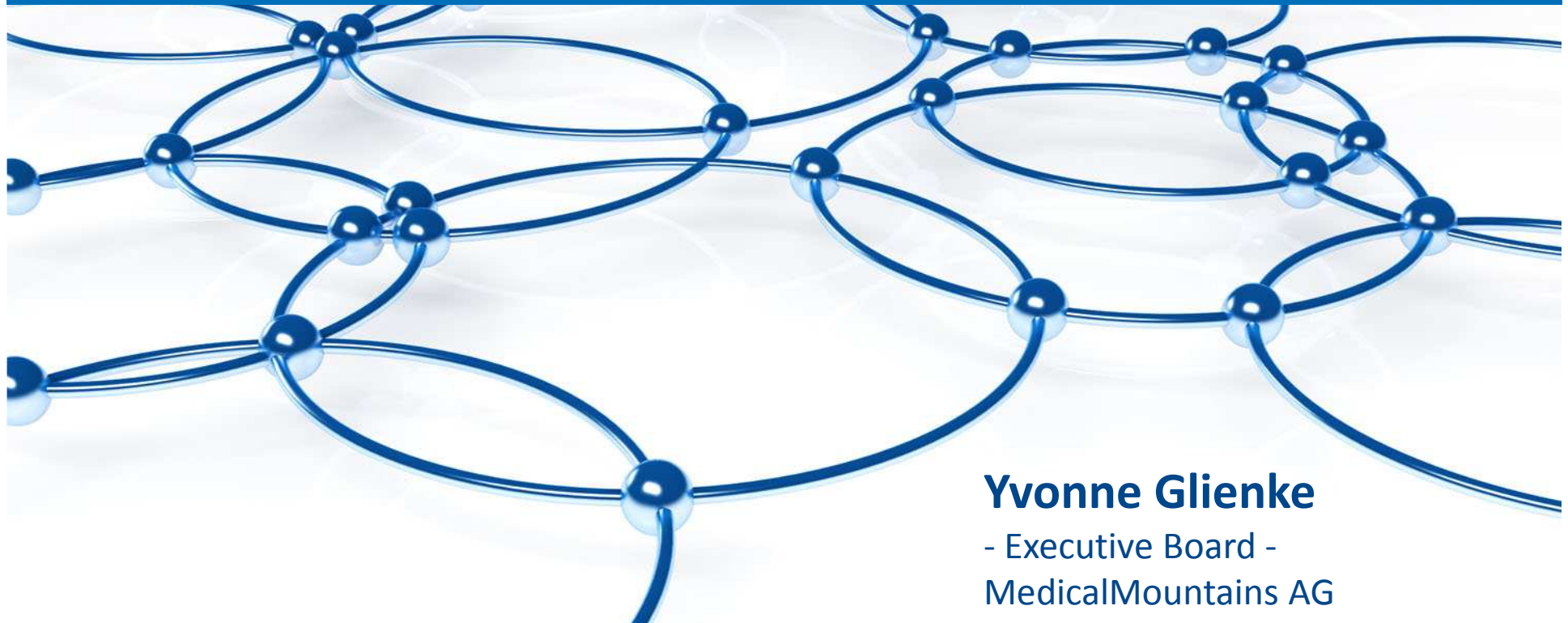


ICT in medical technology: Value chains go international



Yvonne Glienke

- Executive Board -
MedicalMountains AG

