

SAXONY!



MECHANICAL ENGINEERING IN SAXONY

ENABLING MODERN PRODUCTION

MECHANICAL ENGINEERING IN SAXONY ...

- More than 200 years of tradition – Saxony is the cradle of German mechanical engineering
- Characterized by such global players as **Siemens**, **NILES-SIMMONS**, **Starrag**, or **Koenig & Bauer** as well as numerous SMEs with exceptional competencies in providing solutions for a wide range of customer needs and requirements
- Hotbed for skilled professionals with above-average proportion of engineers: The Faculties of Mechanical Engineering at **Chemnitz University of Technology** and **TUD Dresden University of Technology** are among the leading faculties of their kind in Germany
- Strong network partners: **VEMASinnovativ**, Innovation Cluster **Robotics Saxony**, **Smart Systems Hub**



... OFFERS:

1. Koenig & Bauer Sheetfed AG & Co. KG, Radebeul; 2. Starrag GmbH, Chemnitz; 3. Fraunhofer Institute for Machine Tools and Forming Technology IWU, Chemnitz



Title: Aumann Limbach-Oberfrohna GmbH

- Robotics, digitalization, and AI solutions according to the latest state of automation technology
- Machine tools as well as printing, textile, and special-purpose machinery providing solutions for such diverse branches as the semiconductor, automotive, and food industries, energy and medical technology, and many more
- Specialists for the planning and implementation of complete systems, production lines, and factories
- Innovative solutions for more energy and resource efficiency in production

SMART FAB



An emission-free production while at the same time increasing the efficiency of resources is in the focus of the cluster **eniPROD** Chemnitz. The “climate-neutral factory” is one of five research fields of the **Fraunhofer IWU** in Chemnitz. Such companies as **N+P** from Meerane and **LOGSOL** from Dresden as well as **imk Industrial Intelligence** from Chemnitz are developing software solutions for the planning and operation of sustainable logistics and production processes all the way to factory planning and digital twins.

4. Freiberg University of Mining and Technology;

5. BEAS Technology GmbH, Chemnitz; 6. SchAz - Training and Application Center at the Chemnitz-based ICM institute

MORE EFFICIENCY THROUGH AUTOMATION

Thanks to the interaction of its competencies in mechanical engineering and ICT, Saxony puts its very own stamp on automation – at the interface between robot manufacturers and users. Machine manufacturers with a long tradition such as **SITEC** and **Hiersemann** from Chemnitz, **WESOBA** from Schwarzenberg, or **XENON** from Dresden supply customer-specific production systems with integrated robotics solutions. **Wandelbots** from Dresden paves the way towards adaptive, software-defined production ecosystems – vendor-neutral. The center **CPS - Cognitive Production Systems** at the Fraunhofer IWU assists primarily SMEs in digitalizing their production.

7. *XENON Automatisierungstechnik GmbH, Dresden;*

8. *Starrag GmbH, Chemnitz*



HUMANS AND MACHINES AS COLLEAGUES

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9. Wandelbots GmbH, Dresden;
10. WESOBA Werkzeug- und Sondermaschinenbau GmbH, Schwarzenberg

Robots interacting with humans securely and reliably are the focus of the **Professorship of Robotics and Human-Machine Interaction at Chemnitz University of Technology**. The university's research center **Hybrid Societies** and the cluster **CeTI at Dresden University of Technology** conduct interdisciplinary research on making human-machine encounters more efficient virtually in real time. The center **SchAz** at ICM Chemnitz, the **Competence Center Robotics in Crafts** of the Dresden Chamber of Crafts, or companies like **BEAS** in Chemnitz offer "hands-on robotics" and provide assistance in training employees in the automation process.

3D PRINTING – MORE SPEED, FLEXIBILITY, PRECISION

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Manufacturing complex components faster while reducing material consumption are in the focus of Saxon experts. **ALOtec Dresden** provides systems for additive manufacturing using laser cladding and arc welding. Software solutions that improve the efficiency in 3D printing are developed by **ARC Solutions** in Chemnitz.

Metrom from Hartmannsdorf supplies industrial 3D printers. The network **Building 3D** and the **Freiberg University of Technology** are working on new application fields and sustainable materials for additive processes.

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11. *METROM Mechatronische Maschinen GmbH, Hartmannsdorf;*
12. *NILES-SIMMONS-HEGENSCHEIDT GmbH, Chemnitz*

SAXONY! – A CENTER OF GERMAN MECHANICAL ENGINEERING



1,000
companies



45,000
employees



10.7%

share in Saxony's
industrial turnover

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