface engineering)</i>			
Fibre composite technology Manual lamination, Resin infusion process, Resin transfer moulding, Pre-preg processing, Vacuum infusion, Others (We have in-house design, calculation and planning experts for all processing methods currently undergoing research and development and utilise our partner network for the sampling of components.)	✓	✓	✓
Forming Bending, Impact extrusion, Compression moulding, Forging, Extrusion moulding, Stretch forming, Thermal converting, Deep-drawing, Fluid active media based forming, Others (Engineering experience and practical expertise from series start-ups)		✓	
Joining Clinching, Hybrid joining, Adhesive bonding, Soldering, Riveting, Screwing, Welding, Others (Know-how Production planning experts from EDAG Production Solutions GmbH. Engineering experience and practical expertise from series start-ups)	✓	✓	✓

Material property alteration

Overview of lightweighting expertise

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	Research	Development	Manufacturing & Supply
Material			
<i>Biogenic materials</i>			
Cellular materials (foam materials)			
Closed-pore, Open-pore, Others (Engineering experience and practical expertise from series start-ups)	✓	✓	
Composites			
Aramid fibre composites, Basalt fibre-reinforced plastic, Glass-fiber reinforced plastics (GFRP), Carbon-fiber reinforced plastics (CFRP), Metal-fibre-polymer composite, Metal-ceramic composite, Nanocomposites, Natural fibre reinforced plastics (NFRP), Laminates, Others (Engineering experience and practical expertise from series start-ups)	✓	✓	
<i>Fibres</i>			
Functional materials			
Others (Application experience from research)	✓	✓	
Metals			
Aluminium, Magnesium, Steel, Others (Engineering experience and practical expertise from series start-ups)	✓	✓	
Plastics			
Thermoset plastics, Elastomers, Thermoplastics, Others (Engineering experience and practical expertise from series start-ups)		✓	
<i>Structural ceramics</i>			
<i>(Technical) textiles</i>			

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Contacts

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