PRESS

06/21
1/22/2021

VDE calls for microelectronics master plan

- **New position paper on technological sovereignty for Germany and Europe**
- **Semiconductor shortage reveals: now is the time to act and make Europe a hub for the microelectronics industry**
- **Window of opportunity still open: Germany is strong in power electronics and sensors – both critical for our innovative strength**

(Frankfurt am Main, 1/22/2021) “Microelectronics must remain in Europe. We need a European technology strategy, a master plan,” VDE declared today in a virtual press conference. Europe must greatly increase its commitment to establishing its own microchip manufacturing in order to ensure long-term prosperity. “The system-relevant chip industry affects the entire national economy. The current crisis in the automotive sector shows just how dependent our industries are on semiconductor manufacturers in Asia and the United States,” VDE explains. In the new position paper “Hidden Electronics II”, the technology experts analyze the status quo of microelectronics and show how both Germany and Europe can achieve technological sovereignty – if only they have the necessary political will.

The good news: although the United States and Asia now have the edge in the research and development competition, Germany’s window of opportunity is still open. Germany is currently still a leader in certain areas of semiconductor technology like power electronics and sensors, both of which are system-relevant and important drivers of innovation in all industrial fields. With the right priority, the right focus, and programs with a long-term vision, Europe can expand on these clusters and catch up. “Well-meaning words and undersized programs set up for only a few years are not enough. Our urgent appeal is thus to act now if we want to significantly increase Europe’s share of semiconductor production,” says Prof. Christoph Kutter, a member of the VDE Supervisory Board and an author of the study.

VDE Association for Electrical Electronic & Information Technologies
Editor in Chief Head of Brand, Marketing and Communication: Thomas M. Koller
Stresemannallee 15
60596 Frankfurt am Main
www.vde.com
service@vde.com

What politics, industry, and research should do now:

1. Establish an “Electronics for Europe” master plan

The measures taken up to now have not been enough because the United States and China in particular have recognized the strategic importance of microelectronics and have been massively supporting its advancement for years. Europe now has a choice: to continue half-heartedly on its current track or draw up its own “Electronics for Europe” master plan. A central component of the call to action is the coordination of a European industry policy ensuring the production of microelectronic components in Europe. Germany must take on a pioneering role in drawing up this industry policy.

2. Establish Europe’s technological sovereignty

The question of European technological sovereignty is fundamental. The goal is to maintain essential parts of the value chain domestically. It has become clear that European industry cannot simply assume that the global supply system of important electronic components will always work and should therefore demand that electronic products sold in the European market contain a certain share of locally created content. Europe can demand that at least some of the chips that producers assemble here are also manufactured here. This would force the large semiconductor manufacturers to build factories in Europe if they want to be able to supply the European consumer market. The intellectual property and production technology must remain available in Europe.

3. Permit greater risks in research

Research and innovation must receive support from the government with a very long-term horizon. The typical three-year projects are by no means sufficient – to allow groundbreaking innovations and solid manufacturing expertise, these programs need a horizon of at least ten years. Efforts to prevent market distortions are certainly noble, but a fair global market with universal rules only exists for certain subfields of microelectronics. Europe and Germany need more courage and endurance in their support for new disruptive technologies and application concepts.

4. Promote young talent and new companies

Europe’s very diverse and very strong education system must be expanded further, and clever young minds should be motivated to pursue technological developments and innovations. Europe must kick start developments with strategic support and foster a protected space for developments in this area where they can flourish before eventually standing independently as startups.

5. Expand economic incentives and complement them with direct state commissions
Germany should urgently learn from the successful business development in this area seen in Asia and the United States and find the courage to launch and expand economic incentives in a targeted manner to ultimately foster the establishment of new, innovative companies in strategically important areas. The government has the opportunity to generate expertise at universities and research institutes, but it should also play a supportive steering role in knowledge transfer within the private sector. Strategic priorities should be implemented together with partners from business and science both in long-term programs and in direct government commissions.

Particularly in the field of high tech, there are often enormous risks. Companies often do not tackle new topics head on, but adopt them later once they have achieved a certain level of maturity. Germany is frequently a leader in development projects for power technologies. However, they do not manage to implement them in innovative (mass) products, even domestically. Politicians must recognize the importance of electronics for Germany and Europe as business locations and set their priorities accordingly. The position of Europe – and especially Germany – as a semiconductor hub must be maintained and expanded.

For editorial teams:
The two VDE position papers “Hidden electronics” and “Photonic-electronic integration – key technology for communications and sensors” are available free of charge in the VDE shop at www.vde.com/en.

About VDE:
VDE, one of Europe’s largest technology organizations, has stood for innovation and technological progress for over 125 years. This makes VDE the only organization worldwide combining science, standardization, inspections, certification, and application consulting under one roof. VDE has been synonymous with the highest safety standards and consumer protection for over 100 years. We are dedicated to fostering research and young talent as well as lifelong learning with on-the-job further training opportunities. 2,000 employees at over 60 locations worldwide, more than 100,000 volunteer experts, and approximately 1,500 companies work within VDE to create a future worth living in: networked, digital, and electric. We are building the e-dialistic future.

VDE (Verband der Elektrotechnik Elektronik und Informationstechnik e.V.) is headquartered in Frankfurt am Main, Germany. More information at www.vde.com/en.

Press contact: Melanie Unseld, Tel. +49 69 6308-461, melanie.unseld@vde.com