

VDE DGBMT presents position paper – structural transformation through digitalization and AI requires technological sovereignty

- **Driving comprehensive digitalization forward and safeguarding component availability**
- **Promoting key technologies and achieving data ownership**
- **Strengthening SMEs as the drivers of innovation in the medical technology sector**

(Frankfurt, December 03, 2021) Healthcare is impossible without medical technology (MT) and biomedical engineering (BME). Germany and Europe are still international leaders in MT and BME, because they are the origin of several central innovations and technologies. However, in the last few years, it has become clear that this leading position is under threat as a result of insufficient digitalization, the hesitant use of AI, over-regulation and in some cases a lack of basic technology. During the same period, other players have shifted up several gears.

Addressing issues and not falling by the wayside

Dr. Birgit Habenstein, Managing Director of the German Society for Biomedical Engineering in VDE, states that, “Whether concerning the uncertain availability of chips for manufacturers or the lack of sustainable digitalization and interoperability in the healthcare system, we need to address the issues and pick up speed if we are to hold on to a pioneering role.” The new VDE position paper “Technological sovereignty in biomedical engineering - The focus on the human being” explains actual challenges and presents key recommendations that are to accompany the development of Medical Technology and Biomedical Engineering in Germany and Europe.

Promoting key technologies and achieving data ownership

When attempting to identify suitable measures for the future, it is worth considering the entire BME value chain. According to Dr. Habenstein, “We have to modernize education and training, make up for the lack of technical experts and medical care personnel by means of smart concepts, and adapt regulation so that it promotes innovative research and development.” The relevance of artificial intelligence will increase significantly at all levels, from the robot in the operating theater to home monitoring in the care sector.

VDE DGBMT considers microstructure technology, smart nano- and biomaterials and substances, as well as communication technology, digitalization and AI as key technologies to succeed in the sector in future. Furthermore, to fully exploit the opportunities and to establish a secure basis for R&D and applications, Germany and Europe need to independently collect, store, analyze and use data. “When sensitive data is collected in Europe and then migrated to a different continent, we lose technological sovereignty – the EU should avoid this urgently,” states Dr. Habenstein.

Supporting SMEs and maintaining security

Furthermore, promoting SMEs is a central factor, especially when considering the implementation of the MDR (Medical Device Regulation), and concerning simplifying and speeding up market access and the opportunities for public-private partnerships. State support is a key factor to fully unlock the potential of SMEs as the drivers of innovation in the sector of MT and BME. “A final important asset to this sector in Europe is the high security and safety standards – we enjoy a great level of trust; people aren’t afraid of a surgical intervention. This advantage needs to persist in future,” explains Dr. Habenstein.

About DGBMT in VDE

The central focus of the work of VDE DGBMT is networking experts from the field of Medical Technology and Biomedical Engineering. In addition, VDE DGBMT organizes conferences and workshops for experts and runs two international scientific journals – Biomedical Engineering and Current Directions in Biomedical Engineering, both published by Walter de Gruyter.

Independent and neutral position and white papers, opinions and expert articles shed light on current topics. DGBMT also awards scholarships for young scientists, for scientific excellence and innovations, and for patient safety in the field of biomedical engineering. Additionally, it represents the German biomedical engineering sector in international committees.

About VDE:

VDE, one of the largest technology organizations in Europe, has been regarded as a synonym for innovation and technological progress for more than 125 years. VDE is the only organization in the world that combines science, standardization, testing, certification and application consulting under one umbrella. The VDE mark has been synonymous with the highest safety standards and consumer protection for 100 years. Our passion is the advancement of technology, the next generation of engineers and technologists, and lifelong learning and career development “on the job”. Within the VDE network, 2,000 employees at over 60 locations worldwide, more than 100,000 honorary experts and 1,500 companies are dedicated to ensuring a future worth living: networked, digital, electrical. We shape the e-dialistic future.

The headquarters of the VDE (Association for Electrical, Electronic & Information Technologies) is in Frankfurt am Main. For more information, visit www.vde.com.

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