



Baden-Württemberg
Ministry of Economic Affairs

Medical Technology

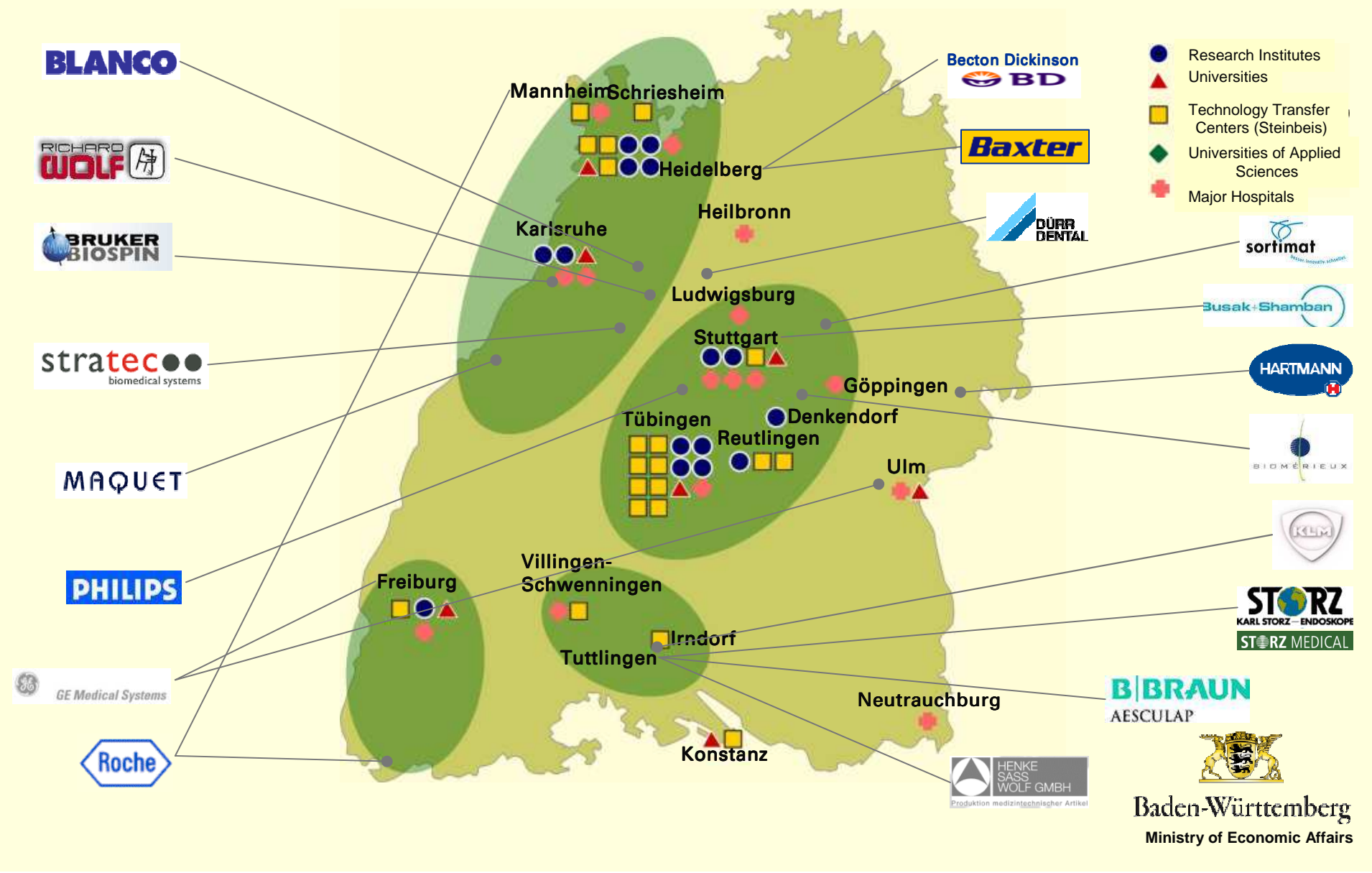
Medical Technology - A World-Class Cluster in Baden-Württemberg

