Statistics 2015

The Pharmaceutical Industry in Germany

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

Contents

The vfa is the trade association of the research-based pharmaceutical companies in Germany. It represents the interests of 47 leading global pharmaceutical companies and their more than 100 subsidiaries and affiliates in the areas of health, research, and economic policy. The vfa member companies make up about two-thirds of the German pharmaceutical market and employ more than 77,000 people in Germany, of which approximately 16,000 are engaged in research and development.

Dear readers,

2014 was an extraordinary year for medical innovations in Germany: With 49 new medications, research-based pharmaceutical companies successfully guided to approval more new therapy options than in the past 25 years!

Millions of patients now have better chances that their illnesses can be cured or alleviated. The vfa member companies are thus meeting the demands they have put on themselves. If all continues to goes well, the next few years can bring further breakthroughs with diseases that are thus far poorly treated or not yet treated at all. The company pipelines bode well (pp. 5 – 7)!

The production situation is also encouraging: Germany is again one of the world's leading countries in terms of pharmaceutical exports. In fact, two-thirds of all drugs produced in Germany are exported. Companies in Germany produce pharmaceuticals and deliver them to the entire world, including to the ever-stronger markets of Asia, Africa, and Latin America (pp. 13, 20).

The German pharmaceutical market, however, is showing little momentum. Although the lowering of the statutory rebate from 16% to 7% again led to an increase in revenue for companies in the domestic market, a price freeze and other regulatory measures have curbed the industry's contribution to the national economy (p. 17).

All this despite the fact that almost no other industry in Germany has a higher net value added per employee than the pharmaceutical industry. We are also far ahead in terms of research investment. Each day, research-based pharmaceutical companies invest more than EUR 14 million in the research of new products. One in five of our companies' employees works in research and development. Our companies' increased investment in fixed assets is incontrovertible proof that they see Germany as a country with lasting potential (p. 22).

A future-oriented sector like the research-based pharmaceutical industry is good for patients, the national economy, and society alike. A good framework is essential to maintaining this advantage. Thus, continuing to provide new and better medications in the future will require an alliance of all those involved.

