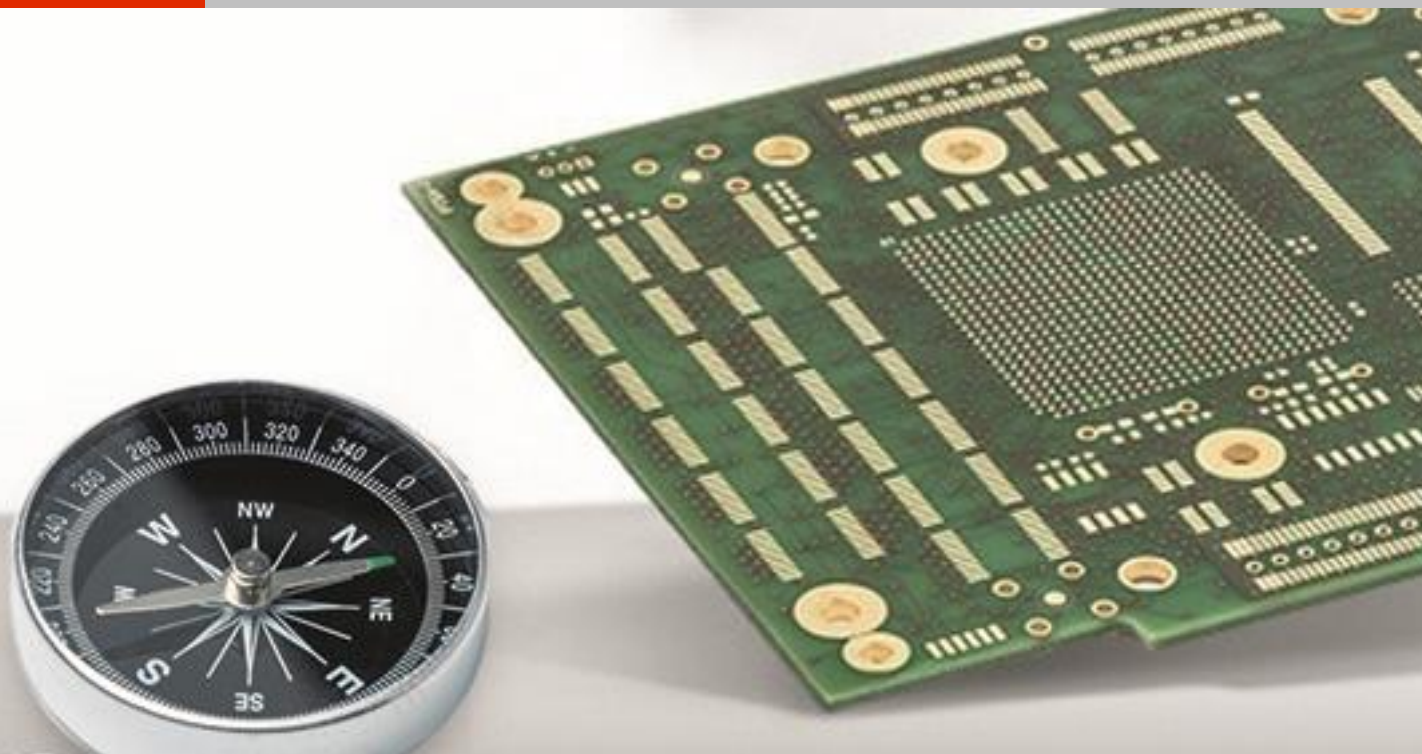


What's down the road?



Agenda

- Welcome
- Development of the PCB market
- Technology trends
- How will Würth Elektronik be positioned?