Value chains in medical technology: example from Tuttlingen

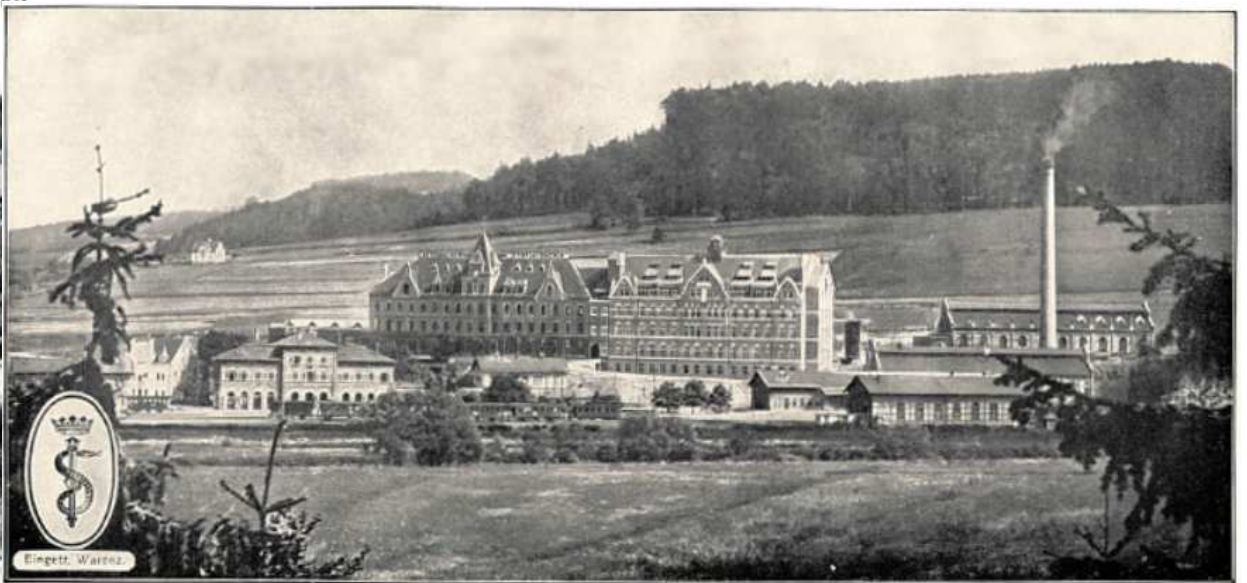
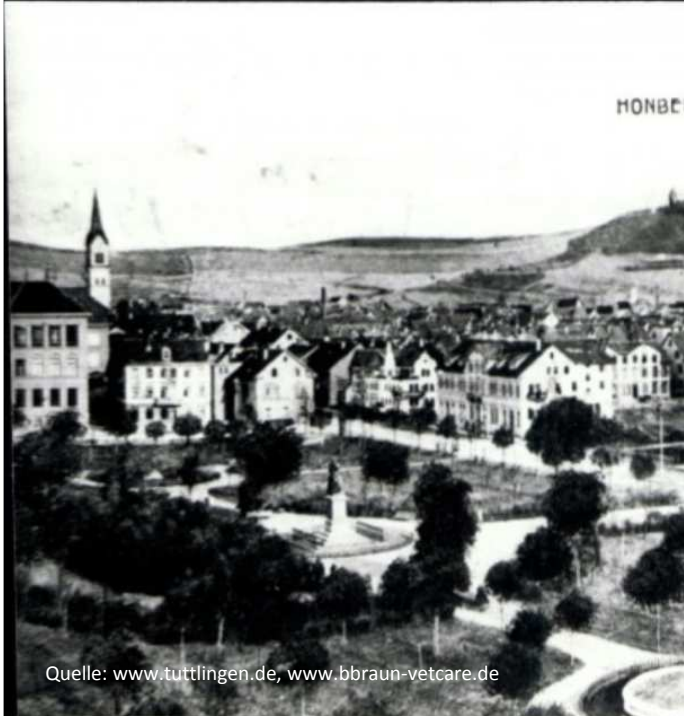


