

## **Nanoelectronics – Quo Vadis?**

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Scaling of semiconductor technology has been the driving force for the success of information technology for more than 40 years. However, as device dimensions continue to shrink into the nanometer length-scale regime, conventional semiconductor technology is facing fundamental physical limits as well as technological and financial challenges. Already nowadays power consumption has become the new technology driver. In that respect new strategies are explored, for example the use of novel materials and 1D-device concepts including innovative device and system architectures. This presentation will outline the challenges of the current semiconductor roadmap, discuss potential solutions and emphasize the importance of this core technology for the future of information technology.