Welcome



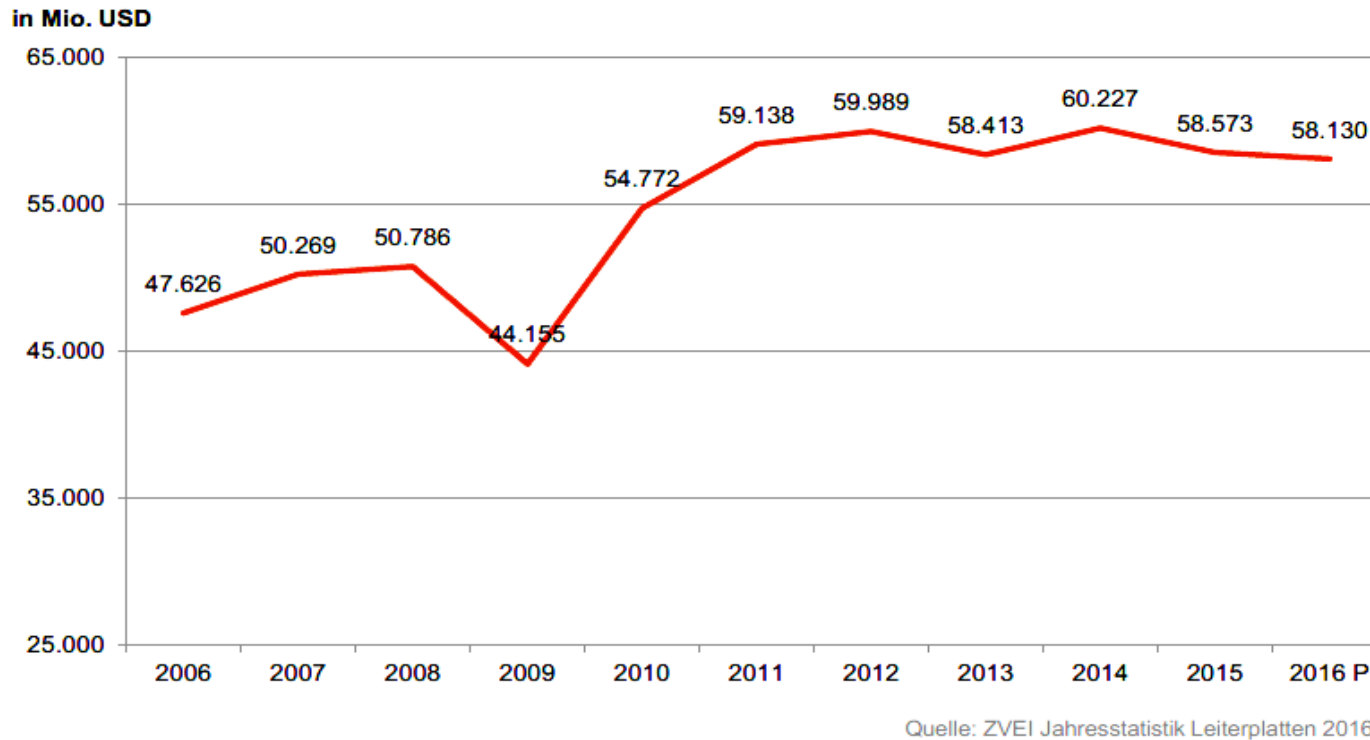
Daniel Klein

CEO Würth Elektronik GmbH & Co. KG

Circuit Board Technology

Niedernhall

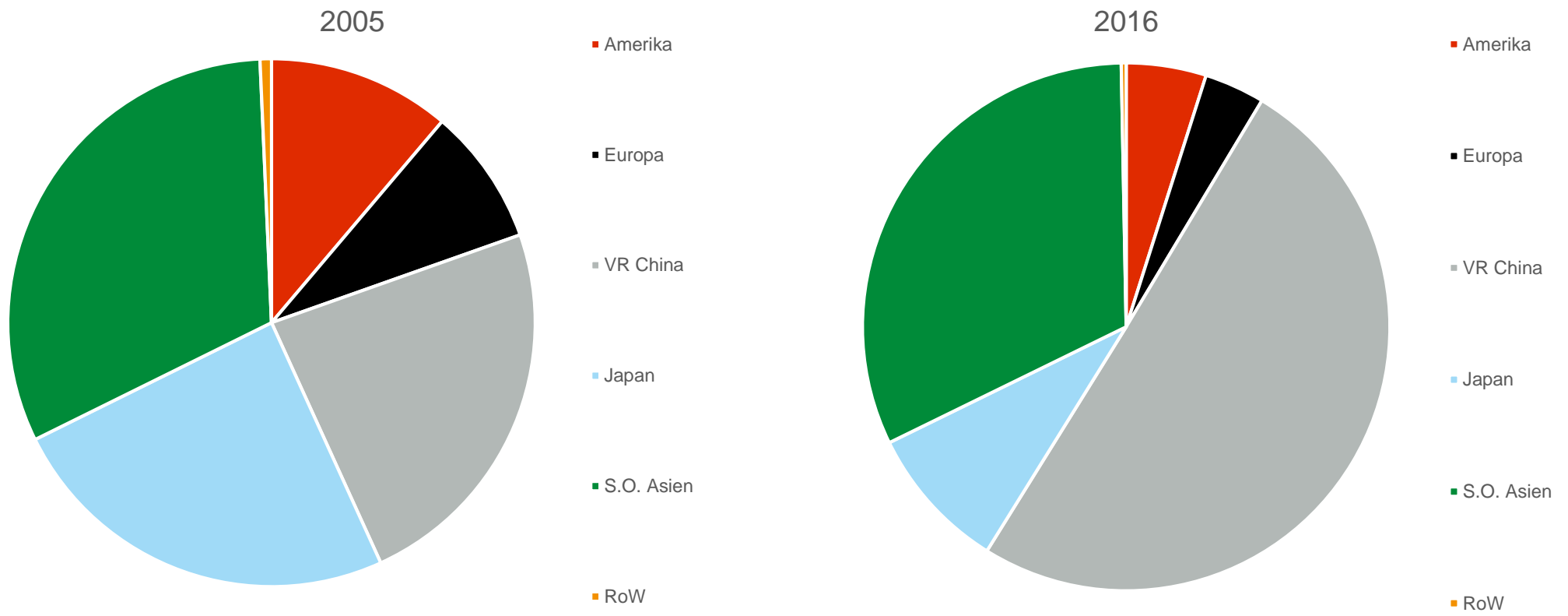
Development PCB Market Worldwide



Free capacities in a stagnating market increase price pressure!