Region Schwarzwald-Baar-Heuberg - TUTTLINGEN



History of the Tuttlingen Medtech-Cluster





The Cluster today – facts and figures



Medical technology: General facts and figures

Innovation axis

centre between
Stuttgart and Zurich

Strong SMEs

400 medtech companies
90 % are SMEs

Universities & Research Centres

Research and development

9% invest R&D

Market share

the third biggest market
in the world and the
biggest in Europe

Strong export

export share is 68%

Dynamic and innovative

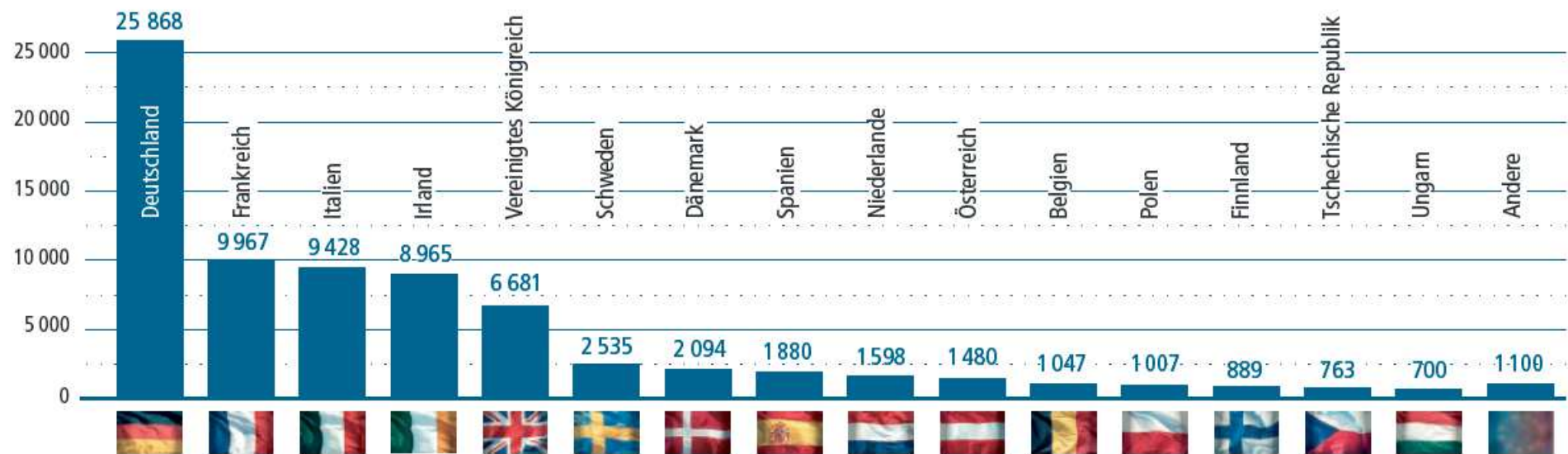
1/3 of turnover generated
by products that are less
than 3 years old

Patent Intensity

17.000 patent
registrations

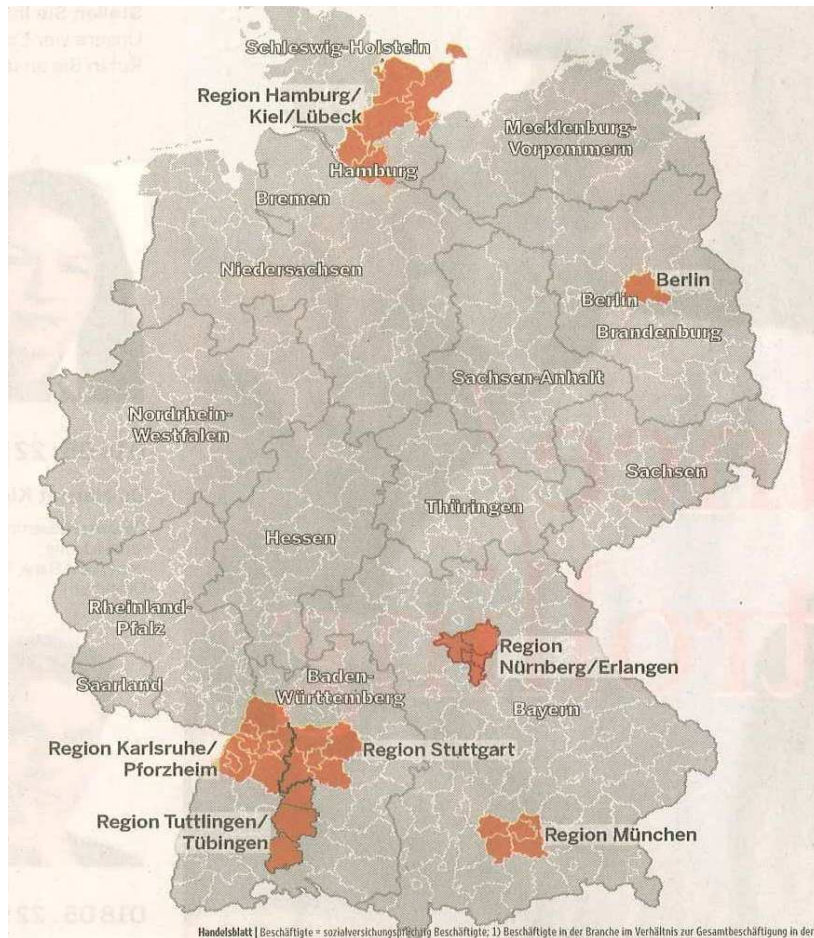
Medical technology in Europe

European medical technology:
> 65 000 companies, 76 Mrd. Euro turnover, 540 000 employees



