



Baden-Württemberg

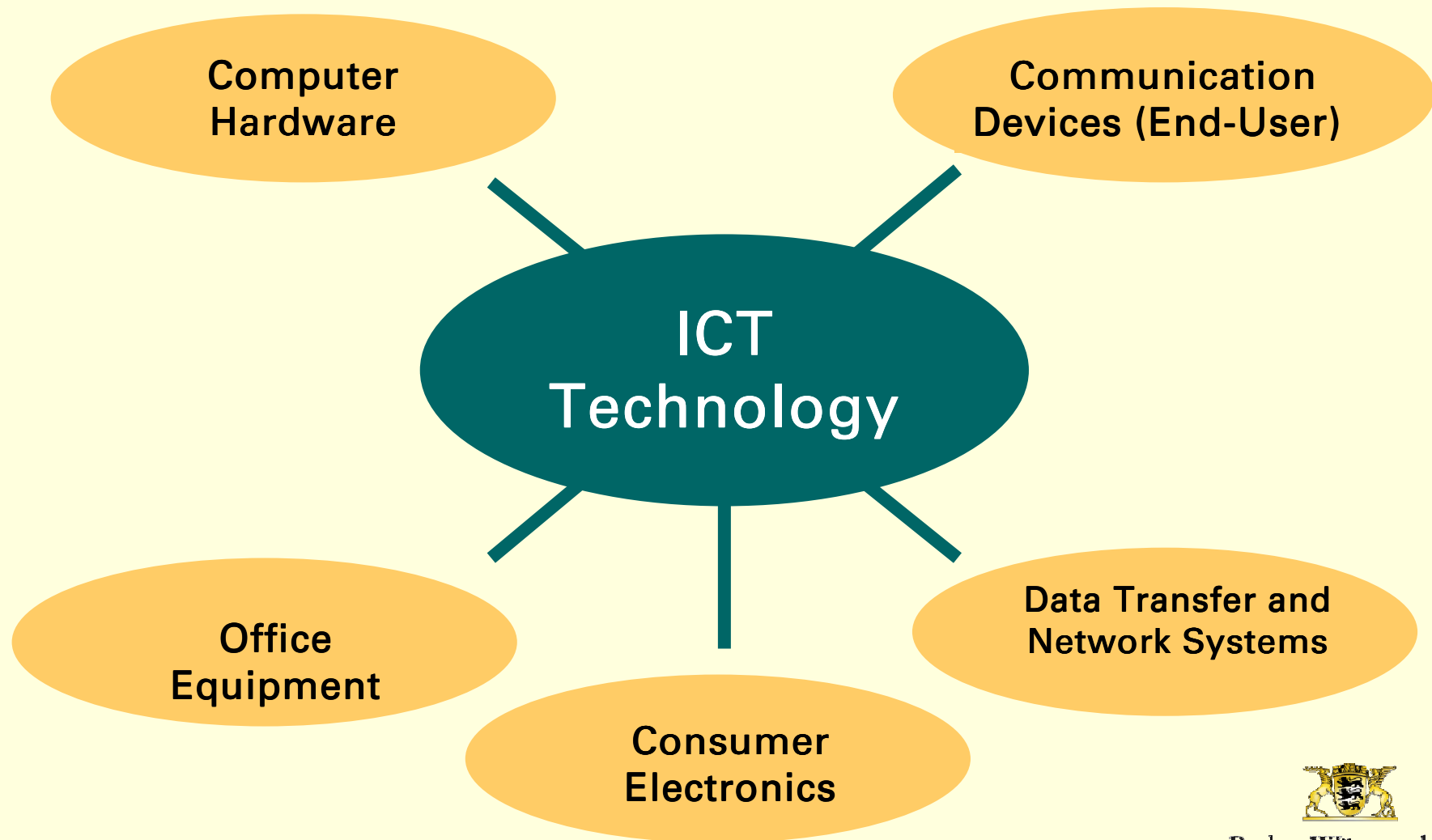
ICT Technology

# Baden-Württemberg is Home to Many Global ICT Players

- In the next years, the global market for ICT will grow at an annual rate of about 5 percent. Around 300,000 people are employed in the IT and media sector in Baden-Württemberg.
- Data-transmission and network technology, computer hardware, end-user telecommunications devices (e.g. cellphones) and office equipment (e.g. photocopiers) are essential for today's business world. What's more, state-of-the-art consumer electronics is playing an increasingly important role in the private sphere.
- Baden-Württemberg is a frontrunner in Germany when it comes to ICT:
  - Global market leaders in computer hardware are at home in the region, such as Hewlett-Packard (with the German headquarter) and IBM (with the largest development center outside the US)
  - Global players specializing in semiconductors (e.g. Agilent and Micronas), and telecommunications (e.g. Alcatel and JDS Uniphase) have facilities in Baden-Württemberg.
- With a wide range of specialized university courses covering all aspects of ICT, plus institutions focusing on research and technology transfer, Baden-Württemberg is an ideal location for ICT companies.