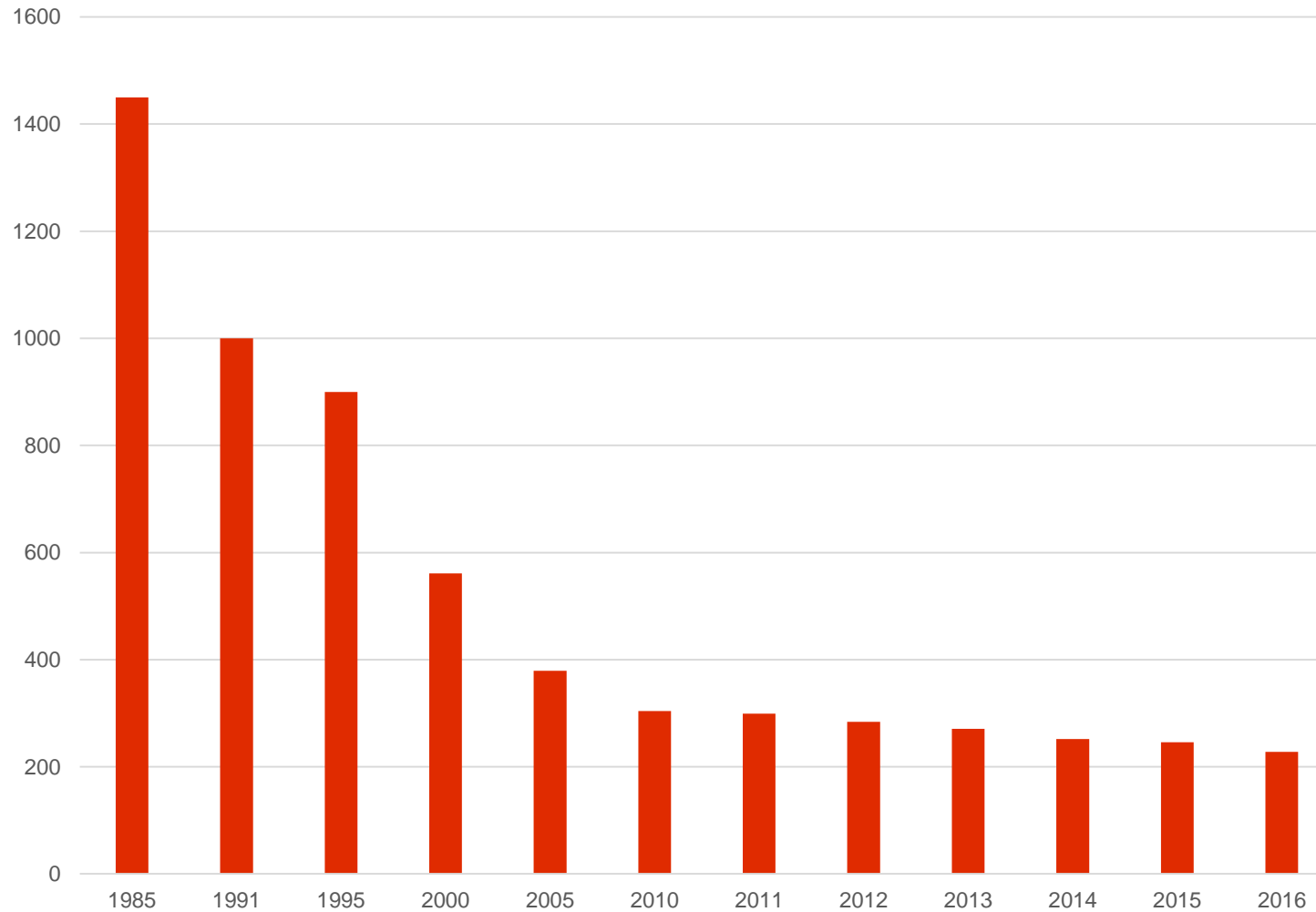


Global Production per Region



source: IPC/NTI

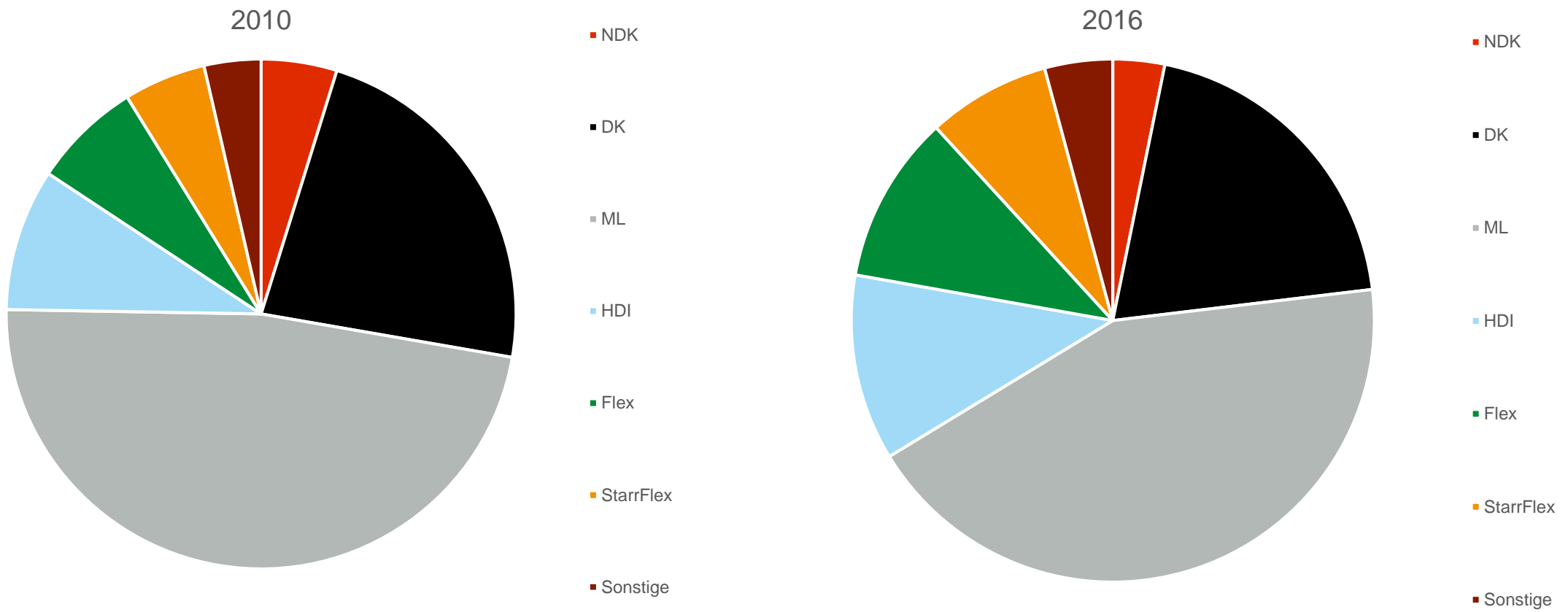
