Bavarian Ministry of Economic Affairs, Regional Development and Energy

invest in bavaria

GET IN TOUCH

Life Sciences in Bavaria

Prospering

THE BAVARIAN LIFE SCIENCE INDUSTRY

A home for
success.
A basis for
your future.
And a variety of
opportunities.

Ambitious goals for the benefit of all

Bavaria is at the forefront of life science development – both in Germany and Europe-wide. No other state has defined and implemented such ambitious policies – and they will benefit us all. Over the last 40 years, the Bavarian state government has invested € 500 million in biotechnology alone. These funds have been complemented by private sector investments in Bavarian biotech companies of well over € 3.5 billion.

The biotech and medical technology sector in Bavaria is the biggest life science segment in Germany by a wide margin – and ranked in the top three in Europe.

With the highest number of biotech start-ups in Germany in 2014, Bavaria is clearly the location of choice for many life science companies. Taken together, it is currently home to some 900 firms in the biotech, medical technology and pharmaceutical sectors that employ tens of thousands of people.

By putting down roots in Bavaria, you too can be a part of this success. And you'll be in good company! Multiple national firms and international subsidiaries are located in Bavaria:

AMGEN / BAXALTA / BAXTER / BIOGEN / BRISTOL-MYERS SQUIBB / CELGENE / DAICHII SANKYO / GE HEALTHCARE / GILEAD / GLAXOSMITHKLINE / HEXAL / MORPHOSYS / MSD MERCK SHARP & DOHME / MYRIAD GENETICS / NOVARTIS / ROCHE DIAGNOSTICS / SANDOZ / SIEMENS HEALTHCARE / THERMO FISHER SCIENTIFIC.GENEART / VERTEX

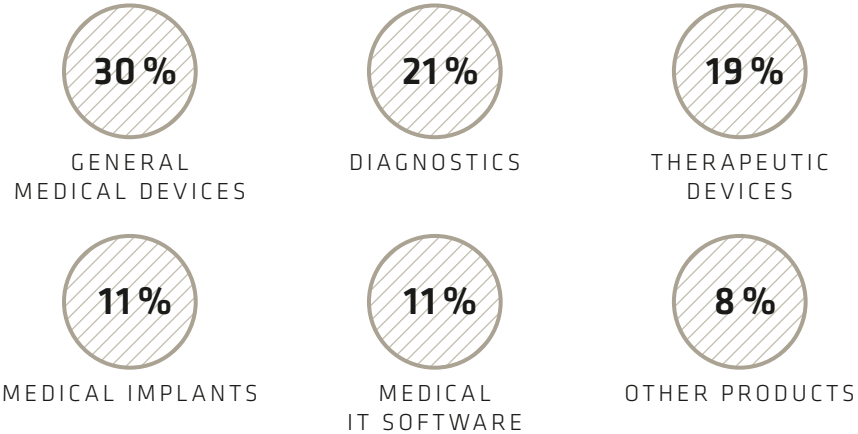
Bavaria:
the location of choice
for life science
companies

The medical technology industry in Bavaria

With 987 medical technology companies (including suppliers and service providers), Bavaria is a leader in this sector – both on a national and on a European level. In fact, its annual revenues of € 9.5 bn in 2014 put it on a comparable level to the industry in the whole of France (€ 10 bn) and Italy (€ 9 bn). Bavaria alone makes up a third of total German production (€ 22 bn) – and this figure rises to 60 % for radiation and medical imaging, electrotherapy and other electromedical equipment. Bavarian medical technology companies are often hidden champions – midsized firms that are not yet household names, but are global leading lights in medical innovation. They are major job creators too. The German medical technology industry employs about 170,000 people, with over a third working in Bavaria (70,000). That makes Germany the second largest medical technology segment in the world, after the USA. And there's strong demand for the products, as the world market is growing by 6 – 8 % per year. No wonder Bavarian medical technology firms focus on export. In fact, 65 % of their products (based on revenues) are destined for use in other countries.

With strong growth and high demand for its products, the medical technology industry is a major driver of growth in Bavaria

TYPES OF PRODUCTS PRODUCED BY THE BAVARIAN MEDICAL TECHNOLOGY INDUSTRY

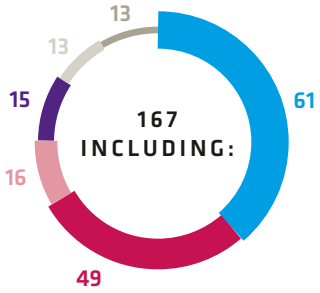


Biotech and pharma

Taking together the entire pharmaceutical and biotechnology industry in Bavaria – but excluding the medical technology area – employee numbers reached more than 29,000 in 2014. In addition to the generally stable employment figures within the industry, around 10,000 employees are working in the life science departments of Bavarian research institutions. Bavaria is home to 347 biotech and pharma companies (figures from 2014), of which 212 are active in biotech, 62 are contract research organisations, 42 pharma and 31 suppliers or CMOs. The Bavarian biotech industry has enjoyed very rapid growth over the last 20 years:

BIOTECH COMPANIES IN BAVARIA	PEOPLE EMPLOYED IN BIOTECH COMPANIES	APPROVED MEDICINES BY BAVARIAN BIOTECH SMES
212 (2014)	**11,500** (2014)	**7** (2014)
↗	↗	↗
30 (1995)	**2500** (1995)	**0** (1995)