Birgit Fischer
CEO of vfa

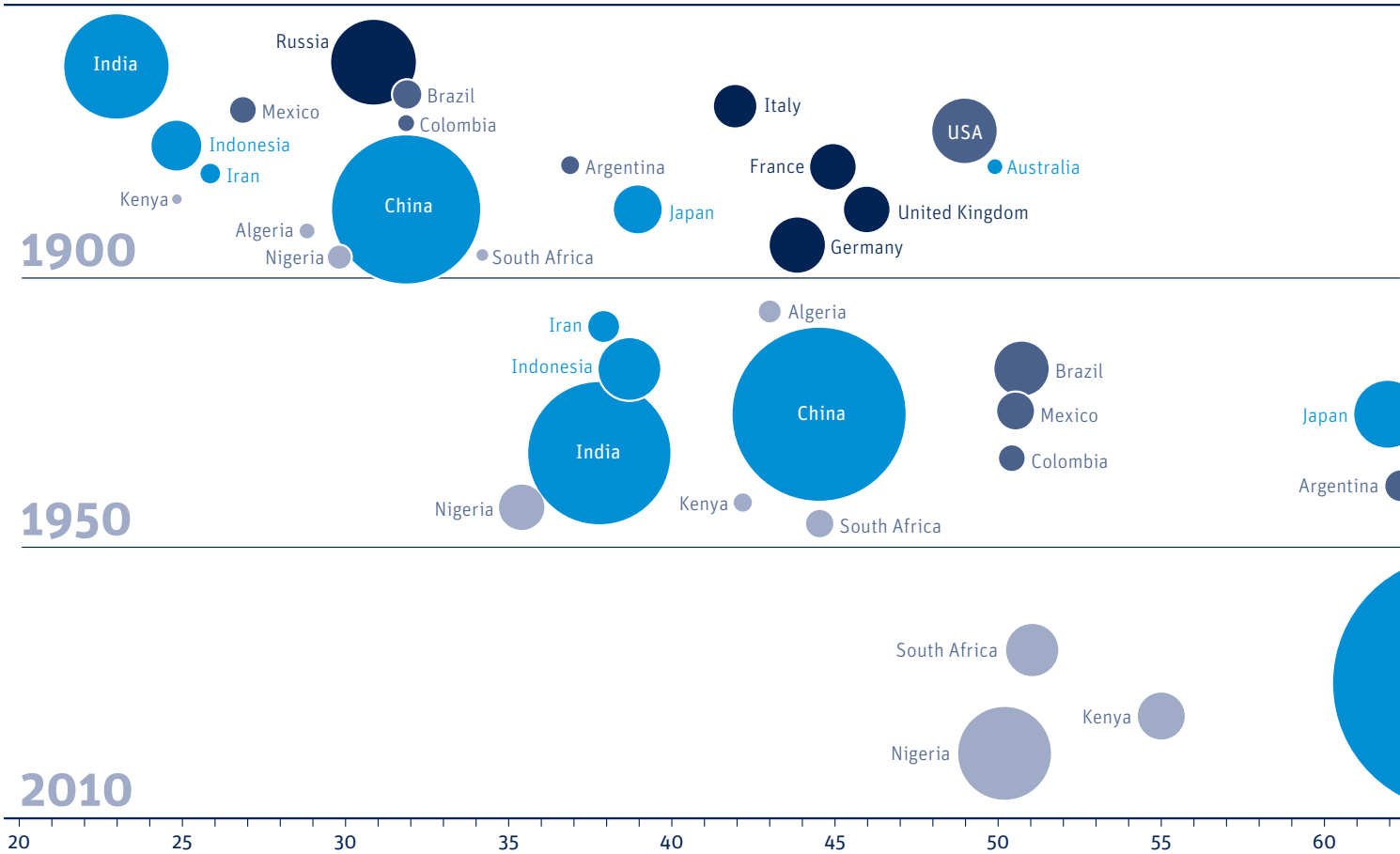
People

All over the world, people can thank medical progress for living longer than their predecessors, with the exception of those living in regions beset with war or other crises. Over recent decades, there has been a significant increase in life expectancy in emerging and developing countries, while those living in industrialized countries have also added years to their lives.

Ever better medicines have played a key role, yet there are many known illnesses that remain untreatable: Only around a third of the approximately 30,000 diseases known today can be adequately treated.

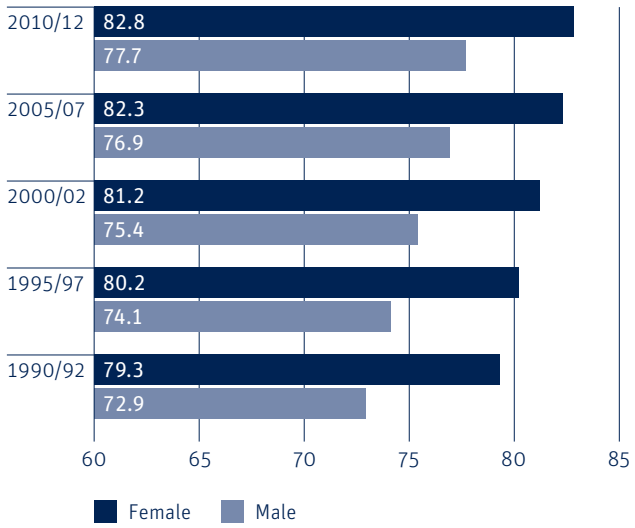
The research-based pharmaceutical companies of the vfa have accepted the challenge of researching and developing new medicines to combat the ever-growing number of diseases so that more people around the globe can receive suitable treatments and live longer and better lives.