Development PCB Manufacturer in Europe (Number)



Quelle: Data4PCB



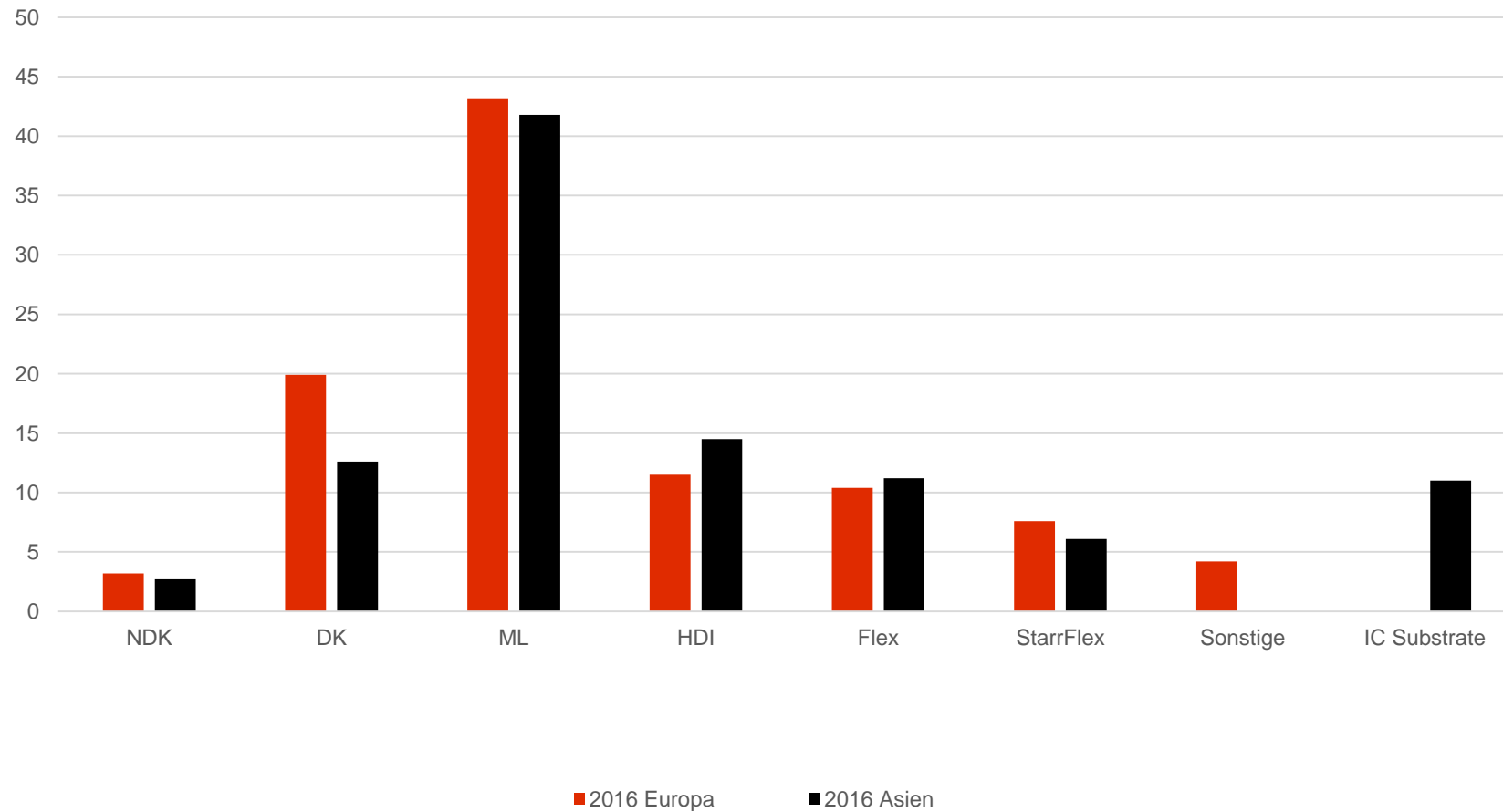
Development Technology-Mix Europeane PCB Manufacturer