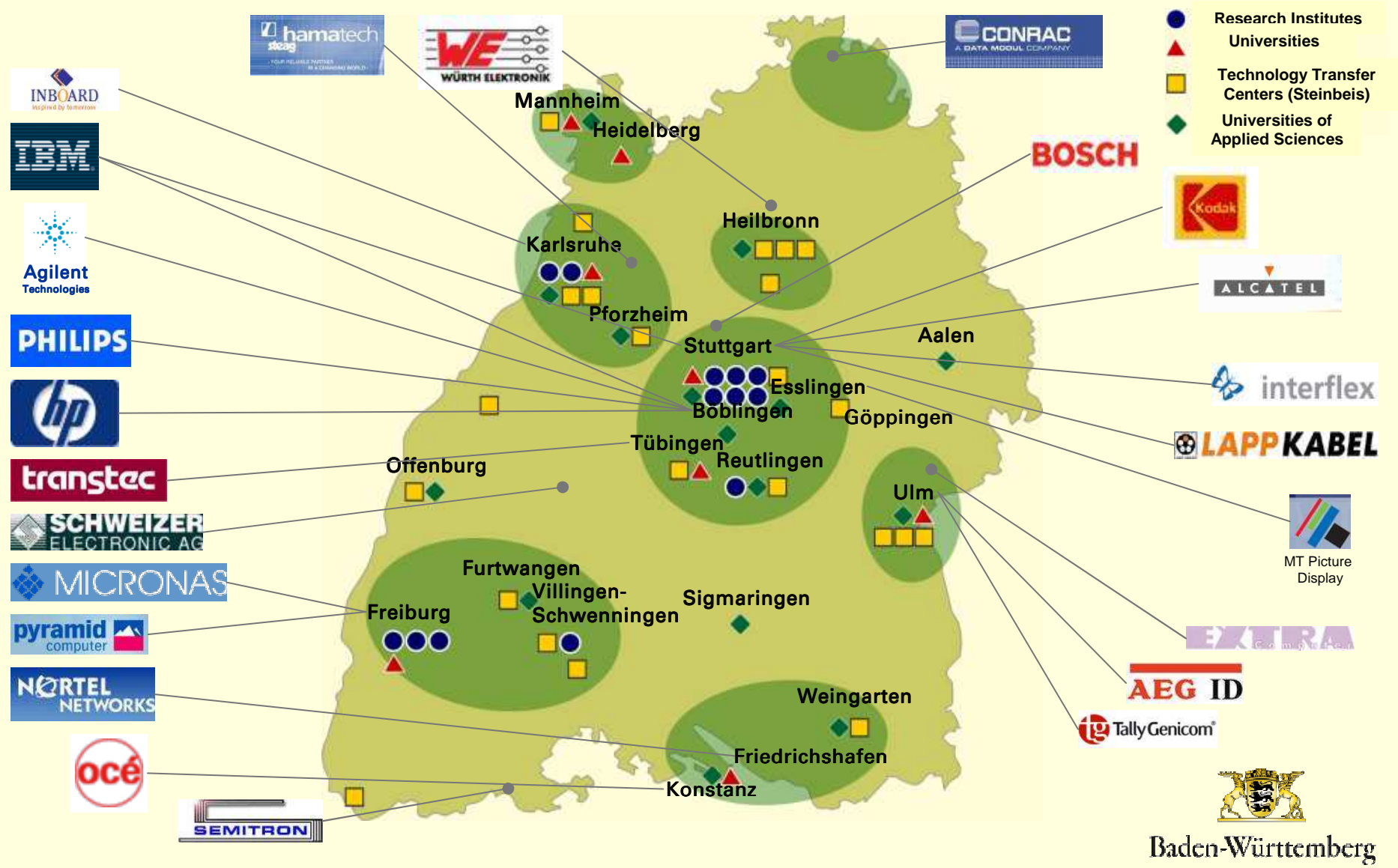


# Structure of the ICT Technology sector



# Regional Centers in Cluster ICT Technology

(Relevant research institutes, universities and examples of important enterprises)