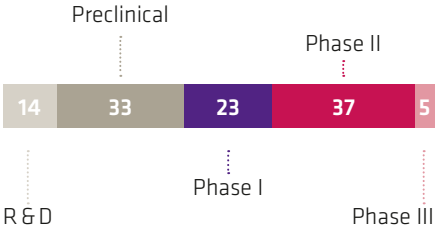
NUMBER OF BIOTECH SMES IN BAVARIA



61 Therapeutics & diagnostics // **49** Devices & reagents // **16** Agro, food, environment // **15** DNA / protein analytics // **13** Bioinformatics //**13** Preclinical services

PRODUCTS AND PIPELINE – DRUG DEVELOPMENT OF BAVARIAN SMES (2014)

The 20 Bavarian SME drug developers provide more than 30 % of the national drug pipeline of SMEs // A total of 112 listed by phase:



Lighthouses

Siemens Healthcare

SIEMENS

Siemens Healthcare is one of the world's largest suppliers of technology to the healthcare industry and a leader in medical imaging, laboratory diagnostics and healthcare IT. All supported by a comprehensive portfolio of clinical consulting, training, and services available across the globe and tailored to customers' needs. In fiscal 2014, Siemens Healthcare had around 43,000 employees worldwide and posted a revenue worth 11.7 billion euros, and profits of more than 2 billion euros.

GE

GE Healthcare is one of the world's leading providers of medical technology and services and the only company whose solutions span medical imaging and information technologies, medical diagnostics, patient monitoring systems, drug discovery and more. Its GE Global Research Center Europe, near Munich, is a hub of commercial and industrial science and technology innovation.

GE imagination at work

MorphoSys

morphosys

MorphoSys, based in Martinsried near Munich, is a leader in the development of therapeutic antibodies with over 100 different drugs in research and development, one of the broadest pipelines in the biotech industry. These include unique approaches to treating conditions such as cancer, Alzheimer's disease and others. Founded in 1992, the company went public in 1997.

AMGEN

Amgen is the world's largest independent biotech company. Amgen GmbH in Munich was founded in 1989. Amgen Research (Munich) GmbH was established in 2012 following the acquisition of Micromet and employs some 200 R & D staff; all Amgen sites in Bavaria employ more than 600. In 2014, the FDA approved the cancer drug Blinatumomab (now Blincyto®), developed in Munich, in record time for its use to treat a life-threatening acute lymphatic leukaemia that affects children under 5.

Roche Diagnostics GmbH

"We are Pharmagnostics" – Roche Diagnostics in Penzberg near Munich is one of the largest biotechnology centers in Europe and one of the world's leading biotech R & D and production centers within the Roche Group. It is also the largest biotech employer in Bavaria with over 5,500 staff. The company recently invested € 200 m in its new Diagnostics Operations Complex II in response to strong demand for immuno-diagnostic tests. Roche Diagnostics is committed to sustainability and recycles waste water as biogas at its Penzberg facility. The biogas is a renewable energy source used for heating and other purposes.

Cross-Sectoral Projects

⟶ ADIDAS / ASTRUM IT / FAU

BACKGROUND Adidas, the world's leading provider of sports products, together with ASTRUM IT, a highly successful Bavarian IT specialist, and the Friedrich-Alexander-Universität Erlangen-Nürnberg (FAU) jointly form the miLife consortium.

PROJECT The goal of the project was to develop an innovative wearable computing platform to analyze data from sensors integrated in shoes and other clothes to be used in team sport and health monitoring. The partners needed to replace isolated applications by creating a central, flexible and wearable computing platform, more advanced sensor integration as well as better data analysis and communication capabilities.

RESULTS The developed application involves systems that support people playing popular team sports. It tests the player's health and fitness and measures performance during training as well as matches. In addition, the system has applications in people's everyday life and health. For example, it can motivate them to take exercise. It also helps doctors and scientists gather feedback about the health and fitness of elderly people and other patients.

⟶ DLR

BACKGROUND DLR is Germany's national aeronautics and space research centre. DLR has about 8,000 employees and operates 33 institutes, test and operation facilities. It has 16 locations in Germany of which 3 are in Bavaria. Its budget for research and operations in 2014 was € 871 m. The DLR site at Oberpfaffenhofen in Bavaria is one of Germany's largest research centres. It is home to eight scientific institutes and currently employs more than 1,700 people.

PROJECT DLR developed a robot controlled by thought. Almost 15 years after being paralysed by a stroke, a 58-year-old US-American woman was once again able to serve herself a drink of coffee. Surgeons had implanted sensors into the woman's brain more than five years earlier in the motor area of her cerebral cortex, a thin sheet of neurons on the exterior of the brain that transforms multisensory information into motor commands. DLR had already developed a robotic arm that could grip and open objects. The challenge for DLR specialists, neuroscientists and other experts, was to get the robotic arm to "understand" signals from the sensors and act on them.

RESULTS Software on a connected computer decoded the signals, and the DLR robot arm and five-fingered hand executed these decoded instructions. It took just a few moments for the woman to grasp the drinking bottle with the robot hand, bring it up to her mouth and drink the coffee through a straw for the first time in almost 15 years!

Connecting

BAVARIAN HOTSPOTS IN LIFE SCIENCE

We focus on knowledge, concentrate on talents and offer four regions of excellence to experience the wide spectrum of the Bavarian life science landscape.

