



„Leading Edge Foundry Technology for next generation Smart Systems”

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GLOBALFOUNDRIES



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Semiconductors make products competitive

Sector market size, 2013, USD

Data processing
(\$ 455 billion)



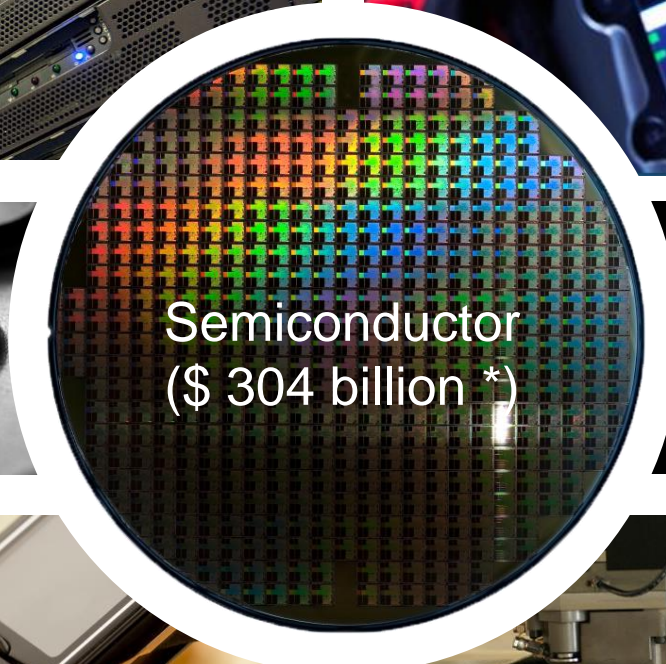
Medical electronics
(\$ 173 billion)



Wired communications
(\$ 99 billion)



Semiconductor
(\$ 304 billion *)



Automotive electronics
(\$ 100 billion)



Mobile communications
(\$ 223 billion)

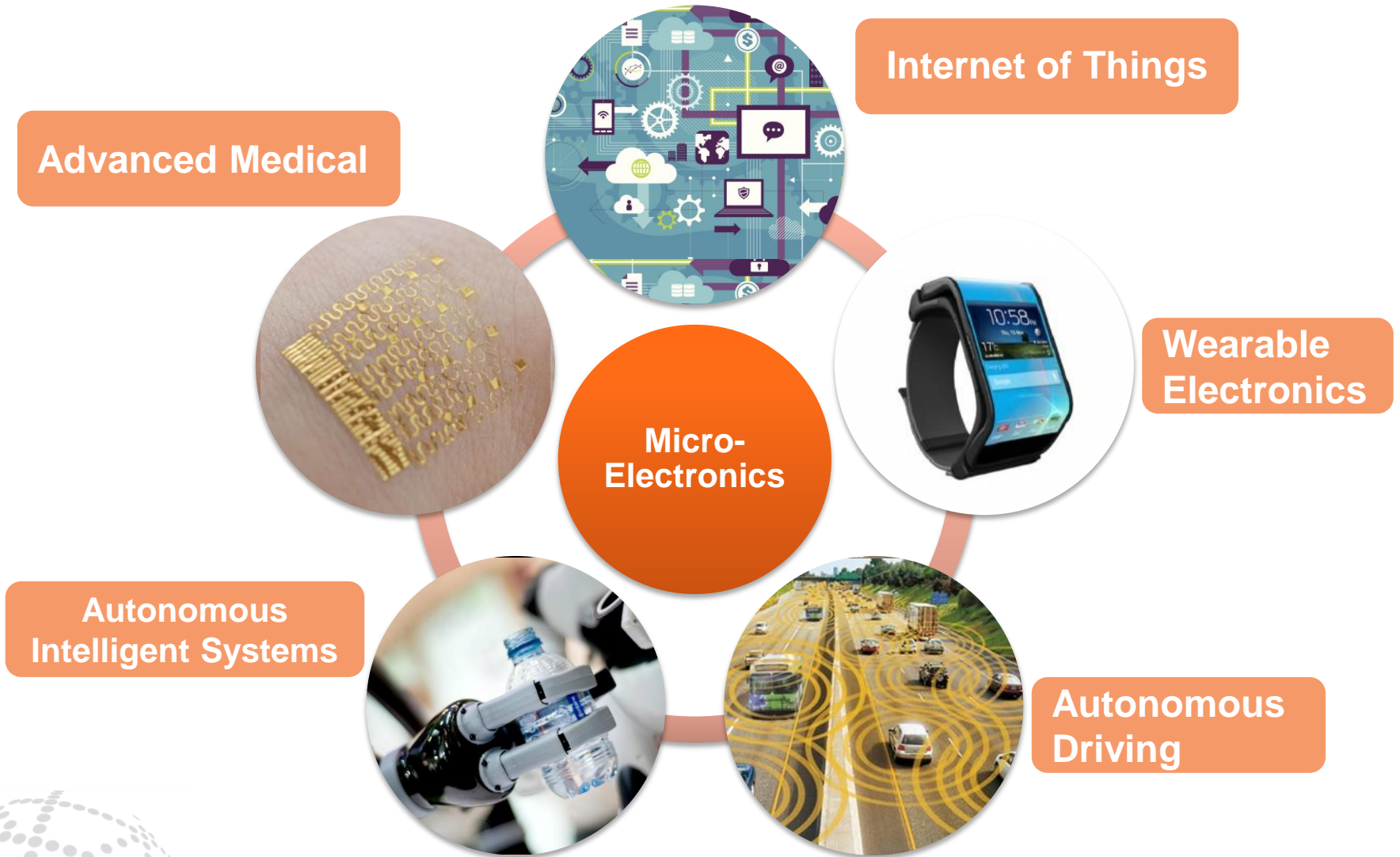


Industrial electronics
(\$ 318 billion)



