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HEALTH MADE IN GERMANY

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HEALTH MADE IN GERMANY

The Pharmaceutical Sector

Summary

Germany is a major actor in the global healthcare sector boasting a leading industry that develops, produces and distributes high-quality, internationally acclaimed pharmaceutical products. The pharmaceutical sector benefits from cutting-edge research facilities, a long tradition in manufacturing and a highly diversified mix of large corporations and small and medium-sized enterprises (SMEs). Together, they form a strong base and provide the expertise necessary to meet the challenges of a changing global health market.

This is best exemplified not only by increasing pharmaceutical export volumes, but also by the fact that the German pharmaceutical sector has stepped up its efforts to tackle the continuing global Covid-19 epidemic. Germany is one of the countries with a particularly high number of initiatives for Covid-19 vaccines and has a leading role in global research for its treatment. Germany is also among the world's top five pharmaceutical manufacturing services locations.

EUR 42.5 bn
total revenue of German pharmaceutical companies

500+
pharmaceutical companies are situated in Germany

16.5%
of annual revenues are reinvested in research and development

EUR 87.7 bn
export sales generated by German pharmaceutical companies

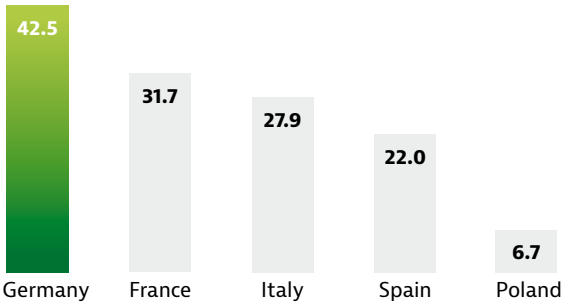
800+
clinical trial applications by German pharmaceutical companies[1]

[1] all data from 2020

Market Data

Global demand for high-quality drugs is constantly rising due to a growing global population, improved healthcare standards and strengthened economies in developing countries. Approximately EUR 1 trillion had been spent on medicines in 2020 – up from just EUR 753 billion in 2010. The sector is largely driven by innovation, a fact best demonstrated by the high numbers of newly approved drugs in Europe. More than 400 new pharmaceutical entities – on average 37 per year – have been authorized by the European Medicines Agency of the European Union (EMA) since 2006. According to the European Patent Office (EPO) Patent Index 2019, the number of patent applications increased by 4.4 percent in 2018.

2020 European Pharmaceutical Market Top 5
in EUR billion

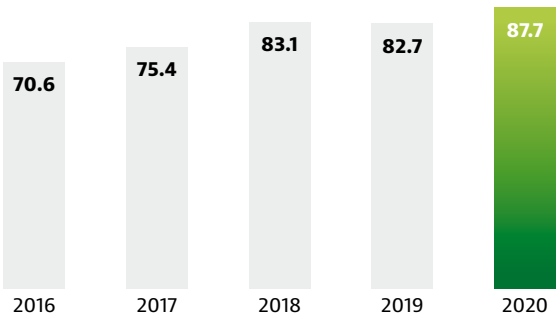


Source: BPI (2021)

The German pharmaceutical sector provides a broad range of high-quality products and services to address growing international demand. In 2020, German companies generated revenue of EUR 42.5 billion, making it the leading pharmaceutical market in Europe. Between 2017 and 2020, export figures for German pharmaceutical companies recorded an annual growth rate of more than 10 percent. German pharmaceutical products are particularly sought after in the USA and European countries. However, emerging markets, for example in Asia and Latin America, are also registering increased demand.

More than 500 pharmaceutical companies – of German origin and subsidiaries of multinational corporations – are based in Germany. These companies employed a workforce of around 120,000 in 2019 – mostly located around the cities of Hamburg, Berlin, Cologne, Frankfurt (Main), and Munich. The German pharmaceutical sector is dominated by SMEs, with around 233 companies having fewer than 20 members of staff. Germany can look back on a long tradition as the "world's pharmacy" and even today ranks among the world's top five pharmaceutical production locations.

Annual value of Germany's pharmaceuticals exports from 2016 to 2020
in EUR billion



Source: BPI (2021)

Major domestic pharmaceutical companies (including Bayer, BASF, Boehringer Ingelheim, and Merck) and numerous SMEs enjoy an excellent international reputation in all of the relevant pharmaceutical markets. This ranges from prescription to non-prescription medicines, from innovative medicines to generics, from small molecules to biologicals and advanced therapy medicinal products (ATMPs). The sector also benefits from the internationally strong chemical companies that are domiciled in Germany, providing further manufacturing expertise and infrastructure.

One of the industry's key success factors is its strong focus on research and development (R&D). Total R&D spending increased significantly to EUR 8.4 billion in 2019. When looking at the pharmaceuticals currently developed and set for approval, the targeted indications are dominated by cancer, inflammatory diseases and infectious diseases including the treatment of Covid-19.