# ICT Technology – Selected Companies



**Philips Semiconductors Innovation Center Boeblingen GmbH, Böblingen**  
<http://www.philips.semiconductors.com/>



**Agilent Technologies, Böblingen**  
<http://www.agilent.com>



**IBM Deutschland Entwicklung GmbH, Böblingen; IBM Deutschland GmbH, Stuttgart**  
<http://www.ibm.com>



**Baden-Württemberg**

# ICT Technology – Selected Companies



**STEAG HamaTech AG, Sternenfels**  
<http://www.steag-hamatech.de>



**Kodak GmbH, Stuttgart**  
<http://www.kodak.com>



**Alcatel SEL AG, Stuttgart**  
<http://www.alcatel.com>



**AEG Identifikationssysteme GmbH, Ulm**  
<http://www.aegid.de>



**Baden-Württemberg**

# ICT Technology – Selected Companies



Hewlett Packard GmbH, Böblingen

<http://www.hp.com>



Micronas, Freiburg

<http://www.micronas.com>



TallyGenicom Computerdrucker GmbH, Ulm

<http://www.tallygenicom.com>



Baden-Württemberg

# ICT Technology – Selected Companies



**MT Picture Display Germany GmbH, Esslingen**

<http://www.panasonic-crt.de/>



**Schweizer Electronic AG, Schramberg**

<http://www.seag.de>



**Transtec AG, Tübingen**

<http://www.transtec.de>



**Nortel Networks Germany GmbH & Co. KG, Friedrichshafen**

<http://www.nortel.com>



**Baden-Württemberg**

# ICT Technology – Selected Companies



**Würth-Elektronik GmbH & Co KG, Niedernhall**

<http://www.wuerth-elektronik.de>



**Conrac GmbH, Weikersheim**

<http://www.conrac.de>



**Océ Document Technologies GmbH, Konstanz**

<http://www.oce.com>



**Interflex Datensysteme GmbH & Co. KG, Stuttgart**

<http://www.interflex.de>



**Baden-Württemberg**

# ICT Technology – Selected Companies



**Semitron W. Röck GmbH, Küssaberg**

<http://www.semitron.de>



**Extra Computer GmbH, Giengen**

<http://www.extra-computer.de>



**Pyramid Computer Systeme GmbH, Freiburg**

<http://www.pyramid.de>



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# ICT Technology – Selected Companies