1900–2000: The century of longer life expectancy
Global life expectancy at birth, in years



Life expectancy trends in Germany

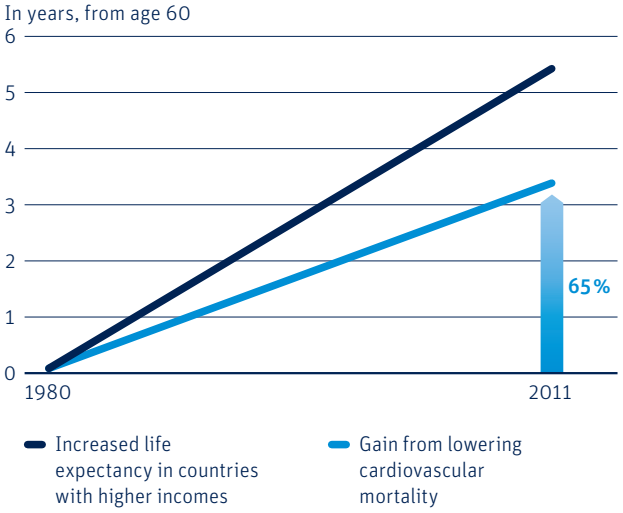
In years



Source: destatis

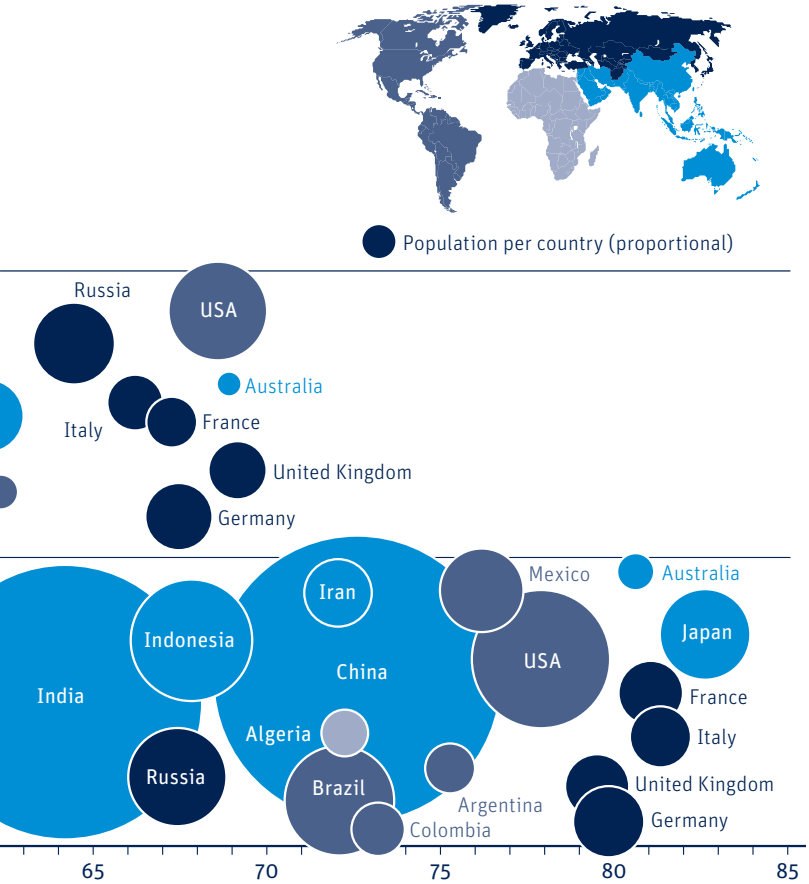
Thanks in part to new pharmaceuticals, average life expectancy in Germany has increased by three-and-a-half years for women and almost five years for men over the past 20 years. For instance, several drugs specifically designed to target tumors have significantly extended, in part, the average lifespan for many patients diagnosed with cancer.

Greatest gains in life expectancy from a lower rate of cardiovascular mortality



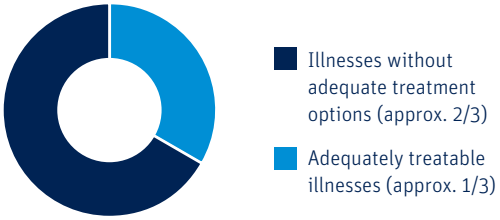
Source: Colin D Mathers, et al., "Causes of international increases in older age life expectancy", Lancet, Volume 385, No. 9967, pp. 540–548, February 7, 2015; Di Chiara A, Vanuzzo D.; "Does surveillance impact on cardiovascular prevention?", Eur Heart J 2009; 30: 1027-1029

Above all, the lowering of cardiovascular mortality through medical and pharmaceutical progress has resulted in a significant increase in life expectancy in countries with higher incomes.