Industry Trends

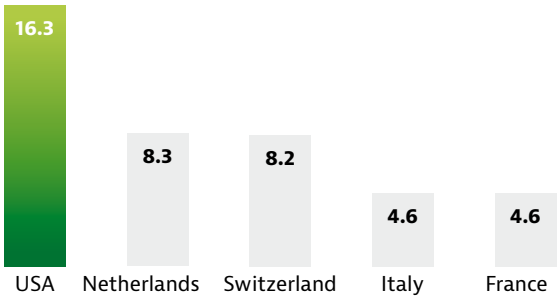
High-quality Products for International Markets
A steady increase in the quality of healthcare across the globe, the establishment of health insurance systems in developing countries, and new hospital infrastructures have all led to growing global demand for conventional pharmaceutical products.

German pharmaceutical companies are best known to deliver high-quality production volumes for many conventional pharmaceutical products such as antibiotics, hormones, vitamins, and radiopaque materials. This has allowed them to establish themselves as attractive partners for many countries around the globe.

The United States was the primary destination for German pharmaceuticals exports in 2020, with an export value of over EUR 16.3 billion. While the Netherlands and Switzerland were the second- and third-highest export destinations with export values of EUR 8.3 billion and EUR 8.2 billion respectively. In total, pharmaceutical exports from Germany amounted to almost EUR 88 billion in 2020. Herbal medicines, innovative and prescription drugs are in particularly high demand.

Digital Healthcare Management
Technology-driven developments offer great potential for more efficient research and development processes, with computer-based, high-throughput approaches facilitating improved big data analyses. This increases the speed at which new therapies and diagnostics go from lab to market.

German Export Volumes in Different Foreign Markets (2020)
in EUR billion



Source: BPI (2021)

German pharmaceutical companies are aware of new digital solutions and actively promote cooperation with start-ups and smaller companies from the biotechnology, medical technology and IT sectors. Most of the large German corporations have founded special hubs and accelerators to build a platform for innovative IT-based healthcare solutions.

DIGITAL HEALTH SECTOR

A significant number of companies in Germany are developing digital health solutions. This publication gives an overview of the sector and provides partner links.

Other aspects of digitalization include the introduction of online and real-time monitoring in pharmaceutical production plants, connected manufacturing processes, and increased automation of industrial value chains in the sector. With its strong tradition of engineering and plant construction and its expertise in pharmaceutical chemistry, Germany offers the perfect infrastructure for combining cost-efficient, IT-based innovation with traditional high-quality manufacturing processes.

Another important advancement for the healthcare sector in Germany is the Digital Healthcare Act. This came into force in December 2019, making Germany the pioneer in the establishment of the "medical prescription app" so that they become part of routine healthcare provision and fostering innovation in digital health. From the official directory of the German Federal Institute for Drugs and Medical Products (BfArM) it can be seen that from the start in September 2020 to mid-April 2021, twelve digital health applications were listed, eight of them provisionally and four permanently. Statutory health insurance (SHI) accredited physicians and psychotherapists can now prescribe these applications at the expense of the statutory health insurers.

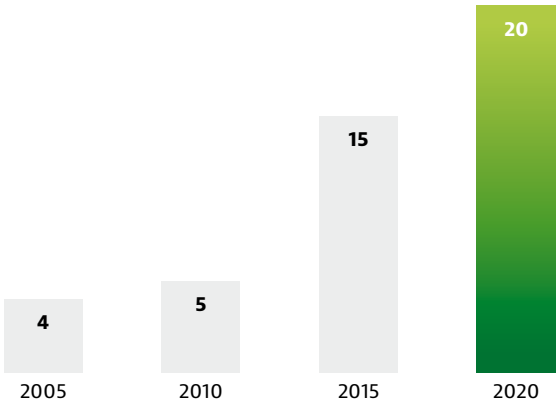
Personalized Medicine Focus
Innovation in the pharmaceutical sector is largely driven by technological advances made in molecular and cell biology. New technologies and research tools based on these findings pave the way for a better understanding of disorders and permit new strategies for combating not only symptoms but actual causes. Personalized medicine has also emerged as a new trend for targeted therapies.

This is particularly apparent in new therapies developed for the treatment of cancer patients. German pharmaceutical companies are at the forefront of newly emerging innovative approaches, for example, in the field of immunotherapies. Advances in biomedical research in recent decades have led to an increased understanding of the inner workings of the body's defense system. New procedures based on bi- and multi-specific antibodies, glycol-modified antibodies, antibody-drug conjugates (ADCs), mRNA and DNA, oncolytic viruses, and cell therapies are well established in Germany (see "Spotlight on Oncology" in this publication).

High Level of Orphan Disease Expertise
The advancement of knowledge in understanding the molecular biology of diseases has also become the basis for developing targeted therapies for niche indications and rare diseases. As demonstrated by European Medicines Agency (EMA) and US Food and Drug Administration (FDA) statistics, the number of orphan drug designations has increased significantly over the past years. Facilitated approval processes for these drugs have further strengthened this trend. These favorable conditions have also paved the way for innovations developed by SMEs.

According to the EMA, more than 70 percent of the medicines for rare disorders in the EU originate from the laboratories of SMEs, and German companies with their strong innovative capacities are increasingly active in this field.