U.I. Lapp GmbH, Stuttgart

<http://www.lapp.de>

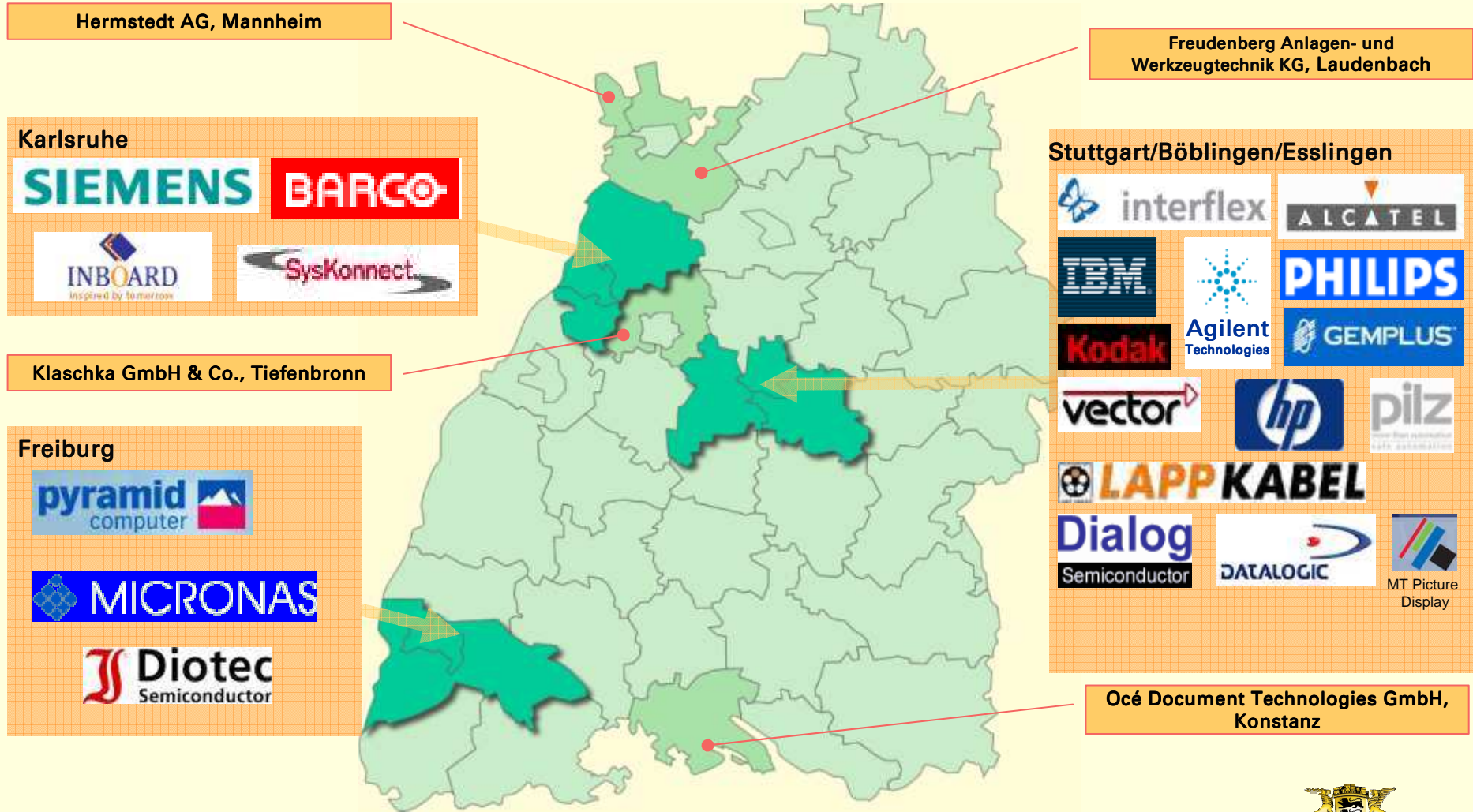


Inboard Leiterplattentechnologie GmbH & Co. KG, Karlsruhe

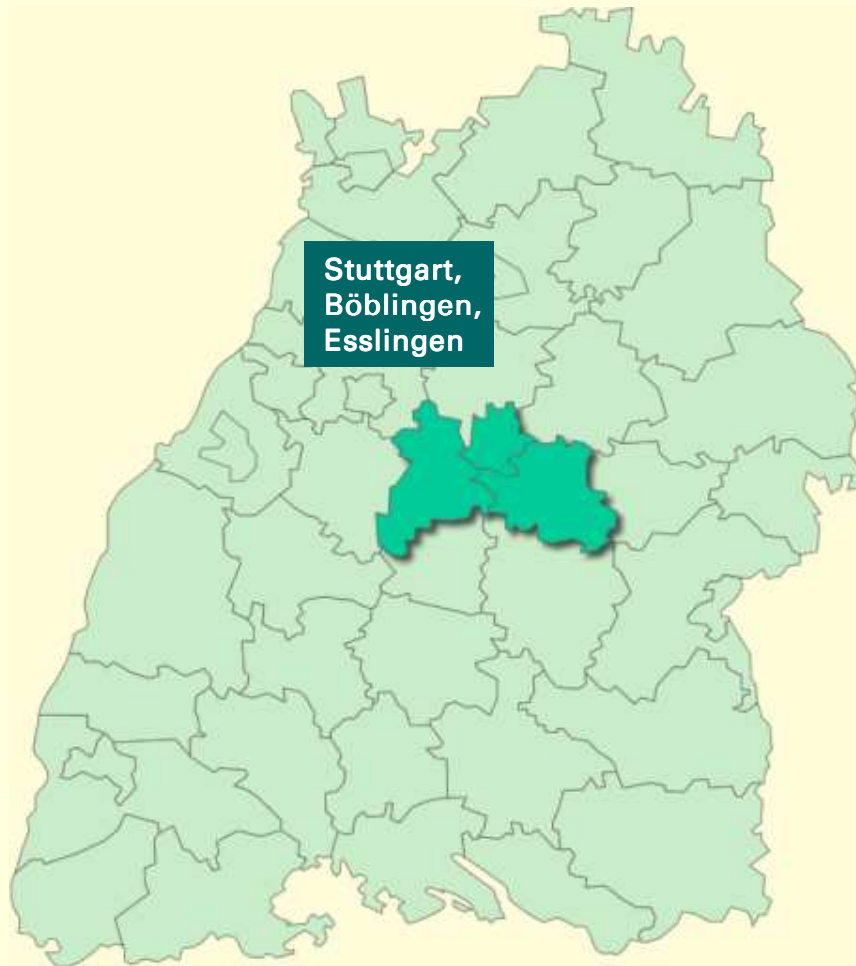


Baden-Württemberg

# ICT Technology – Regional Centers Selected Companies



# ICT Technology – Regional Centers



## Stuttgart, Böblingen, Esslingen:

- Philips Semiconductors Innovation Center Böblingen GmbH (Böblingen)
- Hewlett Packard GmbH (Böblingen)
- Agilent Technologies Deutschland GmbH (Böblingen)
- IBM Deutschland Entwicklung GmbH (Böblingen)
- BEG Bürkle GmbH + Co (Herrenberg)
- Titze Datentechnik GmbH (Magstadt)
- MIVA Technologies GmbH (Schönaich)
- MT Picture Display Germany GmbH (Esslingen)
- PILZ GmbH & Co. (Ostfildern)
- Dialog Semiconductor GmbH (Kirchheim unter Teck)
- Gemplus GmbH (Filderstadt)
- DATA LOGIC Optik Elektronik GmbH (Erkenbrechtsweiler)
- Elektronik-Systeme Lauer GmbH (Unterensingen)
- Spectra Computersysteme GmbH (Leinfelden-Echterdingen)
- IBM Deutschland GmbH (Stuttgart)
- Alcatel SEL AG (Stuttgart)
- KODAK Verwaltung AG (Stuttgart)
- U.I. Lapp GmbH (Stuttgart)
- Kodak GmbH (Stuttgart)
- Interflex Datensysteme GmbH & Co. KG (Stuttgart)
- Vector Informatik GmbH (Stuttgart)
- Tenovis Comergo GmbH (Stuttgart)



# ICT Technology – Regional Centers



## Region Karlsruhe:

- IDS Gesellschaft für Informations-, Datenübertragungs- u. Steuerungssyst. und Steuerungssysteme mbH (Ettlingen)
- SysKonnnect GmbH (Ettlingen)
- CSAT Ges. für Computer-Systeme und Automations-Technik mbH (Eggenstein-Leopoldshafen)
- DOS TASK Technology AG (Ettlingen)
- Audiodata GmbH (Wiesenbach)
- Siemens AG (Karlsruhe)
- Barco Control Rooms GmbH (Karlsruhe)
- Inboard Leiterplattentechnologie GmbH & Co. KG (Karlsruhe)
- Hitex Development Tools GmbH (Karlsruhe)
- init innovation in traffic systems Aktiengesellschaft (Karlsruhe)
- Westermo Data Communications GmbH (Waghäusel)
- mh SERVICE GmbH (Eggenstein)
- docuFORM GmbH (Karlsruhe)