Umsatz im Jahr 2012 in Mio. €

Medical technology in Germany



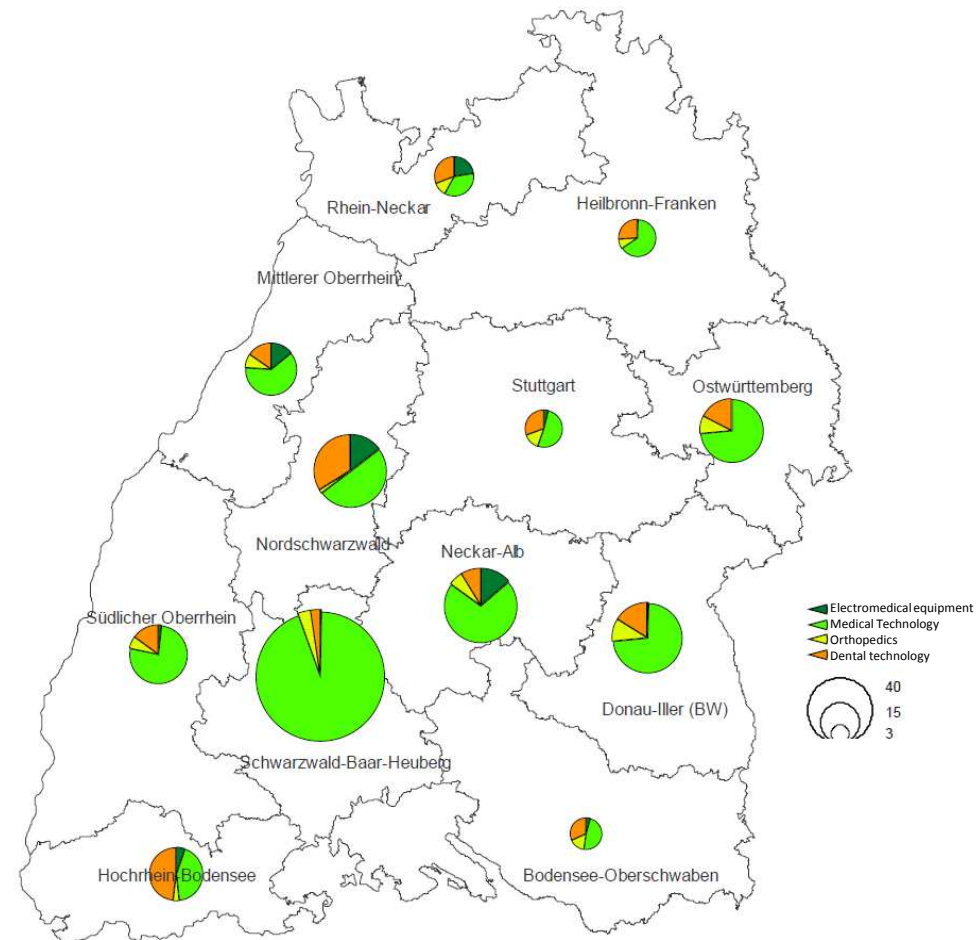
Zukunftsatlas 2006. Welche Branchen in Deutschland Wachstum bringen.
Prognos Studie, Handelsblatt, 2006, <http://www.mddionline.com/print/9312>

Germany's medtech sector with a share of 36% is the third biggest market in the world and the biggest in Europe.

More than 11.000 medtech companies with around 160.000 employees in Germany.

25 Mrd. Euro turnover

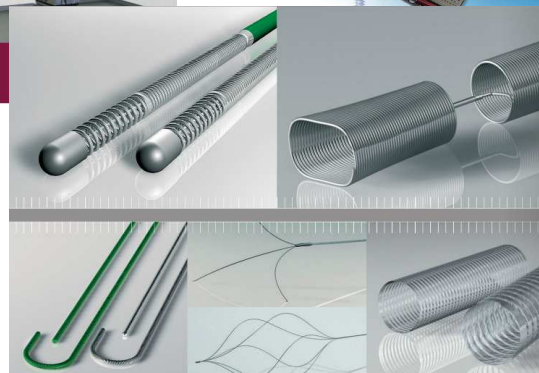
Medical technology in Baden-Württemberg



Gesundheitsstandort Baden-Württemberg: Stärken und außenwirtschaftliche Potenziale.
Studie im Auftrag des Ministeriums für Finanzen und Wirtschaft Baden-Württemberg, IAW/IAT/ISW 2011

Medical technology





And more...