Approvals for Drugs with Orphan Drug Status (European Union)



Source: vfa (2021)

This is exemplified by growing approvals for orphan drugs in Germany. On average, one-third of new drugs target orphan diseases, most of them for treatments in oncology (51 percent), metabolic diseases (21 percent), neurology (7.6 percent), and cardiovascular diseases (5.4 percent). German companies have extensive experience in addressing specific groups of patients. Many of them, for instance, specialize in the development of therapies for children – still one of the major challenges of modern medicine.

MEDICAL BIOTECHNOLOGY

Medical Biotechnology is one of the most innovative healthcare fields in Germany. This publication provides an industry overview.

Sector Structure

The German pharmaceutical sector is known for its extensive proficiency in a number of business fields. This is reflected in the wide range of products and services offered. Companies actively focus their activities on:

- development, distribution, and sale of innovative prescription medicines such as small molecules, biologicals and ATMPs, also for the treatment of rare diseases
- manufacture, distribution and sale of generics and biosimilars
- development and manufacture of non-prescription medicines ("over-the-counter" drugs)
- development, manufacture and distribution of phytotherapies and homeopathic medicines
- manufacture and/or contract research for national and international clients

Many companies address several of these activity areas at the same time to broaden their client portfolio and to exploit synergies.

Number of Pharmaceutical Industry Patents Granted to Applicants from Germany

Source: European Patent Office (2021)

Innovation to Combat Common Diseases

The German pharmaceutical industry is world-renowned for its commitment to innovation. This is reflected in high R&D spending levels – around EUR 8.4 billion in 2019 – with companies able to provide extensive expertise in the treatment of numerous patient indications.

Major activities relate to widespread common diseases such as in the fields of oncology, metabolic diseases, and immunology. The number of drugs already approved in Europe and newly developed drug candidates underline this high level of engagement. Despite the Covid-19 pandemic, pharmaceutical companies in Germany launched a total of 32 drugs with new active ingredients on the market in 2020 – seven more than the previous year. In addition to the first vaccine against Covid-19, these also included 10 new anti-cancer drugs. Further drugs against infectious diseases (4), neurological diseases (3), hemorrhagic disorders (4), inflammatory diseases (5), cardiovascular diseases (1) and metabolic diseases (4) were launched.

Generics Expertise

Another major strength of the German pharmaceutical industry is its expertise in generics. Of the EUR 30.6 billion pharmaceutical companies received from statutory health insurance providers in 2020, some 19.3 percent is devoted to generic drug manufacturers. Most of these drugs are produced by German companies with a reputation for high-quality manufacturing processes. Numerous companies that have generics in their portfolio, are important for maintaining the supply of basic drugs (against cancer, for example, many generic cytostatics that are often first-line treatments in physicians' guidelines).

This also holds true for the growing biosimilars market. Due to the expiry of patent protection for many of the original biopharmaceutical drugs, generic companies and innovators are increasingly focusing on offering generic variants of biopharmaceuticals. With its considerable expertise in biopharmaceutical manufacturing, Germany provides excellent infrastructure for the production of biosimilars for the national and international market. From this perspective, due to a higher demand for cost-effectiveness in healthcare systems worldwide, German companies are also well-positioned in this area in the long term.

According to the Association of Research-Based Pharmaceutical Companies (vfa), biosimilars are gaining significant market shares of up to 60 percent in the first year after launch. Biosimilars' current market share for several medicines was even greater by the end of 2019, with 75 percent for infliximab biosimilars and 80 percent for rituximab biosimilars among others.

High Quality Contract Manufacturing

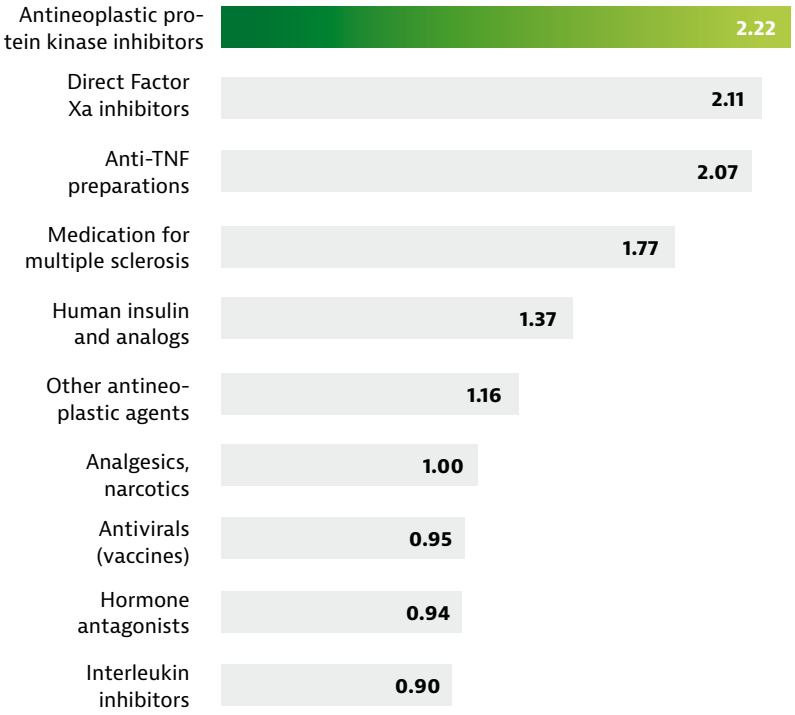
Many German pharmaceutical companies are active in the contract manufacturing business, offering a wide range of products such as packaging services, solid forms, liquid forms, custom-made products, and other services such as injectables. There are three types of companies among the contract manufacturing organizations (CMOs):