- The German medical-technology industry is expanding. In the last years, it grew by 5.8 percent each year, and is expected to continue at an annual rate of 4-5 percent in the mid-term.
- Trends, such as miniaturized surgical instruments and equipment, enable patient-friendly, minimally-invasive surgical procedures - and give medical-technology companies further opportunities to expand. Moreover, integration and convergence between medical and other cutting-edge technologies, such as photonics, microsystems and biotechnology, are also continuing to increase.
- Baden-Württemberg is a medical-technology hotspot:
 - The world's largest cluster of companies specializing in surgical instruments can be found in Tuttlingen. The city is home to global leaders, such as Aesculap and Karl Storz.
- As well as an outstanding research and higher-education infrastructure, the region also boasts large hospitals and many companies in related high-tech sectors. With all this on offer, Baden-Württemberg is a prime location for businesses operating in the medical-technology space.



Regional Centres in Cluster Medical Technology

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



Medical Technology – Selected Companies



Roche Deutschland, Grenzach-Wyhlen u. Mannheim



Karl Storz GmbH & Co. KG, Tuttlingen



Paul Hartmann AG, Heidenheim



Medical Technology – Selected Companies



Henke-Sass, Wolf GmbH, Tuttlingen



Busak+Shamban Deutschland GmbH, Stuttgart



Baxter Deutschland GmbH, Heidelberg



Baden-Württemberg
Ministry of Economic Affairs

Medical Technology – Selected Companies



Bruker BioSpin GmbH, Rheinstetten



BECTON DICKINSON GmbH, Heidelberg



STRATEC Biomedical Systems AG, Birkenfeld



Baden-Württemberg
Ministry of Economic Affairs

Medical Technology – Selected Companies



GE Medical Systems Information Technologies, Freiburg und Dornstadt



Richard Wolf GmbH, Knittlingen

MAQUET

Maquet GmbH & Co. KG, Rastatt

BLANCO

BLANCO GmbH & Co. KG, Oberderdingen



Baden-Württemberg
Ministry of Economic Affairs

Medical Technology – Selected Companies



AESCULAP AG & Co. KG, Tuttlingen



BioMérieux Deutschland GmbH, Nürtingen



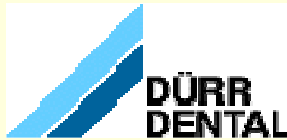
Philips Medizin Systeme Böblingen GmbH, Böblingen



