



PRESS INFORMATION

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Formula 1 for medical technology

High technology made in Saxony-Anhalt is world-class

The field of medical technology in the German federal state of Saxony-Anhalt, which has about 75 companies and an annual turnover of 160 million euros, is developing into a prospering economic sector. Top technical engineering performances have been at home in the mechanical engineering region for over 100 years. In combination with medical research, Saxony-Anhalt is gaining a reputation as an innovation leader on the world market in the medical technology industry.

One such example is the company COVIDIEN. Johannes Anz is holding a freshly printed brochure in his hands: "COVIDIEN – the plant in Halberstadt from 1990 to 2015". Photos relate a 25-year history as a producer of medical devices. The plant in Halberstadt specialises in the production of adhesive electrodes, particularly for use in the field of electrocardiography (ECG).

But the era of technical successes at this location goes further back. Clocks together with their precision mechanics were produced here at the beginning of the 1950s. The development and production of technology for electronic data processing started in the 1970s. Anz himself came to the plant in 1991 as manager of the "research and development" department, which at that time had restarted the production of medical devices. Since 1998 he has led the plant that belongs to the globally active American company COVIDIEN.

Since 2015, COVIDIEN has been a company of the Medtronic Group, a major medical technology producer from the USA. This starts a new chapter for the plant in Halberstadt, whose products are in demand worldwide. Several hundred million electrodes leave the plant every year for destinations in Europe, the Far East and Middle East as well as New Zealand and Africa. They are leading on the world market. Reliable quality is combined with innovative characteristics. The product range includes electrodes for monitoring cardiac rhythm in short-term or long-term measurements for new-borns and adults. Whether it is used in a sleep laboratory or in an operating theatre, every electrode has its special purpose, explains the plant manager. Moreover, it is crucial that every new development is easy to use and can be sold at a reasonable price. The plant has created clear competitive advantages with the development and construction of fully automated and video-monitored production lines. Among other things, hydrogels are developed in accordance with their different requirements in the in-house "product maintenance" department. Furthermore, the in-house developments include a neutral electrode for high-frequency surgery. It is one of the patented innovations on the world market.

A competence centre for medical technology has been established in Saxony-Anhalt in the region around the city of Halberstadt. Numerous companies in the industry have settled here. For instance, in addition to COVIDIEN this includes companies such as globally active Primed Halberstadt Medizintechnik GmbH,



specialist in the field of wound treatment and diagnostics as well as for technologies with regard to polymer processing, Dahlhausen Medizintechnik GmbH, Europe's largest complete provider of clinical accessories, or Veritas Medizintechnik GmbH, manufacturer of disposable products made of silicone for clinical application. The medical technology location Halberstadt benefits from the traditional plastics competence in Saxony-Anhalt. The plastics industry has been at home here for over 75 years. Since that time the state has evolved into a globally leading competence centre of polymer production and processing. These competence synergies are typical of the Federal State of Saxony-Anhalt. In close cross-sector cooperation with the regional metal industry, electrical engineering, the plastics industry and IT the state obtains important impulses and spawns innovations which are one step ahead on the worldwide medical technology market.

Another hotspot has developed as a centre of medical technology in the north of Saxony-Anhalt around the capital city Magdeburg. Once it served as a centre of heavy machinery construction, but high-tech production of the highest quality is now at home there today.

"Innovations are indispensable in order to meet customer requirements and to be able to survive on the international market", emphasises COVIDIEN plant manager Johannes Anz with regard to his company in Halberstadt.

Peter Weber from Magdeburg also sees the situation the same way. His company HASOMED develops and produces hardware and software for use in the medical and therapeutic field. His son Matthias is co-managing director. The 35-year-old electrical engineer is familiar since childhood with the company which his father established 25 years ago. Matthias Weber's mission is to adapt the company's portfolio to the requirements of the international market. HASOMED has its customers worldwide – including in the USA, Korea, Malaysia, China, Australia, Russia and in Europe.

Nearly a third of the workforce, 85 employees, works in the in-house research and development department, particularly with regard to medical technology for neurological rehabilitation. "Entirely new fields of application arise for our functional electrostimulation systems with the linkage to robotics", says Peter Weber. "For patients with paraplegia or with neurological diseases such as stroke we have developed devices which expand the passive movement training of arms and legs through electrostimulation. Our stimulator sends electrical impulses via electrodes to the muscles and generates targeted movements of extremities – despite paralysis."

Son Matthias adds: "In order to develop appropriate pioneering products, we are actively involved in the most varying projects." One of them is the Cybathlon, an international competition for para-athletes who have robotic tools for assistance. "Our partners are the TU Berlin and the Berlin Accident Hospital, where paraplegics train on our RehaBike for participation in October 2016", says Weber. "It is like Formula 1, where high technology which is later adopted in a consumer product, is developed and tested for the competitions."