Quelle: Data4PCB

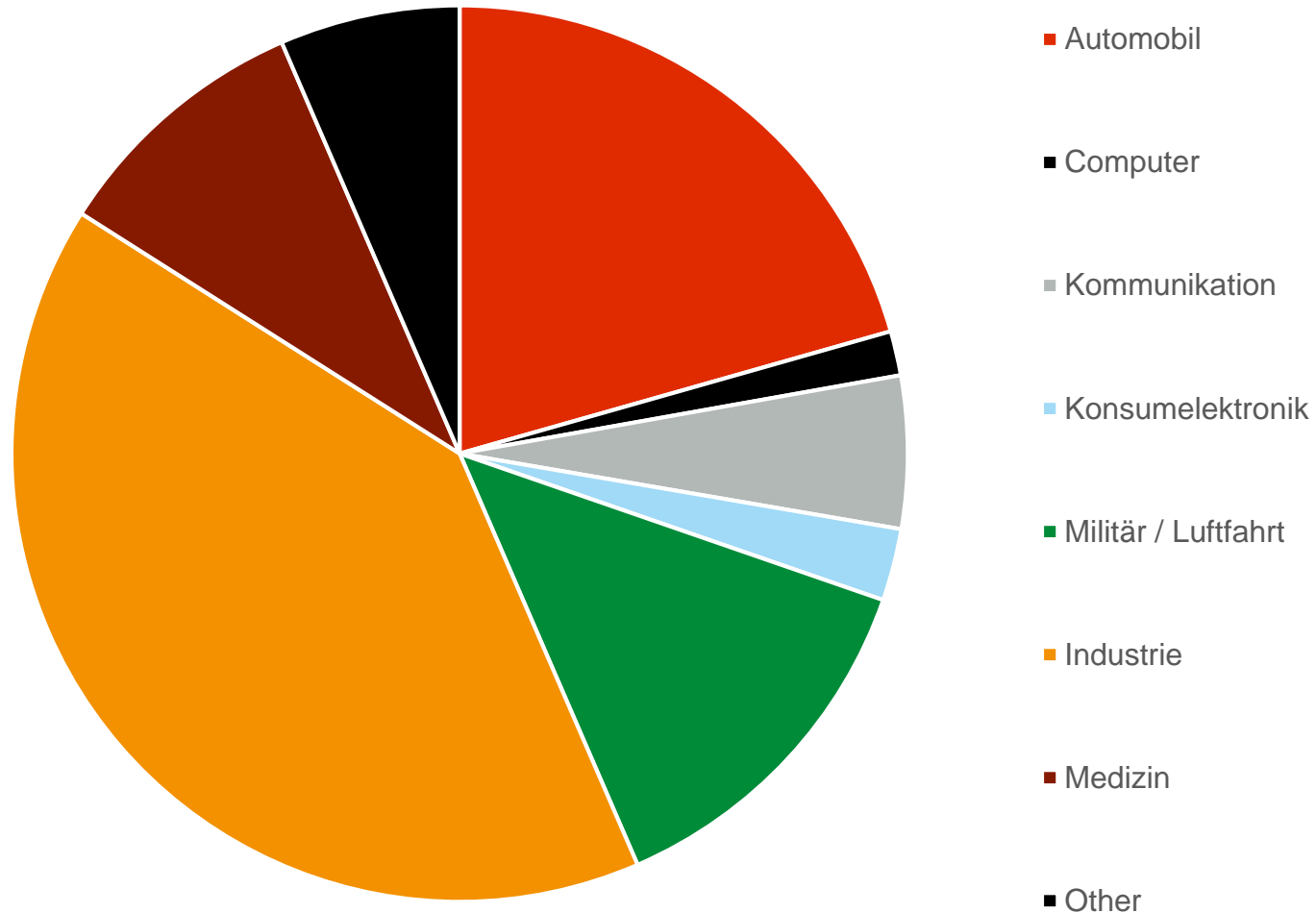


Comparison of Technology-Mix Europe vs. World



