CTC GmbH (Composite Technology Center)

Subsidiary company of AIRBUS Operations GmbH

About this organisation

CTC GmbH, based in Stade, is a 100% subsidiary of Airbus. At its core, the CTC develops innovative technologies for the industrial and automated processing of composites, especially CFRP. The focus is thus on application-oriented research for primary aircraft structures. However, CTC also develops technologies and holistic solutions for other industries within the scope of development and consulting projects.

The core competencies of the CTC are distributed over the four business fields "Innovation", "Solution", "Production" & "Education" and lie particularly in the areas: - Composite product design and analysis - Research and development projects for fibre composite and lightweight technologies - Development, introduction and operation of highly automated production systems - Consulting and series support for composite production - Process recording, analysis and optimization - Production of single and serial parts in aviation quality - Training & Education in the field of composites and related technologies. The focus is always on the satisfaction of our customers through the realization of the highest quality in compliance with aviation requirements.

Airbusstrasse 1
21684 Stade
Lower Saxony
Germany
www.ctc-composites.com

Organisation type
Small or medium-sized enterprise

Sectors

Employees
50 up to 249

Turnover
€10m - €50m

Funding



CTC GmbH (Composite Technology Center)

Subsidiary company of AIRBUS Operations GmbH

About this organisation

Main areas covered	RTM, HP-RTM, infusion, preforming technologies, collaborative and ind. robotics, design of jiggs and tools, additive manufacturing
Infrastructure	2.500 m² air-conditioned laboratory, production according to EN9100, IoT / robotics areas, qualified training areas
Certifications	EN 9001:2018, ISO 14001:2015
Keywords	RTM, infusion, pultrusion, hand lay-up, prepregs, processing of thermoplastics, additive manufacturing, robotics, simulation, measurement technology, SMC/ BMC
Memberships	Composites United e.V.

Overview of lightweighting expertise

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

CTC GmbH (Composite Technology Center)

Subsidiary company of AIRBUS Operations GmbH

Overview of lightweighting expertise

	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, Thermal activation, Material functionalisation	✓	✓	
Measuring and testing technology Component and part analysis, Visual analysis (e.g. microscopy, metallography), System analysis, Materials analysis, Destructive analysis, Non-destructive analysis	✓	✓	
Modelling and simulation Loads & stress, Life-cycle analysis, Multiphysics simulation, Optimisation, Processes, Structural mechanics, Materials, Reliability validation	✓	✓	✓
Plant construction & automation Plant construction, Automation technology, Handling technology, Robotics	✓	✓	
Recycling technologies Downcycling, Material separation, Recycling, Upcycling	✓	✓	

CTC GmbH (Composite Technology Center)

Subsidiary company of AIRBUS Operations GmbH

Overview of lightweighting expertise

	Research	Development	Manufacturing & Supply
Manufacturing process			
Additive manufacturing 3D printing	✓	✓	✓
Coating (surface engineering) Others (Moderne Lackier- und Beschichtungsverfahren für Luftfahrzeugbauteile)	✓	✓	
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, Thermal converting	✓	✓	✓
Joining Hybrid joining, Adhesive bonding, Sewing, Riveting, Screwing, Welding	✓	✓	
Material property alteration Mechanical treatment, Heat treatment	✓	✓	✓
Primary forming Extrusion, Pultrusion, Injection moulding	✓	✓	✓
Processing and separating Drilling, Milling, Grinding, Cutting	✓	✓	
Textile technology Preforming	✓	✓	✓

CTC GmbH (Composite Technology Center)

Subsidiary company of AIRBUS Operations GmbH

Overview of lightweighting expertise

	Research	Development	Manufacturing & Supply
Material			
Biogenic materials Biocomposites	✓		
Cellular materials (foam materials) Closed-pore, Open-pore	✓	✓	
Composites Aramid fibre composites, Basalt fibre-reinforced plastic, Glass-fiber reinforced plastics (GFRP), Carbon-fiber reinforced plastics (CFRP), Metal-fibre-polymer composite, Natural fibre reinforced plastics (NFRP)	✓	✓	✓
Fibres Aramid fibres, Basalt fibres, Glass fibres, Carbon fibres, Natural fibres	✓	✓	✓
Functional materials Shape memory materials, Piezoelectric materials	✓		
Metals Others (FML)	✓	✓	✓
Plastics Thermoset plastics, Thermoplastics	✓	✓	✓
Structural ceramics			
(Technical) textiles Yarns, rovings, Meshes, Laid webs, Crocheted fabrics, Woven fabrics, Knitted fabrics, Nonwovens, mats	✓	✓	

Contacts

CTC GmbH (Composite Technology Center)

Subsidiary company of AIRBUS Operations GmbH

Contacts

Mr Marc Fette, M.Sc. & MBA	Mr Prof. Dr.-Ing. Axel Herrmann
Chief Executive Officer (CEO)	*Chief Executive Officer (CEO)*
marc.fette@airbus.com	axel.herrmann@airbus.com