

# Fraunhofer Institute for Laser Technology ILT

## About this organisation

### Machine translation

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

The Fraunhofer Institute for Laser Technology ILT is one of the world's one of the most important contract research and development institutes in the field of laser development and laser applications. Our core competences include the development of new laser beam sources and components as well as laser manufacturing technology such as cutting, ablation, drilling, welding and soldering as well as micro manufacturing and rapid manufacturing.

The manufacturing processes in the laser material processing technology field include cutting and joining processes in micro and macro technology as well as surface processes. Whether laser cutting or laser welding, drilling or soldering, laser deposition welding or cleaning, structuring or polishing, generating or coating, the range of services extends from process development and feasibility studies, through simulation and modelling, to the integration of processes into production lines. Extensive process expertise is tailored to customer requirements. This also results in hybrid and combination processes. In addition, complete system solutions are offered in cooperation with specialised network partners. Specialised systems, system modifications and additional components are part of numerous R&D projects. For example, special processing heads for laser material processing are developed and manufactured according to customer requirements.

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Germany  
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### Organisation type

Non-university research institution

### Sectors

No specific sector

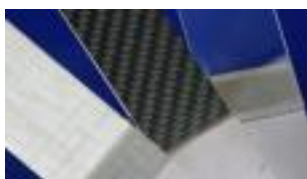
### Employees

250 up to 499

### Turnover

€10m - €50m

### Funding



# Fraunhofer Institute for Laser Technology ILT

## About this organisation

**Main areas covered** Laser-based production technology, Product and process design

### Infrastructure

**Certifications** ISO 9001

**Keywords** Laser processing

### Memberships

## Overview of lightweighting expertise

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	Research	Development	Manufacturing & Supply
<b>Offer</b>			
<i>Products</i>			
<b>Services &amp; consulting</b> Training, Testing and trials, Engineering, Prototyping	✓	✓	
<b>Field of technology</b>			
<b>Design &amp; layout</b> Lightweight manufacturing, Hybrid structures, Lightweight construction concepts	✓	✓	
<i>Functional integration</i>			
<i>Measuring and testing technology</i>			
<i>Modelling and simulation</i>			
<i>Plant construction &amp; automation</i>			
<i>Recycling technologies</i>			

## Overview of lightweighting expertise

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	Research	Development	Manufacturing & Supply
<b>Manufacturing process</b>			
<b>Additive manufacturing</b> 3D printing, Deposition welding, Selective laser melting (SLM, LPBF, ...)	✓	✓	✓
<i>Coating (surface engineering)</i>			
<i>Fibre composite technology</i>			
<i>Forming</i>			
<b>Joining</b> Hybrid joining, Soldering, Welding	✓	✓	
<i>Material property alteration</i>			
<i>Primary forming</i>			
<b>Processing and separating</b> Cutting, Others (Laser 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>			
<i>Metals</i>			
<i>Plastics</i>			
<i>Structural ceramics</i>			
<i>(Technical) textiles</i>			

## Contacts

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