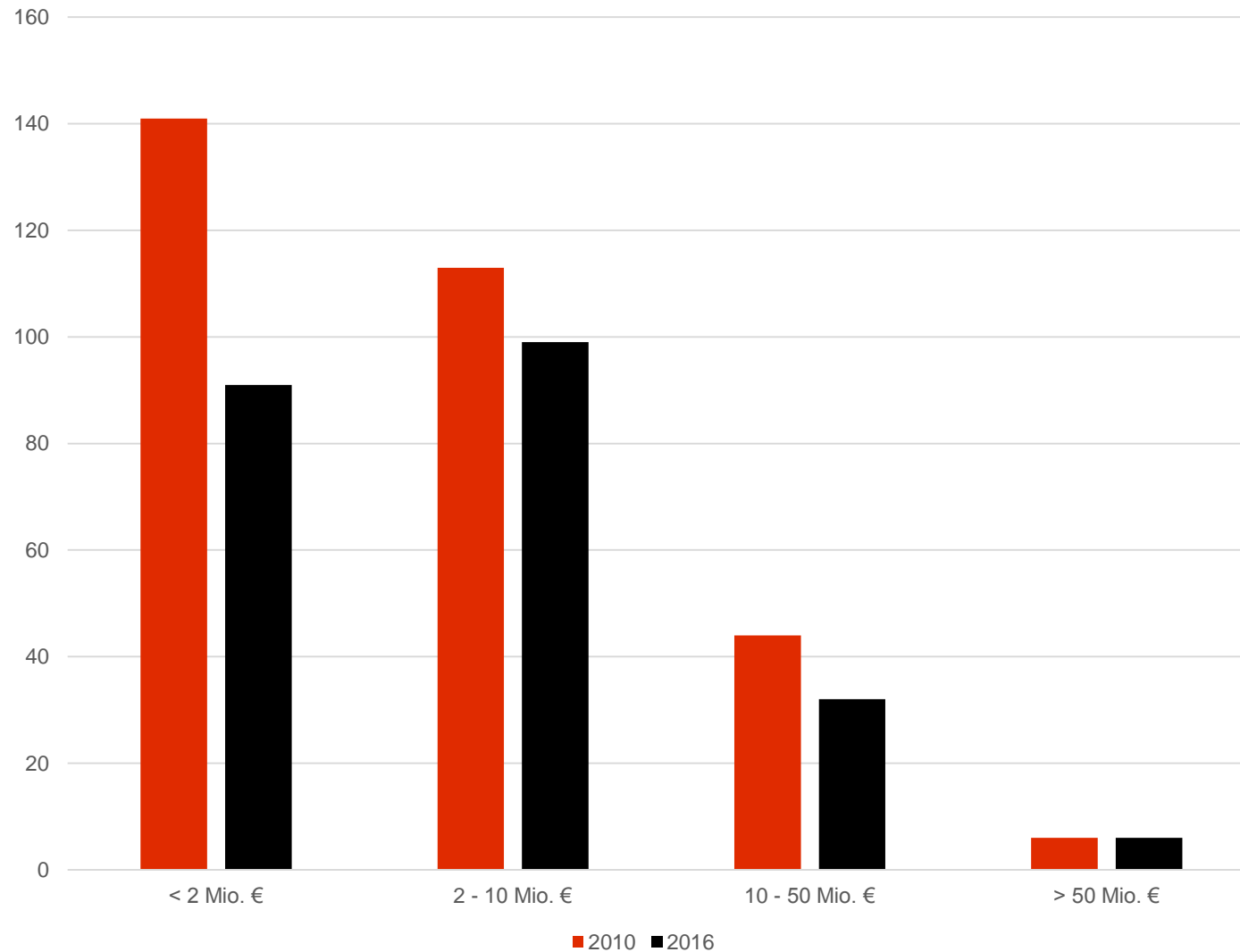


Industries Europe 2016



Quelle: Data4PCB

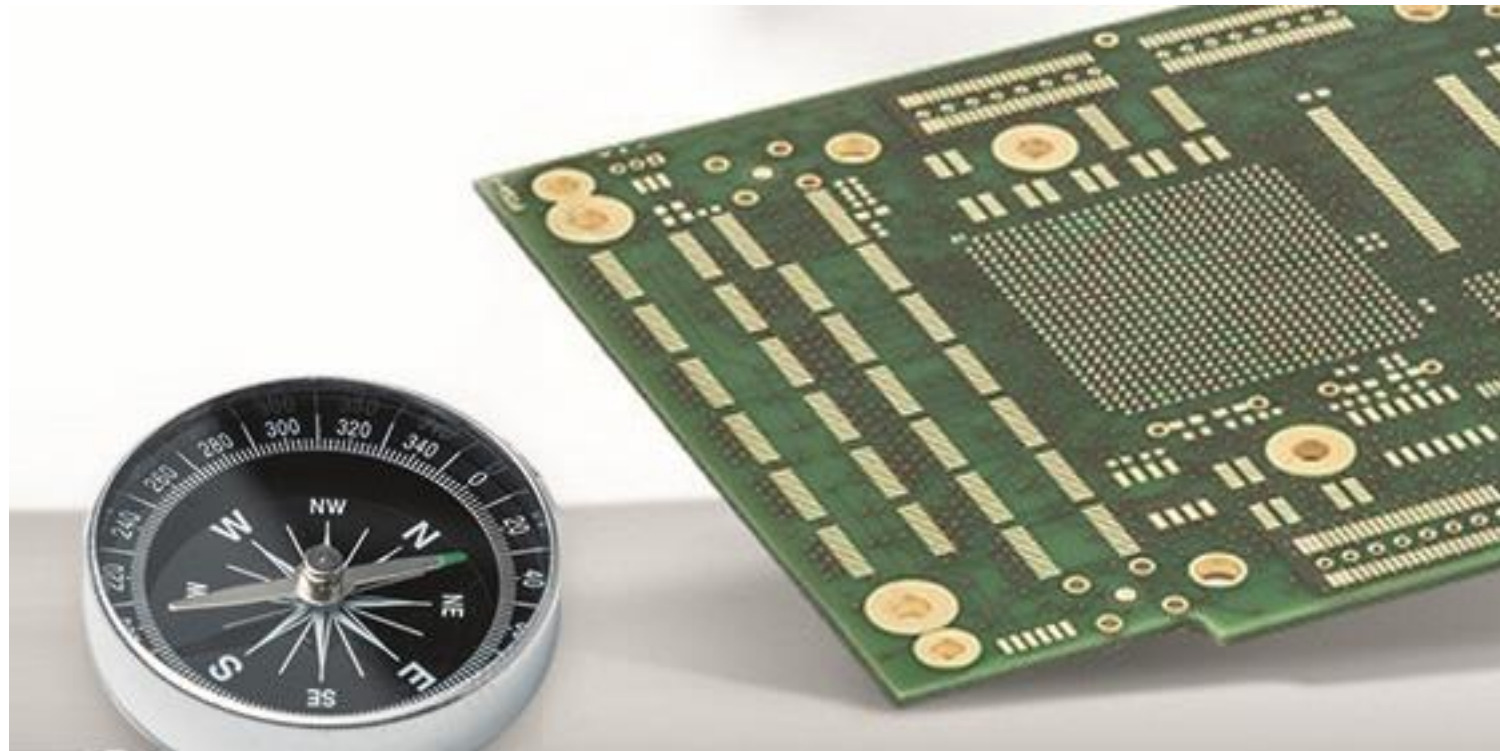