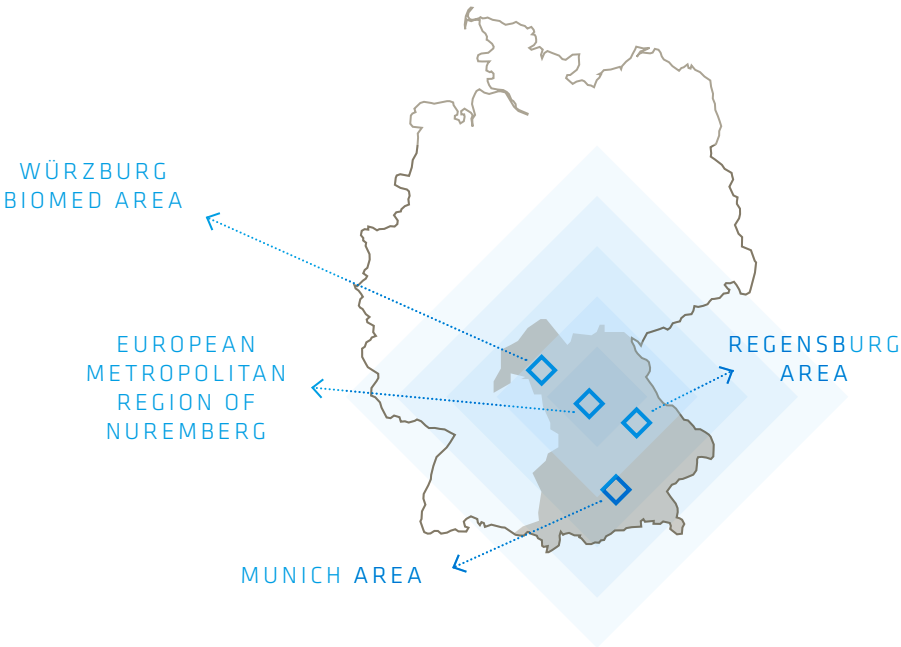
Bavarian Hot Spots in Life Science

Over the past 20 years, four life science hot spots have emerged in Bavaria. Today, they are all flourishing, internationally recognised and highly successful.

If you're thinking of setting up your life science company or subsidiary in Bavaria, you have the certainty that you're surrounded by some of the best brains and resources the world can offer. Add to that the superb infrastructure, clusters and quality of life – and you'll soon see why Bavaria would be a strong contender for the life science capital of Europe – and your next investment!

With biotech and healthcare in Munich, Regensburg and Würzburg, complemented by an active medical technology scene in the Nuremberg Metropolitan Region, Bavaria is the region of choice for life science. We're with you every step of the way, offering networking between companies, universities, research facilities, university hospitals, investors, funding authorities and advisers.

Over the next few pages, you can find out more about these four regions and what they have to offer.

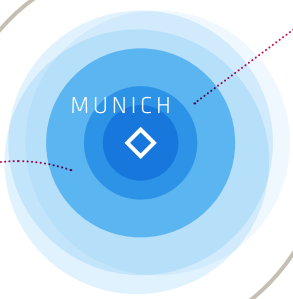


Munich Area

THE MUNICH AREA IS ONE OF THE TOP HOTSPOTS IN EUROPE FOR BIOTECH. With world-renowned universities, excellent research institutions and its position in the heart of Europe, it attracts the best talents and provides for the best education and training. Munich biotech companies mainly focus on developing products and technologies for use in healthcare.

Weihenstephan-Freising

This is one of Europe's major centres of research in green (plant) biotechnologies, food and nutrition. The campus is home to a large number of research institutes, many affiliated with universities, and to a start-up incubation centre.



Martinsried

The Life Science Campus forms the heart of Munich's biotech activities. It's the home of the regional cluster Bio^{M} as well as nearly half of the region's biotechs, including the IZB centre of innovation and start-up incubation, the Max-Planck Institutes, the Helmholtz Society, the Gene Centre, the majority of the Ludwig Maximilian University (LMU) science departments and the university hospital. In total, Martinsried regroups more than 150 life science companies, mainly SMEs.

BIO^{M} – MUNICH BIOTECH CLUSTER

Bio^{M} is a non-profit organisation backed by the Bavarian Ministry of Economic Affairs. Its mission is to support and promote Bavarian biotech start-ups with funding, consulting, coaching, networking and other services. In addition, Bio^{M} also manages the Bavarian Biotechnology Cluster as part of the Bavarian Cluster Initiative, with the aim to networking all the Bavarian biotech areas into one large regional cluster.

www.bio-m.org

PERSONALISED MEDICINE AT m4

The Munich Biotech Cluster and its initiative m4 Personalised Medicine and Targeted Therapies includes over 100 partners – biotech SMEs, large enterprises, scientific bodies and hospitals – working together on 33 different projects. It is funded by almost €100 m of public and private investment. Personalised medicine focuses on developing diagnostic and therapy approaches tailored to the patient's individual genetic profile and medical condition. www.m4.de

LUDWIG-MAXIMILIANS-UNIVERSITÄT MÜNCHEN

The Ludwig-Maximilians Universität (LMU) is recognized as one of Europe's premier academic and research institutions. Since it was founded in 1472, LMU has attracted inspired scholars and talented students from all over the world. Today, it has about 50,300 students, 740 professors and 3000 scientific staff. It has been awarded Excellence status in the competition run by the German Ministry of Education and Research and the German Research Foundation. The LMU's new BioMedical Center (BMC) is located in Martinsried-Grosshadern and offers 18,000 m^2 of space and the LMU Cell Centre. The university hospital has 2,244 beds and approx. 9000 staff, including 1800 doctors.

