

# Healthcare Industry 2020

## Facts and Figures for Baden-Württemberg



MEDTECH



PHARMA



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# Foreword

Prof. Dr. Ralf Kindervater,  
CEO BIOPRO Baden-Württemberg GmbH



What will the healthcare system of the future look like? How can we meet the challenges of demographic development, increasing cost pressure and the shortage of skilled workers? What influence will digitalisation and artificial intelligence have, and what space will they occupy? BIOPRO Baden-Württemberg, which acts as a contact for the state's Healthcare Industry – comprising medical technology, pharmaceutical industry and biotechnology – is an organisation dedicated to these exciting issues.

The new Healthcare Industry 2020 - Facts and Figures for Baden-Württemberg report once again proves the importance of these sectors that play a key role in the economy and employment. The Healthcare Industry drives innovation in healthcare, in areas such as the development of personalised therapies, companion diagnostics, biopharmaceuticals, novel cell therapies and biocompatible

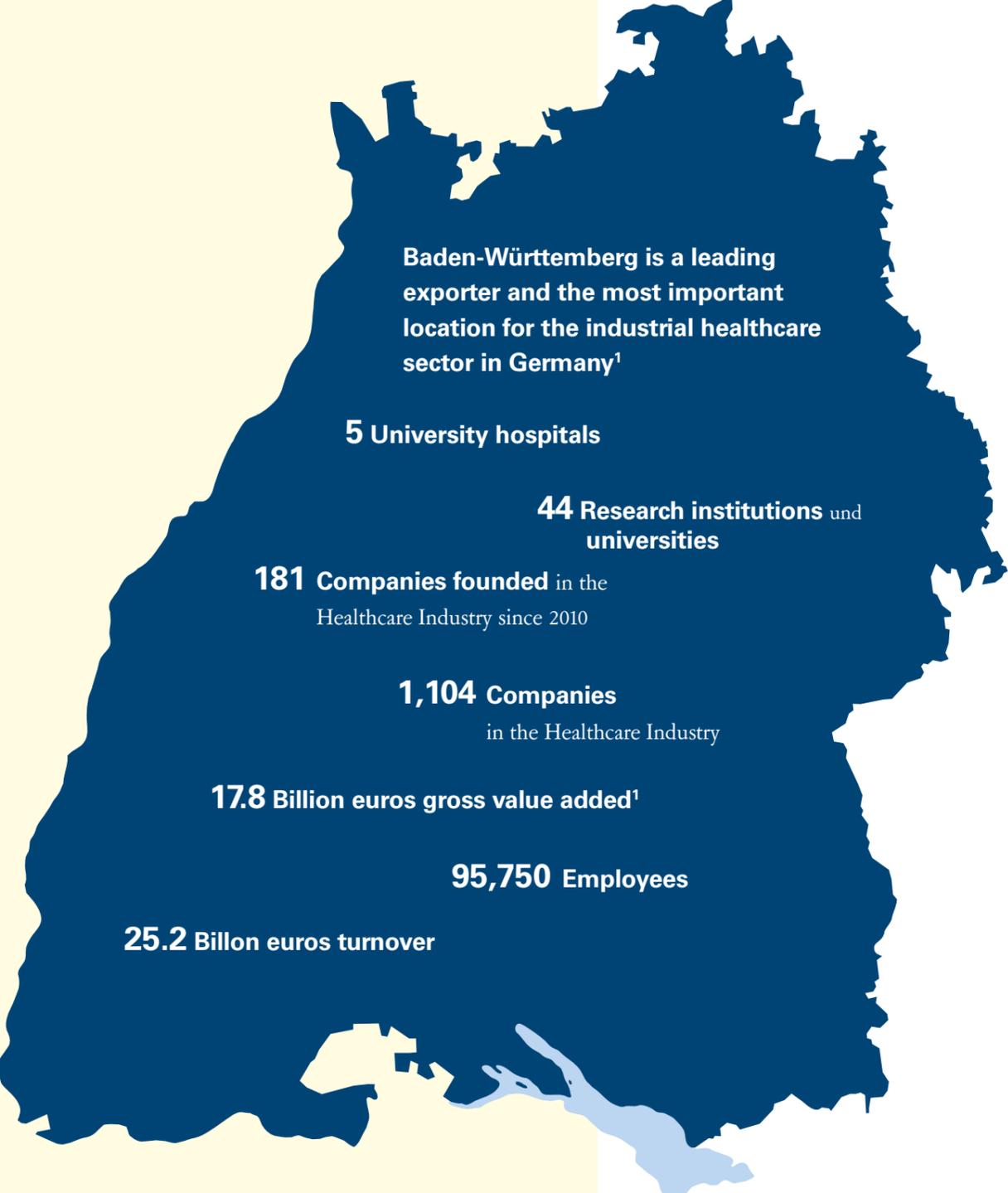
or smart implants. It has gained a prominent place in the media and in the public eye due to the coronavirus pandemic. The current, very positive perception should be used to underline once again the importance of the Healthcare Industry and the healthcare sector in general.

The Healthcare Industry operates in a highly regulated market that is increasingly coming under pressure from large non-industry (IT) companies and global competition. At the same time, digital transformation, robotics and personalised medicine are set to revolutionise healthcare. Interdisciplinarity and networking among all players are indispensable in this process. BIOPRO Baden-Württemberg GmbH, as a wholly-owned affiliate of the Baden-Württemberg government, makes a valuable contribution to this process.

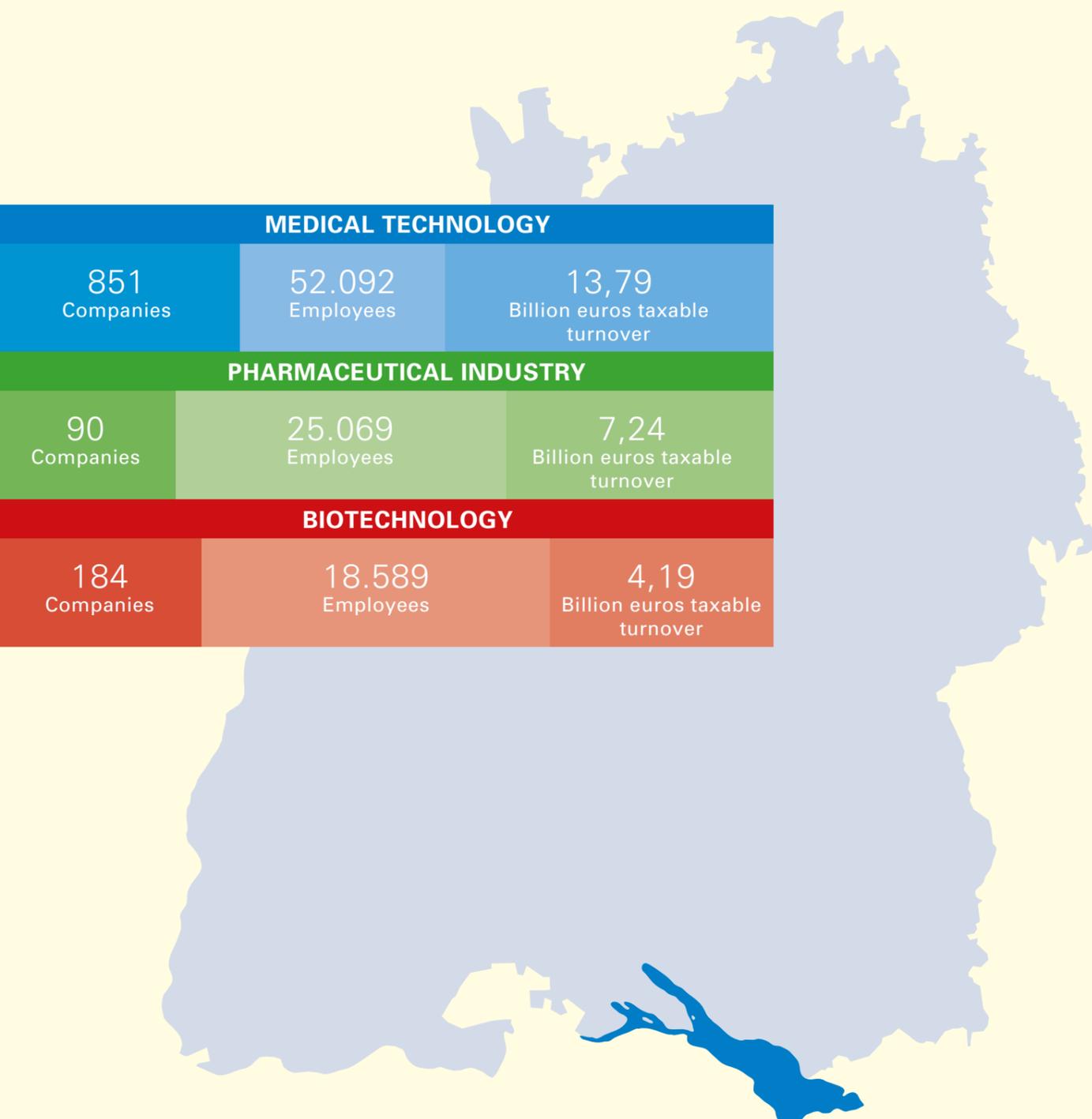
### BIOPRO Baden-Württemberg GmbH

BIOPRO Baden-Württemberg GmbH's goals are to team players across industry boundaries, bring industry and science together, provide information on regulatory requirements and generate new impulses for the location. BIOPRO offers interdisciplinary topic analyses and trend-based market analyses, innovative event concepts, initiates collaborations between companies and research institutions, and offers start-up support and organises events on current-interest topics. BIOPRO is the contact partner for the Healthcare Industry in Baden-Württemberg.

# Baden-Württemberg – an outstanding location for the Healthcare Industry



# The Healthcare Industry at a Glance



## What will the healthcare system of the future look like?

The development of a sustainable healthcare system that is patient-oriented and guarantees high-quality treatment is a declared goal of current efforts to promote health in Germany. The Healthcare Industry is working across industry boundaries on the holistic treatment of patients through the use of innovative technologies and the development of smart treatment concepts. In addition to new therapy concepts, smart technologies can use artificial intelligence to optimise the search for active pharmaceutical ingredients, increase adherence to therapy, shorten hospital stays and improve patient care through robotics.