Size of the European PCB Manufacturers



Quelle: Data4PCB

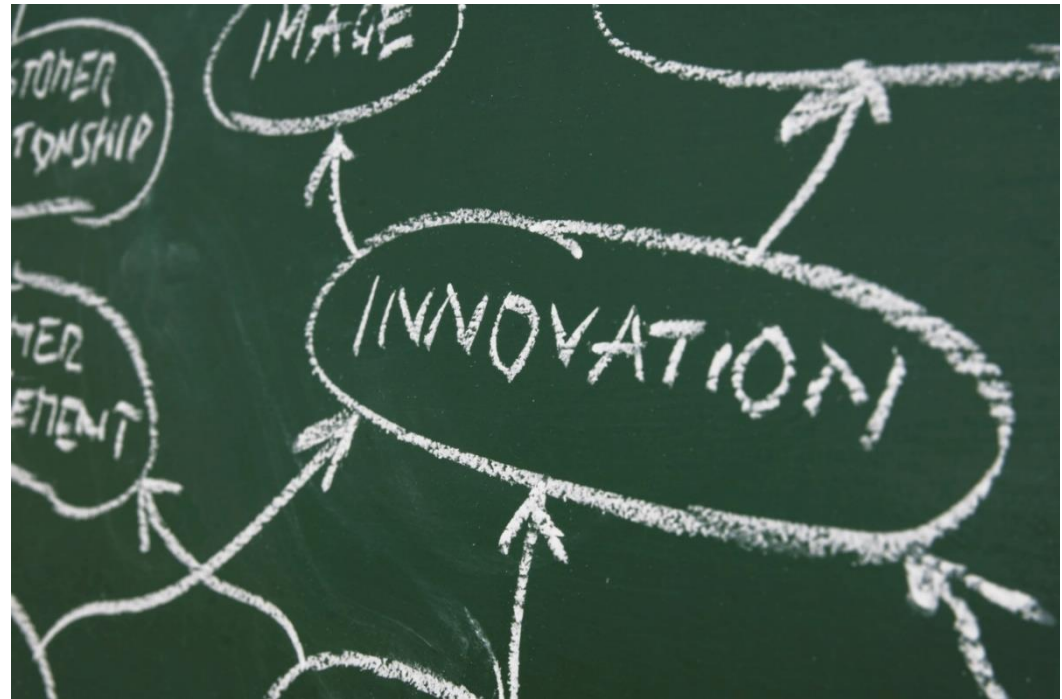
Quo Vadis European PCB Industry?

