

## Are you familiar with our industrial-grade accredited inspection services?

- Accredited laboratory in line with DIN EN ISO / IEC 17025, to qualify and validate new non-destructive testing (NDT) processes for industrial applications
- Accelerated time-to-market and opportunity for qualified, norm-compliant deployment in industrial applications as well as for complete new in-house developments or custom adaptation of innovative NDT technologies, even in fields where norms have not been established
- Certification of the corresponding quality management system in accordance with DIN EN ISO 9001

## Contact

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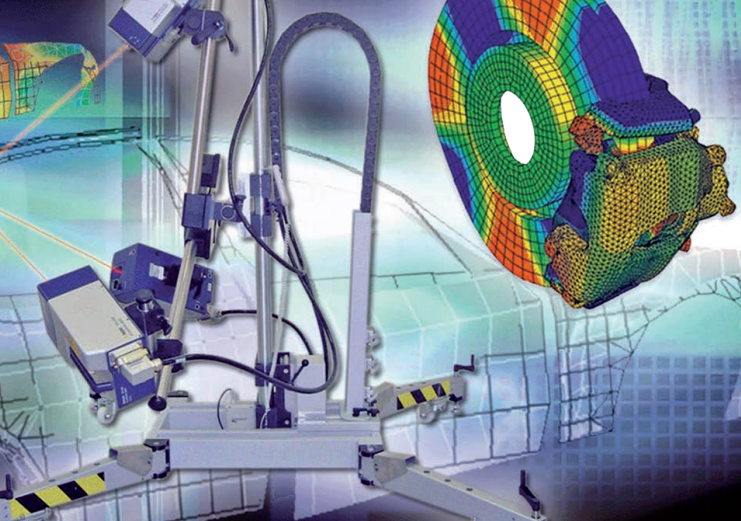


Sensor and Data Systems  
for Safety, Sustainability and Efficiency



## Fraunhofer Innovation Cluster

# Automotive Quality Saar AQS



left: 3D laser vibrometry; middle and right: AQS – Technical center (section)

## Automotive Quality Saar AQS

“Automotive Quality Saar” AQS, an R&D center that belongs to the Fraunhofer IZFP, targets the special needs of the automotive manufacturing and supplier industries by offering innovative nondestructive testing (NDT) solutions from a single source to ensure material and component quality.

The activities of the center are focused on material-intensive, quality-critical automotive primary modules, as well as on solutions for efficient material utilization and streamlined production processes. Apart from certifying new NDT processes, AQS features a training center that offers engineers, technical specialists and managers a variety of certification courses.

The technical center, which includes an 850-square-meter laboratory facility, comprises the entire range of NDT processes and technologies. Utilizing the center’s state-of-the-art equipment and flexible robotics test stations, engineers can adapt, validate and demonstrate automotive-specific automated test solutions.

### Fields of activity

The complex demands that the automobile industry places on NDT processes stem from the complicated interplay of various production chain requirements, which can sometimes collide.

Key aspects include:

- Efforts to deploy semi- or fully-automated systems
- The need for short inspection intervals in series manufacturing systems
- Complex components that are accessible on only one side for testing
- The flexibility to deal with a wealth of new materials and joining processes used in lightweight and composite construction

Hence, the services **portfolio** covers numerous fields of application such as:

- Development, selection, manufacture, processing and utilization of modern materials
  - High-strength steel
  - Fiber-reinforced composite materials
  - Aluminum and magnesium alloys
- Development and deployment of state-of-the-art joining processes
  - Adhesive and bonding technologies

- Welding and soldering technologies
- Mechanical joining processes
- Hybrid joining processes
- Design and manufacture of components and assemblies for lightweight and composite construction
- Development and deployment of test and quality assurance systems
- Characterization of system reliability, operational stability and life span
- Development and deployment of repair concepts
- Recycling

Moreover, together with regional partners, AQS has been offering certified training courses in line with the quality standards of the Fraunhofer Academy since 2011. The courses, which are designed for technical specialists and managers in the automotive industry, contribute to the concept of “life-long learning” as a concrete measure for addressing the threat of skilled labor shortages in Germany.