- traditional CMOs focusing only on this business activity
- pharmaceutical companies that have merged with a CMO now offering these services among other areas of business
- traditional pharmaceutical companies offering CMO services to operate at full capacity

Within the highly competitive CMO markets, German companies are well-known for their high degree of specialization, vertical integration and flexibility, the quality of their process optimization and employee education, and excellent linkages with the German chemical industry. Today, these competencies are increasingly in demand due to innovation-driven pharmaceutical companies outsourcing their production to external organizations, particularly regarding generic drugs.

Leading Indication Revenue Areas in the German Pharmacy Market 2020

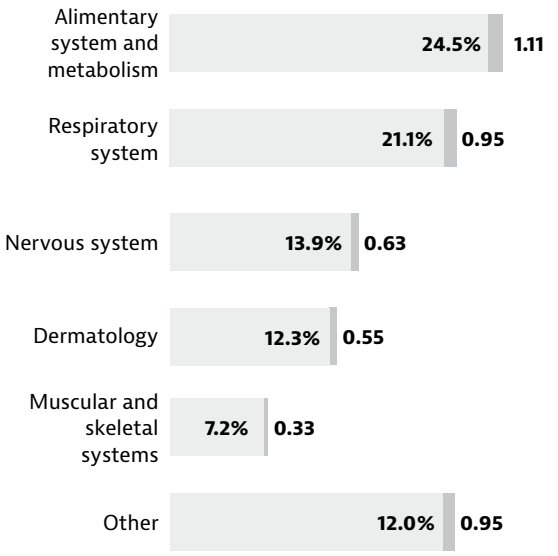
in EUR billion



Source: BPI (2021)

OTC Product Sales in Germany by Indication in 2020

in percent / EUR billion[2]



Source: ABDA (2021)

[2]values excluding VAT

OTC Products Made in Germany

Companies focusing on the development and distribution of non-prescription medicines, also called over-the-counter (OTC) products, are another area of expertise of the German pharmaceutical industry. Total sales of OTC products amounted to around EUR 4.52 billion in 2020. Cold medicines, general pain treatments and therapies to combat muscle and limb pain count among the core competencies of German enterprises in this field. A growing number of companies also offer special therapies such as phytotherapies and homeopathy. Germany's strong domestic market makes OTC manufacturers attractive business partners for international clients. Plant-based, high-grade medicines "Made in Germany," for example, are among the top pharmaceutical products sold in Asian countries.

The Pharmaceutical Landscape in Germany

Innovation Leader Germany
Germany offers the ideal infrastructure for the development and production of research-intensive, high-grade products. It places a great value on technology, backed by the country's long history in the pharmaceutical and chemical industry as well as its particular strength in producing complex products where containment and sterile environments are critical. Hundreds of thousands of highly skilled employees with backgrounds in medical technology, pharmaceutical technology, engineering, and processing make it possible for German pharmaceutical companies to set up and run high-quality processes.

R&D Excellence
The German pharmaceutical sector works very closely with non-university research institutes, universities, hospitals, and start-ups from the biotechnology, medical technology and chemical fields. In industry clusters and networks throughout the country they are aiming to improve existing treatments and develop new therapies. Over the past decades, some regions have become established as Europe's leading R&D hubs and chemical parks, paving the way for interdisciplinary collaboration.

The German pharmaceutical industry, integrated into these networks as a valued partner, benefits from the R&D excellence across the country and is able to efficiently commercialize innovative drugs. There are more than 104,211 drugs in different stages of approval by the German Federal Institute for Drugs and Medical Products (BfArM, June 2021). Of those drugs, 34,923 are over-the-counter, 17,555 pharmacy-only and 49,311 prescription-only, showing the diverse applications of new innovative drugs.

German Centers for Health Research
The German government has consistently supported excellence in health research. Since 2009, the German Federal Ministry of Research and Education (BMBF) and the Federal States have phased in new research structures, known as the German Centers for Health Research, to more effectively address major common diseases such as cancer, diabetes, neurology, cardiovascular diseases, infectious diseases, and lung diseases. There are currently more than 80 locations with more than a hundred participating universities, university hospitals and non-university research institutions that are part of this huge network. Many of them have launched several projects involving national and international pharmaceutical companies.