## Healthcare Industry - proven in the crisis

During the coronavirus pandemic, the Healthcare Industry has shown how creative and agile it is. Within a short period of time, more than 190 vaccine projects have been launched to date. CureVac AG, the start-up company Prime Vector Technologies and BioCopy GmbH from Baden-Württemberg are among those involved in these projects<sup>2</sup>. The medical technology sector reacted just as creatively, converting production processes to the manufacture of personal protective equipment at an early stage and seeking new ways to develop respiratory equipment. Diagnostics manufacturers, including Spindiag GmbH, Trenzyme GmbH and Mediagnost GmbH, have been involved in developing test procedures for the detection of viral RNA or SARS-CoV-2-specific antibodies. At the same time, the coronavirus pandemic has been driving digitalisation in the healthcare sector and will, among other things, advance the field of eHealth. However, the pandemic has also plunged many healthcare companies into crisis, as orders have fallen away or key raw mate-

rials and supplies for manufacturing processes have not been available. As a result, the dependency of European supply chains on the Asian market is being discussed within the industry and there is a debate about the extent to which countermeasures can be taken. The medical technology sector, which would have been pushed to its absolute limits due to the switch to the new Medical Device Regulation (MDR) in April 2020, was granted a one-year delay for the application of the regulation. The MDR will become fully applicable on 26th May 2021. This gives companies more time to develop additional competence and implement the MDR-compliant certification process. The MDR Fast-Track Support BW programme, which is financed with funds from the Baden-Württemberg Ministry of Economic Affairs, Labour and Housing, offers assistance to the state's micro and small companies in implementing the MDR (chapter: Medical Technology Sector, page 18).

## Focus on medical needs with future technologies and use of intelligent data

Although the crisis and the increased regulatory requirements are a major test for the Healthcare Industry, they may also offer companies the opportunity to rethink their business models, invest in smart processes, start collaborating with other companies and become much more aware of new possibilities. Developments in the field of digitalisation and artificial intelligence, the utilisation of real-world data as well as preventive and personalised medicine are particular drivers of innovation. Cooperation and cross-sector networks will thus continue to become increasingly important in the future and reduce sectoral thinking. With the patient as starting point, developments in the healthcare sector will in fu-



ture be determined more by patients' needs and less by rigid structures. The data obtained in the real treatment environment will therefore be key to providing valuable information for new products and processes.

### An important economic factor for Baden-Württemberg

In addition to the major challenges facing the healthcare system, such as rising cost pressure and the shortage of skilled workers, the increasing number of multimorbid, chronically ill patients and the public's heightened health awareness has huge potential for increased sales and high employment. This is also reflected in the gross value added of the Healthcare Industry in Baden-Württemberg, which amounted to around 17.8 billion euros in 2018. In 2018, more than one million people were employed in the healthcare sector in Baden-Württemberg<sup>1</sup>.

Investment in research and development (R&D) is needed in order to generate innovation. Baden-Württemberg is well positioned in this area as shown by the figures on R&D intensity collected in an EU-wide comparison by the Baden-Württemberg Statistics Office. Here, Baden-Württemberg comes out top across all sectors as the most innovative region in terms of invested nominal gross domestic product (GDP) in R&D (5.6 percent of nominal GDP)<sup>3</sup>. As regards the number of patent applications, Baden-Württemberg also takes first place with 15,230 applications in 2019, followed by Bavaria and North Rhine-Westphalia<sup>4</sup>. Baden-Württemberg's healthcare sector is the leading exporter with an export contribution of 38.2 billion euros, 94.7 percent of which is accounted for by the Healthcare Industry<sup>1</sup>. The high level of demand from abroad is evidenced by the export ratio

of 65.5 percent for Germany as a whole<sup>5</sup>. In general, the Healthcare Industry has proven itself to be an innovative and relatively independent driver of economic growth.

### The innovation ecosystem in Baden-Württemberg

The Healthcare Industry in Baden-Württemberg is strongly represented with 1,104 companies that research, develop and/or manufacture in the state. In terms of the number of companies or employees, the state is the no.<sup>1</sup> Healthcare Industry location in Germany<sup>5/6/7</sup>. 181 health-related start-ups were founded in Baden-Württemberg between 2010 and 9/2020, most of them in the high-tech segment. Together with the state's university hospitals, research institutions and networks, a lively innovation ecosystem has been created here. One of the focal points of the CyberValley as a digitalisation hub, for example, is the Healthcare Industry. The Forum Health Region Baden-Württemberg is a state supported effort to further develop the Healthcare Industry and help it position itself as a model location (chapter: The Healthcare Industry at a Glance, page 9).

## Forum health region Baden-Württemberg

### Health at the forefront – science, business and healthcare thinking together.

With the launch of the Forum Health Region Baden-Württemberg in July 2018, the Baden-Württemberg government inaugurated a strategic process in which stakeholders from science, industry and patient care are given a platform for joint exchange and multidisciplinary networking. Experts from the healthcare sector have entered into strategic dialogue with the ministries involved, working in three thematic blocks and tackling individual topics in working groups. The aim is to break down sectoral thinking, develop the healthcare location to the highest possible level and promote innovation that benefits patients.

The Baden-Württemberg Ministry of Science, Research and the Arts is responsible for the "science and research" thematic block, the Baden-Württemberg Ministry of Economic Affairs, Labour and Housing for the "business-related research, innovations, value creation and employment in the healthcare sector" thematic block, and the Baden-Württemberg Ministry of Social Affairs and Integration is in charge of the "healthcare structures" thematic block. For each thematic block there is a three-member spokesperson group consisting of experts representing the areas of science, economy and healthcare. The overall coordination of the Forum Health Region Baden-Württemberg is the responsibility of the Baden-Württemberg State Ministry. BIOPRO Baden-Württemberg GmbH is in charge of the administration for the Forum.

The healthcare sector is to be strengthened and further developed through joint work on future-oriented top-

ics. To this end, the Baden-Württemberg government is providing 50 million euros in funding for implementing innovative projects from the Forum Health Region Baden-Württemberg for 2020 and 2021. The spectrum of Forum projects ranges from personalised medicine and new approaches in the field of patient care to combating multidrug-resistant hospital germs. Key selection criteria for the funded projects include ensuring that the benefit to patients is a central element, and that the projects are interdisciplinary and pursue new research and treatment approaches.

### Elements of a joint strategy for Baden-Württemberg

The development of an overall strategy is aimed at strengthening Baden-Württemberg as an outstanding healthcare location in the long term and defining the necessary structural framework conditions at EU, federal and state level. The spokesperson groups of the three thematic blocks have done the initial groundwork and formulated strategy papers with recommendations for action for their respective thematic block. As an overall strategy continues to be developed, findings and experience from the coronavirus pandemic will also be incorporated in order to be structurally better prepared for future pandemics. Regulations that safeguard the supply of crisis-relevant drugs or medical products even in crisis situations are also being worked on as elements of an overall strategy. Equally necessary are efficient networking structures in the research field, aimed at gaining new insights for further strategic action through studies and research results.



## Baden-Württemberg

MINISTERIUM FÜR WISSENSCHAFT, FORSCHUNG UND KUNST

MINISTRY OF SCIENCE, RESEARCH AND THE ARTS

1. Digitalisation
2. Strengthening translation
3. Further development of academic education with regard to a sustainable healthcare system



## Baden-Württemberg

MINISTERIUM FÜR WIRTSCHAFT, ARBEIT UND WOHNUNGSBAU

MINISTRY OF ECONOMIC AFFAIRS, LABOUR AND HOUSING

1. Digitalisation and artificial intelligence
2. Business-oriented research and innovations for targeted translation into application
3. Economic potential of personalised medicine
4. Potential of industry, services and trade in the healthcare sector
5. Company foundation, start-ups and new business models
6. Skilled labour and employment in the healthcare sector
7. Regulatory framework
8. Internationalisation



## Baden-Württemberg

MINISTERIUM FÜR SOZIALES UND INTEGRATION

MINISTRY OF SOCIAL AFFAIRS AND INTEGRATION

1. Digitalisation and artificial intelligence (inter alia, electronic patient records, patient protection, data usability, new treatment options)
2. Personalised medicine (medical treatment and care)
3. Pharmaceutical and medical device safety
4. Care and technology in the care sector
5. Medical rehabilitation
6. Prevention / health promotion

### Stakeholders

The Forum Health Region Baden-Württemberg thrives on the active participation of stakeholders from all areas of Baden-Württemberg as a healthcare location who wish to help shape the strategic process. Around 480 actors are already registered (as of June 2020). The broad spectrum of participants includes experts from inpatient and outpatient care, such as hospitals and nursing homes, research

institutes and universities, health insurance companies, clusters and associations, companies in the Healthcare Industry (biotechnology, pharmaceutical and medical technology companies) as well as from the health trade and health service sectors.

Anyone interested in participating can get in touch via the Forum's website.



### Information and contact

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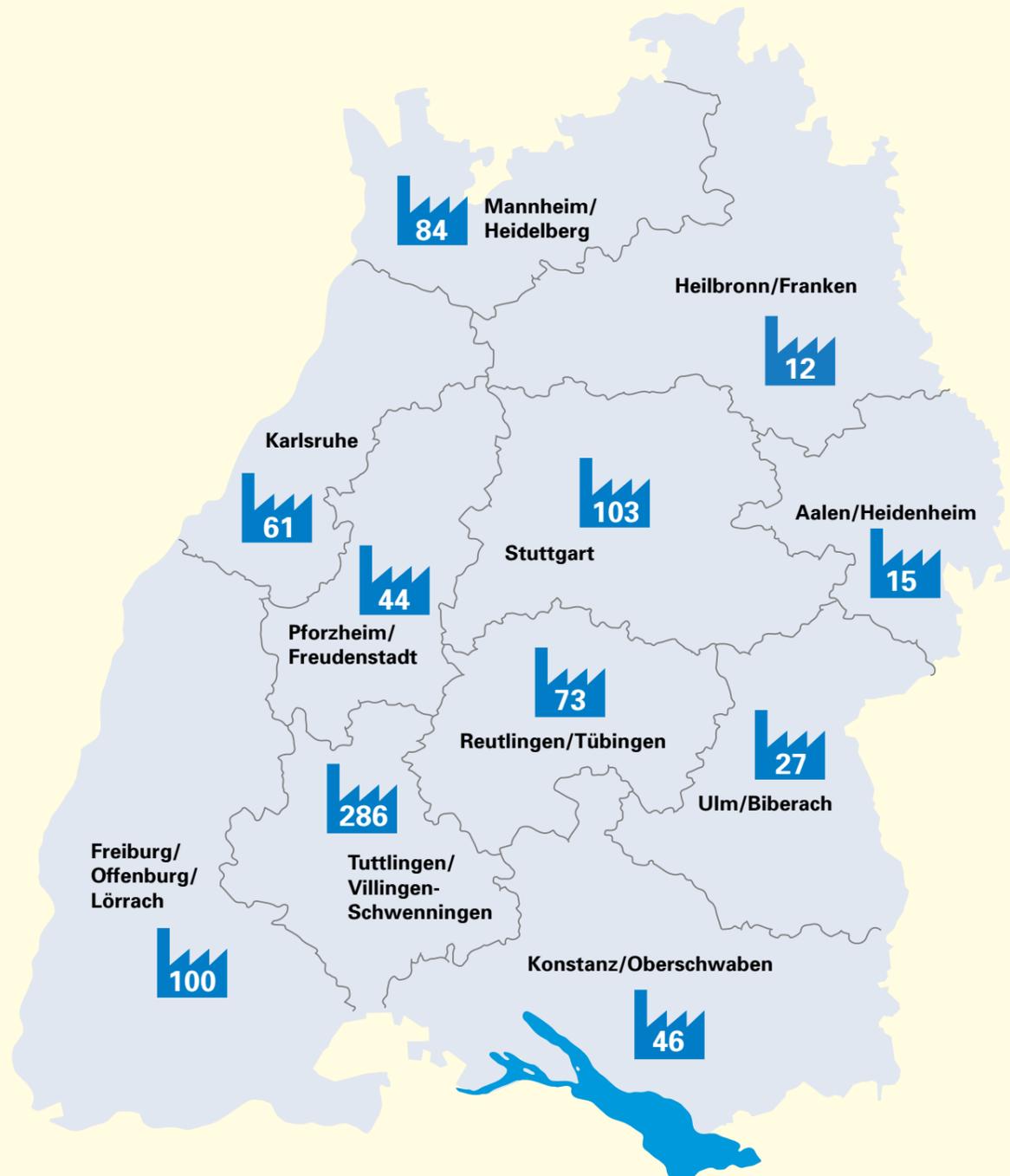
# Medical Technology Sector

