

Institute for Research and Development of Sports Equipment

About this organisation

Machine translation

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

The Institute for Research and Development of Sports Equipment, FES for short, is an institute of the supporting organisation IAT/FES of the German Olympic Sports Confederation e.V. The primary aim of the institute is to provide German athletes in international competitions such as world championships or Olympic Games exclusively with innovative, competitive equipment for the most successful participation in these events. in these events as successfully as possible.

Everything that makes you fast is used. Extensive use of fibre composite components. The range here extends from flat supporting structures (canoes) to smaller hollow structures (railway wheel cranks) in prepreg construction. Computer-aided optimisation processes ensure maximum utilisation of the material. From design to small series production, everything comes from a single source.

Tabbertstraße 8
12459 Berlin
Berlin
Germany
www.fes-sport.de

Main areas covered

Sports equipment and measurement technology

Infrastructure

Laboratory for component and material testing, CNC Cutter, Autoclave (up to 10m length), Various CNC milling machines and lathes

Certifications

Keywords

Memberships



Organisation type

Association, Chamber of industry and commerce

Sector



Employees

50 up to 249

Turnover

€2m - €10m

Funding

n/a

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Overview of lightweighting expertise

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| | Research | Development | Manufacturing & Supply |
|---|----------|-------------|---------------------------|
| Offer | | | |
| Products Parts and components, Systems and end products, Tools and moulds | ✓ | ✓ | ✓ |
| Services & consulting Consulting, Testing and trials, Engineering, Prototyping, Validation, Simulation, Technology transfer, Maintenance and repair | ✓ | ✓ | ✓ |
| 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, Environmental simulation, Materials analysis, Destructive analysis | ✓ | ✓ | ✓ |
| Modelling and simulation Loads & stress, Life-cycle analysis, Multiphysics simulation, Optimisation, Structural mechanics | ✓ | ✓ | ✓ |
| <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 |
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| Manufacturing process | | | |
| <i>Additive manufacturing</i> | | | |
| Coating (surface engineering) Painting | ✓ | ✓ | ✓ |
| Fibre composite technology Filament winding, Manual lamination, Resin infusion process, Resin transfer moulding, Pre-preg processing, Vacuum infusion | ✓ | ✓ | ✓ |
| Forming Bending, Rolling | | | ✓ |
| Joining Hybrid joining, Adhesive bonding, Soldering, Sewing, Riveting, Screwing, Welding | ✓ | ✓ | ✓ |
| Material property alteration Mechanical treatment, Heat treatment | ✓ | ✓ | ✓ |
| <i>Primary forming</i> | | | |
| Processing and separating Drilling, Turning, Milling, Electrical discharge machining, Honing, Sawing, Shearing/punching, Grinding, Cutting | | | ✓ |
| Textile technology Preforming | ✓ | ✓ | ✓ |

Overview of lightweighting expertise

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| Material | | | |
| <i>Biogenic materials</i> | | | |
| <i>Cellular materials (foam materials)</i> | | | |
| Composites | | | |
| Aramid fibre composites, Glass-fiber reinforced plastics (GFRP), Carbon-fiber reinforced plastics (CFRP), Laminates | ✓ | ✓ | ✓ |
| <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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Contacts

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