Traditional Expertise in Infectious Diseases
The development of new treatments for infectious diseases is a special area of German expertise. Based on major scientific developments made by German physicians such as Robert Koch and Emil Behring at the end of the 18th century, the development and production of vaccines has established itself as a core pharmaceutical competence in Germany. This rich legacy has led a number of international corporations to construct large facilities here in recent decades. Some German biotechnology companies, for instance, develop vaccination strategies based on natural messenger RNA as a data carrier instructing the human body to produce its own proteins to fight a wide range of infectious diseases. Germany also offers considerable expertise in the area of bacterial infections and the fight against multi-resistant pathogens.
In the past two years, a growing number of German researchers have revealed new insights into promising antimicrobials in high-level peer-review publications to fight antibiotic-resistant strains. Besides new antibiotics, the class of bacteriophages is identified as an alternative treatment option. In 2017, a substantial number of German clinical researchers at hospitals, academic institutes and pharmaceutical companies founded the "National Forum Phages" research forum at the University of Hohenheim (Stuttgart) to further explore this potential. This offers plenty of new collaboration opportunities with partners worldwide in the long term. In 2020, some 89 papers were published with German authors/co-authors under the Phages umbrella.

Covid-19 Vaccination Made in Germany
Internationally, Germany is one of the countries with a particularly large number of projects for vaccines against Covid-19, with over 30 companies and research institutions directly working on or supporting the development and production of vaccines. There are production capacities in Germany for vaccines based on mRNA, vector viruses,

proteins, peptides, DNA, and polysaccharides. As part of the global fight against Covid-19, innovations based on proven active ingredients are also moving into the focus of so-called repurposing.

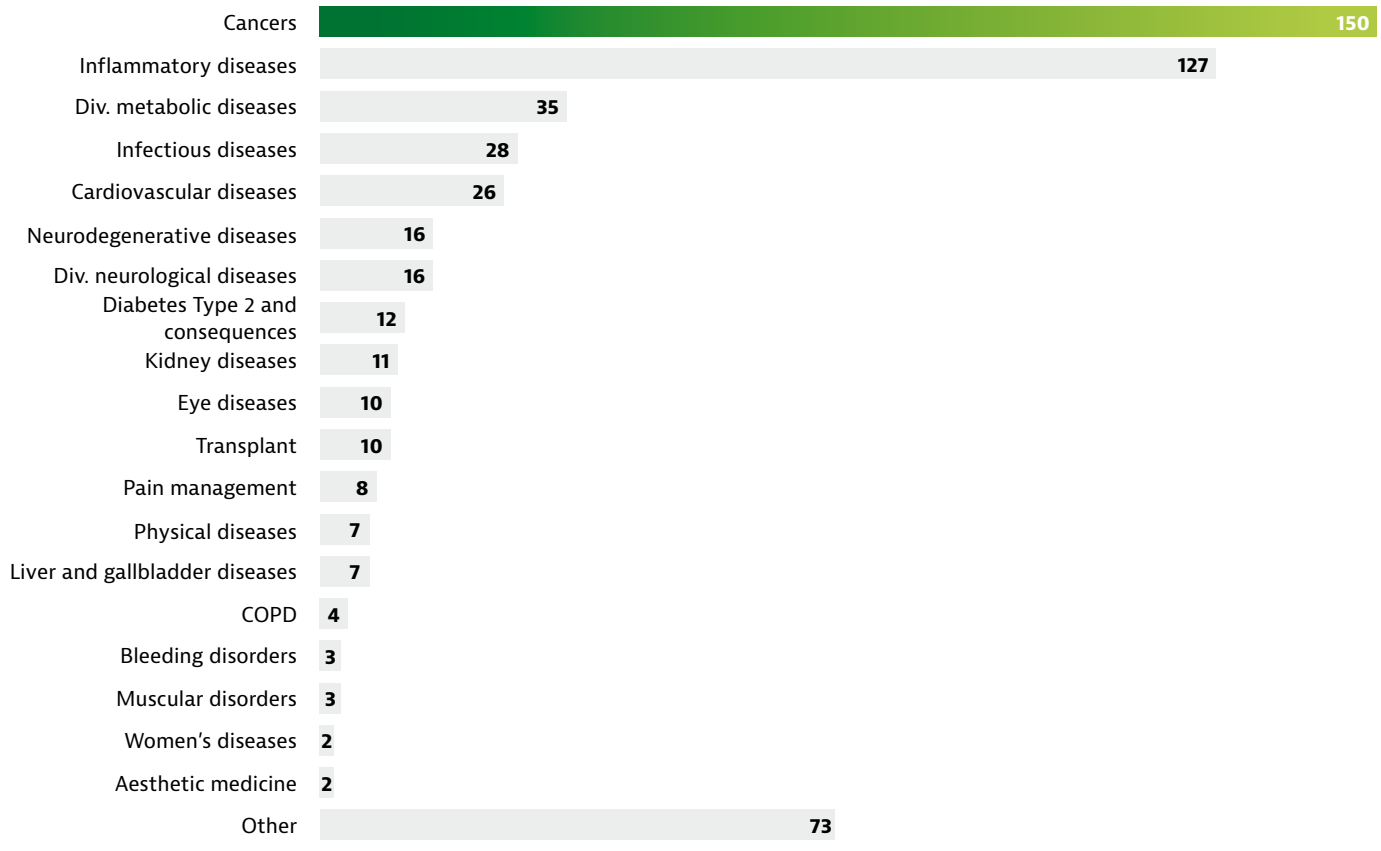
The Leader in Drug Approvals

The European Federation of Pharmaceutical Industries and Associations (EFPIA) examines whether and how quickly new drugs are available in the national health systems every year. One of the benchmarks is the time between approval and prescription, with Germany currently leading with an average of 50 days. For comparison: in Switzerland it takes 87 days, in England 297 days and 474 days in France. Germany's top position can be attributed to structural decisions early on and to procedural reliability. New drugs are reimbursed by the health insurers immediately after they have been approved. Discounts are only negotiated with the health insurance companies afterwards.

