

Manufacturing Technology Institute - MTI of RWTH Aachen University

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About this organisation

Machine translation

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

Together with research partners from industry and science, the Manufacturing Technology Institute | MTI at RWTH Aachen University develops, designs and manages processes and production chains for future-proof, digitalised and sustainable production. In research and teaching, we share practical experience with committed junior staff and offer a wide range of opportunities for close collaboration with manufacturing companies.

The MTI has the following competences in the field of production technology in the area of lightweight construction: - Production of lightweight components: The MTI develops and optimises manufacturing processes for lightweight materials in order to promote their use in various industries. - Process development: New processes for the production of lightweight components are being researched, including efficient processing methods and innovative joining techniques. - Digitalisation: The institute relies on modern technologies such as the digital twin to improve the production of lightweight components and make it more efficient. - Sustainability: There is also a focus on developing sustainable production methods that minimise the consumption of resources and serve the circular economy.

Campus-Boulevard 30
52074 Aachen
North Rhine-Westphalia
Germany
[mti.rwth-aachen.de](https://www.mti.rwth-aachen.de)



Organisation type

University or higher education institution

Sector



Employees

50 up to 249

Turnover

n/a

Funding

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About this organisation

Main areas covered Manufacturing technologies

Infrastructure

Certifications

Keywords Manufacturing technology

Memberships

Overview of lightweighting expertise

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	Research	Development	Manufacturing & Supply
Offer			
Products Parts and components, Tools and moulds	✓	✓	
Services & consulting Training, Consulting, Testing and trials, Prototyping, Validation, Simulation	✓	✓	

Overview of lightweighting expertise

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	Research	Development	Manufacturing & Supply
Field of technology			
Design & layout Lightweight manufacturing, Lightweight material construction	✓	✓	
<i>Functional integration</i>			
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 Loads & stress, Optimisation, Processes, Structural mechanics, Materials	✓	✓	
<i>Plant construction & automation</i>			
<i>Recycling technologies</i>			

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Overview of lightweighting expertise

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	Research	Development	Manufacturing & Supply
Manufacturing process			
<i>Additive manufacturing</i>			
<i>Coating (surface engineering)</i>			
<i>Fibre composite technology</i>			
Forming			
Impact extrusion, Deep-drawing	✓	✓	
<i>Joining</i>			
<i>Material property alteration</i>			
<i>Primary forming</i>			
Processing and separating			
Drilling, Turning, Milling, Electrical discharge machining, Shearing/punching, Grinding, Cutting	✓	✓	
<i>Textile technology</i>			

Overview of lightweighting expertise

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	Research	Development	Manufacturing & Supply
Material			
<i>Biogenic materials</i>			
<i>Cellular materials (foam materials)</i>			
<i>Composites</i>			
<i>Fibres</i>			
<i>Functional materials</i>			
Metals Aluminium, Intermetallic alloys, Magnesium, Steel, Titanium	✓	✓	
<i>Plastics</i>			
<i>Structural ceramics</i>			
<i>(Technical) textiles</i>			

Contacts

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Contacts

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