„Leading Edge Foundry Technology for next generation Smart Systems”

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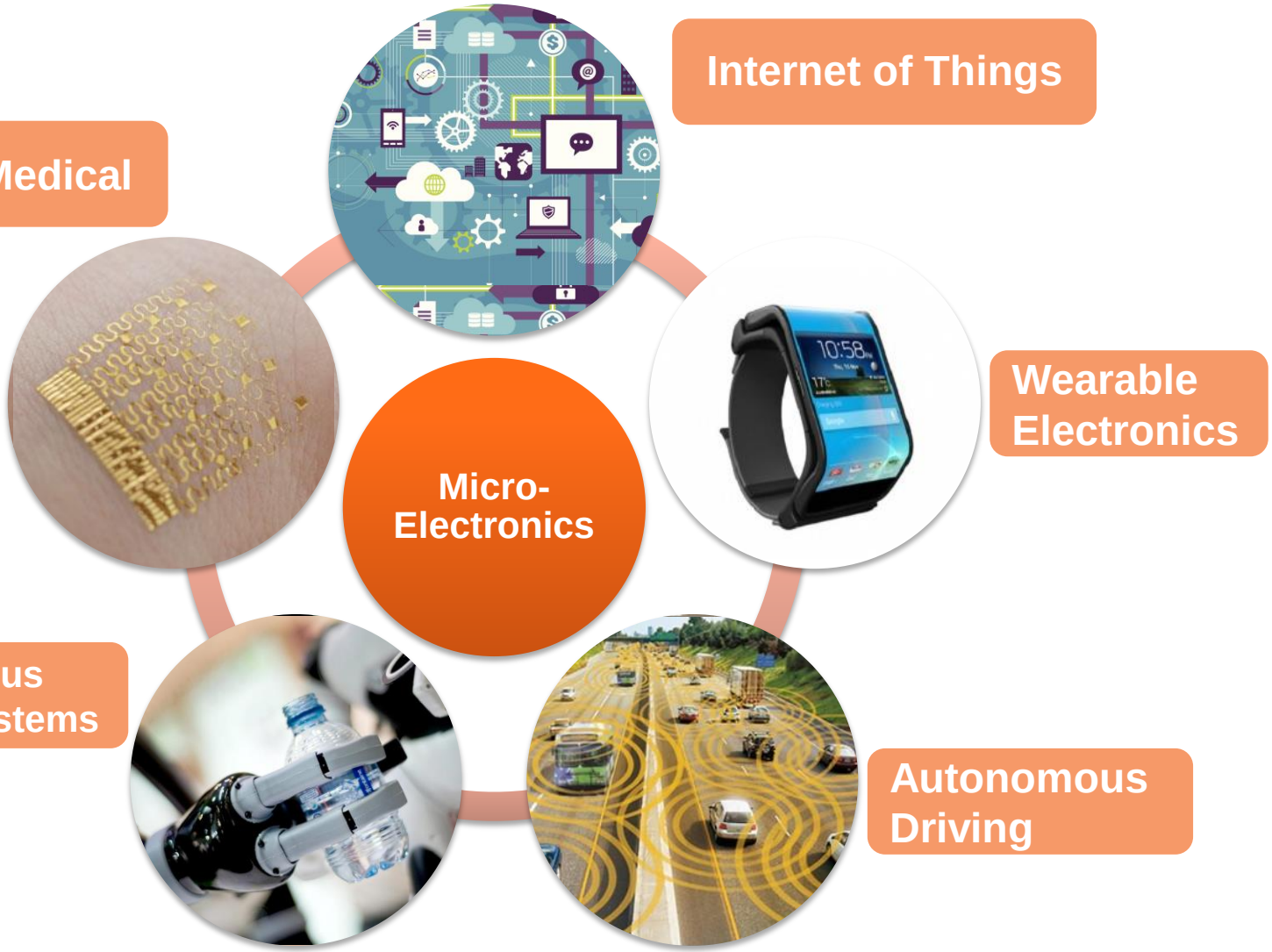
Semiconductors make products competitive