Medical Technology – Selected Companies



Karl Leibinger Medizintechnik, Mühlheim



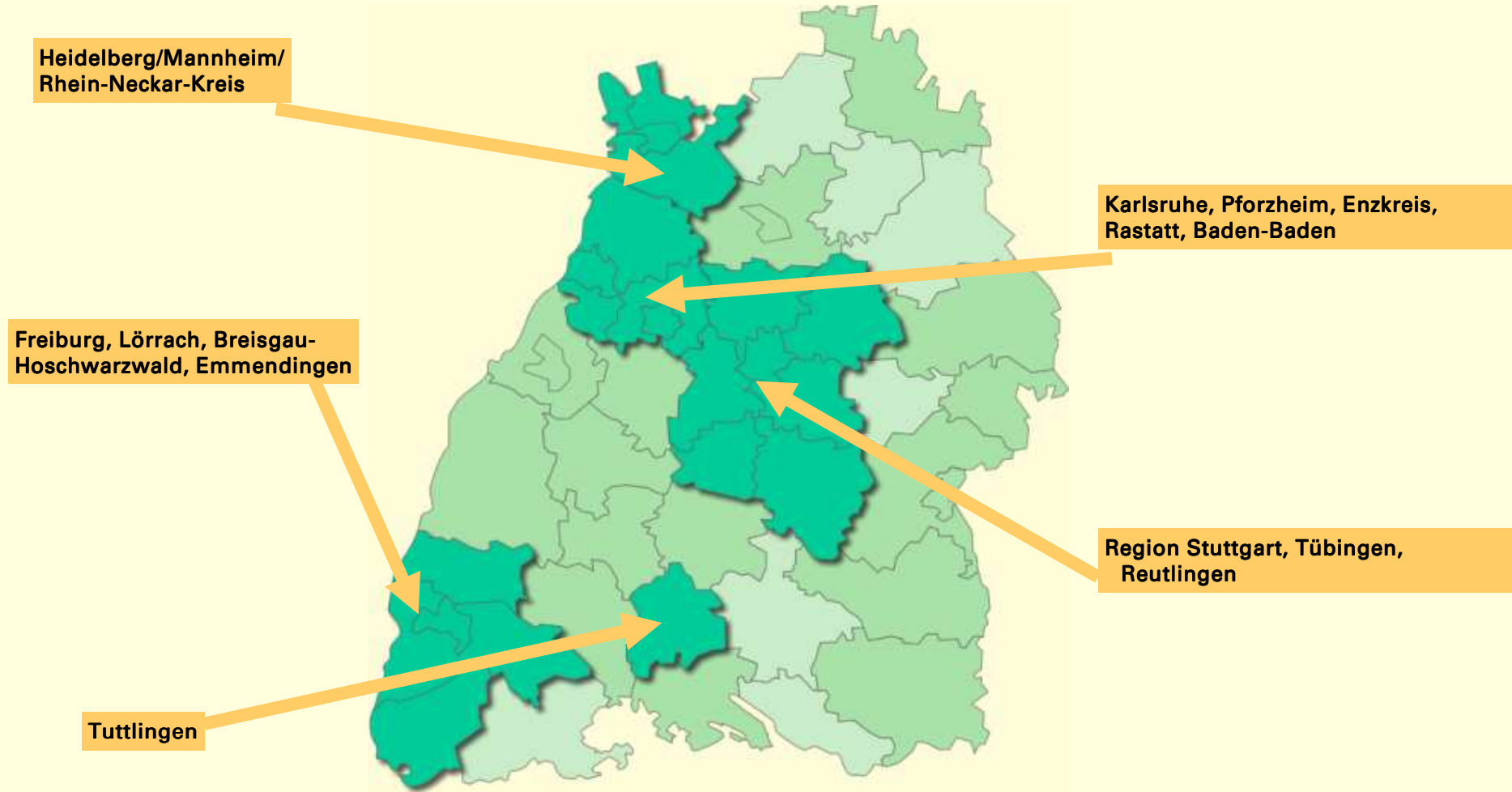
Dürr-Dental GmbH u. Co KG, Bietigheim-Bissingen