Strength in Clinical Trials

In 2019, Germany ranked fifth worldwide in clinical drug trials by pharmaceutical companies. Geographically located at the heart of Europe, Germany offers attractive conditions to integrate and manage study centers. German pharmaceutical companies have entered into major strategic partnerships with over 20 university hospitals active in clinical research in Germany and in collaboration with the "Koordinierungszentren für klinische Studien" (KKS - Coordination Centers for Clinical Studies). These German university hospitals strive to build up a new pipeline of promising new treatments. Germany's attractiveness as a clinical trial location is confirmed by statistics available in the international registry of ClinicalTrials.gov. According to vfa analysis, a total of 550 trials to combat 210 different illnesses took place in Germany in 2019.

Clinical Trials Focus in Germany 2019



Source: vfa (2020)

German Expertise

German pharmaceutical companies have extensive experience in bringing forward new drugs and therapies from lab to market. Whether it's drug discovery, drug development or drug manufacturing in traditional markets or innovative areas, whether it's large corporations or medium-sized companies, pharmaceutical products "Made in Germany" are highly appreciated all over the world. At the same time, international markets play an important role in the German pharmaceutical industry.

Here, leading representatives of three German pharmaceutical companies report on what makes their expertise so interesting for international partners, why global alliances and strategic partnerships are the key to successful business development and what they have learned from the corona pandemic.

As an independent family business, DR. KADE has been developing, producing and marketing high-quality medical products and devices both in the prescription and self-medication sectors since 1886. In 2020 the turnover from the business activities of DR. KADE amounted to approximately EUR 78 million. DR. KADE's products are represented by 23 partners in 24 countries.

InfectoPharm strives to improve children's health. Since 1988, the medium-sized company is focusing on pharmaceuticals for children and difficult-to-treat infections. Today, InfectoPharm runs a highly diverse portfolio of more than 100 products and engages in about 30 strategic partnerships globally. 180 employees contribute to the annual growth of this family-owned company.

Boehringer Ingelheim is a research-driven, family-owned large pharmaceutical company. Some 52,000 employees work in the three business areas of human pharmaceuticals, animal health and biopharmaceutical contract manufacturing. In 2020, Boehringer Ingelheim achieved net sales of EUR 19.6 billion. Generating 74 percent of total net sales, Human Pharma is the biggest business area of Boehringer Ingelheim.

Norma Freise-Otto
Head of International Business, DR. KADE Health-Care, Berlin

What distinguishes pharmaceuticals made in Germany in international comparison?
German companies score points for their tradition, experience and quality in the manufacture of pharmaceuticals. DR. KADE can look back on a history of high-quality pharmaceutical production since 1886. Our products are characterized by their high quality, we produce exclusively in Berlin and we source our raw materials and additives in Germany or the EU.

What can international partners expect from collaborating with DR. KADE?
Safety and quality come first with our branded products "made in Germany." The efficacy and safety of our preparations are proven. In addition, our expertise and experience from Germany as well as internationally allows us to promise our partners maximum support in the marketing of our preparations – both in terms of marketing and sales.

What are your most important "lessons learned" from the corona crisis for international business?
Shortages in the supply of medicines to Covid-19 patients and the public in general have posed major challenges to healthcare systems worldwide. The limited number of active ingredient manufacturers makes the great dependence of drug manufacturers abundantly clear. That is why it is important to strengthen Europe's position in the pharmaceutical sector in order to ensure continuous and reliable supply of medicines.

www.kade.de/en

Dr. Markus Rudolph
CEO, InfectoPharm Arzneimittel und Consilium Gmbh, Heppenheim

What distinguishes pharmaceuticals "made in Germany" in international comparison?
Germany is Europe's biggest pharmaceutical market and among the largest worldwide. Outstanding enterprises – such as Bayer, Merck and Boehringer – demonstrate that Germany offers attractive conditions for growth. This also applies to a large number of midsized, family-led companies like InfectoPharm. These "hidden champions" care for a wide range of specialized products. They operate at the heart of Europe, are embedded into global supply chains and enjoy close proximity to excellent research facilities.

What can international partners expect from collaborating with InfectoPharm?
InfectoPharm offers access to a high-quality and scientific-based product portfolio. We provide unique pediatric/dermatological products and indispensable antibiotics for difficult-to-treat infections. Our partners can rely on proven marketing concepts and solid medical and marketing support. We provide regular sales force training with modular marketing materials and the latest scientific information for health care professionals.