Sector market size, 2013, USD

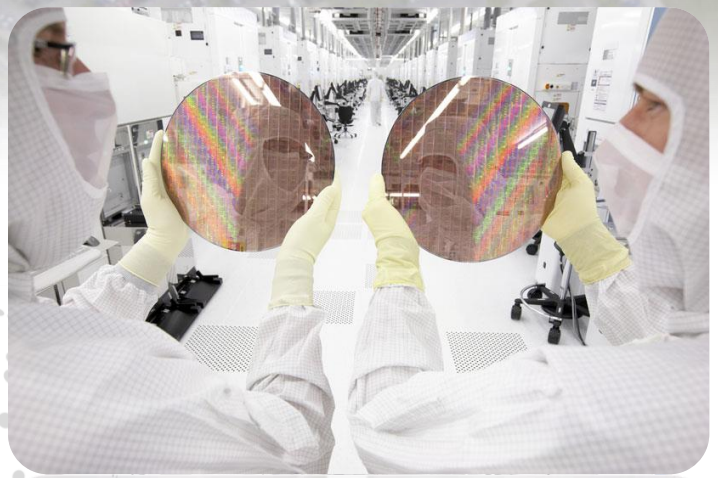
(* Estimate for 2013, WSTS)

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)

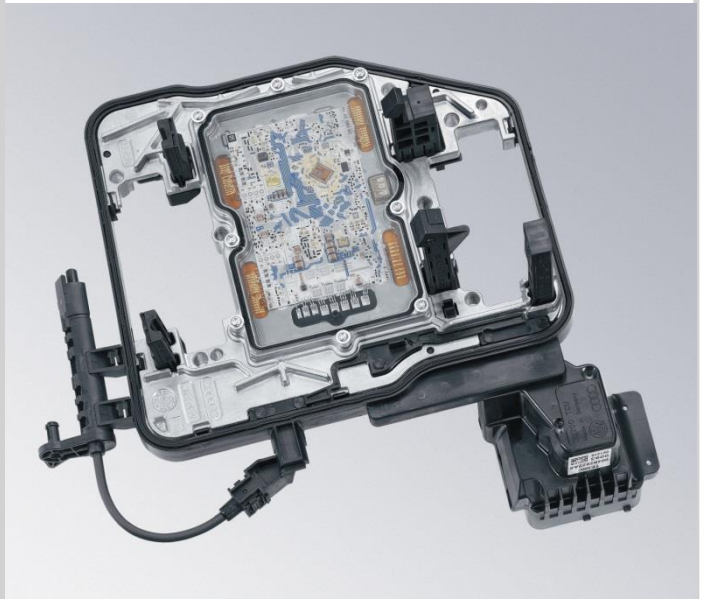


GLOBALFOUNDRIES – some Data

- > 50.000m^2 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$

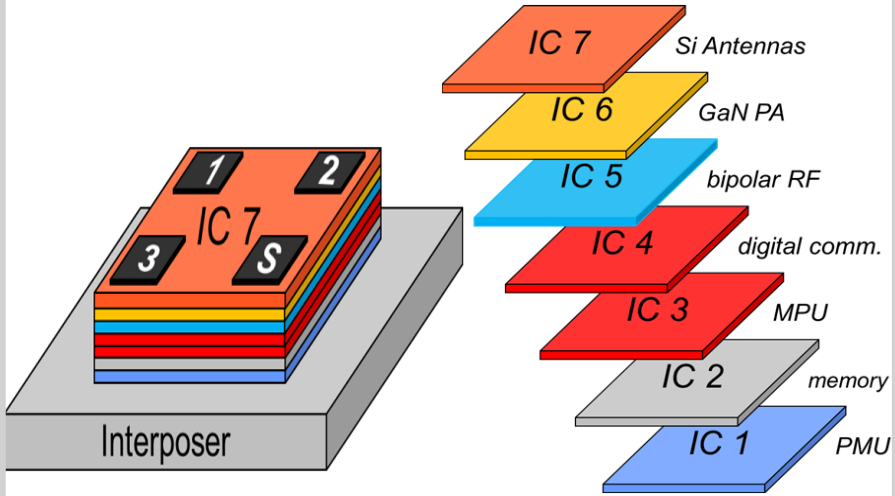
System Expertize and Integration will be Key

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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