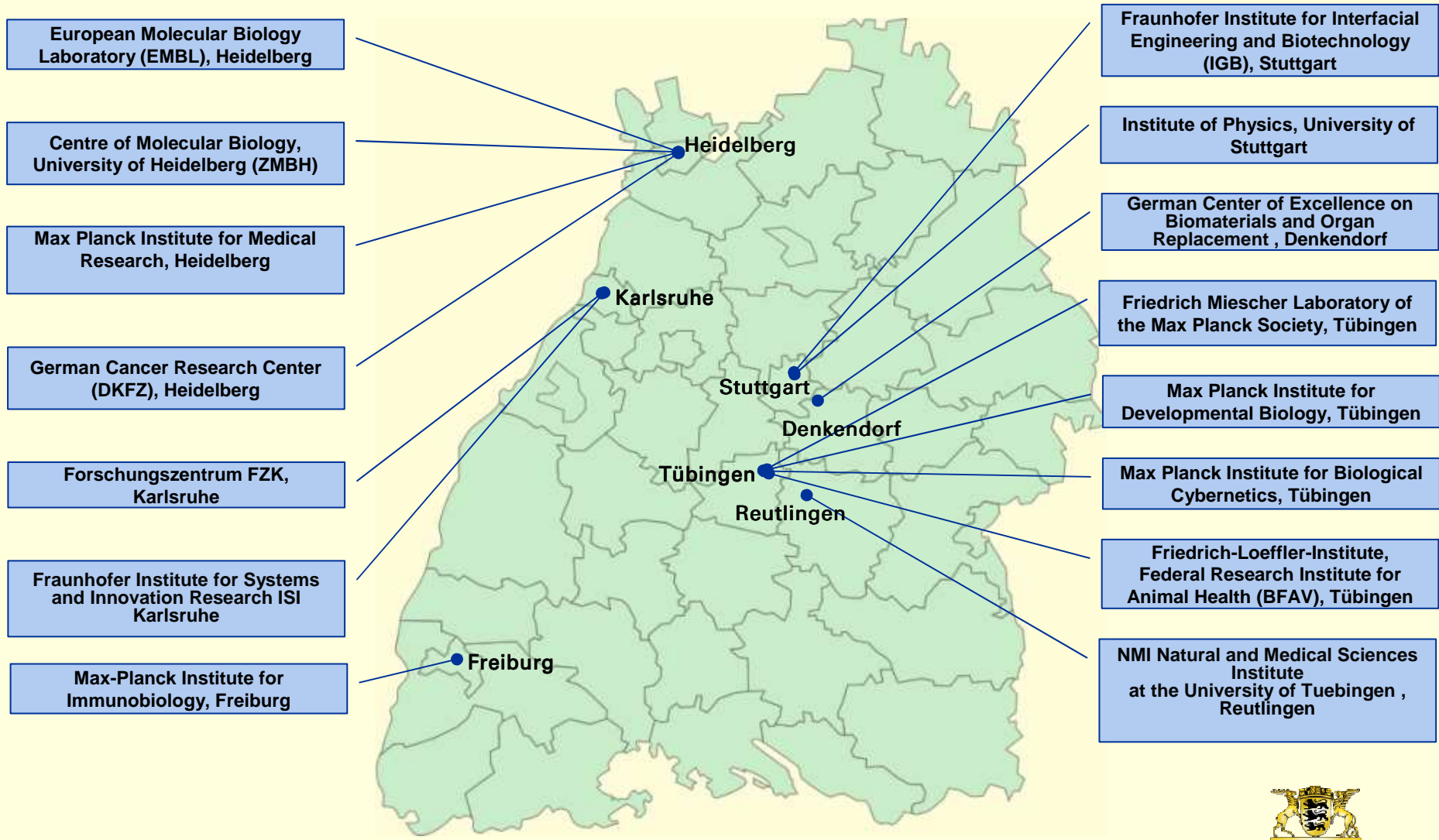
sortimat Technology GmbH & Co., Winnenden



Medical Technology – Regional Centres



Medical Research Institutes



Medical Technology – Relevant Universities (Study Courses)

University of Heidelberg:

- Biology
- Chemistry
- Medicine
- Dentistry
- Medical Informatics
- Molecular Biotechnology
- Molecular & Cell Biology
- Pharmacy

University of Karlsruhe (TH):

- Biology
- Chemistry
- Bio Engineering
- Biotechnology
- Chemistry Engineering/
Process Technology

University of Freiburg:

- Biology
- Chemistry
- Medicine
- Dentistry
- Pharmacy
- Biotechnology
- Molecular Medicine



University of Stuttgart-Hohenheim:

- Biology
- Phytomedicine

University of Tuebingen:

- Biology
- Chemistry
- Medicine
- Dentistry
- Biochemistry
- Bio informatics
- Pharmacy

University of Ulm:

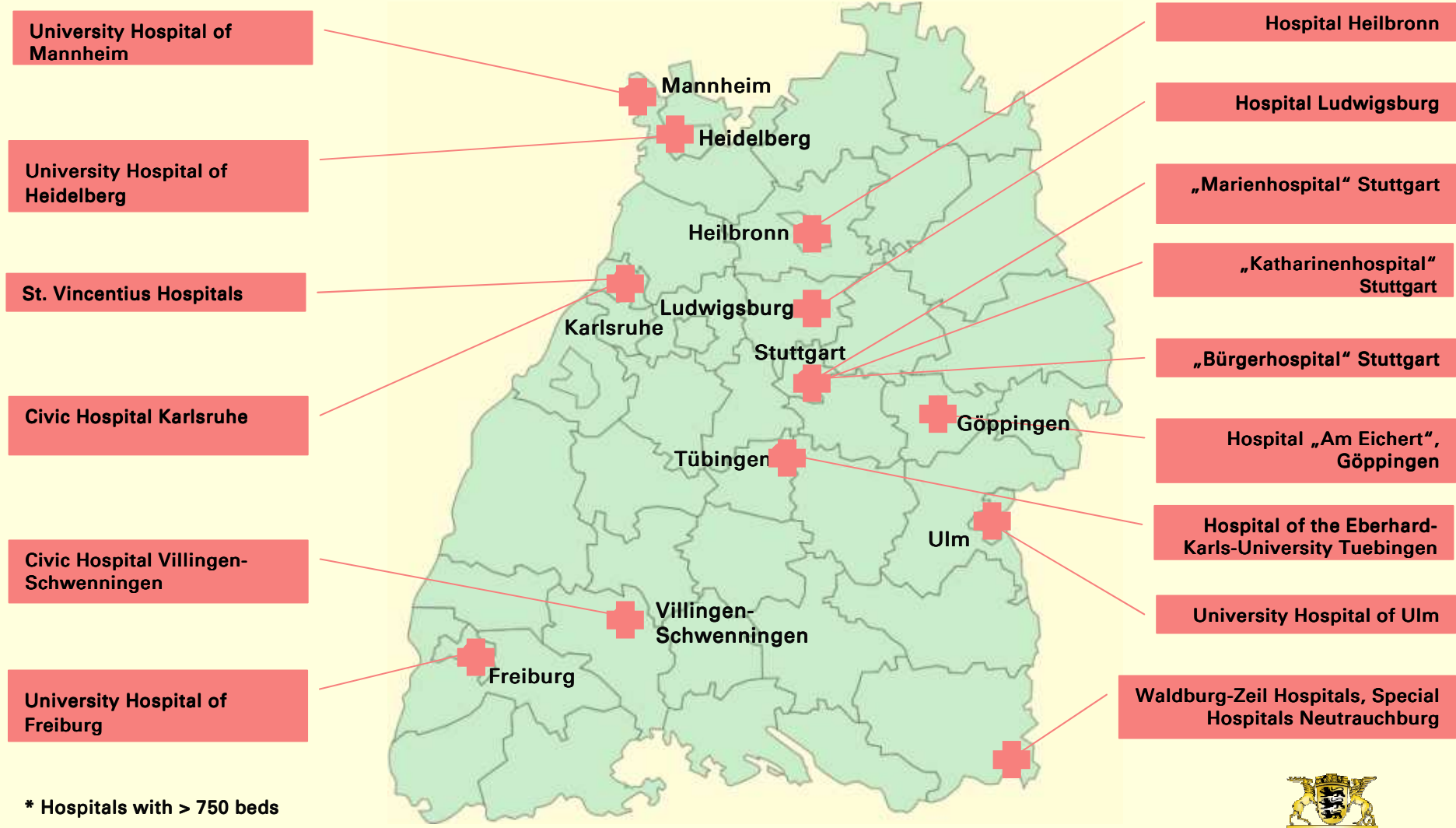
- Biology
- Chemistry
- Biochemistry
- Business Chemistry
- Medicine
- Dentistry