What are your most important "lessons learned" from the corona crisis for international business?
Corona taught the need for agility. We had to find pragmatic solutions to problems quickly. Transparency and communication were key factors throughout. How reliable is our supply chain? Is corona confronting us with abrupt changes in customer demands? We run a network of national and EU-wide contract manufacturers and a safety stock of core products to counter times of ambiguity.

www.infectopharm.com

Dr. Carinne Brouillon
Board of Managing Directors, Head of Human Pharma Business Unit, Boehringer Ingelheim

What distinguishes pharmaceuticals "made in Germany" in international comparison?
In Germany, innovative companies can rely on highly qualified employees. This is a great strength and one that provides the basis for top-level research. Boehringer Ingelheim shows impressively that Germany provides the necessary preconditions. To preserve this as an asset of the German site, a research-friendly regulatory framework is required to provide incentives for further investments.

What can international partners expect from collaborating with Boehringer Ingelheim?
Boehringer Ingelheim maintains strong global partnerships with companies from various sectors, which we would like to intensify. For example, an outstanding cooperation has been set up with Google in the area of quantum computing. We offer a high level of innovation in the development of medical treatments that we combine with a wealth of pharmaceutical sector experience.

What are your most important "lessons learned" from the corona crisis for international business?
The important issue of health has moved into the spotlight during the pandemic. It has shown the extent to which diseases can have a serious effect on all areas of social life and the economy. We need strong and innovative pharmaceutical companies to protect people from future pandemics and to create therapies that make a real difference. Part of this is an international exchange of knowledge and goods and an effective intellectual property protection. We need to intensify innovative research more than ever.

www.boehringer-ingelheim.com

Spotlight on Cancer

High Medical Need for New Treatments

Cancer remains one of the major health threats in developed countries, being the second most frequent cause of death in Germany. Cancer treatment is currently composed of five pillars: surgery, radiation, chemotherapy, targeted therapies and, most recently, immuno-oncological therapies. The German pharmaceutical industry has substantial activities in all of these five areas in joint collaboration with biotechnology companies.

With the "National Decade Against Cancer", the Federal Ministry of Education and Research (BMBF), together with many other partners, has launched a unique initiative. Their shared goal is to make decisive progress in cancer research and to involve patients closely in order to give them ever better opportunities for healing and recovery. Three main topics are in focus: "unsolved questions in cancer research," "prevention" and "generating knowledge by networking research and care".

Outstanding Research Infrastructure

With its globally renowned research centers and excellent clinical infrastructure, Germany offers outstanding opportunities for the research and development of new cancer drugs. The German Cancer Research Center (DKFZ) in Heidelberg ranks as one of the top locations worldwide in the field. Understanding in oncology has increased significantly due to intensive research activities. This has helped to identify novel targets and biomarkers for improving the efficacy of existing cancer therapies and diagnostics as well as bringing totally new drugs to the market. In the 10-year period from 2006 to 2016, some 36 drugs received conditional approval in Europe – 17 of which were cancer therapies. In 2019 alone, the European Medicines Agency (EMA) granted a further eight drugs with conditional approval including four preparations for cancer treatment.

Targeted Therapies for Personalized Cancer Medicine

German pharmaceutical and biotech firms continue to invest intensively in oncology research, creating the basis for new personalized therapies. They often pursue completely new approaches, such as bi- or multispecific antibodies, glycomodified antibodies, antibody-drug conjugates (ADCs), mRNA- and DNA-based approaches, oncolytic viruses, and cell therapies.

They are not yet able to overcome cancer but can help patients diagnosed with cancer to live longer. The new drugs approved in the past years were for the treatment of any tumor that has a certain gene mutation (an NTRK gene fusion) – regardless of the organ affected. This is where the changed understanding of cancer is put to practical use.

In 2019 and 2020, international pharmaceutical companies launched 10 new cancer drugs. In addition, they have been able to expand the area of application to other types and stages of cancer for many drugs that have already been introduced.

Germany's role is also essential when it comes to testing new cancer drugs in clinical studies with patients. German clinics and medical practices are currently involved in around 1,000 cancer studies initiated by pharmaceutical and biotech companies. This is equivalent to around 42 percent of all industry-initiated patient studies in Germany as a whole.

Expertise in Immunotherapies

Growing knowledge in immune biology and cancer research has enabled major advances, particularly in immuno-oncology. German immunologists and molecular biologists have uncovered a number of targets and signals within the immune system that serve as keys for mobilizing the immune response in the fight against cancer cells. Checkpoint inhibitors are currently the most well-known approach used in several cancer indications. Large pharmaceutical corporations and small and medium-sized biotechnology companies based in Germany have excellent, long-established expertise in developing novel immunotherapies that use different tools in the body's own immune system to address cancer indications.

Industry Associations

The German pharmaceutical industry is represented by a number of industry associations that lobby for improvements for their member companies. HEALTH MADE IN GERMANY works closely together with them to provide support for international companies seeking collaboration and partnerships with German companies active in the pharmaceutical sector. To further enhance sector visibility, we facilitate the presence of German players at relevant industry events and provide a platform for connecting with international partners.

.B.A.H
Bundesverband der Arzneimittel-Hersteller e.V.