# ICT Technology – Regional Centers



Freiburg, Breisgau-Hochschwarzwald:

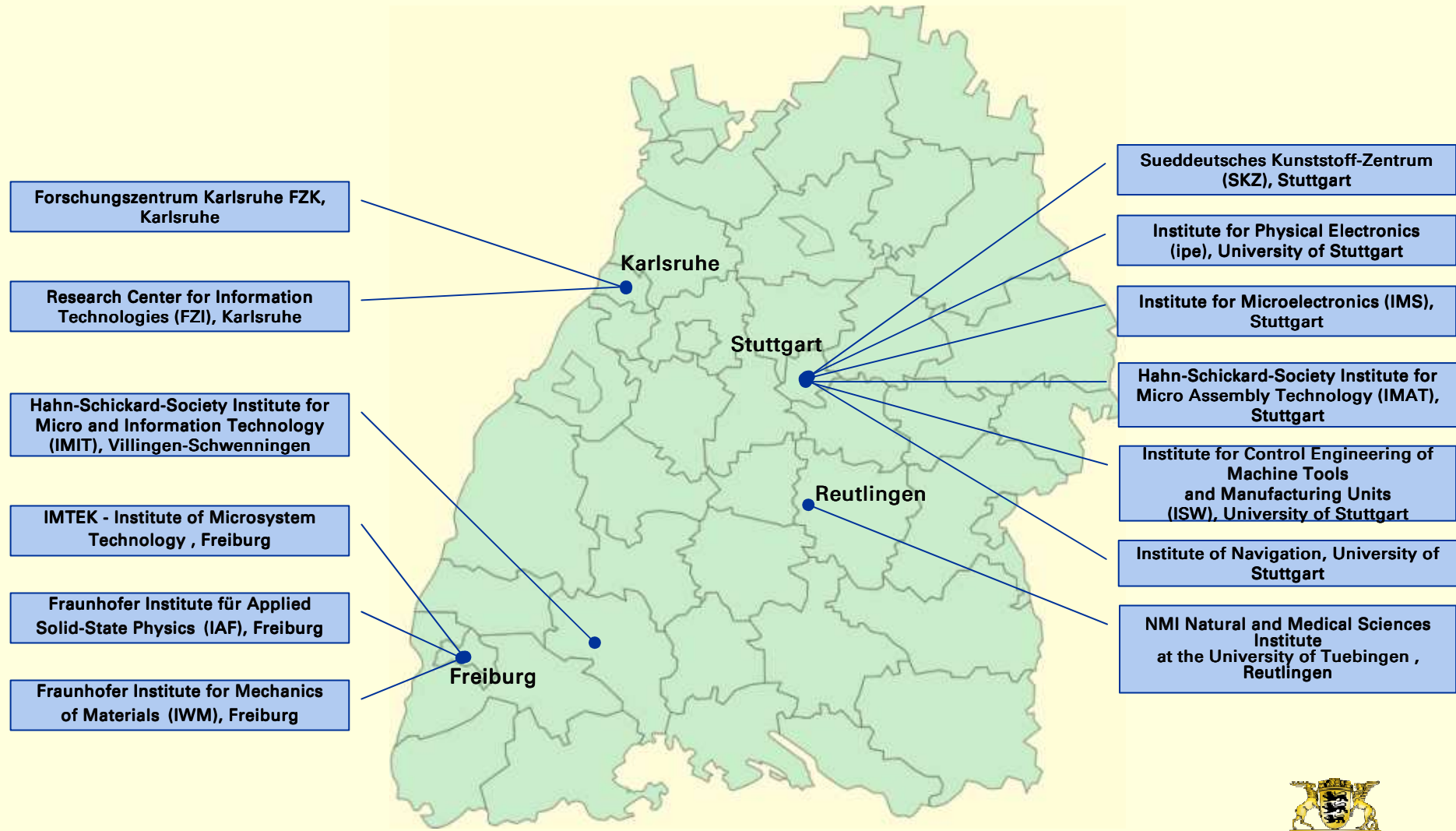
## Freiburg, Breisgau-Hochschwarzwald:

- Micronas GmbH (Freiburg)
- Pyramid Computer Systeme GmbH (Freiburg)
- MemorySolutionN GmbH (Breisach)
- DIOTEC Semiconductor GmbH (Heitersheim)



Baden-Württemberg

# ICT Technology – Research Institutes



# ICT Technology – Relevant Study Courses (Universities)

University of Mannheim  
• Technical Computer Science

University of Heidelberg  
• Application-oriented  
Computer Science  
• Computer Science

University of Karlsruhe (TH)  
• Electrical Engineering and  
Information Technology  
• Computer Science

University of Freiburg  
• Microsystem Technology  
• Applied Computer Science  
• Computer Science

Mannheim

Heidelberg

Karlsruhe

Stuttgart

Tübingen

Ulm

Freiburg

Konstanz

University of Stuttgart  
• Electrical Engineering and  
Information Technology  
• Computer Science