University of Konstanz:

- Biologi
- Chemistry
- Life Science



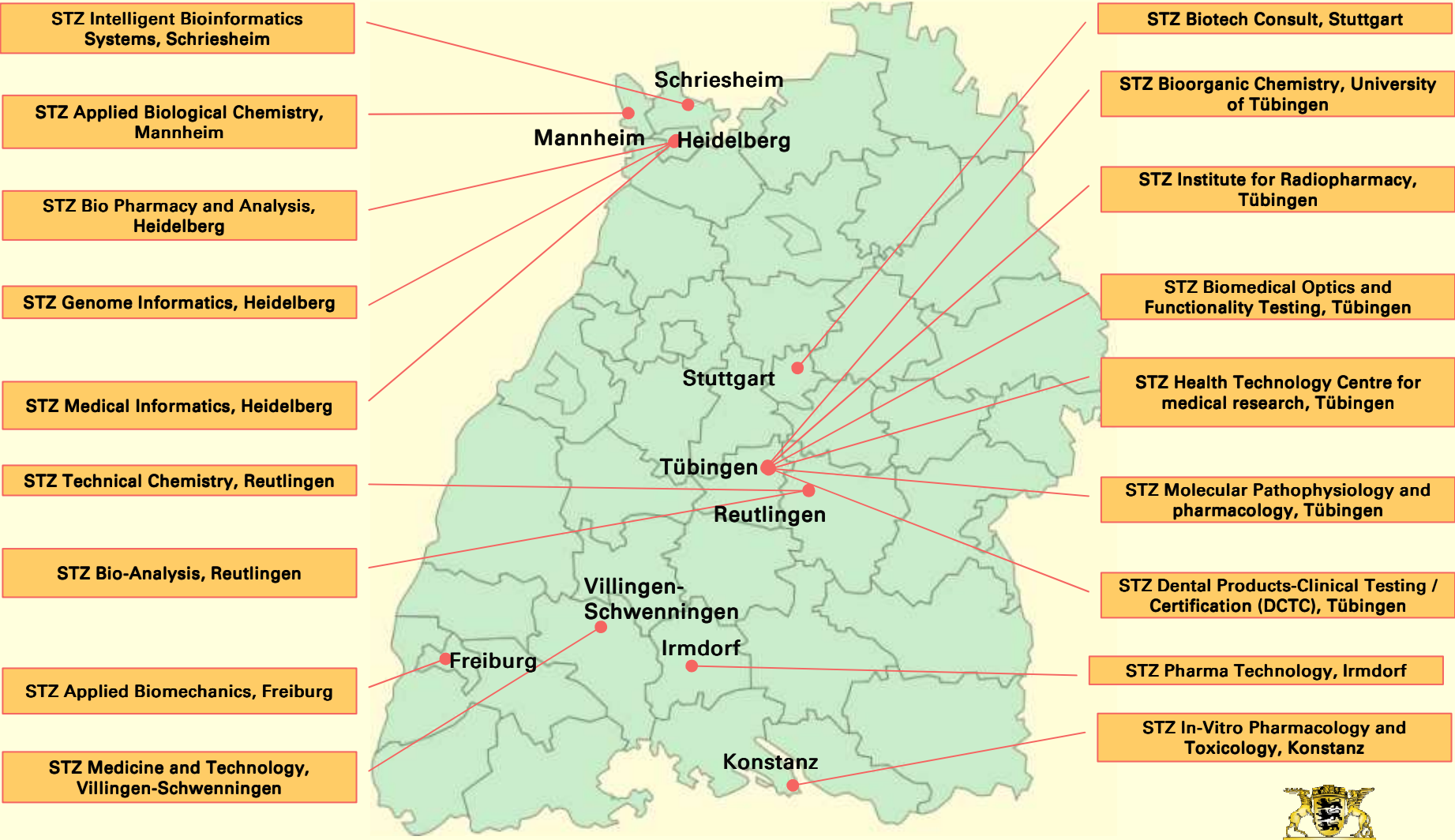
Medical Technology – Main Hospitals*



* Hospitals with > 750 beds



Medical Technology – Steinbeis Technology Transfer Centers (STZ)