The further development of ultrasonic diagnostics is also receiving important impulses from Saxony-Anhalt. Ultrasonic sensors are being increasingly used in medical technology, for instance in devices for testing automated processes, such as devices developed and produced by SONOTEC Ultraschallsensorik Halle GmbH. "And our devices are made according to the individual requirement of our customers, who produce machinery and systems for medicine, pharmacy and biochemistry", emphasises Hans-Joachim Münch, managing director of SONOTEC Ultraschallsensorik Halle GmbH. In 1991 he and Santer zur Horst-Meyer, both are old friends since their studies of physics, established the joint

technology company in Halle an der Saale. Now after 25 years SONOTEC has 125 employees and a growing sales market for ultrasonic sensors, which for example check dialysis machines or heart and blood pumps for health-damaging air bubbles. Unique on the world market up to now is a flow sensor, which in addition to flow velocities, can also register air bubbles quickly and without contact by means of flexible tubes. For example, it is used in heart-lung machines, during catheter-supported special cardiac interventions and for monitoring infusions.

SONOTEC has built up a network consisting of industry and science. "The research landscape in Saxony-Anhalt generates a knowledge transfer on a high level and ensures well-trained specialists who spawn innovative ideas and solutions", says Münch. Martin Luther University Halle-Wittenberg and Otto-von-Guericke University Magdeburg, the Anhalt und Magdeburg-Stendal Universities of Applied Sciences as well as the Fraunhofer and Max Planck Institutes in Halle and Magdeburg pursue practically oriented research in the field of medical technology and thereby cooperate above all with medium-sized enterprises.

"Our company benefits from this network", says Münch, and emphasises that SONOTEC has remained in Saxony-Anhalt because of these positive locational factors. In the meantime, the technology company has its customers worldwide. The direct export share is 20 percent, while the indirect share via clients is 70 percent. The company has sales locations in the Czech Republic and in the USA in order to be close to customers there in terms of service and advice.

More information about the Investment conference "**CHECK-IN FOR SUCCESS Saxony-Anhalt**":

<http://www.invest-in-saxony-anhalt.com/CHECK-IN-FOR-SUCCESS-2016>.

More information about the medical engineering location **Saxony-Anhalt**:

<http://www.invest-in-saxony-anhalt.com/medical-technology>

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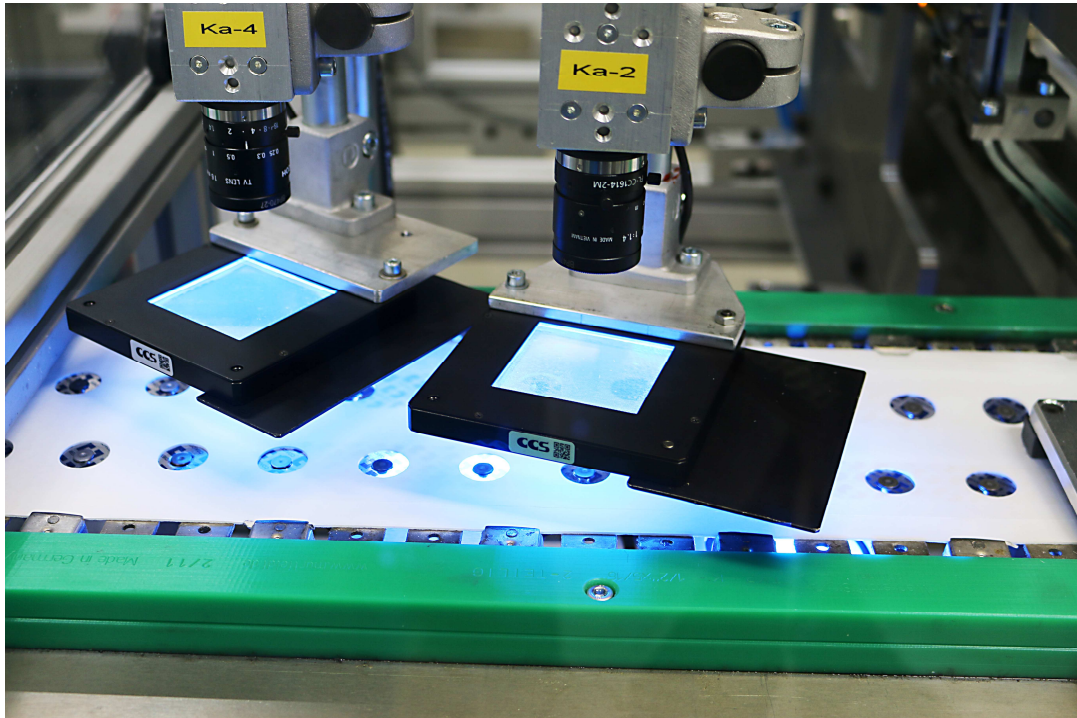


Photo:
The COVIDIEN production line in Halberstadt for adhesive electrodes runs fully automated and is monitored by video cameras. (Photo: COVIDIEN)



Photo:
HASOMED managing directors Peter and Matthias Weber (sitting) demonstrate the RehaBike for paraplegics, a complete in-house development by the company. (Photo: HASOMED)