University of Tübingen  
• Computer Science

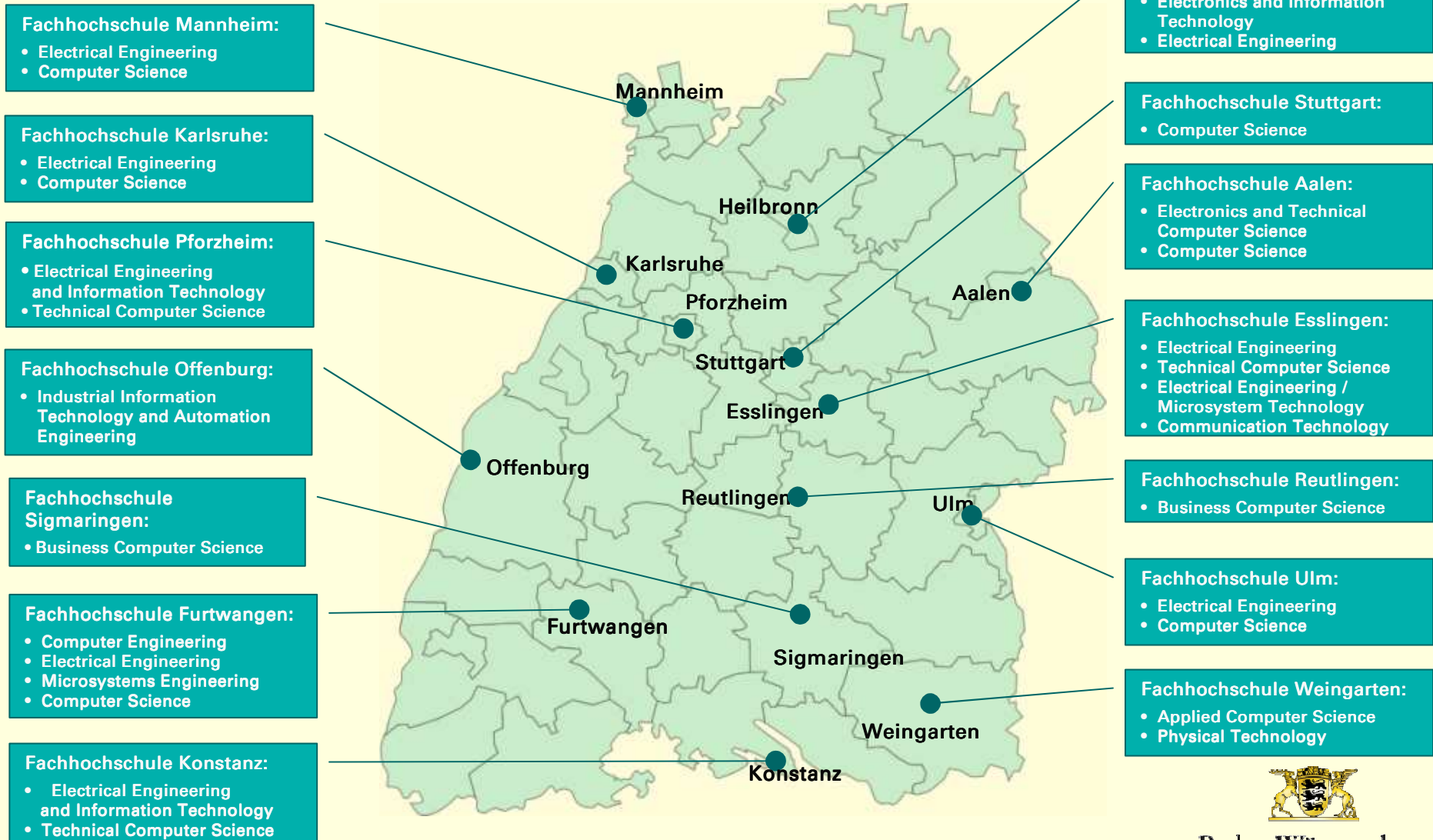
University of Ulm  
• Electrical Engineering  
• Computer Science