## MEDICAL TECHNOLOGY

851  
Companies

52,092  
Employees

13.79  
Billion euros turnover



Medical technology comprises a heterogeneous spectrum of medical technology products with a medical purpose, intended for use on humans. These include dressing materials and surgical instruments as well as implants, X-ray equipment and medical software. The certification of medical devices is currently subject to the German Medical Devices Act, which will be mandatory replaced by the MDR in May 2021.

In 2018, the 851 medical technology companies achieved a taxable turnover of 13.79 billion euros with 52,092 employees subject to social security contributions. This makes Baden-Württemberg the no. 1 location for medical technology in Germany.

### Shaping the future with tradition, diversity and know-how

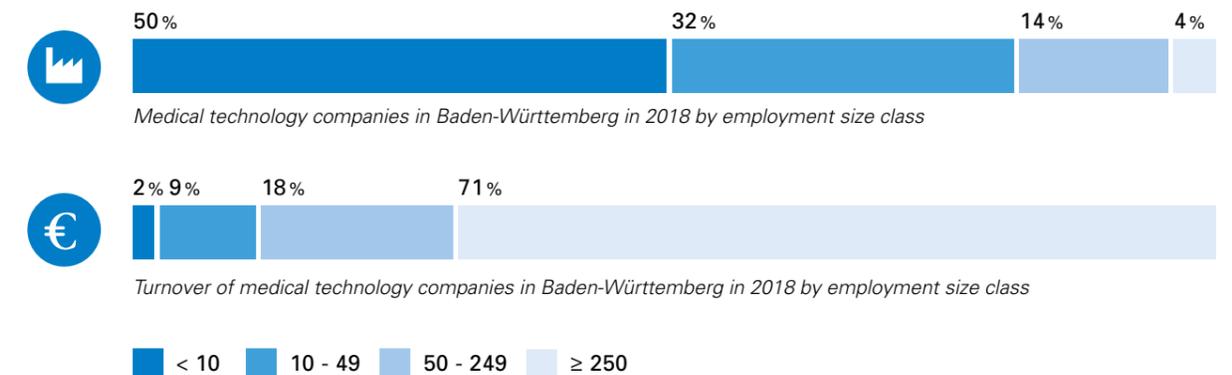
Within the Healthcare Industry, medical technology companies represent by far the largest group in terms of number of companies, turnover and number of employees. The strong small- and medium-sized companies in the medical technology industry are concentrated around Tuttlingen/Villingen-Schwenningen, in the Freiburg/Offenburg/Lörrach area and around Stuttgart and Reutlingen/Tübingen. Among the regions with the highest

turnover are the Tuttlingen area and the Rhine-Neckar region, which is also the headquarter of Roche Diagnostics GmbH.

A characteristic feature of medical technology in Baden-Württemberg is the high number of micro and small enterprises, which together make up more than 80 percent of the region's companies. This is where experts and traditionalists in the field of materials development and refinement as well as production techniques come together, along with developers and users of high-tech, novel biomaterials and artificial intelligence. This diversity of companies and entrepreneurship and the close links with centres of excellence, universities and university hospitals in Baden-Württemberg enable new developments to emerge across value chains and sectors.

### Pooling know-how, using networks and promoting the entrepreneurial spirit

In the period between 2010 and 9/2020, 98 medical technology companies were founded in Baden-Württemberg, 18 of which were established between 1/2018 and 9/2020. The regions with a high number of start-ups over the last ten years are Mannheim/Heidelberg with 21 start-ups and Schwarzwald-Baar-Heuberg with 20 start-ups. These



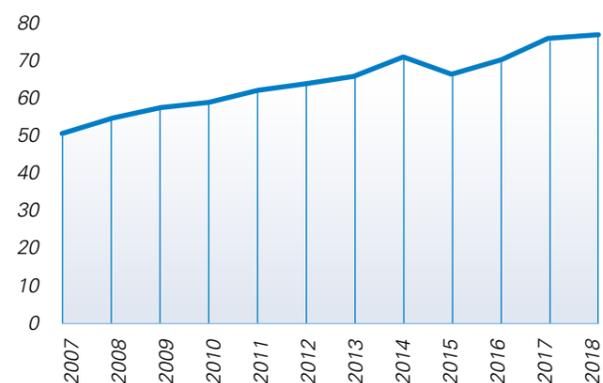
start-ups are involved across all fields of activity, with the eHealth sector showing considerable growth in recent years. Half of all start-ups between 1/2018 and 9/2020 are active in this segment.

The spirit of innovation and entrepreneurship in Baden-Württemberg must continue to be strengthened and driven forward through intensive networking and co-operation in order to counter the pressure from global or non-industry competitors.

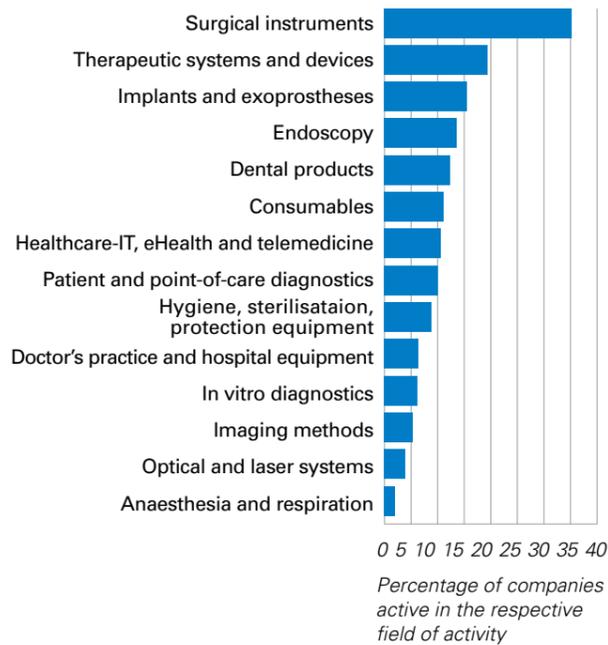
### The Medical Device Regulation and other challenges

The MDR corrigendum of December 2019 extended the transition period for manufacturers of class Ir (class I, reusable) products. On 23rd April 2020, the European Commission's proposal to delay the application date by one year from 26th May 2020 to 26th May 2021 for manufacturers of in vitro medical devices was approved by the European Parliament and Council. The decision was partly due to concerns over the coronavirus pandemic. Although this gives the industry a breathing space, it must continue to make every effort to meet the increased regulatory requirements for medical devices.

Medical Technology Index for Baden-Württemberg: turnover development from 2007 to 2018 in million euros



Fields of activity of medical technology companies in Baden-Württemberg (companies may have several fields of activity)



The EU regulation on In Vitro Diagnostic Medical Devices (IVDR) will be mandatory from 26th May 2022 after a five-year transition period. Here too, manufacturers of in vitro diagnostic devices (IVD) will face major hurdles when implementing the regulation and are advised to apply and implement it at an early stage.

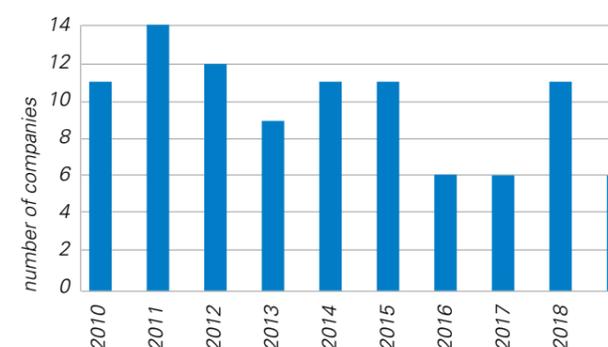
In addition, the coronavirus pandemic is putting pressure on supply chains, orders are dropping below average and many manufacturers have had to announce short-time working. According to BVMed's Autumn 2020 Survey, companies are expecting a 4.9 percent drop in sales (compared to the previous year: sales up 3.3 percent)<sup>8</sup>.

The MDR & IVDR Fast-track Support BW programme offers the medical technology companies in Baden-Württemberg practical support for implementing the MDR and IVDR, including, for example, help with preparing

Medical technology companies founded in Baden-Württemberg between 1/2018 and 9/2020

	Company	Location	Field of activity
2018	Derma Intelligence GmbH	Mannheim	eHealth
	evind UG	Mannheim	eHealth
	Freiburger Medizintechnik GmbH	Freiburg	Dental products, therapeutic systems and devices
	I.C. Lercher Solutions GmbH	Stockach	Contract production, dental products, endoscopy
	imm Innovative Medical Mannheim GmbH	Mannheim	Surgical instruments
	implacit GmbH	Mannheim	eHealth, software
	Kamedi GmbH	Eggenstein-Leopoldshafen	eHealth, therapeutic systems and devices
	LUNA cybernetics GmbH	Weingarten	Exoprotheses
	MR Shim GmbH	Reutlingen	Diagnostics
	ReHub GmbH	Reutlingen	eHealth, therapeutic systems and devices
2019	WiMedical UG	Singen	Hygiene, protection and sterilisation equipment
	3a-diagnostics GmbH	Frickenhausen	Diagnostics
	AlRAmed GmbH	Tübingen	eHealth, software
	Becure GmbH	Mannheim	eHealth, therapeutic systems and devices
	Hellstern medical GmbH	Wannweil	Doctor's practice and hospital equipment
	Living Brain GmbH	Heidelberg	eHealth, software
2020	Thericon GmbH	Mannheim	Imaging methods, endoscopy
	Midaia GmbH	Heidelberg	eHealth

Medical technology companies founded in Baden-Württemberg between 2010 und 2019



basic documents, information events and individual expert consultation days (see page 18). The MDR & IVDR Fast-track Support BW, which has so far focused on MDR, will be extended to IVD producers and will be available in an adapted format from 2021. More information will shortly be available on the <https://mdr-ivdr.bio-pro.de> website.