(* Estimate for 2013, WSTS)

New Applications will require even more Silicon



SCALE is driving investments into the Foundry-Model



Yesterday

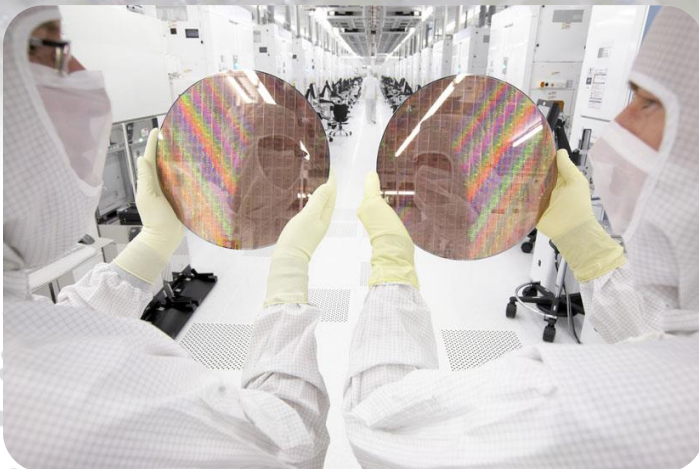
- Former AMD Fab
- 45nm Microprocessors
- one product – one technology
- one end-market (Computing)

Today

- 45nm to 28nm components
- many products & technologies
- many customers & end-markets

Tomorrow

- further diversification of the technology portfolio, further market segments (e.g. industrial/automotive)

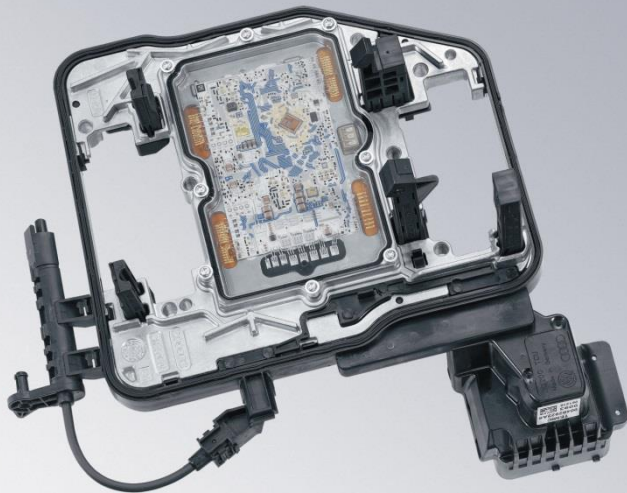


GLOBALFOUNDRIES – some Data

- > 50.000m² clean-room space
- Capacity goal 80,000 Wafer/Month
1 Million Wafers per Year
- about 3.700 employees (about 1/3 with higher degree)
- Investments since 1996: > 10 B\$

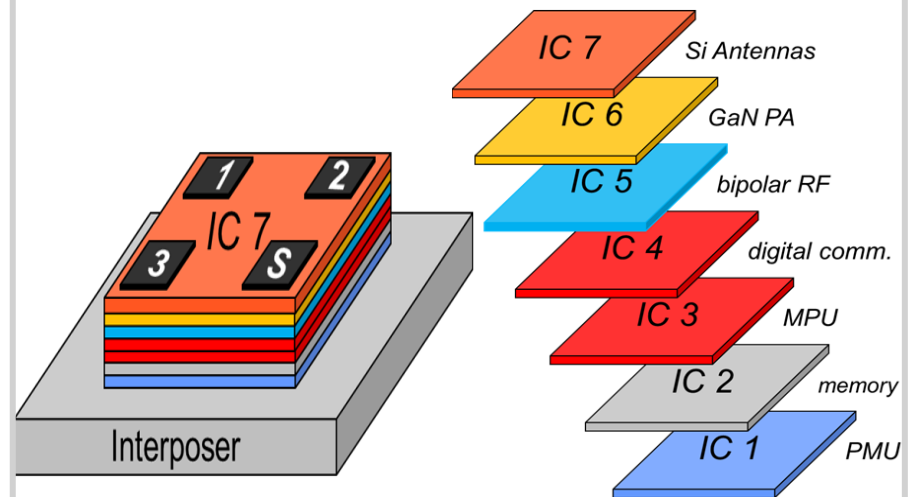
System Expertize and Integration will be Key

Today:



System built by components, board, connectors, Software

Tomorrow:



System on a chip (SOC),
Chip-on-chip-Assembly, low-power,
few Software, high Hardware

New Supply Chains will transform the entire Industrial Ecosystem

Industrial Partitions will change dramatically

Power-footprint will drive many development decisions

Hardware will gain importance

System-design cannot rely on software – hardware design is a must (Power)

Production Networks will become stonger

Access to semiconductors will determine product capability

System houses to enter design-space

Manufacturing Networks will form to secure the supply-chain

Industrial Products to be determined by Microelectronics

TESLA-car (smartphone on weels),

Google car (connected to compute-cluster)

New System Architectures (cf. Airbus-Electronics, safety&redundancy)

Microelectronics: Much more than more than Moore

**More Moore is now driven by the
Low-Power Agenda**

**Smart System Integration will
harness the integration-task**

**Europe is attractive for
manufacturing of semiconductors**

**Further growth of the
semiconductor industry expected**

**Semiconductors – critical to the
future of the German industry**

Thank you



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