

About this organisation

Machine translation

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

Access is an independent research centre and a member of the Zuse Industrial Research Association. 50 engineers and scientists combine a wide range of individual skills to bring together scientific and technological expertise in materials and processes with a particular focus on metallic materials and casting processes. High-end products for turbomachinery are outstanding examples of this approach.

As a research facility focusing on the development of new casting processes with industrial downstream utilisation, Access has achieved significant success over the past 25 years in the realisation of innovative processes in precision and permanent mould casting for aviation, particularly for the demanding material titanium aluminide (TiAl). Furthermore, development projects on the subject of aluminium are constantly being carried out. Access works in accordance with the EN 9100 quality management standard, all process documentation is standardised to a high level and process sequences meet industry requirements. This also applies to the area of Industry 4.0. The long-term goal is the comprehensive networking of the entire process chain through to the finished component at Access. Access is equipped with state-of-the-art casting, analysis, simulation and machining processes.

Intzestr. 5
52072 Aachen
North Rhine-Westphalia
Germany
www.access-technology.de



Organisation type

Non-university research institution

Sectors



Employees

50 up to 249

Turnover

€2m - €10m

Funding

Access e.V.

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About this organisation

Main areas covered	Material development, Simulation, Pouring, Prototype production, Technology transfer
Infrastructure	Automated investment casting process chain, Industrial quality assurance, Analytical laboratories, Materials development laboratory/3D printing, Simulation computer cluster
Certifications	EN 9100
Keywords	Investment casting, Process simulation, Additive manufacturing, Metal processing, Aviation
Memberships	Zuse Community

Overview of lightweighting expertise

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	Research	Development	Manufacturing & Supply
Offer			
Products Parts and components, Semi-finished parts, Software & databases, Systems and end products, Materials	✓	✓	✓
Services & consulting 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 material construction	✓	✓	✓
Functional integration Material functionalisation	✓	✓	
Measuring and testing technology Component and part analysis, Visual analysis (e.g. microscopy, metallography), Materials analysis, Destructive analysis, Non-destructive analysis	✓	✓	✓
Modelling and simulation Loads & stress, Multiphysics simulation, Optimisation, Processes, Structural mechanics, Materials	✓	✓	✓
<i>Plant construction & automation</i>			
Recycling technologies Recycling	✓	✓	

Overview of lightweighting expertise

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	Research	Development	Manufacturing & Supply
Manufacturing process			
Additive manufacturing 3D printing, Electron beam melting, Selective laser melting (SLM, LPBF, ...)	✓	✓	
<i>Coating (surface engineering)</i>			
<i>Fibre composite technology</i>			
<i>Forming</i>			
Joining Soldering, Screwing, Welding			✓
Material property alteration Mechanical treatment, Heat treatment	✓	✓	✓
Primary forming Casting	✓	✓	✓
Processing and separating Drilling, Turning, Milling, Electrical discharge machining, Honing, Sawing, 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>			
Composites			
Metal matrix composite	✓	✓	
<i>Fibres</i>			
<i>Functional materials</i>			
Metals			
Aluminium, Intermetallic alloys, Magnesium, Steel, Titanium, Others (FeAl alloys, nickel-based alloys, TiAl alloys)	✓	✓	✓
<i>Plastics</i>			
<i>Structural ceramics</i>			
<i>(Technical) textiles</i>			

Contacts

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Contacts

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