TECHNISCHE UNIVERSITÄT MÜNCHEN

The Technische Universität München (TUM) combines top-class facilities for cutting-edge research with unique learning opportunities for 37,300 students. It has 500 professors and 6,100 staff. Both figures include the university hospital, Klinikum rechts der Isar, which has 1,100 beds and about 4,500 staff. The TUM has been awarded Excellence status like LMU and both cooperate with the following excellence clusters: **Centre for Integrated Protein Science Munich (CIPSM) // Nanosystems Initiative Munich (NIM) // Munich Cluster for Systems Neurology (SyNergy)**

MAX PLANCK INSTITUTES

The Max Planck Society operates a number of research institutions in Germany and in other countries. Max Planck Institutes carry out basic research inter alia in the life sciences, natural sciences and the social and human sciences. In total they have about 17,200 staff including 5,600 scientists.

Max Planck Institute of Biochemistry (MPIB)

- Scientists at the MPIB investigate the structure of proteins and how they function – from individual molecules up to whole organisms.
  www.biochem.mpg.de/de

Max Planck Institute of Neurobiology (MPIN)

- The MPIN researches the basic functions, structure and development of the brain and the nervous system.
  www.neuro.mpg.de

Max Planck Institute of Psychiatry

- The main goal of the Max Planck Institute of Psychiatry is to gain knowledge about and understanding of the causes of psychiatric disorders. This knowledge can then be applied in the development of novel diagnostic possibilities as well as therapeutic and preventive approaches.
  www.psych.mpg.de

HELMHOLTZ CENTRE

The Helmholtz Centre Munich is the German Research Centre for Environmental Health. It investigates important common diseases which develop from the interaction of lifestyle, environmental factors and personal genetic background, focusing particularly on diabetes mellitus, chronic lung diseases, dementia and others. It has 2,250 employees including 1,100 scientific staff. Helmholtz is also one of the facilities involved in the National Cohort, a longtime study of 200,000 healthy people in Germany focusing on research on diet, lifestyle, metabolism and the risk of chronic diseases.

FRAUNHOFER IN BAVARIA

Headquartered in Munich and with 23,200 staff, Fraunhofer is Europe's largest application-oriented research organisation. Its research efforts are geared entirely to people's needs: health, security, communication, energy and the environment.

GERMAN RESEARCH CENTRE FOR FOOD CHEMISTRY

The German Research Centre for Food Chemistry is one of the Leibnitz Institutes and is based in Freising (near Munich). It aims to promote the science of food chemistry, ensuring public welfare and the maintenance and improvement of the quality of food.

www.dfal.de

HOCHSCHULE FÜR ANGEWANDTE WISSENSCHAFTEN WEIHENSTEPHAN-TRIESDORF

The Hochschule für angewandte Wissenschaften Weihenstephan-Triesdorf specialises in green engineering courses as well as biotechnology and bioinformatics. In total, it has 6,300 students and 144 professors.

INNOVATION AND START-UP CENTRE FOR BIOTECHNOLOGY, MARTINSRIED & FREISING-WEIHENSTEPHAN

The Fördergesellschaft IZB mbH, founded in 1995, is the operating company of the Innovation and Start-Up Centre for Biotechnology located in Planegg-Martinsried and Freising Weihenstephan. It has developed into one of the top ten biotechnology centres in the world. Over 60 biotech companies with over 650 employees are located on the 25,000 m^2 site. An important criterion for the success of the IZBs is the close proximity to top research at the LMU and the renowned biomedical research institutes on the Martinsried campus, such as the Max Planck Institutes.

The Planegg-Martinsried facility, now spread over 22,000 m^2, is home to start-ups focusing on medical biotechnology. Since 2002, the IZB in Freising-Weihenstephan, with a campus of 3,000 m^2, offers optimal conditions for company start-ups in the area of life sciences.

www.izb-online.de/en/about-us.html

Regensburg Area

The city of Regensburg is 2000 years old and located about an hour's drive from Munich and Nuremberg. Its BioRegio Regensburg campus is currently home to 48 life science companies with a total of about 3500 staff. That makes it the second largest biotech region in Bavaria after Munich.

UNIVERSITÄT REGENSBURG

Universität Regensburg strengths in life sciences lie in integrated immunopathology and therapy as well as functional genomics and transplant medicine. The university hospital has 833 beds and 4,042 staff, of whom 681 are doctors.

The university hospital also includes the José Carreras Centre for Somatic Cell Therapy (JCC). It was established in 2009 with funds from the EU and the José Carreras Leukaemia Foundation. The JCC focuses on the development of new cell therapies for patients with cancer or immune diseases. Together with several biotech companies, it develops new cutting-edge technologies in the area of cell therapy.

www.carreras-centrum.de

The Regensburg Centre for Interventional Immunology (RCI) was established in 2010 as a central unit of Regensburg University in order to regroup all academic research areas related to the development of new immunotherapies.

www.rcii.de

OSTBAYERISCHE TECHNISCHE HOCHSCHULE REGENSBURG

With about 10,500 students and 220 professors, the OTH Regensburg specialises in fluorescent bioanalytics, molecular diagnostics, biofunctional surfaces, sensors and applied biomedicine. It also works with hospitals to offer interdisciplinary approaches to new materials, such as with its new programme on biomedical engineering focused on medical technology.

BIOPARK REGENSBURG

Founded in 1999 with a € 42 m investment, the BioPark Regensburg is located on the university campus. It currently houses 36 companies and university facilities, including 11 biotech companies, 7 diagnostics / analytics companies and 3 medical technology firms with 600 employees in total.

www.biopark-regensburg.de

FRAUNHOFER ITEM REGENSBURG AND PERSONALISED TUMOUR THERAPY UNDER PROF. KLEIN

The goal of this new Fraunhofer project group is to gain a deeper understanding of how cancer develops, make diagnosis more accurate, and prescribe therapies tailored to each patient. To do this, scientists detect, isolate and analyse the molecules of individual disseminated tumour cells in early-stage cancer to find out more about how resistance to medication develops. In addition, they analyse information about metastatic precursor cells and use the results to develop diagnostic assays and identify therapeutic targets.

www.item.fraunhofer.de

Würzburg BioMed Area

Würzburg has a long tradition in life sciences and molecular biology. X-ray technology was discovered in Würzburg by Wilhelm Conrad Roentgen in 1895. The city's BioMed area is a renowned centre of biotechnological and medical innovations and start-ups. The city is home to 11 biotech / pharma companies, 44 medical technology companies and 10 institutes / hospitals.