### Medical technology moving towards the digital era

The digitalisation of healthcare is changing the requirements for modern medical technology. The Digital Care Act and the Digital Health Applications Ordinance are aimed at making the industry more dynamic and legislators want digital health applications to enter the medical device market much faster. The first two "health apps on prescription" were added to the list of digital health applications by the Federal Institute for Drugs and Medical Devices (BfArM) in October 2020<sup>9</sup>. After the Krankenhauszukunftsgesetz (Hospital Future Act) passed in the Bundestag in September 2020, the German federal government is also making investment funds of 3 billion euros available for the digitalisation of hospitals<sup>10</sup>.

**Selected investments, acquisitions as well as collaborations and licensing agreements made by Baden-Württemberg medical technology companies in the period from 1/2018 to 9/2020**

**Investments**

	Company	Location	Field of activity	Investment volume	Type of financing	Investors
2018	monikit UG	Stuttgart	Epilepsy diagnostics	EUR 1.86 million	Project financing	Life Science Inkubator GmbH
	SpinDiag GmbH	Freiburg im Breisgau	Point-of-care screening system	EUR 3 million	2. financing round, Series A	Business Angels from Baden-Württemberg
2019	CorTec GmbH	Freiburg im Breisgau	Neuroprosthetics	EUR 13 million	Financing round	Santo Venture Capital, LBBW Venture Capital
	Curetis N.V.	Holzgerlingen	Molecular diagnostics products	EUR 6.5 million	Financing	EIB, Yorkville
	SpinDiag GmbH	Freiburg im Breisgau	Point-of-care screening system	EUR 4 million	Expansion of Series A funding round	WBG Pflegeheime and a new investor as well as existing investors
2020	Curetis	Holzgerlingen	Molecular diagnostics products	EUR 20 million	Convertible loan	Issuance of Curetis N.V. convertible notes
	SpinDiag GmbH	Freiburg im Breisgau	Point-of-care screening system	EUR 6 million	Project funding	Baden-Württemberg government
	SpinDiag GmbH	Freiburg im Breisgau	Point-of-care screening system	EUR 16.3 million	Series B financing round	Existing investors as well as Think.Health Ventures
	stimOS GmbH	Konstanz	Technology for the functionalisation of implant materials	-	Series A financing	WEFA Inotec GmbH, High-Tech Gründerfonds, Mittelständische Beteiligungsgesellschaft Baden-Württemberg, founding shareholder Schaffarczyk

**Acquisitions**

	Company	Location	Field of activity	Buyer
2018	EIT Emerging Implant Technologies GmbH	Tuttlingen	Spinal cord implants	Johnson & Johnson Medical GmbH, Norderstedt
	GEHRING CUT AG	Matzingen, Schweiz	Surgical instruments	KLINGEL medical metal GmbH, Pforzheim
	Hain Lifescience GmbH	Nehren	Molecular diagnostics	Bruker Corporation, Billerica, MA, USA
2019	Bächler Feintech AG	Hölstein, Schweiz	Surgical instruments	KLINGEL medical metal GmbH, Pforzheim
	FREI AG	Kirchzarten	Medical training devices and therapy beds	Zimmer MedizinSysteme GmbH, Neu-Ulm
2020	Curetis	Weil im Schönbuch	Diagnostics	Fusion: OpGen, Gaithersburg, Maryland, USA
	Stuckenbrock Medizintechnik GmbH	Tuttlingen	Surgical instruments	KLS Martin Group, Tuttlingen

**Cooperations and licensing agreements**

	Company	Location	Partner company	Category
2018	Curetis N.V.	Holzgerlingen	Beijing Clear Biotech Co., Ltd., Beijing, China	Strategic cooperation

## MDR Fast-Track Support BW

The MDR came into force in May 2017 and will become fully effective on 26th May 2021. In addition to a harmonised legal framework for the marketing of medical devices, the European Union's main objective is to ensure the safety of these products for users. This results in new requirements for the industry, which pose major challenges for micro and small companies in particular, but also for some medium-sized companies.

In summer 2019, the Baden-Württemberg Ministry of Economic Affairs, Labour and Housing made funds available for a MDR Fast-Track Support BW programme to help the medical technology sector in Baden-Württemberg implement the MDR. The aim of this MDR Fast-Track Support BW is to offer practical, user-oriented support services for implementing the MDR by the end of 2021. The programme consists of five measures (see box below)

### Product Group-Specific Shared Documents

Company consortia are developing basic documents for individual medical device groups, which can be used as a basis for creating individual certification documents.

### MDR Expert Talks BW

In the expert rounds, quality management and regulatory affairs specialists and service providers discuss MDR-relevant issues and develop guidelines on the various topics.

### Clinical Study Guide BW

The creation of a central information hub with a guide function will facilitate access to clinical trial centres and provide information on the subject.

### MDR Roundtables

The Roundtables provide the opportunity for an informal exchange between relevant stakeholders such as notified bodies, supervisory authorities, business associations and service providers in order to minimise uncertainty in the interpretation of the new regulation.

### MDR Fast-Track Support Events

These are events where the results and findings of the MDR Fast-track support BW programme as well as relevant topics relating to MDR will be presented in the form of information sessions.

aimed at saving time and resources for the companies affected. This includes jointly preparing basic documents for certification, developing guidelines on specific issues and sharing newly acquired information at events. In addition, access to clinical trial centres will be facilitated to help companies that are required to conduct clinical trials due to MDR. BIOPRO Baden-Württemberg GmbH is coordinating the MDR Fast-Track Support BW.

### Interim status and outlook

Eighteen basic documents were completed last year. Nine further product groups are currently being worked on, and consortia are in the process of being formed for twelve product groups. The completed basic documents can also be purchased by companies outside Baden-Württemberg and have already been shared over 300 times within and outside the consortia.

A first expert panel on clinical evaluation identified a considerable need for information. To this end, a series of virtual events, "A focus on clinical trials", provided practical information on how to carry out successful clinical evaluations for existing products and innovations. Further expert panels are currently being set up.

In order to facilitate access to clinical study centers and to provide support for the many questions regarding clinical trials, various aspects of this topic are discussed with experts, manufacturers and study center contacts. Afterwards, information is made available in the form of a Clinical Study Guide BW.

MDR-relevant topics were identified for the MDR Roundtables and the exchange with the different stake-

holders was initiated so that first meetings can be started in due time.

In addition to topic-specific information events, companies can raise specific questions with experts at regular online consultation days.

The information and orientation aids obtained and compiled as part of MDR Fast-Track Support BW as well as useful contributions by third parties are pooled and made available via the MDR & IVDR Guide BW (<https://mdr-ivdr.bio-pro.de>).



All information on MDR Fast-Track Support BW is available at

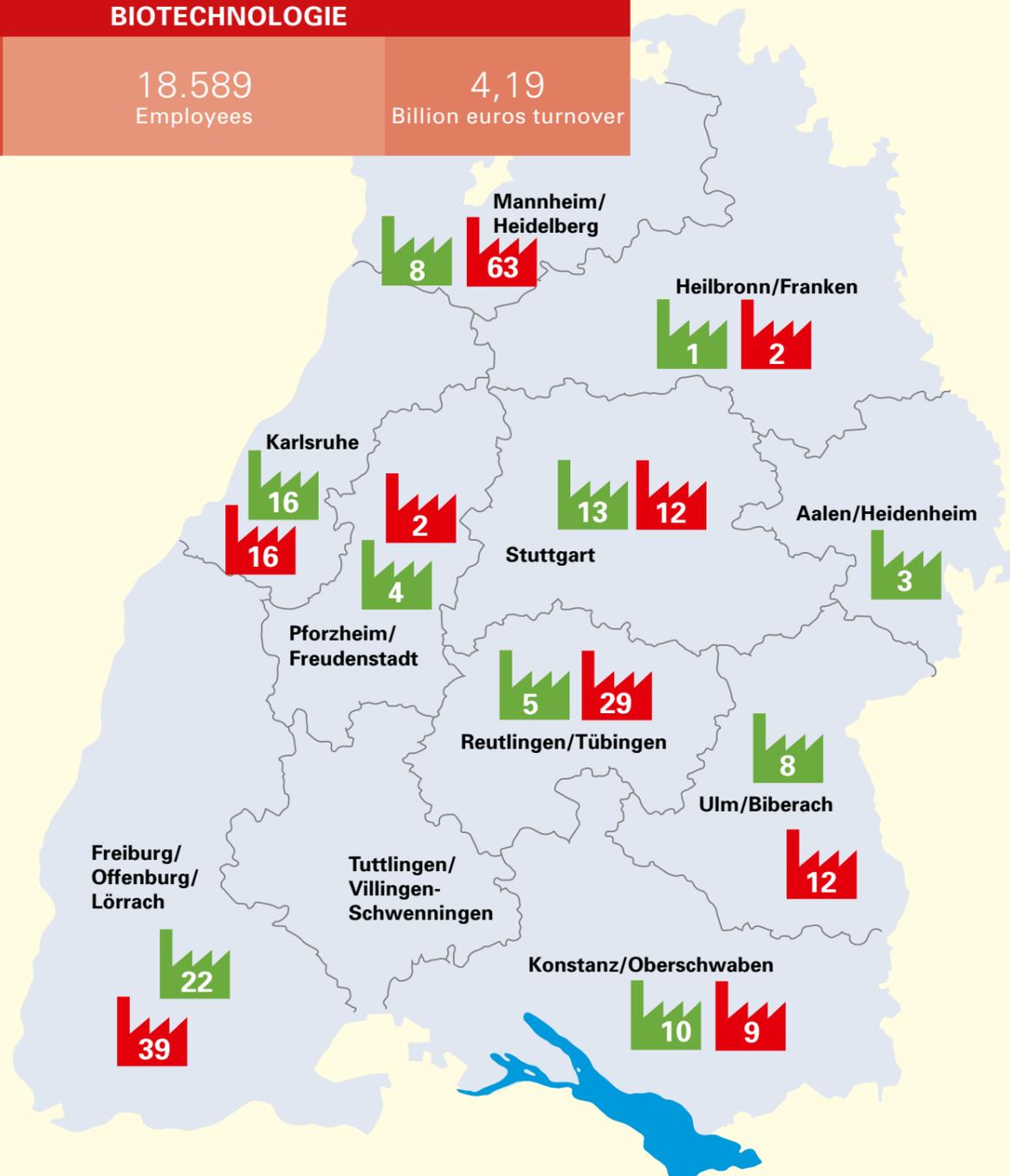
 <https://mdr-ivdr.bio-pro.de/mdr-soforthilfe>

Please feel free to send us your suggestions or questions for Expert Talks or Roundtables.

