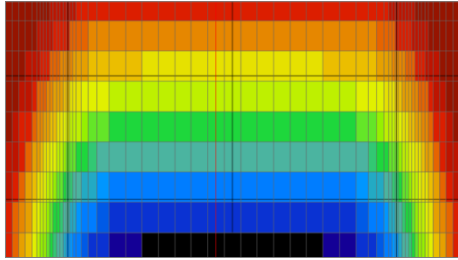


# MICROSENSORS FOR THE WORLD OF TOMORROW

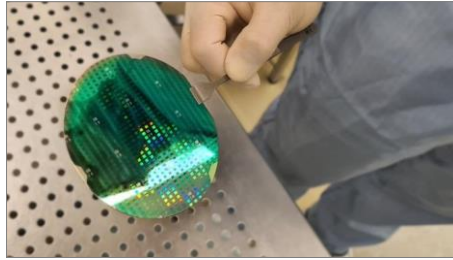


From design to prototyping. - Reliable. Long-term stable. Precise.



## 1. SIMULATION & DESIGN

Highly specific design workstations are available for the design of customer specific sensors, the development of design rules as well as layouts for mask production. Software tools are used to simulate the sensory properties and technological sub-steps.



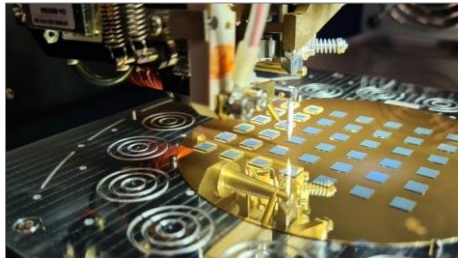
## 2. PROCESS DEVELOPMENT

Based on high-tech competencies within wafer and component manufacturing, new processes and technology modules are developed. Later that can be integrated into the technology flow of research projects and product developments.



## 3. WAFER PROCESSING

We have typical processes for the mono-lithic integration of sensory and electronic functions in silicon wafers and chips, microstructuring processes and technology platforms for double-sided and three-dimensional structuring.



## 4. ASSEMBLY & BONDING TECHNOLOGY

All technological sub-steps of micro assembly and packaging of microelectronic and photonic components as well as microsystem sensor modules for prototypes and small and medium series are available.



## 5. TEST & ANALYTICS

Our CAK (CiS Analytics Competence Center) stands for the unique combination of the latest technology and highly qualified employees for complex measurement investigations as well as special material and surface analyses.



## 6. PROTOTYPING & SMALL SERIES

Based on basic research and own developments, applied R&D services up to pilot production and small series production of MST components and microsystems, technology transfer is also realized.

# WE RESEARCH & DEVELOP ALONG THE ENTIRE VALUE CHAIN



The CiS Forschungsinstitut für Mikrosensorik GmbH is a privately organized, non-profit, business-oriented research institution with about 120 employees and is one of the leading institutes for the development of high-quality, silicon-based microsensors and microsystems, especially in the fields of MEMS and MOEMS.

Together with its partners from research and industry, the CiS Research Institute creates new innovations for the technical challenges of our time. In close cooperation with politics and science, the CiS Research Institute actively takes responsibility for the transfer of knowledge and the exploitation of research results regarding novel and powerful technologies to increase the innovative power of our economy.

Silicon-based sensors are the main focus of our research and development tasks for industry and science. Starting with application-specific design, process development, assembly and interconnection technology up to the precisely fitting solution, including comprehensive measurement technology and analytics, our portfolio presents the entire value chain. Our focus is on long-term stability, precision and high reliability of the sensors. Based on more than 25 years of "Competence in Silicon", our expertise ranges from R&D services to small series production of customer-specific micro components.

## TECHNOLOGICAL COMPETENCIES

- Highly stable pressure sensor technology in harsh environments at elevated temperatures
- Piezoresistive micromechanical modules for force and displacement measurement
- Functionalized emitter-receiver assemblies
- Micro-optical components
- Multisensor systems
- Radiation detectors
- Quantum technologies



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