BAH – German Medicines Manufacturers' Association

By company membership, the German Medicines Manufacturers' Association (BAH) is the leading trade organization of the pharmaceutical industry in Germany. It represents the interests of more than 450 member companies, which create about 80,000 jobs in Germany. Globally operating medicines manufacturers are as involved in the manifold activities of the association as well as the broadly represented medium-sized businesses. BAH covers the entire range of the industrial landscape from self-medication medicines (OTC) through to prescription drugs (Rx) and medical devices. The association is a close contact partner for politicians, authorities and institutions within the healthcare sector, and provides a strong link between various interest groups.
BAH represents its members at European and international level through the Brussels-based AESGP and the Geneva-based WSMI.

www.bah-bonn.de/en

BPI Bundesverband der Pharmazeutischen Industrie e.V.

BPI – German Pharmaceutical Industry Association

With 70 years of experience attending our member companies' needs regarding drug research, development, authorization, manufacturing and marketing, BPI is the national industry association which represents the pharmaceutical industry with all its variety. Around 270 member companies comprise the whole spectrum of the pharmaceutical industry, ranging from multinational corporations to SMEs, Mid-Caps as well as Start-ups. These companies ensure drug supply for all patients across the EU and globally. The members benefit from a wide range of services and support. BPI provides exclusive analyses and fast information for its members, current topics are presented and discussed in more than 50 committees and working groups. By providing information to decision-makers at federal, state, and EU level on the common interests of the industry, we shape the social and legal framework conditions for our industry.

www.bpi.de

vfa. Die forschenden Pharma-Unternehmen
Research-Based Pharmaceutical Companies

VfA – Association of Research-Based Pharmaceutical Companies

The vfa, the Association of Research based Pharmaceutical Companies, is the trade organization of research based pharmaceutical companies in Germany. Forty-five leading research-based pharmaceutical companies are organized in the vfa. Together with their more than 100 subsidiaries and affiliated companies, they employ more than 80,000 people in Germany. The vfa member companies are among the leading research-based pharmaceutical companies worldwide. They guarantee therapeutic progress in pharmaceuticals and ensure high-quality pharmaceutical therapy. In Germany more than 19,000 of their employees work in the field of research and development of pharmaceuticals. Here, the research-based pharmaceutical companies invest EUR 6,2 billion per year in pharmaceutical research. The Association of Research-based Pharmaceutical Companies represents a German high-tech industry that is competitive in the international markets.

www.vfa.de/en

HEALTH MADE IN GERMANY

Germany is one of the world's most important providers and exporters of healthcare products and services. The country's innovative medical products set international standards for quality, safety and reliability. German manufacturers and service providers in all health and life sciences segments attract overseas customers and partners and deliver leadership in healthcare innovation.

HEALTH MADE IN GERMANY is the export initiative for the German healthcare industry. It supports international companies and organizations that are interested in establishing contact with potential German partners and suppliers. Set up by the German Federal Ministry for Economic Affairs and Climate Action (BMWK), the initiative bundles expert market intelligence for easy industry access. One of the initiative's main goals is to promote the German healthcare sector through international networking activities for the mutual benefit of international partners and German companies alike.

HEALTH MADE IN GERMANY does this by providing proactive support (including market and regulatory insight), introductory services, and networking platforms including trade events at home and abroad. The initiative serves four major industries active in the international medical market: pharmaceuticals, medical technology, medical biotechnology, and digital health care.

HEALTH MADE IN GERMANY also works closely with 16 major German industry associations and is part of the BMWK's MITTELSTAND GLOBAL umbrella program for small and medium-sized enterprises. The initiative is ideally placed to provide access to German healthcare market information and to help overseas businesses identify potential German partners.

The HEALTH MADE IN GERMANY initiative is implemented by Germany Trade & Invest, the economic development agency of the Federal Republic of Germany, on behalf of the BMWK.

For more information:
www.health-made-in-germany.com

Our support for your business:

We publish market briefs, in-depth market studies and company directories of the German healthcare industry and its different sectors.

Our calendar is regularly updated with the latest industry events in Germany and overseas.

We take part in leading healthcare trade fairs all over the world, organize networking events and enjoy ongoing dialogue and exchange with international health policymakers.

We provide free access to 3,500+ German healthcare companies with our online database. Detailed company profiles and direct contact information help international businesses to identify potential suppliers and partners in Germany.

Visit www.health-made-in-germany.com for more information about the German healthcare industry and all HEALTH MADE IN GERMANY activities.

Expert Advice

Axel Lohse is the manager responsible for the medical biotechnology and pharmaceutical industries at HEALTH MADE IN GERMANY. He is your point of contact for expert advice in those fields and looks forward to receiving your inquiries and requests.

Get in touch with us to learn more about what HEALTH MADE IN GERMANY can do for you.

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About Us

Germany Trade & Invest (GTAI) is the economic development agency of the Federal Republic of Germany. The company helps create and secure extra employment opportunities, strengthening Germany as a business location. With more than 50 offices in Germany and abroad and its network of partners throughout the world, GTAI supports German companies setting up in foreign markets, promotes Germany as a business location and assists foreign companies setting up in Germany. All investment services and related publications are free of charge.

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