JULIUS-MAXIMILIANS-UNIVERSITÄT WÜRZBURG

Founded in 1402, the Julius-Maximilans-Universität is the oldest university in Bavaria. It currently has 27,900 students and 4,200 staff of whom 2,400 are scientists (incl. 400 professors). Strong fields include medicine, biology, physics, chemistry and psychology with the leading interdisciplinary research centres for infectious diseases, cancer and heart failure as well as regenerative medicine and tissue engineering. The University Hospital Würzburg has 1,400 beds and 4800 staff (incl. 850 doctors).

TRANSLATIONAL CENTER WÜRZBURG UNDER PROF. WALLES

The Translational Center Würzburg, a branch of the Fraunhofer IGB, develops special solutions for cell-based test systems, processes, applications and (biologically vascularised) implants up to prototype level. Within this framework, the Translational Center focuses on contract research for biotechnological, pharmaceutical and medical engineering companies and clinics, diagnostic laboratories as well as research facilities. Within the Bioreactors, Test systems, Theranostics, Implants and Regulatory Affairs business units, the Translational Center optimises and creates processes, materials and products for regenerative therapies from the pre-clinical to the approval stage.
www.igb.fraunhofer.de/de/kompetenzen/translationszentrum-wuerzburg.html

HOCHSCHULE FÜR ANGEWANDTE WISSENSCHAFTEN WÜRZBURG-SCHWEINFURT

Founded in 1971, this university of applied science offers ten faculties with more than 30 bachelor's and master's courses and five research institutes – including the Institute of Medical Technology – for varied, practical and future oriented study programmes. It has 5,800 students.

TELEMEDECINE CENTRE BAD KISSINGEN E.V.

The Bad Kissingen Telemedicine Centre is an association focused on gathering and disseminating information about the potential of remote diagnostics and treatment to improve patient care.

www.ztm-badkissingen.de

INNOVATION AND START-UP CENTRE, WÜRZBURG

The Würzburg Innovation and Start-Up Centre was founded in 2001 and focuses on biomedicine, life sciences, information and communication technologies, sensor technology and nanotechnology. Its services include technology scouting in universities, coaching for start-ups and entrepreneurship education. The centre is currently 90 % full with 32 companies (incl. 9 in life sciences) employing about 360 people.

www.igz.de

European Metropolitan Area of Nuremberg

MEDICAL VALLEY EMN E. V.

The Medical Valley in the Nuremberg Metropolitan Region unites key players from business, science, healthcare and politics, who work together to advance the healthcare of tomorrow. The resulting accumulated technology and problem-solving competency is used to develop and market effective solutions tailored to suit global market demands.

The cluster management Medical Valley EMN e. V. was founded in 2007 in order to coordinate, develop and market the activities in the Medical Valley. In 2010 Medical Valley was awarded National Leading-Edge Cluster status by the Federal Ministry of Education and Research. It is very successful, with projected cumulated sales of over € 2.9 bn for certain cluster projects between 2016 and 2020; and € 1.4 bn savings in the German healthcare system due to Medical Valley cluster projects.

www.medical-valley-emn.de

As well as being famous for its delicious sausages and gingerbread, Nuremberg is recognised throughout Europe for medical technology. The Medical Valley is home to 500 companies active in medical technology and 65 hospitals treating over 850,000 inpatients every year. The Nuremberg area boasts over 80 applied science institutes with a focus on researching and teaching medical technology. There are over 20 non-academic research facilities dedicated to medical technology. Many world-leading products and services were and are developed in the area, including: **Imaging techniques // Intelligent sensors // Healthcare IT // Ophthalmology // Therapy systems**

In addition, 42 % of all German patent applications in the "diagnostics; surgery; identification" category and over 63 % of all German patent applications in the "X-ray technology" category come from this region.

SAFETY OF PRESCRIBED MEDICINES

Drug safety is a strong focus at Medical Valley. In the Medical Valley Community of Practice, scientific and medical staff work on improving the safety of medicines in outpatient, inpatient and nursing care. One of the main missions of the Franconia Model Region for Digital Healthcare, which was established in 2012, is the optimisation of the medication process and the safety of prescribed medicines. The goal is to develop innovative IT solutions to improve the treatment processes and structures in the healthcare system.

FRIEDRICH-ALEXANDER-UNIVERSITÄT ERLANGEN-NÜRNBERG

Friedrich-Alexander-Universität (FAU) is one of the ten largest universities in Germany and one of the leading universities in Europe. It was classed among the best in 12 out of 31 categories in the EU's international 'U-Multirank' ranking. It currently has about 39,000 students and 660 professors. It has a university hospital with more than 1,300 beds and 7,400 staff, including 1,149 doctors.

The FAU also includes several central institutes such as the Central Institute of Healthcare Engineering (ZiMT). Founded in 2009, it has played a key role in establishing leading national and international research projects and teaching programmes in the field of medical technology ever since. It is responsible for bringing together the University's medical expertise in one organisation and co-ordinating collaboration with industry.
www.zimt.fau.de

UNIVERSITÄT BAYREUTH

Founded in 1975, the University of Bayreuth offers several courses in life sciences, including biotechnology and chemical engineering, food and healthcare sciences, biochemistry and molecular biology. The university has a total of 13,000 students and 1,200 scientific staff, of whom 224 are professors.