- fast & flexible
- small orders
- technologically sophisticated
- ...



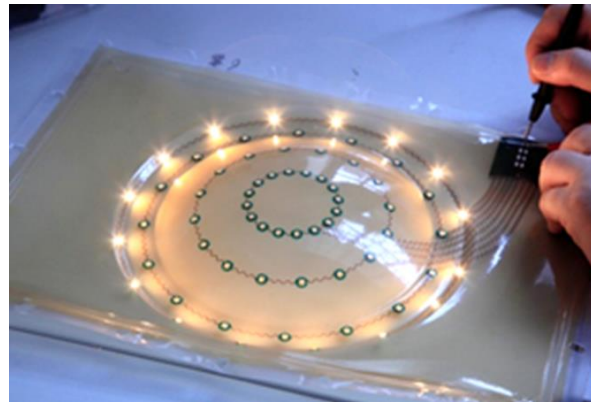
Technology Trends

- Big Data
- AI
- Robotic
- E-Mobility



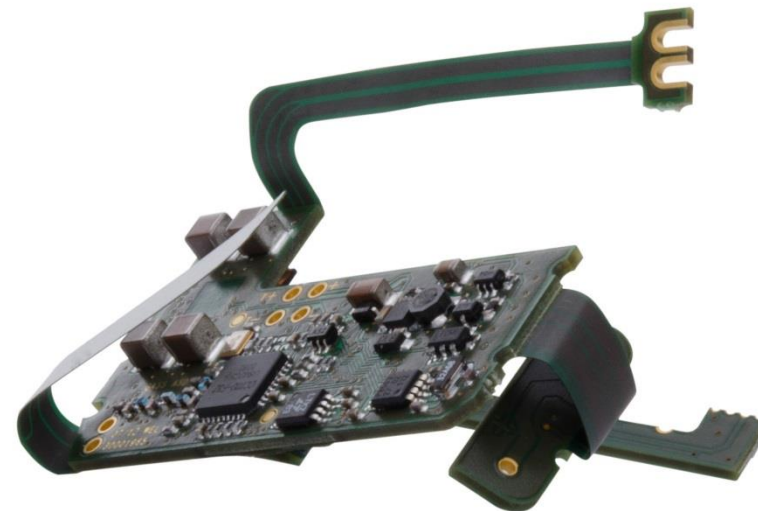
Technology Trends PCB

- **Connectivity**
 - Industry 4.0
 - Wearables
 - Sensors
 - Imaging
 - Miniaturization



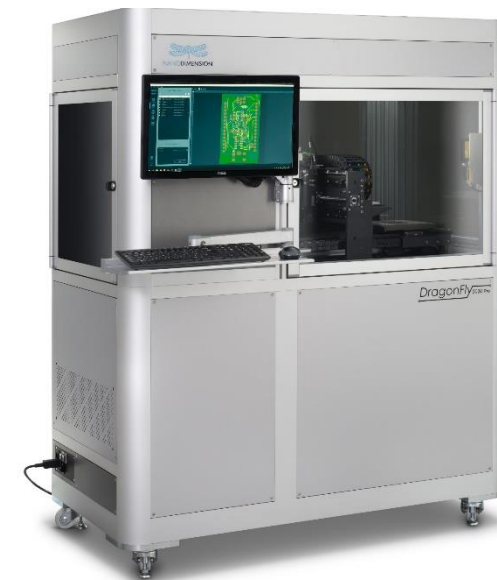
Technology Trends PCB

- **Combination of Technologies**
 - HDI
 - Flex-rigid, Semiflex & Twinflex
 - Embedding
 - Signal Integrity
 - High Frequency



Technology Trends PCB

- **Additive Production Processes**
 - 3D Printing => Prototyping eg. Dragon Fly von Nano Dimension
 - Inkjet => Fotoresist, Flexible finish, S.Mask
 - Printed Electronics



Vision