E-mail: [mdr-sh@bio-pro.de](mailto:mdr-sh@bio-pro.de)

# Pharmaceutical Industry and Biotechnology

PHARMACEUTICAL INDUSTRY		
90 Companies	25.069 Employees	7,24 Billion euros turnover
BIOTECHNOLOGIE		
184 Companies	18.589 Employees	4,19 Billion euros turnover



## Pharmaceutical industry

### Fighting the coronavirus pandemic with creativity and know-how

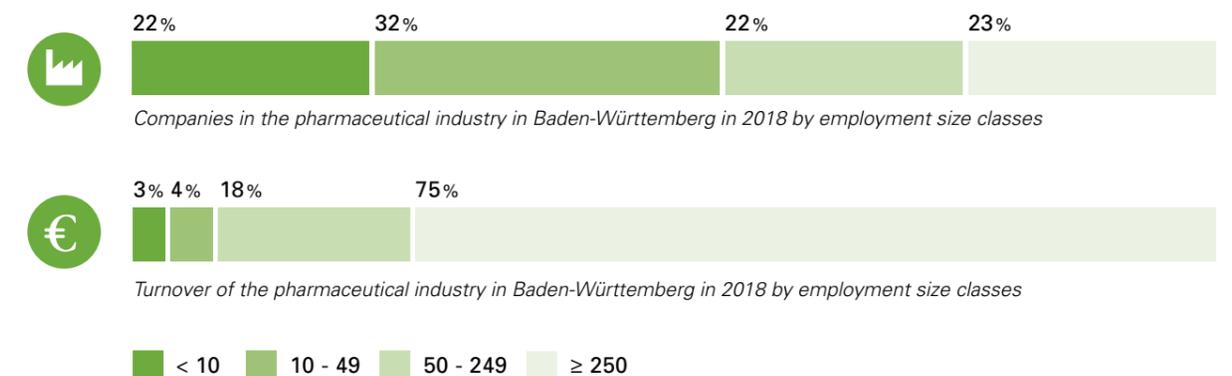
The coronavirus pandemic and the development of appropriate vaccines and therapies against SARS-CoV-2 are the defining issues of 2020. The development of new drugs and vaccines usually takes 10 to 20 years. However, the Robert Koch Institute indicates that the first vaccines against SARS-CoV-2 can be expected to be approved in sufficient quantities as early as 2021<sup>11</sup>. The fully sequenced genome of the novel coronavirus has been available since mid-January 2020. Since then, collaborations have developed across national borders, resulting in over 190 vaccine development projects<sup>12</sup>. Pharmaceutical and medical biotechnology companies are responsible for the development of these therapies and vaccines.

In Baden-Württemberg, a large number of pharmaceutical and biotechnology companies and research institutes are working on new therapies and vaccines against SARS-CoV-2, including CureVac AG, Atriva Therapeutics GmbH and the start-up Prime Vector Technologies GmbH. Companies in Baden-Württemberg, such as Pfizer Manufacturing Deutschland GmbH in Freiburg and TEVA GmbH in Ulm, are also involved in securing the supply of crisis-relevant drugs.

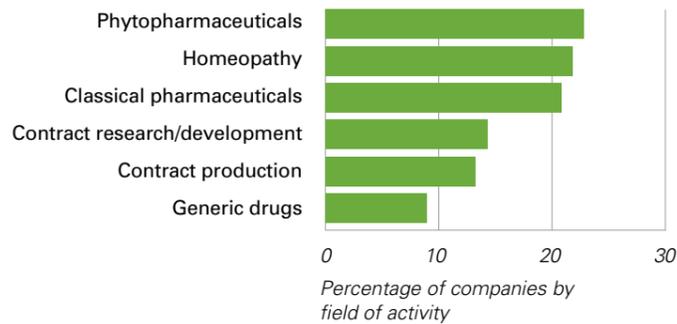
### Location-loyal medium-sized and large companies

The pharmaceutical industry in Baden-Württemberg is loyal to its location. The number of companies based in the state has remained stable for many years and currently comprises 90 companies that research, develop and/or manufacture here. In 2018, they achieved a taxable turnover of 7.24 billion euros with 25,069 employees subject to social security contributions. The sector reinvests more than 14 percent of its turnover in research and development projects, making it the sector with the highest proportion of internal expenditure on research and development in relation to turnover<sup>13</sup>. Five pharmaceutical companies were founded in Baden-Württemberg between 2010 and 9/2020. These include ZentriForce Pharma Research GmbH in Heidelberg, which offers contract research and analysis for the pharmaceutical industry (founded 04/2019).

Today, due to the major hurdles involved in drug registration as well as the high capital expenditure, pharmaceutical companies that combine production, registration, marketing, research and development are rarely established. The biotechnology sector is proving to be an innovative partner and provider of ideas here, contribut-



Fields of activity of the pharmaceutical industry in Baden-Württemberg (companies may have several fields of activity)



ing to a diversification of risk through complex financing models, cooperation and licensing agreements.

In addition to a large number of owner-managed companies and micro and small enterprises, Baden-Württemberg is also home to a number of subsidiaries of multinational corporations. The companies' portfolios range from generics to phytopharmaceuticals and homeopathic drugs, which enrich the traditional drug manufacturing market with valuable therapy options.

### Using the potential of new technologies and initiating agile cooperation

The development of new drugs is costly, lengthy and high-risk. At the same time, the pharmaceutical market is highly regulated and global value chains are complex. Although the challenges facing the pharmaceutical industry will continue to increase under the influence of global developments, the possibilities are almost unlimited. Digitalisation continues to gain momentum, and access to data from the real world, therefore the user world, can drive development ever more precisely towards tailored forms of therapy for sub-populations of patients that

lead to far fewer side effects. Pfizer's Healthcare Hub was founded in Freiburg in March 2018. In its search for digital patient solutions, Pfizer's Healthcare Hub seeks proximity to life sciences start-ups and spin-offs and focuses on flexible interaction models. Using simulation software from the Karlsruhe-based start-up GoSilico GmbH, for example, drugs can be brought to market faster and more cost-effectively because downstream (purification) processes can be digitally simulated and scaled.

To survive against global competition, agile cooperation and networks are valuable instruments for staying one step ahead of the competition. Baden-Württemberg offers a large number of cooperation partners from industry and science. Research and technology parks and incubators also offer interesting concepts and space to set up offices and research laboratories and to establish low-threshold contact between big pharma and start-ups.

## Medical biotechnology

### On course for growth with biotechnology

The attractiveness of the state is also shown by the fact that, in addition to pharmaceutical companies, a large number of medical biotechnology companies enrich the overall offer in Baden-Württemberg. While the pharmaceutical industry provides implementation and production process know-how, among other things, the mostly smaller, agile biotech companies or start-ups drive innovation in the sector.

Baden-Württemberg is home to 184 medical/red biotechnology companies that research, develop and/or manufacture here. In 2018, they generated a taxable turnover of 4.19 billion euros with 18,589 employees subject to social security contributions.

### Coronavirus start-up support and expansion of start-up centres

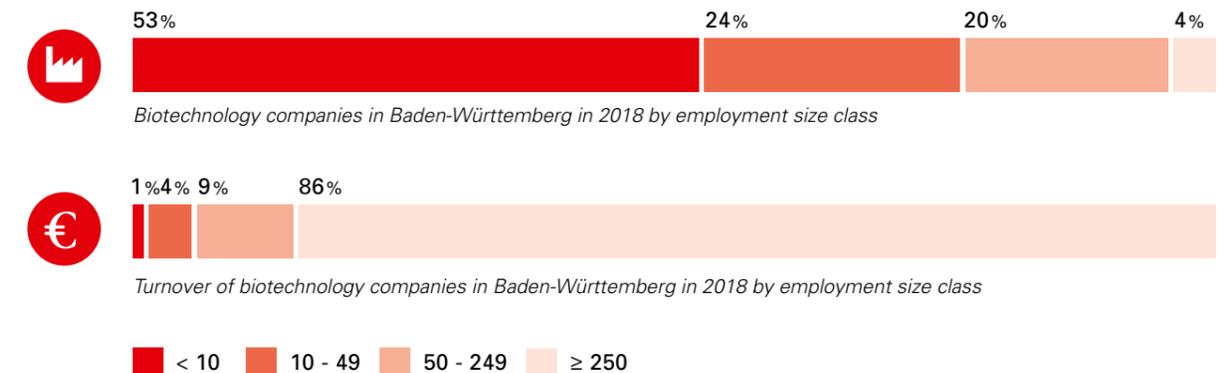
Over 78 medical biotechnology companies have been founded in Baden-Württemberg since 2010. This represents 40 percent of all biotechnology companies in Baden-Württemberg. 17 companies were founded in the period between 1/2018 and 9/2020. The fact that the number of start-ups in the first half of 2020 is relatively low compared to previous years can be largely ascribed to the

coronavirus pandemic. Company founders are struggling with liquidity bottlenecks and the absence of financing rounds. The Baden-Württemberg Ministry of Economic Affairs, Labour and Housing has reacted to this situation and is now promoting early-stage financing by expanding the Start-up BW Pre-Seed programme and through the newly established Start-up BW Pro-Tect support programme (chapter: Company Foundation and Financing, page 34)<sup>14</sup>.

The Mannheim/Heidelberg (29 start-ups since 2010), Karlsruhe (15 start-ups since 2010) and Reutlingen/Tübingen (13 start-ups since 2010) regions are particularly strong as far as the foundation of new companies is concerned. The Rhine-Neckar region plans the first European BioLabs life sciences start-up incubator in Heidelberg, a sign that it is planning to expand and secure this leading position in the future<sup>15</sup>.

### A leader in biopharmaceutical production

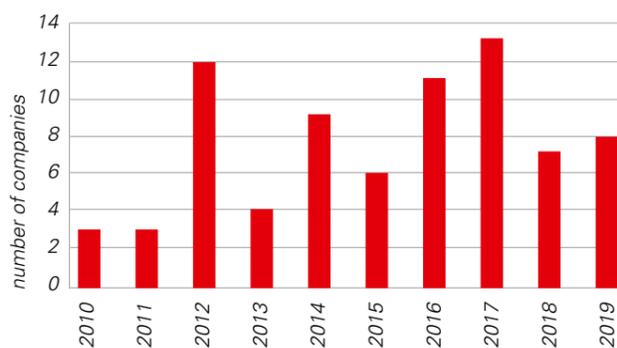
Germany is no. 1 in Europe and no. 2 behind the USA regarding the manufacture of biopharmaceuticals<sup>16</sup>. The region in the area around Laupheim, Ulm and Biberach is particularly well known for developing and manufacturing biopharmaceuticals in Baden-Württemberg.