Medical Research Institutes



Friedrich-Loeffler-Institut, Bundesforschungsinstitut für Tiergesundheit (Federal Research Institute for Animal Health), Tübingen

<http://www.fli.bund.de>



Fraunhofer-Institut für Systemtechnik und Innovationsforschung (Fraunhofer Institute for Systems and Innovation Research) ISI, Karlsruhe

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



Fraunhofer-Institut für Grenzflächen- und Bioverfahrenstechnik (Fraunhofer Institute for Interfacial Engineering and Biotechnology) IGB, Stuttgart

<http://www.igb.fraunhofer.de>



Medical Research Institutes



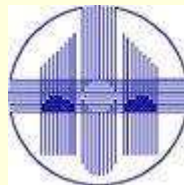
Naturwissenschaftliches und Medizinisches Institut (Natural and Medical Sciences Institute), University of Tübingen

<http://www.nmi.de>



Europäisches Molekularbiologisches Laboratorium (European Molecular Biology Laboratory) EMBL, Heidelberg

<http://www.embl-heidelberg.de>



Zentrum für Molekulare Biologie der Universität Heidelberg (Centre of Molecular Biology, University of Heidelberg) ZMBH

<http://www.zmbh.uni-heidelberg.de>



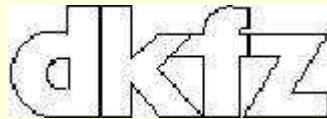
Baden-Württemberg
Ministry of Economic Affairs

Medical Research Institutes



Max-Planck-Institut für medizinische Forschung (Max Planck Institute for Medical Research), Heidelberg

<http://www.mpimf-heidelberg.mpg.de>



Deutsches Krebsforschungszentrum (German Cancer Research Center) DKFZ, Heidelberg

<http://www.dkfz.de>



Forschungszentrum Karlsruhe FZK

<http://www.fzk.de>



Baden-Württemberg
Ministry of Economic Affairs

Medical Research Institutes



Max-Planck-Institut für Immunbiologie (Max-Planck-Institute of Immunobiology), Freiburg

<http://www.immunbio.mpg.de>



Deutsches Zentrum für Biomaterialien und Organersatz (Biomaterials and Organ Replacement) BMOZ Stuttgart-Tübingen, Denkendorf

<http://www.bmoz.de>



Friedrich-Miescher-Laboratorium für biologische Arbeitsgruppen in der Max-Planck-Gesellschaft (Friedrich Miescher Laboratory of the Max Planck Society), Tübingen

<http://www2.fml.tuebingen.mpg.de>



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Ministry of Economic Affairs

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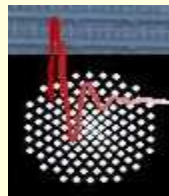
Max-Planck-Institut für Entwicklungsbiologie (Max Planck Institute for Developmental Biology), Tübingen

<http://www.eb.tuebingen.mpg.de>



Max-Planck-Institut für biologische Kybernetik (Max Planck Institute for Biological Cybernetics), Tübingen

<http://www.kyb.tuebingen.mpg.de>



Physikalisches Institut der Universität Stuttgart (Institute of Physics, University of Stuttgart)

<http://www.physik.uni-stuttgart.de>



Medical Technology – Networks



Competence Center for Minimally-Invasive Medicine and Technology in Tübingen - Tuttlingen (MITT)

The MITT is working on a variety of research projects in association with companies, and with the University Hospital in Tübingen, the Institute of Textile Technology and Process Engineering (ITV) in Denkendorf, the Natural and Medical Sciences Institute (NMI) in Reutlingen, the Research Center in Karlsruhe and the University of Applied Sciences in Furtwangen. These initiatives focus on instrument systems, robotics, laser technology, materials, information technology and ergonomics.

www.mittev.org

Tuttlingen has a highly-developed network, due to the many research institutes staffed by highly-skilled professionals around the University Hospital in Tübingen, and the approx. 400 local medical-technology companies.