OSTBAYERISCHE TECHNISCHE HOCHSCHULE AMBERG-WEIDEN

The university of applied science Amberg-Weiden has two campuses, one in the city of Amberg and one in the city of Weiden, about 40 km apart. It offers a newly-designed medical engineering course for both bachelor and master degrees. In total, the university has 3,500 students and 84 professors.

TECHNISCHE HOCHSCHULE NÜRNBERG GEORG SIMON OHM

Technische Hochschule Nürnberg Georg Simon Ohm is a university of applied sciences with more than 13,000 students and 300 professors. It includes a Centre for Interdisciplinary Action on Health whose members work on scientific projects and on the development of devices and software as well as on therapeutic and diagnostic approaches to action on health. Medical engineering is a major focus, as is rehabilitation for people with disabilities.

HOCHSCHULE FÜR ANGEWANDTE WISSENSCHAFTEN ANSBACH

With over 3000 students, Ansbach University's life science areas include biomedical engineering, industrial biotechnology, and engineering with a focus on medical technology in cooperation with MedTech Pharma.

MEDICAL VALLEY INNOVATION AND START-UP INCUBATION CENTRES

Medical Valley Center Erlangen

This business incubator was founded in 2003 and focuses on medical engineering (both hardware and software). With over 5000 m² of space, it is home to 30 – 40 start-ups. The Erlangen facility is one of the most successful start-up centres in Germany. It provides office space and advice to small businesses as well as contacts and networking opportunities with other companies and institutions in the medical engineering field.

Medical Valley Center Forchheim

The centre in Forchheim positions itself on the cusp between medical engineering and IT. It offers similar services to the Erlangen centre in 4000 m² of office space.

www.medical-valley-center.de

Internationalisation Projects

MEDICAL VALLEY NUREMBERG METROPOLITAN REGION

The German government launched the Leading-Edge Cluster Competition in 2007 to take Germany to the top of the league of technologically advanced nations. Against the backdrop of a funding programme entitled "Internationalisation of Leading-Edge Clusters, Forward-Looking Projects, and Comparable Networks", Medical Valley EMN was one of the eleven winners and will receive funding from Germany's Ministry of Education and Research of up to € 4 m over the next five years. Medical Valley plans to extend the strategic international partnerships it already has with international cluster regions in Boston (USA), Hong Kong (China) and Porto Alegre (Brazil). This initiative will certainly benefit the small and medium-sized companies in the Nuremberg area.

BIO^{M}: OSAKA AND MUNICH JOIN FORCES

The representatives of the biotech cluster organisations from Munich, Germany, and Osaka, Japan, have signed a transnational biotech and life-science agreement on close collaboration between the two regions.

The aim is to pave the way for industry-industry and industry-academia cooperation between the two regions to make it easier to access interesting markets and promote collaboration in research.

The partnership covers the exchange of information about new technologies in the respective regions, industrial developments and academic potential as well as the exchange of best practices in technology transfer and the support of biotech SMEs. Every year, Bavarian companies are invited to present at BIO-Japan and are supported via a joint Bavarian booth organized by Bio^{M} and Bavaria International.


BILLABONG
BUSTER
IX-PS FOAM

Growing

BAVARIA: A DYNAMIC SPRINGBOARD
FOR START-UPS

We believe in making things possible.
The future can’t wait.
We support innovative ideas – those that change lives.

Springboard for Start-Ups

The economic success of any country depends on start-ups and innovative new businesses – and Bavaria's no exception. Product and service innovation is crucial to keep pace with international competition and create jobs. If there's one thing new entrepreneurs need to make their innovative ideas a reality, it's financing.

The Bavarian Ministry of Economic Affairs has created its Bavaria Growth Fund of €100 million to ensure that promising young businesses have more venture capital at their disposal. The fund is managed by Bayern Kapital and co-invests with private venture capital firms as a neutral co-investment partner to fund growth in Bavaria. Overall, this should mobilise about €250 million of growth investment destined for start-ups in Bavaria.

NEW IDEAS, NEW PRODUCTS AND SERVICES, AND NEW BUSINESS MODELS ARE WHAT MAKE A DYNAMIC ECONOMY THRIVE AND FLOURISH.

What's the common element behind all of these?

THE ENTREPRENEUR.

Examples of Bavarian success stories in life sciences

MORPHOSYS

www.morphosys.com

MorphoSys was founded in 1992 in Martinsried, near Munich, and develops exceptional new treatments for patients suffering from serious diseases. It is a leader in the field of therapeutic antibodies. In 2007, MorphoSys signed a long-term alliance with Novartis to become its main technology collaborator in the area of antibody discovery and development, with a deal value of up to $1 billion. Today, MorphoSys' market capitalisation is over €1.6 billion.

AMGEN / MICROMET

www.amgen.de

Micromet was a biotechnology company specialised in the discovery, development and commercialisation of innovative, antibody-based cancer therapies. The company developed an extensive pipeline of novel therapies based on its own Bispecific T cell Engager (BiTE®) technology. Micromet was acquired by AMGEN in 2012 for $11 per share in cash, valuing Micromet at approximately $1.16 billion. In 2014, the FDA approved the cancer drug Blinatumomab (now Blincyto®), developed by Micromet in Munich, in record time.