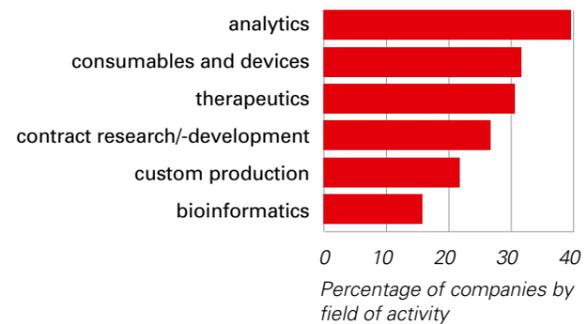
About half the turnover of biotechnology companies in Baden-Württemberg is generated here. Boehringer Ingelheim is currently investing 230 million euros in the construction of a new development centre in Biberach to meet the growing demand for biopharmaceuticals. This Biologicals Development Centre is scheduled for completion at the end of 2020. Rentschler Biopharma SE and Vetter Pharma-Fertigung GmbH & Co. KG announced a strategic cooperation in a press release in July 2020 aimed at making new therapies available to patients even faster in future (chapter: Pharmaceutical Industry, page 30/31). Rentschler Biopharma SE is also involved in producing a potential coronavirus vaccine<sup>17</sup>.

The industry's expertise must continue to focus on new technologies and developing new and innovative forms of therapy, while production processes must be mapped safely, smartly and effectively. In the field of gene and cell therapies, Sartorius Stedim Cellca GmbH has already commissioned and invested 30 million euros in a new office and laboratory building with over 100 employees in the Ulm Science Park. CellGenix GmbH announced the expansion of its production facilities in October 2020 in response to steadily increasing demand for materials for gene and cell therapies.

Foundation of biotechnology companies in Baden-Württemberg between 2010 and 2019



Fields of activity of biotechnology companies in Baden-Württemberg (companies may have several fields of activity)



The development of new therapies is risky and very costly. Many previously promising developments fail in later phases of development and consume a great deal of resources. Translational medicine, i.e. the early translation of research results into clinical practice, will help to prevent this from happening. Medical biotechnology, which is dependent on external funding, stands to benefit from the intensive exchange between clinics and research and the early translation of research results into therapy options.

The Tübingen-based biotech companies CureVac AG and Immatics Biotechnologies GmbH were founded in 2000 as spin-offs from the Department of Immunology at the University of Tübingen under the leadership of Prof. H.-G. Rammensee. Translational immunology is at the centre of his research. Both companies made a remarkable start on the Nasdaq technology stock exchange - Immatics in July 2020 and CureVac in August 2020.

Biotechnology companies founded in Baden-Württemberg between 1/2018 bis 9/2020

	Company	Location	Field of activity
2018	Aquarray GmbH	Eggenstein-Leopoldshafen	Analytics
	AVA Therapeutics GmbH	Denzlingen	Therapeutics
	candidum GmbH	Stuttgart	Bioinformatics, service
	CeCaVa GmbH & Co. KG	Tübingen	Therapeutics
	Navitect Bio GmbH	Heidelberg	Diagnostics, service
	pantaBio AG	Stuttgart	Software
	PixelBiotech GmbH	Schriesheim	Analytics, service
2019	AaviGen GmbH	Heidelberg	Therapeutics
	ARAXA Biosciences GmbH	Heidelberg	Contract research and development, therapeutics
	AUCTEQ Biosystems GmbH	Mannheim	Consumables and devices
	Intavis Peptide Services GmbH & Co. KG	Tübingen	Contract production, service
	Klar2O GmbH	Bruchsal	Analytics, therapeutics
	n.able GmbH	Eggenstein-Leopoldshafen	Analytics, devices
	Opto Biolabs UG	Freiburg im Breisgau	Consumables and devices
Prime Vector Technologies GmbH	Tübingen	Therapeutics	
2020	Axxelera UG	Karlsruhe	Bioinformatics
	Fast Forward Discoveries GmbH	Mannheim	Consumables and devices

**Selected investments, acquisitions, cooperation and licensing agreements as well as stock market launches of biotechnology companies in Baden-Württemberg between 1/2018 and 9/2020**

**Investments**

	Company	Location	Field of activity	Type of financing	Investment volume	Investors
2019	Atriva Therapeutics GmbH	Tübingen	Antiviral therapy	Series A financing	EUR 1.25 million	Meneldor, High-Tech Gründerfonds and company founders
	Cytexa GmbH	Freiburg im Breisgau	Cell separation systems	Series A financing	EUR 3 million	High-Tech Gründerfonds and two private investors
	Heidelberg Pharma AG	Ladenburg	Cancer therapy	Milestone payment		Link Health Co.
	HQS Quantum Simulations GmbH	Karlsruhe	Individual simulation solutions for conventional computers and quantum computers	Seed financing	EU 2.3 million	High-Tech Gründerfonds, Unternehmertum Venture Capital Partners und btov Partners
2020	CureVac AG	Tübingen	Development and production of mRNA-based vaccines	Growth financing	EUR 300 million	Federal Republic of Germany by way of KfW
	CureVac AG	Tübingen	Development and production of mRNA-based vaccines	Loan	EUR 75 million	European Investment Bank and European Commission
	CureVac AG	Tübingen	Development and production of mRNA-based vaccines	Private financing round	USD 126 million	Qatar Investment Authority (QIA) and other investors
	HepaRegeniX GmbH	Tübingen	Liver disease therapy	Series B financing	EUR 11 million	Boehringer Ingelheim Venture Fund GmbH, Novo Holdings A/S, High-Tech Gründerfonds, Coparion and Ascenion

**Acquisitions**

	Company	Location	Field of activity	Buyer	Value
2018	Dispendix GmbH	Stuttgart	Liquid handling systems	CELLINK AB, Gothenborg, Sweden	EUR 5 million
2019	cytena GmbH	Freiburg im Breisgau	Cell separation systems	BioCopy GmbH, Freiburg im Breisgau	EUR 30.25 million
2020	Biometrics GmbH	Tübingen	Label-free biosensor technology	BioCopy GmbH, Freiburg im Breisgau	-
	Immatics Biotechnologies GmbH	Tübingen	Cancer immunotherapies	Fusion: Arya Sciences Acquisition Corp. (Houston) with Immatics Biotechnologies and name change to Immatics N.V.	-

**Cooperations and licensing agreements**

	Company	Location	Partner company	Category	Financing amount
2018	Affimed GmbH	Heidelberg	Genentech Inc., San Francisco, California, USA	Affimed will use its ROCK platform in order to discover interesting immunotherapies for Genentech/Roche	In total USD 5 billion
	Expedeon AG (früher: SYGNIS AG)	Heidelberg	Quanterix Corporation, Lexington, Massachusetts, USA	Supply and licensing agreement for proprietary immunoassay technology	
	Heidelberg Pharma Research GmbH	Heidelberg	Magenta Therapeutics, Cambridge, USA	Research agreement for the development of antibody drug candidates	USD max. 334 million
	Immatics Biotechnologies GmbH	Tübingen	Genmab A/S, Copenhagen, Denmark	Research and licensing partnership for the development of new next-generation cancer immunotherapies	USD max. 3 billion

## Cooperation and licensing agreements

	Company	Location	Partner company	Category	Financing amount
2019	Immatics Biotechnologies GmbH	Tübingen	Celgene Corporation, Summit, New Jersey, USA	Strategic cooperation	Approximately EUR 1.45 billion
	Heidelberg Pharma Research GmbH	Heidelberg	Magenta Therapeutics, Cambridge, USA	Development and marketing rights	USD 34 million
	Heidelberg Pharma Research GmbH	Ladenburg	Emergence Therapeutics AG, Duisburg	Licensing and development agreement	-
	CureVac AG	Tübingen	Schepens Eye Research Institute of Massachusetts of the Harvard Medical School, Boston, USA	Exclusive research cooperation	-
	CureVac AG	Tübingen	Coalition for Epidemic Preparedness Innovations	Partnership agreement	USD 34 million
	CureVac AG	Tübingen	Yale University, New Haven, Connecticut, USA	Research cooperation	-
	CureVac AG	Tübingen	Genmab A/S, Copenhagen, Denmark	Strategic development partnership	-
2020	CureVac AG	Tübingen	Coalition for Epidemic Preparedness Innovations (CEPI), Oslo	CEPI provides CureVac with funds for the development of a vaccine against coronavirus nCoV-2019	Up to USD 8.3 million
	CureVac AG	Tübingen	GlaxoSmithKline (GSK), Brentford, Middlesex, UK	Strategic cooperation agreement	GSK makes equity investment of EUR 150 million in CureVac and one-off payment of EUR 120 million
	Immatics Biotechnologies GmbH	Tübingen	GlaxoSmithKline, Brentford, Middlesex, UK	Strategic collaboration to develop T-cell therapeutics for the treatment of solid tumours	EUR 45 million (possibly further milestone payments)
	Rentschler Biopharma SE	Laupheim (und Milford, USA)	Genmab A/S, Copenhagen, Denmark	Strategic cooperation	-
	Velabs Therapeutics GmbH	Heidelberg	Alytas Therapeutics, Jena	Licensing agreement	-

## Stock market launch

	Company
2020	CureVac AG
	Immatics N.V.

# Strategic Collaboration between Rentschler Biopharma and Vetter

## Doing it the Swabian way: joining forces to bring novel therapies to patients faster

The COVID-19 pandemic has caused setbacks for most global industries. With one major exception: the pharmaceutical industry. The industry has rarely been more active in the development of vaccines and therapeutic drugs. New collaborations, fundraising and IPOs, clinical trials and regulatory approvals have happened at an unprecedented pace - all with the aim of ensuring the fastest possible public access to vaccines and medication.

Even before the COVID-19 pandemic, Rentschler Biopharma and Vetter, both headquartered in the heart of Baden-Wuerttemberg, foresaw the need to accelerate the production of new therapeutics. Our two companies took action and entered into a strategic collaboration, aimed at reducing complexity along the biopharmaceutical value chain. The desired goal of the collaboration is to support our clients by aligning manufacturing approaches - from the first steps in biopharmaceutical drug production to the aseptic filling and packaging for market distribution. Both our companies have a long history of success in our respective fields. We are now leveraging this experience to create long-term added value for our clients by optimizing process development, product manufacturing and supply chains, that enable our clients to bring their products to patients more easily and faster.

### An important hub

Over the past decades, Vetter and Rentschler Biopharma, both of which are family-run companies, have maintained a good relationship based on mutual respect. We often work with the same clients, albeit on different aspects of

drug production. The resulting trust is extremely valuable when it comes to their alliance, and the close proximity of our company headquarters, in Baden-Wuerttemberg, is a major contributing factor. Our corporate cultures are similar, we have similar roots and we speak the same language.

Equally important is the fact that Baden-Wuerttemberg is increasingly establishing itself as a central, international hub for biopharmaceutical development and production through other world-class companies. In addition, renowned universities such as Heidelberg, Tübingen and Ulm, as well as a whole range of small- and medium-sized biotech companies, are generating exciting therapies for the future along with excellent employment opportunities for skilled professionals. Another decisive factor is a good mix of auditors, lawyers, architects and engineers with experience and expertise in this sector and the active presence of BIOPRO Baden-Wuerttemberg GmbH. The Baden-Wuerttemberg region is very well positioned to promote an environment for highly specialized biopharmaceutical manufacturing in the heart of Europe.