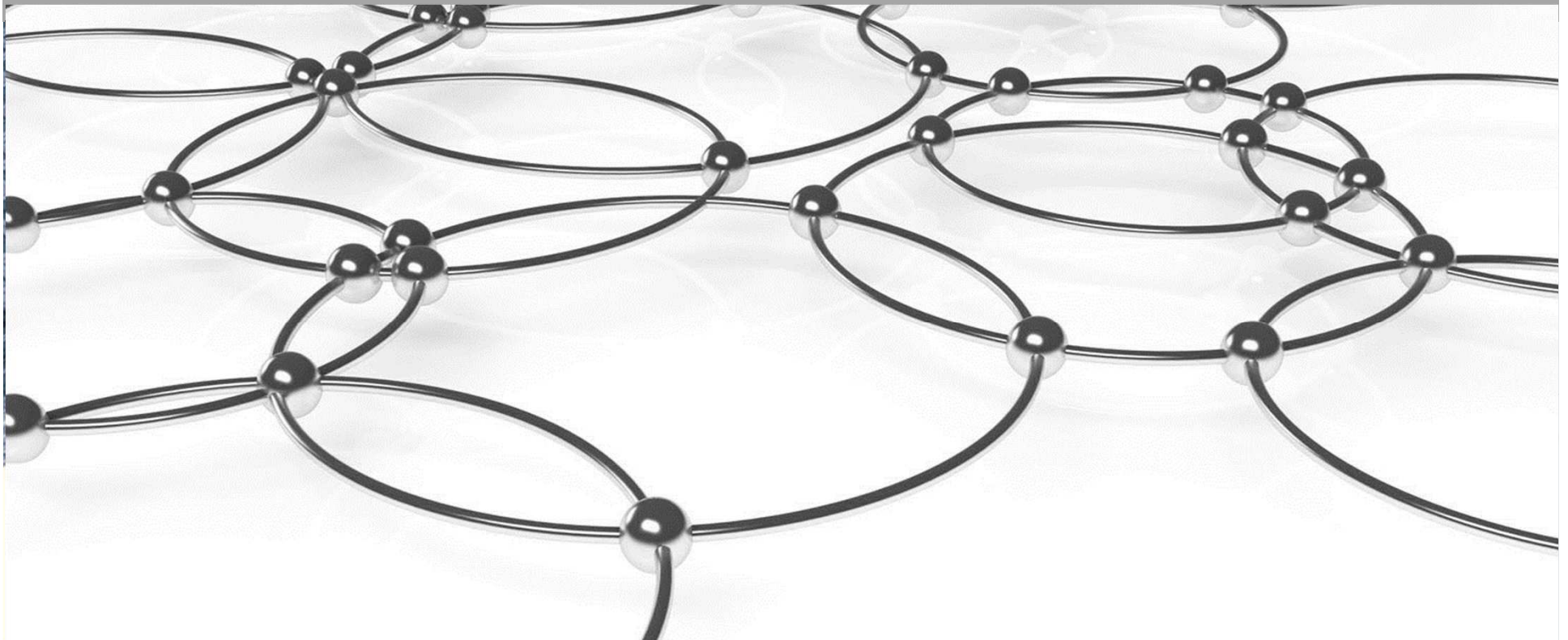
Value chains in medical technology and future challenges

- Future needs?
- E.g. demographic change requires **new answers**:
 - AAL-applications, individualized medical items or intelligent implants
 - Increasing labour-shortage as serious challenge for the productivity of the cluster
 - Younger generation has a superior affinity for digitization, for the Industry 4.0-topic
 - in industrial terms:
 - “process automation along value-chain ”
 - “human-machine-interface “
 - “intelligent life-cycle-management”
 - in clinical terms:
 - “clinical process automation”
 - “integrated operating room“
 - “integrated hospital“