PIERIS

www.pieris.com

Pieris was founded in 2001 in Munich following the ground-breaking discovery at the Technische Universität München of Anticalin proteins and their potential as therapeutics. The company has been financed by leading biotechnology-focused venture capital firms since 2002, including OrbiMed Advisors, Forbion Capital, Gilde Healthcare Partners, Novo Nordisk Ventures, Global Life Science Ventures, Bay-Tech Venture Capital, Bio^{M}, TCB, KfW and BayernKapital.

In 2011, Pieris signed a discovery deal with Daiichi Sankyo with a deal value of €207 million. It has been listed on NASDAQ since mid-2015 and currently has a market capitalisation of about $34 million.

SUPPREMOL GMBH

www.suppremol.com

SuppreMol, a biopharmaceutical company based in Martinsried near Munich, was co-founded in 2002 by Robert Huber, the winner of the Nobel prize for chemistry in 1988, as a spin-off from the Max Planck Institute of Biochemistry. The company develops innovative treatments for autoimmune diseases. In early March 2015, SuppreMol GmbH was acquired by Baxter Inc. for about €200 million. This was the largest acquisition of a biotech company in Germany for many years. The acquisition enables the US group to expand into new areas with significant market potential and considerable medical need.

Bayern Kapital was one of SuppreMol's first investors and became a shareholder of the company in 2006. The Series A financing round in spring 2006 came at a time when it was very difficult for SuppreMol to obtain venture capital investment. In this way, Bayern Kapital's early commitment contributed considerably to the company's success.

U3 PHARMA

www.u3pharma.com

Based on the groundbreaking discoveries made by the founder, the biotech company produced a pipeline of novel targeted therapeutics and has become a leader in the field of targeted cancer drug development.

The biotech company has grown to become a leader in the field of targeted cancer drug development and produced a pipeline of novel targeted therapeutics based on the groundbreaking discoveries made by its founder. In 2008, Daiichi Sankyo Group acquired U3 Pharma in cash with a transaction value of about €150 million and operates the site as European competence centre in oncology.

DEFINIENS

www.definiens.com

Definiens is a leading provider of image analysis and data mining solutions for tissue diagnostics and clinical digital pathology. It was founded in 1994 in Munich by Professor Gerd Binnig, the 1986 Nobel Laureate in Physics. In 2014, MedImmune, AstraZeneca's global biological research and development arm, acquired Definiens for $150 million.

BAYERN KAPITAL

WHO WE ARE

Bayern Kapital GmbH is the public Bavarian venture capital company and was founded as part of the "Bavarian Future Initiative" as a wholly-owned subsidiary of the LfA Foerderbank Bayern (Bavaria's development bank) at the end of 1995.

WHAT WE DO

The objective of Bayern Kapital is to finance young, innovative high-tech companies in Bavaria. Bayern Kapital usually acts as co-investor in cooperation with a private investor. It plays an important role in improving venture funding in Bavaria. To date, Bayern Kapital has invested € 200 million in about 230 innovative, technology-oriented companies and has € 340 million under management.

www.bayernkapital.de

BAYSTARTUP

WHO WE ARE

BayStartUP is the Bavarian institution for company formation, financing and acceleration. It is supported by the Bavarian Ministry of Economic Affairs as well as by private sponsoring partners. BayStartUP helps start-ups looking for support and capital as well as companies interested in investment opportunities in the start-up area.

WHAT WE DO

BayStartUP supports innovative start-ups through the challenges of setting up their company and accelerating their growth. We provide qualified "matchmaking" services to interested investors, who benefit from access to a broad range of start-ups in various technology markets.

www.baystartup.de

GRÜNDERLAND BAYERN

WHO WE ARE

In 2014 Ilse Aigner, the Bavarian Minister for Economic Affairs and Media, Energy and Technology, set up the Gründerland Bayern initiative to improve conditions for establishing businesses in Bavaria and to make Bavaria Germany's most entrepreneur-friendly state with significant European stature.

WHAT WE DO

Gründerland Bayern gives potential entrepreneurs advice on how to start a company, and offers networks and financial support. In life sciences, Gründerland Bayern helps would-be entrepreneurs leverage the huge potential that Bavaria offers innovation- and technology-oriented start-ups. This is particularly due to its excellent research infrastructure, global players (DAX blue-chip companies) and influential midsized companies, many of which are "hidden champions" and world leaders in their sector.

www.gruenderland.bayern

Supporting

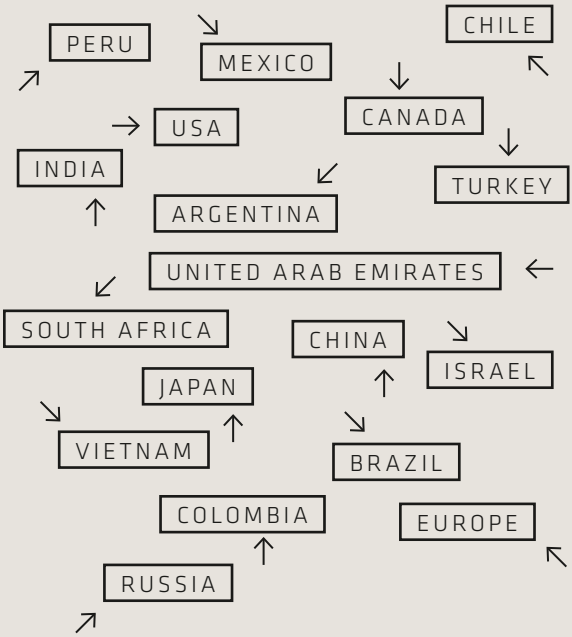
SMOOTHING YOUR PATH TO SUCCESS
IN BAVARIA

Excellence needs partners. We connect and provide a wealth of networks and organisations to help you to succeed in Bavaria.