### Joining forces

The COVID-19 pandemic has underlined the urgent need to reduce drug manufacturing time. This requires even closer coordination between Rentschler Biopharma's manufacturing of complex drug substances, and Vetter's aseptic filling and packaging of drugs. The basis of our collaborative work will therefore be the development of new complementary processes from these two areas of biopharmaceutical contract manufacturing, that will in turn accelerate the overall process.

By combining our strengths in a strategic collaboration, we can offer clients a manufacturing chain with opti-

Dr. Frank Mathias,  
CEO Rentschler Biopharma SE



Peter Sölkner, Managing Director Vetter  
Pharma-Fertigung GmbH & Co. KG



mized workflows for a more efficient "time-to-market". Rentschler Biopharma and Vetter are proud to break new ground in Baden-Wuerttemberg with this alliance and are seeking to help turn the region into a global healthcare hub and create attractive opportunities for companies, employees and entrepreneurs.

### Optimised product path

The biopharmaceutical market is developing rapidly with the emergence of new, highly innovative therapies for a wide range of indications. To meet the dynamic demands of the market, we rely on collaboration with other companies that complement our core competencies. Forming technology alliances and integrating the skills of other specialists into our business processes is an important part of our global strategy.

Both Rentschler Biopharma and Vetter are committed to long-term and sustainable value creation. It is part of our culture to see clients as partners and to see our services as an extension of our clients' activities. We consult our clients right from the early stages of new drug development and enter into strategic alliances to ensure the best offerings and processes for our clients. This flexibility enables us to adapt optimally to the needs of the market.

Last year, nobody would have imagined that the world today would face unprecedented challenges due to the COVID-19 pandemic. Companies must be open to collaboration if they are to emerge unscathed or indeed stronger from these very different conditions and be able to meet the needs of doctors and patients. Beyond this, regional cooperation can also contribute to a dynamic, robust environment for the biotech sector in Baden-Wuerttemberg.

Under "normal" circumstances it is easy to overlook the larger context of one's actions. The pandemic has made our industry all the more significant and shown what it can contribute to people's well-being. Fast and safe access to essential vaccines and medicines is a goal that can be achieved through cooperation and alliances.



### Information and contact

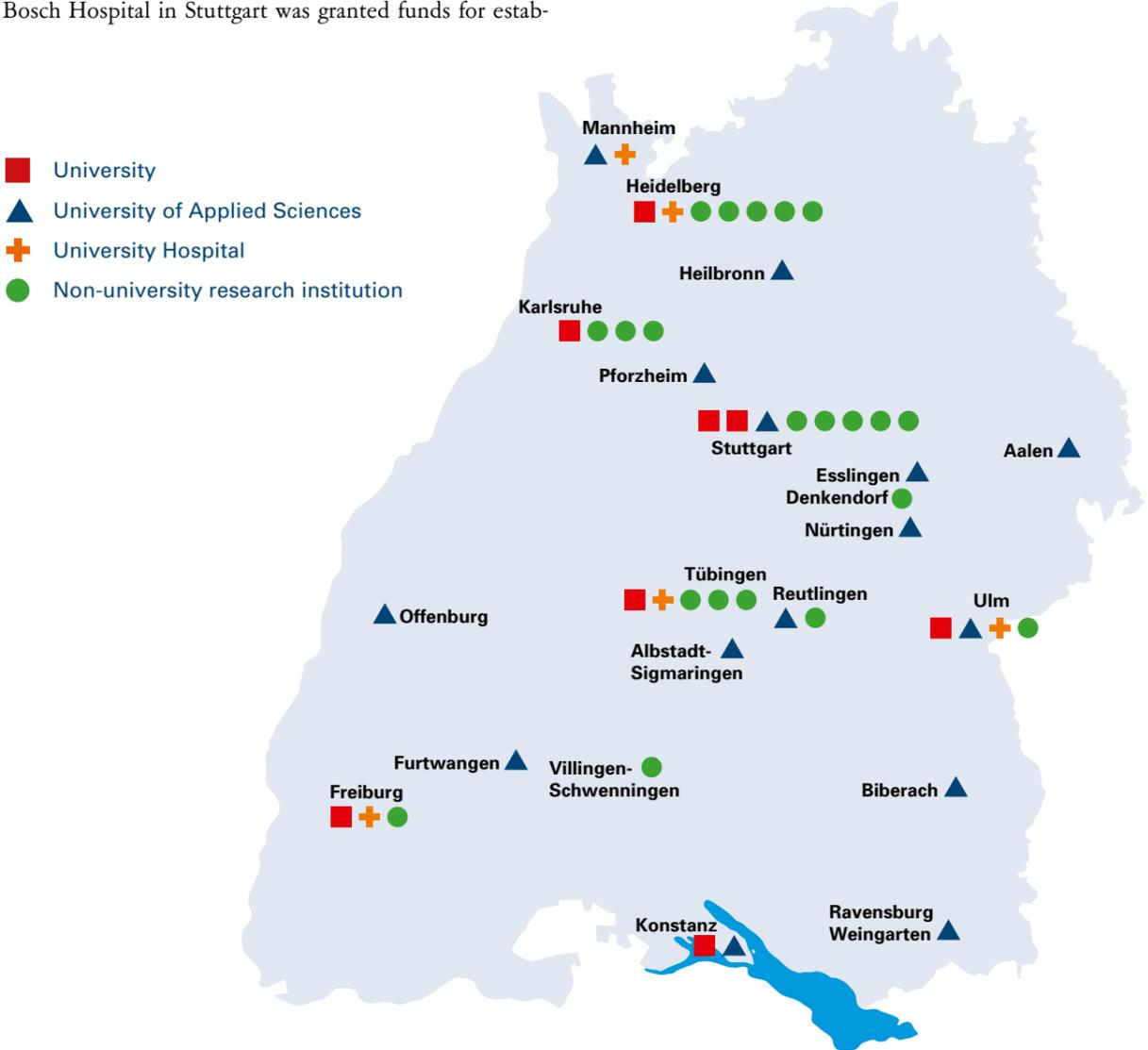
Rentschler Biopharma SE  
E-Mail: [info@rentschler-biopharma.com](mailto:info@rentschler-biopharma.com)  
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 [www.vetter-pharma.com](http://www.vetter-pharma.com)

# Research in Baden-Württemberg

The Healthcare Industry in Baden-Württemberg is enriched by a diverse and effective academic research landscape. Healthcare research is carried out at eight universities, 15 universities of applied sciences, 21 non-university research institutions and five university hospitals. Baden-Württemberg is also well positioned in the field of top-level translational - patient-related - research. In addition to the National Centre for Tumour Diseases (NCT) in Heidelberg, a consortium of the University Hospitals in Ulm and Tübingen and the Robert Bosch Hospital in Stuttgart was granted funds for estab-

lishing NCT-Südwest in September 2020, as part of the German Federal Ministry of Education and Research's National Decade against Cancer<sup>18</sup>. Baden-Württemberg is represented in the German Consortium for Translational Cancer Research (DKTK) in three ways: by the focus on cancer immunotherapy in Tübingen, the epigenetics expertise in Freiburg and the German Cancer Research Center (DKFZ) in Heidelberg. The aim of the DKTK is to strengthen translational cancer research in the long term.



Prof. Dr. Oliver G. Opitz,  
Head of the Coordination Center for  
Telemedicine Baden-Württemberg



## Translation in Medicine

Unfortunately, the terms innovation and translation are often misused, not only in medicine. Innovation describes the placement of new technologies on the market, thus rendering them available to the general public. Too often, however, innovation is used to describe either ideation (the generation of ideas) or testing. The same applies to translation, the process of implementation starting from ideation. However, many - if not most - new ideas never go beyond the pilot phase to reach the open market, i.e. the healthcare system. The term translation is therefore often used for preliminary stages such as minimally viable products or clinical trials. The indicator should rather be the sustainable rate of pilot projects that make it into the market.

The translation process - in the sense of implementation - consists of at least four essential steps of a translational value chain: (1) demand, (2) novelty value, (3) stakeholder involvement and (4) cost-benefit assessment. But why do so few health innovations reach the public? Why are they so rarely implemented on the market? In most cases, the value chain breaks off too early and is not geared to needs. The implementation process is complex, various stakeholders are involved and the framework constantly changes. The healthcare market is not a standard market, and innovations that would introduce system-wide time- and cost savings are difficult to implement, as costs and benefits do not occur at the same time or the same place. In addition, stakeholders as framework conditions are changing with increased digitization.

Steps (3) and (4) are often considered too late, too little or not at all, despite being critical to success. Stakeholder involvement often works on a random basis or is based on existing cooperations. Here a flexible and open

“sandbox” implementation in the form of living labs and testbeds is needed. The cost-benefit assessment is often completely overlooked. Why, for example, should a hospital CEO make advance payments for investment costs that will only allow him to make savings through new (digital) processes years later? This is why many innovations - or rather ideas - from academia and start-ups in the healthcare sector are difficult to “sell”. And yet, the healthcare sector is currently facing immense challenges: shortage of expert medical staff is an increasing problem, the demographic change is exacerbating the problem for both healthcare providers and patients, and the number of complex chronic conditions is constantly raising, making medical treatment more expensive. Here, translational catalysts can help to overcome barriers and gaps to improve the efficiency of the value chain. This means promoting new processes and health care solutions using digitization in the healthcare system, explicitly from prevention and healthcare in the regional context to specialised applications in academic medicine.



### Information and contact

Telemedicine Coordination Office Baden-Württemberg  
E-mail: [info@telemdbw.de](mailto:info@telemdbw.de)  
[www.telemdbw.de](http://www.telemdbw.de)

# Company Foundation and Financing in Baden-Württemberg

Baden-Württemberg is an attractive location for business start-ups. The state offers a wide range of support services and interesting funding and financing opportunities. In addition, the diverse and innovative corporate and research landscape, strong clusters and networks and technology parks focusing on life sciences companies create a stimulating environment. In recent years, the Baden-Württemberg government has placed greater emphasis on the issue of company foundation and expanded the portfolio of support programmes and financing measures. For example, the

state campaign, Start-up BW, was launched to support start-ups in Baden-Württemberg. The [www.startupbw.de](http://www.startupbw.de) platform provides a good overview of the start-up ecosystems, relevant institutions and contacts as well as current support measures.

BIOPRO Baden-Württemberg is a key partner for the life sciences and available to complement general state support for establishing new companies in specific disciplines and providing transregional support.