The challenge of disease

Some figures about medical needs



30,000
known illnesses worldwide

120,000
new cases of Alzheimer's each year (in Germany, and rising)

175
new or reoccurring pathogens in the past 30 years

Source: vfa

Medicine

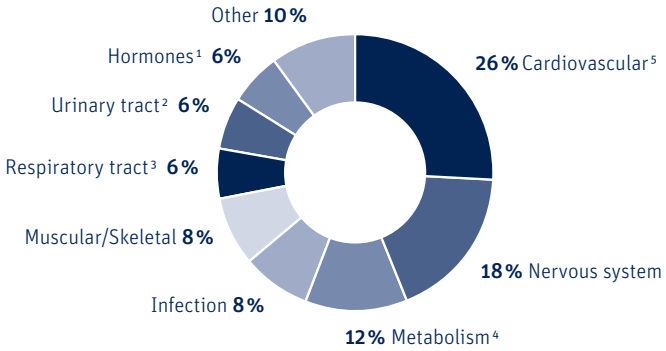
In the last year, Germany introduced 49 new drugs with new active ingredients – a record number. There were also drugs that were introduced in new dosage forms. Above all, these numbers include drugs to treat severe and life-threating illnesses such as cancer, infections, and pulmonary diseases. For patients with rare diseases, there were more new medications – so-called orphan drugs – than ever before.

In the coming years, we expect more significant advancements in numerous areas of medicine. Various cancer drugs figure heavily among those that could be approved by 2019. As life expectancy increases in Germany, so does the incidence of cancer.

More than a quarter of all medicines dispensed in Germany are focused on combating cardiovascular diseases.

Prescription drugs and their applications

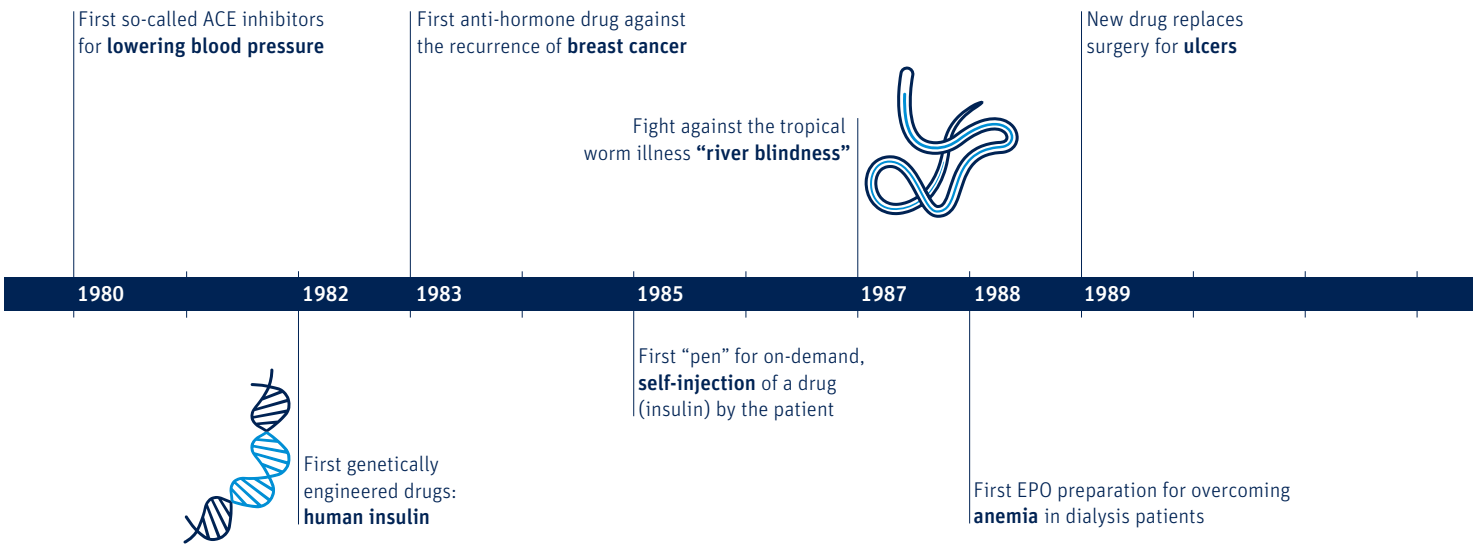
Packages sold by retail pharmacies in Germany in 2014



