

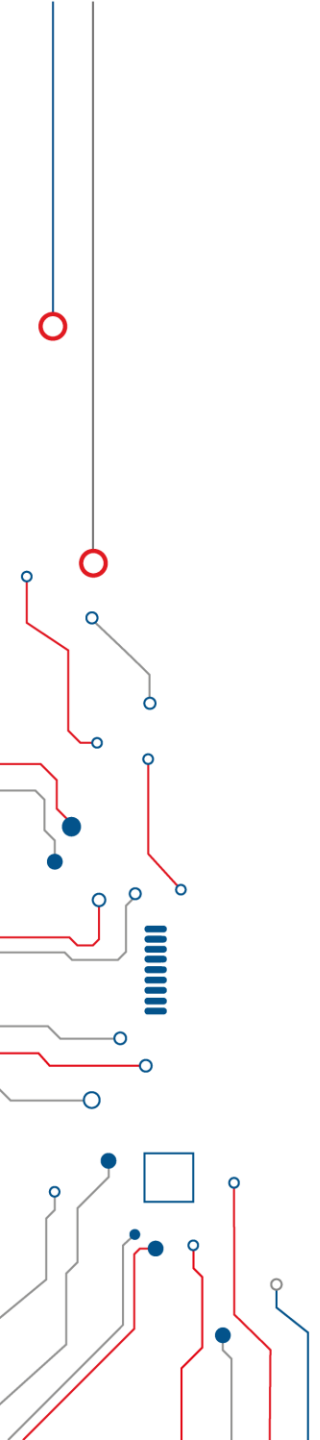


Leibniz Institute
for High
Performance
Microelectronics

IHP – Leibniz Institute for High Performance Microelectronics

Gerhard Kahmen

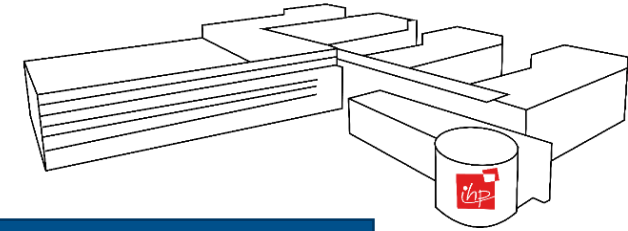
March 24th 2026



IHP- The European Research Center for Silicon-Based Systems, Materials, and Technologies



Our Mission



„Pushing Limits in Microelectronics and Information Technologies through cutting edge Research”

- Research and development across the entire R&D value chain
- Close cooperation with scientific institutions and industry
- Transfer of research results into socially relevant applications
- Training of young scientists and engineers at all levels of education
- Significant contribution to the technological sovereignty of Germany and Europe

Strategic Fields of Activity



Radio Frequency & Broadband Communication Systems



Resilient Systems



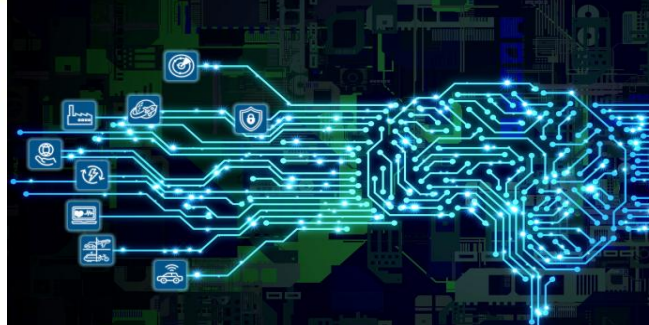
Sensory Systems



Advanced Semiconductor Technologies



Intelligent Edge Systems



Devices & Material Innovations



Our strategic fields and applications



Applications

| | | | | | | |
|---|--|---|--|---|---|---|
| Communications  | Smart X  | Security  | Space  | Industry  | Health  | Life Science  |
|---|--|---|--|---|---|---|