## Financing and funding for high-tech companies

### State-wide financing

Bürgschaftsbank Baden-Württemberg GmbH	<a href="http://www.buergschaftsbank.de">www.buergschaftsbank.de</a>
LBBW Venture Capital GmbH	<a href="http://www.lbbw-venture.de">www.lbbw-venture.de</a>
L-Bank	<a href="http://www.l-bank.de">www.l-bank.de</a>
MBG Mittelständische Beteiligungsgesellschaft Baden-Württemberg GmbH	<a href="http://www.mbg.de">www.mbg.de</a>
Start-up BW Pre-Seed	<a href="http://www.startupbw.de/finance">www.startupbw.de/finance</a>
Start-up BW Pro-Tect	<a href="http://www.startupbw.de/finance">www.startupbw.de/finance</a>
Mezzanine-Beteiligungsprogramm Baden-Württemberg	<a href="http://www.l-bank.de/mezzanine-bw">www.l-bank.de/mezzanine-bw</a>
Seedfonds BW	<a href="http://www.lbbw-venture.de">www.lbbw-venture.de</a>
VC Fonds Baden-Württemberg	<a href="http://www.vc-fonds-bw.de">www.vc-fonds-bw.de</a>
LEA Venturepartner	<a href="http://www.startupbw.de/finance">www.startupbw.de/finance</a>

### Region-specific financing

Beteiligungsfonds Wirtschaftsförderung Mannheim	<a href="http://www.mannheim.de/de/wirtschaft-entwickeln/existenzgruendung/foerderprogramme/beteiligungsfonds-mannheim">www.mannheim.de/de/wirtschaft-entwickeln/existenzgruendung/foerderprogramme/beteiligungsfonds-mannheim</a>
Zukunftsfonds Heilbronn	<a href="http://www.zf-hn.de">www.zf-hn.de</a>

### Initiatives

Business Angels Region Stuttgart e.V.	<a href="http://www.business-angels-region-stuttgart.de">www.business-angels-region-stuttgart.de</a>
Startup Angels Alb-Bodensee e.V.	<a href="http://www.startupangels.de">www.startupangels.de</a>
Business Angels Start-up Region Ostwürttemberg	<a href="http://www.startup-wow.de/business-angels-netzwerk/">www.startup-wow.de/business-angels-netzwerk/</a>
VC-BW – Netzwerk für Beteiligungskapital	<a href="http://www.vc-bw.de">www.vc-bw.de</a>
venture forum neckar e.V.	<a href="http://www.venture-forum-neckar.de">www.venture-forum-neckar.de</a>

### Funding

EXI Start-up Voucher	<a href="http://www.bio-pro.de/angebot/exi">www.bio-pro.de/angebot/exi</a>
Start-up BW Accelerators	<a href="http://www.startupbw.de/portfolio/accelerator">www.startupbw.de/portfolio/accelerator</a>
Junge Innovatoren	<a href="http://www.junge-innovatoren.de">www.junge-innovatoren.de</a>
Innovation Bouchers	<a href="http://www.innovationsgutscheine.de">www.innovationsgutscheine.de</a>

*This list makes no claim to completeness*

## BIOPRO Baden-Württemberg company foundation support

Insect farms, nappies made from moss and vaccine development are some of the many varied and innovative issues that company founders come to BIOPRO for advice about. BIOPRO has provided coaching and accompanied over 50 projects since mid-2018, and no two projects have been the same. This makes working with start-up companies varied and exciting. But although the projects may be different, the challenges for the teams are often the same. Once a business idea has been formulated and possibly the first draft of a business plan or prototype developed, start-ups are usually confronted with similar questions: how do I finance my project, what kind of start-up support is available from the federal and state governments, where do I find the right contact points, and how do I best network for strategic cooperation? BIOPRO supports start-up teams in these and other issues through consulting, start-up events, cooperation initiations and public relations work.

The EXI Start-up Voucher advisory programme plays a central role in this context. This has been supported by the Baden-Württemberg Ministry of Economic Affairs, Labour and Housing since mid-2012 with European Social Fund and state financing aimed at making Baden-Württemberg a vibrant start-up region in Europe. The EXI Start-up Voucher can be used by company founders from all high-tech sectors for a two-stage advisory programme. The first level is what is called compact consultation. Here, the aim is to get to know both the founding idea and the team in order to assess project viability. Individual support and financing options are also presented. A second, intensive consultation is offered for start-up ideas with potential, which builds on the first consultation and is carried out exclusively by accredited consultants from Steinbeis Beratungszentrum GmbH. Here, relevant and



time-consuming issues are examined in greater depth. BIOPRO has been the life sciences partner for three funding phases and offers compact consulting services for company founders from the biotechnology, medical technology, diagnostics, pharma and related technology fields.

This means that BIOPRO covers start-up support through all phases of company foundation. Following the EXI consultations alone, in which BIOPRO offers support to potential founders in the very early orientation phase, 30 percent of the teams supported have founded a company in the past two years. This encourages BIOPRO to continue to accompany and support many more teams on their way to starting a company.

### Information and contact

Start-up-support at BIOPRO Baden-Württemberg GmbH

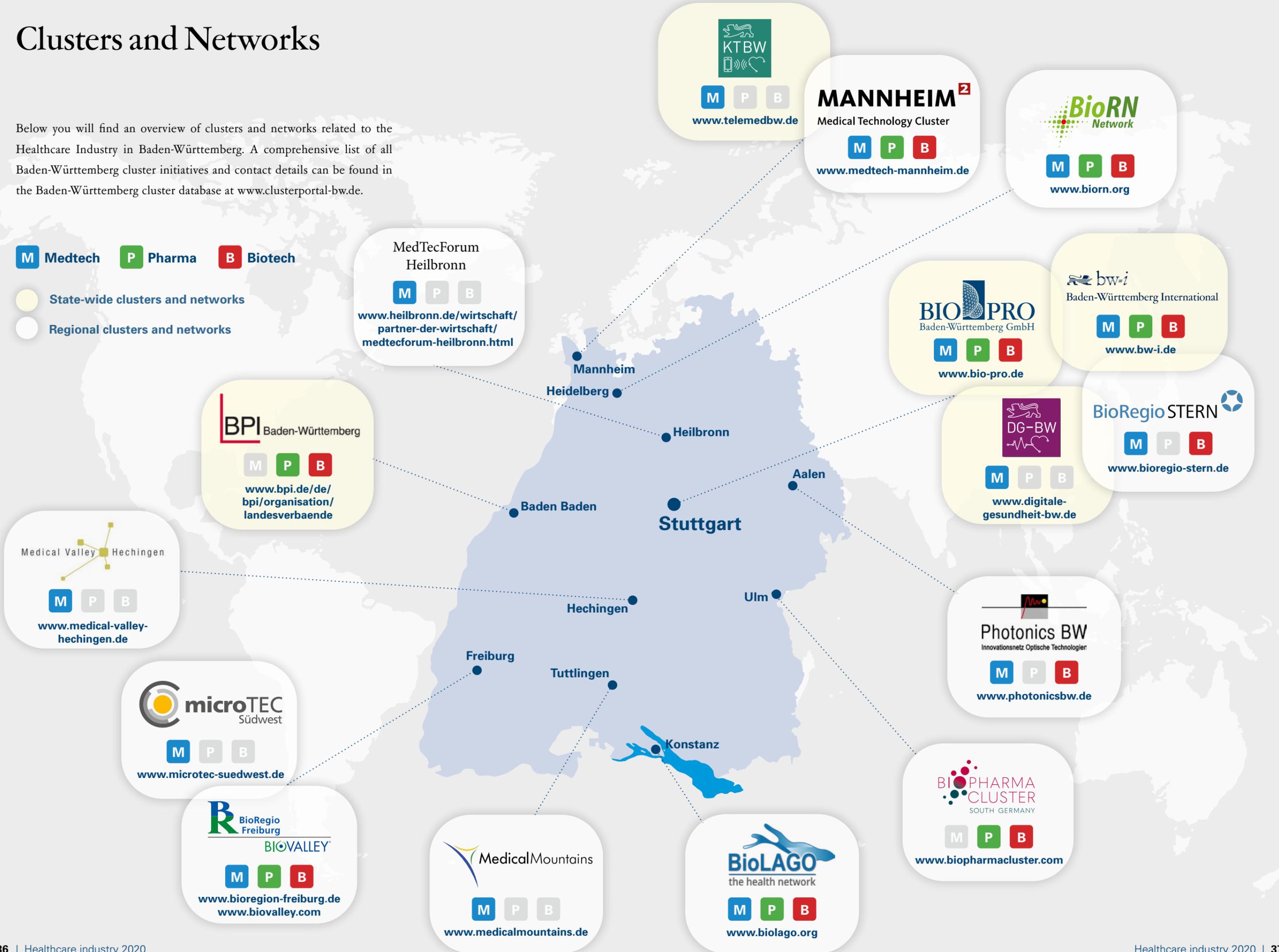
E-mail: [gruendung@bio-pro.de](mailto:gruendung@bio-pro.de)

 [www.bio-pro.de/angebot/gruender](http://www.bio-pro.de/angebot/gruender)

# Clusters and Networks

Below you will find an overview of clusters and networks related to the Healthcare Industry in Baden-Württemberg. A comprehensive list of all Baden-Württemberg cluster initiatives and contact details can be found in the Baden-Württemberg cluster database at [www.clusterportal-bw.de](http://www.clusterportal-bw.de).

- M** Medtech   **P** Pharma   **B** Biotech
- State-wide clusters and networks
- Regional clusters and networks





# Database and Methods

The basis of this industry report is the BIOPRO Baden-Württemberg GmbH company database, which - according to current knowledge - includes all companies in the medical technology, pharmaceutical industry and biotechnology sectors, provided that these companies carry out research, development and/or production in Baden-Württemberg. Companies exclusively involved in distribution or wholesale are not included.

Based on the entries in BIOPRO's company database, the Baden-Württemberg Statistics Office determines the key figures for taxable turnover and employees subject to social security contributions, provided they were available at the time of enquiry (May 2020). The figures presented in this report refer to the 2018 reporting year. No forecasts have been made.

If BIOPRO's survey showed that a company was active in more than one sector, the key figures for each sector were taken into account proportionately and the company was only counted once in the total figure.

For companies with subsidiaries in several German states, only nationwide total turnover figures were provided. The Baden-Württemberg Statistics Office determines the share of turnover attributable to Baden-Württemberg on the basis of employees subject to social security contributions.

BIOPRO's company database is continuously updated. Such updates may result in a company being assigned to a different sector because additional data sources have since become available, new business areas have been added or the product portfolio has been expanded.

Despite thorough research on start-ups, investments, acquisitions and cooperations, the data may be incomplete. The Baden-Württemberg Medical Technology Index was prepared by the Baden-Württemberg Statistics Office on behalf of BIOPRO. For this purpose, 10 companies in each employee size class in the sector, for which figures on taxable turnover and employees have been continuously provided over the last 10 years, were chosen at random. The mean value of the key figures results in the Medical Technology Index.

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