The Man-Machine Interface project is a prime example of cooperation within this network. The department for minimally-invasive surgery at the University Hospital in Tübingen, the Institute for Control Engineering of Machine Tools and Manufacturing Units (ISW) at the University of Stuttgart, and the leading surgical instruments manufacturer Aesculap are all active participants in this initiative.



Medical Technology – Networks



Competence Center for Medical Technology in Rhein-Neckar-Dreieck

Of all R&D employees in the region, around 9 percent work at leading research institutes, such as the German Cancer Research Center and the Research Center in Karlsruhe. To promote further and closer cooperation, efforts are underway to establish the Competence Center for Medical Technology.

The high concentration of universities (Mannheim, Karlsruhe and Heidelberg) and the University of Applied Sciences in Mannheim ensure a constantly replenished pool of employees with medical and medical-technology skills. The network receives funding from Friadent, GAP, the University Hospital of Mannheim, Maquet, Siemens and ID GmbH.

The network is not just restricted to Tübingen, but also incorporates other initiatives, such as the Operating Room project with the MITT in Tübingen, that receives €0.511 million funding from the State of Baden-Württemberg.



Medical Technology – Technology Parks



Heidelberg Technology Park, Heidelberg

The Heidelberg Technology Park is a science park and centre of Life Sciences. Mainly focused on biotechnology the Park is closely related with the Heidelberg University and to the famous national and international research institutions located here.

It offers about 50.000 sqm lab and office space to 63 tenants (companies/institutions) with about 950 employees.

[www.heidelberg.de/
Technologiepark](http://www.heidelberg.de/Technologiepark)

As centre of a network of information and communication, the Heidelberg Technology Park provides contact for start-up`s and SME`s with focus on Life Sciences, helping them with renting office and lab space, financing, management, marketing and legal affairs.

There is a close cooperation with the ministry, many national and international institutions and the major scientific institutes in Heidelberg.



Baden-Württemberg
Ministry of Economic Affairs

Medical Technology – Technology Parks



Life Science Center Esslingen am Neckar

The LSC is the official Life Science Center of the Stuttgart Region. It includes biotechnology but also covers a wider range of technology than this. The LSC is oriented towards the future markets of health, diet, agriculture and environment.

The first building phase was started in April 2000. It encompasses approx. 1000m² of laboratory area and approx. 1000m² of office space, which is fully rented out. The second building phase is already in the planning stage.

www.lsc-esslingen.de

The economic development programme of the city of Esslingen am Neckar supports the companies of the Life Science Center in all entrepreneurial questions. It organises consultation and financing services, including Venture Capital with a company.



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Medical Technology – Technology Parks



Science and Technology Park in Reutlingen & Tübingen

Two locations – one concept. Technologieparks Tübingen-Reutlingen develops a technology park on two locations with flexible rental spaces for companies which in particular are active in the fields of medical technology, bio and nanotechnology and related industries. A unique cluster of universities, research institutes and hospitals in Tübingen and Reutlingen with its proximity to the state capital Stuttgart has been consistently developed and advanced. The management not only ensures that the buildings and their sophisticated technology are running smoothly but the numerous gatherings at events it organises and extra services such as conference rooms and joint trade fair booths. After work you can unwind in the restaurant in the old observatory with its excellent view. In fact the entire surrounding area offers a great range of high quality leisure activities.

www.ttr-gmbh.de