Strategic Fields of Activity

| | | | | | |
|---|---|--|--|---|--|
| Devices & Material Innovations  | Advanced Semiconductor Technologies  | Resilient Systems  | Sensory Systems  | Intelligent Edge Systems  | Radio Frequency & Broadband Communication Systems  |
|---|---|--|--|---|--|

Core Competencies

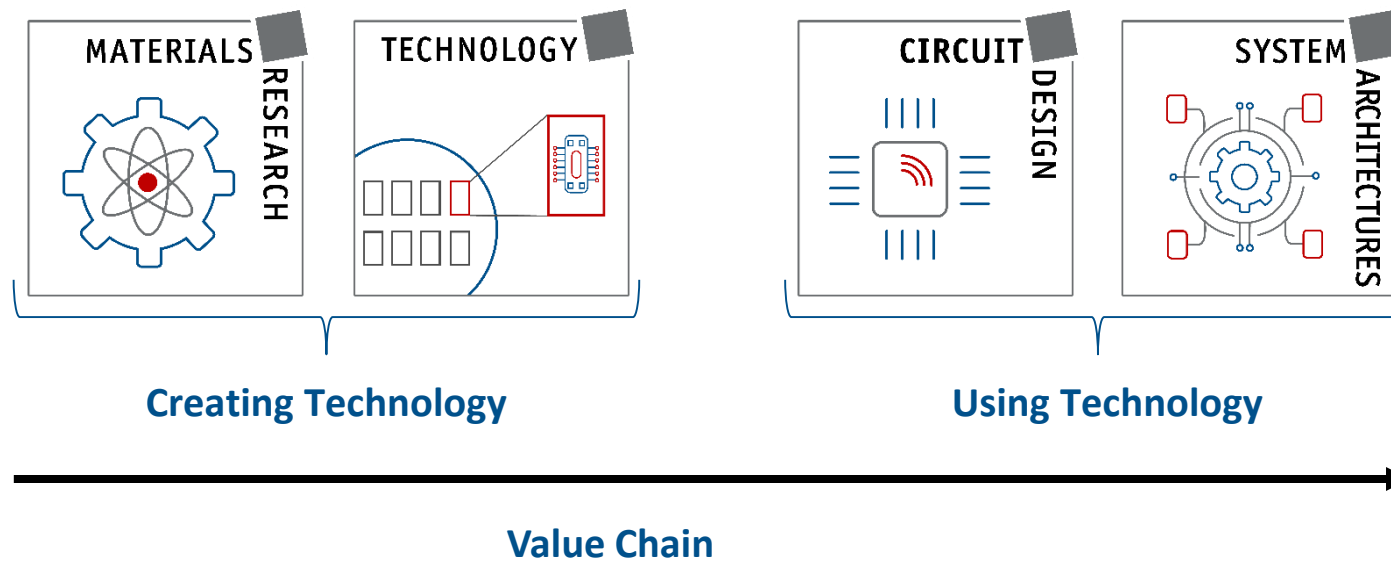
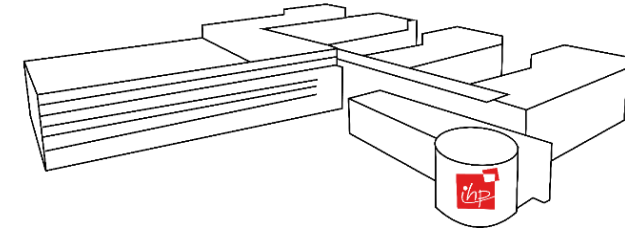
- World-leading RF-BiCMOS and photonic technologies
- Materials research with a focus on group IV materials for high-performance devices
- RF and sub-THz circuits for communication and sensor technology
- Innovative computing and communication system architectures for intelligent edge systems
- Manufacturing of prototypes and small volumes using qualified technologies



Vertical research value chain



- Research and development across the entire value chain based on an industry-compatible infrastructure
- From basic research to application-oriented solutions in all four departments



- ISO Class 3 cleanroom operated in industry like operation mode
- Qualified 200 mm end-to-end BiCMOS technology



Thank you for your attention!

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