University of Konstanz  
• Computer Science

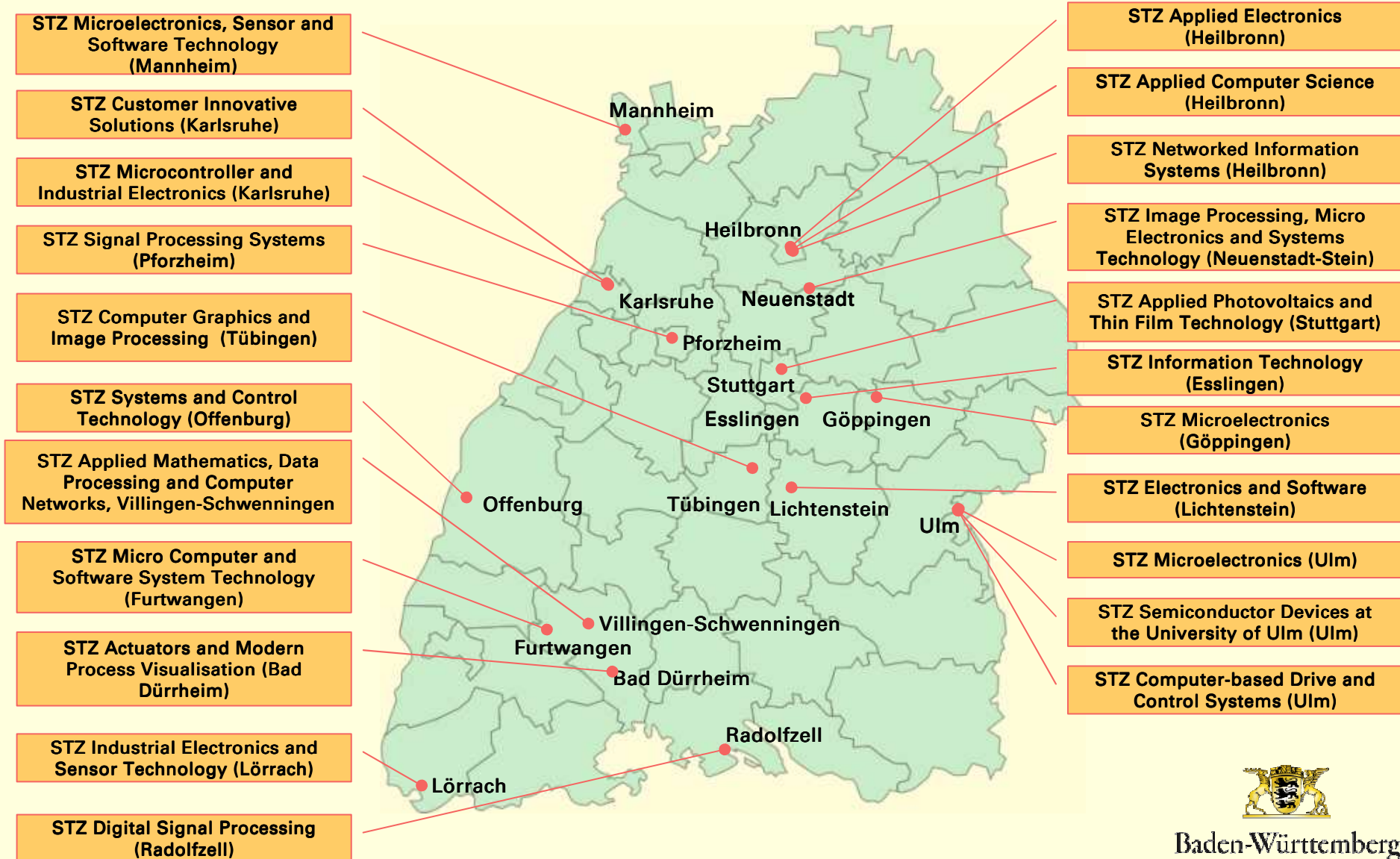


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# ICT Technology – Relevant Study Courses (Universities of Applied Sciences/Fachhochschulen)



# ICT Technology Steinbeis Technology Transfercenters (STZ)



# ICT Technology - Research



## Fraunhofer Institute for Mechanics of Materials (IWM), Freiburg

<http://www.iwm.fhg.de>

The Fraunhofer Institute for Mechanics of Materials IWM develops solutions to increase the safety, availability, and lifespan of components and systems ranging from microelectronic devices to power plant components. The Institute develops concepts to make optimum use of new materials as well as cost-effective and environmentally compatible shaping and precision-machining processes.



## Fraunhofer Institute for Applied Solid-State Physics (IAF), Freiburg

<http://www.iaf.fhg.de>

The IAF is a leading research center in the field of III-V compound semiconductors and their applications in nano-, micro- and optoelectronics. The IAF has the complete process technology from epitaxy to mounting and packaging, from the semiconductor wafer to integrated circuits and modules. Its access to design, technology, testing and measuring allows fast and flexible and thus innovative solutions for all partners.



## Forschungszentrum Karlsruhe

<http://www.fzk.de>

Forschungszentrum Karlsruhe is one of the biggest science and engineering research institutions in Europe and funded jointly by the Federal Republic of Germany and the State of Baden-Wuerttemberg. Its research and development programs are of public interest and serve peaceful purposes exclusively. They concentrate on the five research areas of Structure of Matter, Earth and Environment, Health, Energy, and Key Technologies. In pursuing these research activities, the Forschungszentrum Karlsruhe cooperates with partners in science and industry. Furthermore, it operates large-scale facilities also for external users.



Baden-Württemberg

# ICT Technology - Research



## **Hahn-Schickard Society Institute for Micro and Information Technology (IMIT), Villingen-Schwenningen <http://www.hsg-imit.de>**

Companies appreciative of innovation have been entrusting HSG-IMIT since 1988 with their product ideas. Beginning in 1996 the volume of industry business in research and development has doubled every year. The main assets are concentration on main competencies, experience in the realization of innovations and excellent technical facilities. Internationally the HSG-IMIT and its 80 employees enjoy an outstanding position as important interlocutor for experts and organizers of and speakers at technical congresses.



## **Hahn Schickard Society Institute for Micro Assembly Technology (IMAT), Stuttgart <http://www.hsg-imat.de>**

In close collaboration with the University of Stuttgart's Institute of Time Measurement Engineering, Precision and Microengineering, IMAT conducts research into casings and micro/macro-system interfaces, focusing on plastic housings and molded interconnect devices (MIDs), as well as the development of innovative sensor and actuator systems using hybrid technology with microstructured MIDs.