BAVARIA'S INTERNATIONAL REPRESENTATIVES – CONTACTS ALL OVER THE WORLD

Since the mid-1990s, the State of Bavaria has been creating a global network of international Bavarian offices. Bavarian representatives are available to Bavarian companies as German-speaking on-site contacts and contact enablers, thereby supporting them in developing new export markets as well as in setting up and expanding sales structures abroad.

Within the scope of "Invest in Bavaria" business location marketing, the international Bavarian offices promote Bavaria as a high tech location and advise potential investors.



Invest in Bavaria

WHO WE ARE

As the Business Promotion Agency of the State of Bavaria, Invest in Bavaria supports companies from Germany and abroad and from a wide range of sectors in finding the ideal location in Bavaria, so that they can be successful right from the moment they settle here.

WHAT WE DO

Invest in Bavaria offers companies a wealth of services for all stages of setting up a business in the state, from the planning phase, the search for and selection of a location, through to implementation. Even once companies are successfully settled, Invest in Bavaria continues to support them, such as during a planned expansion. The team of regional advisors complements the services provided by Invest in Bavaria and gives foreign companies access to Bavaria's regions. The regional advisors in this field are characterised by close cooperation and a bilateral exchange of information with the regional economic promoters. Benefit from the key advantages we offer you. Our service is free and confidential. Our team is international and we are always there for you – both locally and worldwide. Discover Bavaria's strengths with us and open up new opportunities for your investment project. **Choose the ideal location. Choose Bavaria. And choose Invest in Bavaria as the expert partner by your side.**

1999

FOUNDATION OF INVEST IN BAVARIA

38,000

NEW DIRECT JOBS CREATED THROUGHOUT BAVARIA SINCE 1999

1,350

investment projects successfully supported since our foundation

EVERY **5** DAYS ON AVERAGE, A PROJECT IS SUCCESSFULLY CONCLUDED, CREATING AROUND 45 NEW DIRECT JOBS

Network partners

MEDICAL VALLEY EMN E.V.

Medical Valley EMN partners focus on diagnostic imaging, healthcare IT, intelligent sensors, ophthalmology and therapy systems.
en.medical-valley-emn.de

The Medical Valley in the Nuremberg Metropolitan Region joins key players from business, science, healthcare and politics, which work together to advance the healthcare of tomorrow. The Medical Valley EMN Association (e.V.) was founded in 2007 to steer development, coordination and marketing within the medical engineering cluster. The association supports the 170 members to transfer ideas into products, organises the exchange of knowledge in the network, promotes the cluster in Germany and internationally and provides consulting services for start-up companies.

FORUM MEDTECH PHARMA E.V.

Forum Medtech Pharma tracks biomaterials, diagnostics, clinical trials, minimal invasive medicine, health telematics and health care systems.
www.medtech-pharma.org

This Nuremberg-based non-profit association is a network of over 600 members – companies, research institutes, clinics, health insurance firms, regional authorities and other actors in the field from 16 countries in Europe, America and Asia. As Europe's largest network in healthcare, it focuses on facilitating contacts and partnerships as well as keeping members up to speed on the latest developments with workshops, conferences, and personal guidance.

BIO^{M}

Founded in 1997, Bio^{M} supports biotechnology companies and especially start-ups.
www.bio-m.org

Bio^{M} is a non-profit organisation supported by the Bavarian Ministry of Economic Affairs. Its mission is to promote Bavarian biotech start-ups with funding, consulting, coaching, networking and other services. In addition, Bio^{M} also manages the Bavarian Biotechnology Cluster (see below) as part of the Bavarian Cluster Initiative, with the mission to combine all the Bavarian biotech regions into one large Bavarian cluster.

BAVARIAN BIOTECH CLUSTER

Cooperation is the key to success for biotech in Bavaria – and the Bavarian Biotech Cluster fosters lively interaction between all its players.
www.biotech-bavaria.de

Bavaria is at the forefront of life sciences in Germany with over 200 biotech companies, along with 150 further firms in pharma, clinical research and development. Its leading position is underscored by the number of approved medicines

derived from biotech SMEs in Germany – 50 % of these are of Bavarian origin.

The Bavarian Biotech Cluster links the biotech locations and start-up centres throughout the state of Bavaria. These include Munich/Martinsried and Regensburg as well as the north Bavarian region (Würzburg, Erlangen, Bayreuth). It provides information about the sector and helps companies to establish themselves by providing consultancy, support and contacts.

One of the Bavarian Biotech Cluster's main activities is using its close relationships with local academic institutions to identify commercially viable biotech research projects. It also promotes the technology and expertise of the firms in its network on an international level.

By interlinking business and science, the Biotech Cluster provides a state-wide network that supports and strengthens the entire process – from the original idea to the final product.

Haus der Forschung offers all the tools you need to get your R & D project on track for funding. www.hausderforschung.bayern.de/en/

HAUS DER FORSCHUNG

The Haus der Forschung is an umbrella organisation regrouping four innovation advice centres in Bavaria. It provides Bavarian companies and start-ups with integrated advisory services on funding, including comprehensive information and assistance in the application procedure for EU funding programs.

ITS GOALS ARE

- To increase the efficiency and transparency of technology transfers in Bavaria for the benefit of scientists and businesses
- To provide broad-based information on funding programmes from the EU, the Federal Republic of Germany and the state of Bavaria
- To secure EU funding for universities and small to midsized businesses by creating consortia that combine business and scientific actors.

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