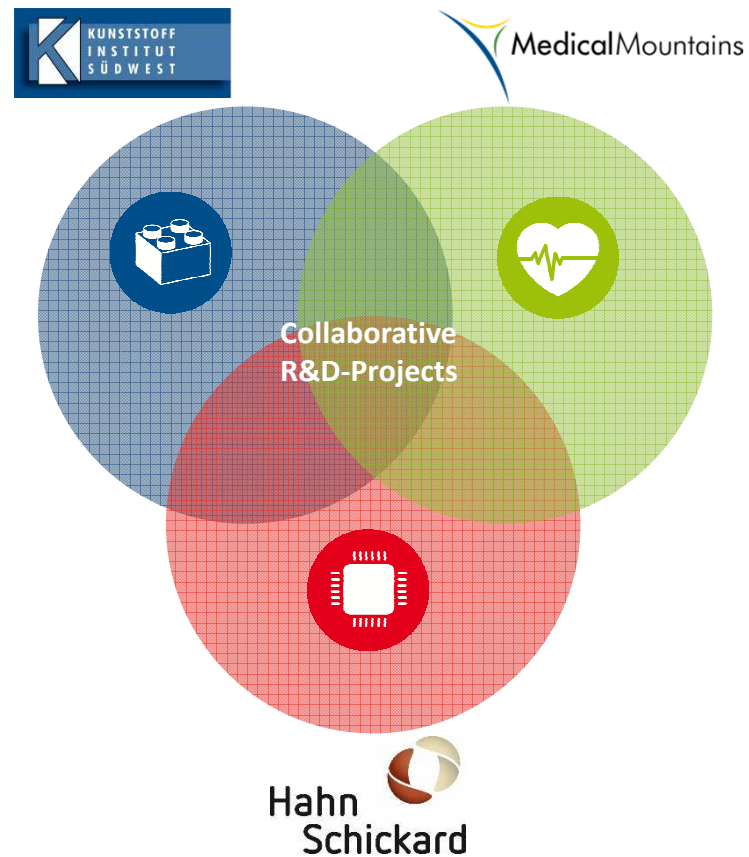
ICT in medical technology

- Integration and intelligent use of patient data
- Use of big data for better diagnosis and therapy
- Innovative implants: downsize, biocompatibility, long-term stability, data connection, implant-networking
- Digital network of medical devices, functional processes of clinical providings
- RFID technology within medical devices
- Challenge: interoperability of different systems

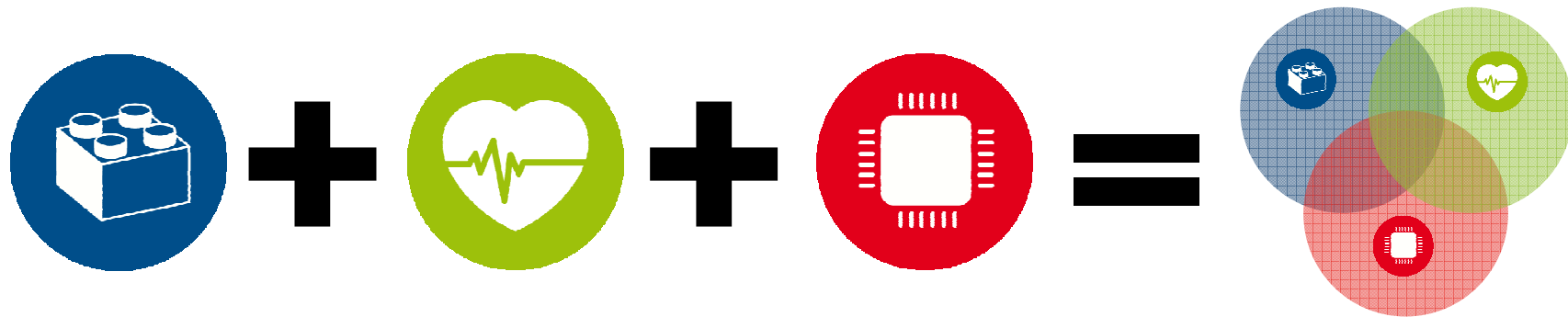
Value chains in medical technology



TechnologyMountains: the cross-industry-network



TechnologyMountains: the cross-industry-network



plastics technology ↔ medical technology
e.g. disinfectant of plastics for medical technology

medical technology ↔ micro technology
e.g. surgical instruments with RFID

plastics technology ↔ medical technology ↔ micro technology
e.g. CleanMed



TechnologyMountains: the cross-industry-network



TechnologyMountains receives the quality label Cluster-Exzellenz Baden-Württemberg of the Ministry of Finance and Economy. TechnologyMountains concluded with 143 of 150 possible points.



TechnologyMountains is awarded with the „Cluster Management Excellence Gold Label – Proven for Cluster Excellence“ by the European Secretariat for Cluster Analysis.



TechnologyMountains is member within the „go-cluster“- programm and belongs to the most productive innovation clusters in Germany.



TechnologyMountains is one of the 100 winners of the competition "Excellent Places in the Land of Ideas" 2016.

Thank you!



MedicalMountains AG

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