## **Sueddeutsches Kunststoff-Zentrum (SKZ), Stuttgart <http://www.skz.de>**

SKZ (Sueddeutsches Kunststoff-Zentrum) has been a professional service provider to the plastics industry since 1961. Main activities are training for specialists and executives, recognized testing procedures for plastic materials and development and research. SKZ works together with the suppliers of raw materials, production companies, machine builders and system builders throughout the world.



**Baden-Württemberg**

# ICT Technology - Research



## **IMTEK - Institute of Microsystem Technology, Freiburg**

**<http://www.imtek.de>**

The Institute of Microsystem Technology (IMTEK) at the University of Freiburg is unique in Europe. The scientific scope of the institute encompasses nearly all technical fields relevant to the highly interdisciplinary world of microsystem technology. Through the depth and range of our activities, the IMTEK is one of the internationally leading academic research departments in this dynamic and innovative field.



## **Institute for Control Engineering of Machine Tools and Manufacturing Units (ISW) University of Stuttgart <http://www.isw.uni-stuttgart.de>**

The Institute for Control Engineering of Machine Tools and Manufacturing Units was established in 1965. The number and variety of research and development fields of the institute has steadily increased. The main fields are centred around the development and application of control technology and other computer supported methods for automation. The division of the institute in 4 departments and 9 groups reflects the variety of activities. The Institute caters for both basic research as well as for the application-orientated development activities, which has led to successful cooperation with both public and industrial project partners.



## **Research Center for Information Technologies at the University of Karlsruhe (FZI)**

**<http://www.fzi.de>**

FZI was founded in 1985 and is a non-profit contract research organisation that concentrates its efforts on novel information technologies for providers of investment and consumer products, of production or business products and of information services, and supports the development of innovative applications, primarily in engineering, on the basis of recent but already proven techniques. Most important, FZI offers its members a unique interdisciplinary environment that fosters joint research among diverse fields of Informatics, Mechanical and Electrical Engineering.



**Baden-Württemberg**

# ICT Technology - Research



## **Natural and Medical Sciences Institute of the University of Tübingen (NMI), Reutlingen**

**<http://www.nmi.de>**

The NMI is an applied research foundation acting as a non-profit organization. It was founded in 1985 by 12 small and medium enterprises and by the city of Reutlingen. An advisory board which includes representations from the University of Tuebingen, industries and local government supervises the institute. The NMI's principle goal is the transfer of knowledge from basic research into economically relevant applications. The application of new discoveries and methods in Microtechnology and Physics to the areas of Medicine and Biotechnologies has great potential for the development of new products.



## **Institute for Microelectronics Stuttgart (IMS CHIPS), Stuttgart**

**<http://www.ims-chips.de>**

IMS CHIPS stands for synergetic competence in teaching, research and development and certified production of innovative microelectronic systems. IMS operates one of the most modern production and development lines for highly complex silicon microchips. Apart from technicological services to several semiconductor manufacturers, IMS supports especially small- and medium-sized enterprises as well as research institutes to solve technological problems.



## **Institute for Physical Electronics (ipe), University of Stuttgart**

**<http://www.ipe.uni-stuttgart.de>**

The Institute for Physical Electronics (ipe) conducts research and offers courses in micro and optoelectronics, thin-film technology and semiconductor physics. Currently, the center is developing new concepts and identifying new applications for photovoltaics and large-area electronics (macro electronics).



**Baden-Württemberg**

# ICT Technology - Research



## **Institute of Navigation, University of Stuttgart (INS)**

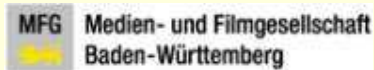
**<http://www.nav.uni-stuttgart.de>**

Established in 1953, this institute originally specialized in aviation navigation, and is now part of the University of Stuttgart's Faculty of Aerospace Engineering and Geodesy. INS conducts interdisciplinary research into navigation, remote sensing, and sensor development. Particular emphasis is placed on the practical deployment of methodologies and measurement techniques resulting from the institute's research. This focus on real-world applications is reflected in INS's many partnerships with institutions and enterprises.



**Baden-Württemberg**

# ICT Technology - Networks



## **MFG Medienentwicklung Baden-Wuerttemberg mbH**

MFG Baden-Wuerttemberg is the centre of excellence for IT, media, and film of the federal state Baden-Wuerttemberg in Germany's southwest. With an annual business volume of 15 million Euro and more than 60 highly qualified employees in our headquarter in Stuttgart we promote Baden-Wuerttemberg as a premier location for the creative industries. MFG Baden-Wuerttemberg consists of three divisions: MFG Agency for IT and Media, MFG Foundation, and MFG Film Funding.

[www.mfg.de](http://www.mfg.de)

MFG Baden-Wuerttemberg is the state's centre of excellence for IT and media and offers consulting services, industry promotion, project management, events, marketing services. Further the MFG is conducting the state's IT and Media initiative doIT Baden-Wuerttemberg and manages the cluster initiative Baden-Wuerttemberg: Connected (bwcon).



**Baden-Württemberg**