[1] Systemic hormones, unless assigned to other applications (q.v.)
[2] Including sex hormones, excluding anti-infectives
[3] Including hormones, excluding anti-infectives
[4] Including hormones (insulin)
[5] Including hormones

Source: vfa

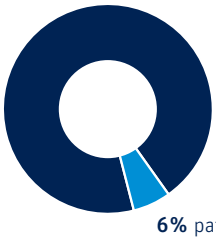
Milestones in pharmaceutical development



All information relates to the year in which the drug was first marketed internationally or received approval for the stated application; covering innovations since approx. 1980.

Patented drugs (2014)

Medical prescriptions in Germany

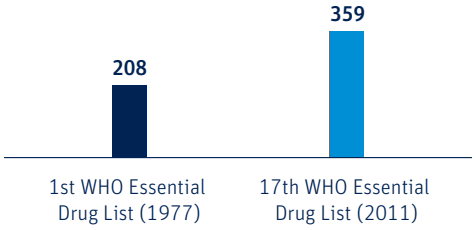


Source: vfa

Only six percent of medical prescriptions in Germany involve patented drugs.

Essential medicines

Listed active ingredients

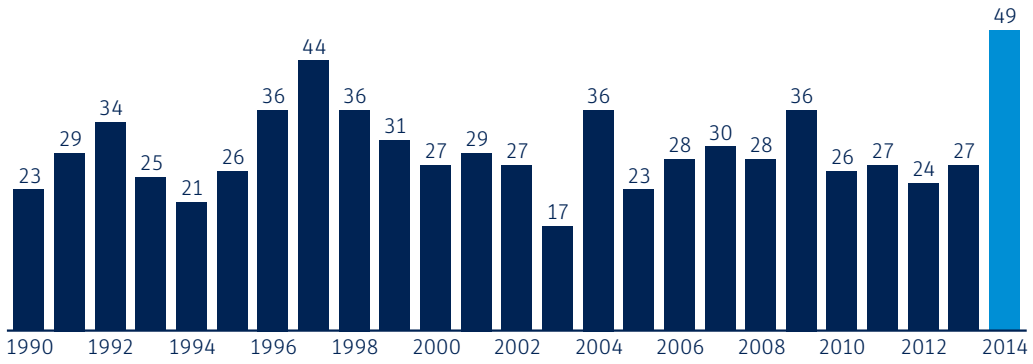


Source: WHO

The World Health Organization maintains a list of essential drugs sorted by active ingredients. Since 1977, the number of essential drugs has nearly doubled according to WHO.

Market launches of drugs with new molecular entities in Germany (2014)

Number (not including biosimilars)



Source: Pharmazeutische Zeitung (through 2002), vfa (since 2003)

On average, research-based pharmaceutical companies introduce more than 25 innovative drugs for patient care in Germany each year. 2014 was a particularly good year in this regard.

1993

First drug to reduce relapse rates for **multiple sclerosis (MS)**

1996

First orally administered drug to treat **erectile dysfunction**

First antibody preparation against a specific **cancer** (non-Hodgkin's lymphoma)

1998

First antibody therapy for **breast cancer** metastasis

Multi-drug resistant **malaria** cured with a new combination of drugs

Medication against the risk of **HIV** infection for children during birth

1999

2000

2001

First drug that can transform **chronic myelogenous leukemia** into a chronic illness

Continued on page 6

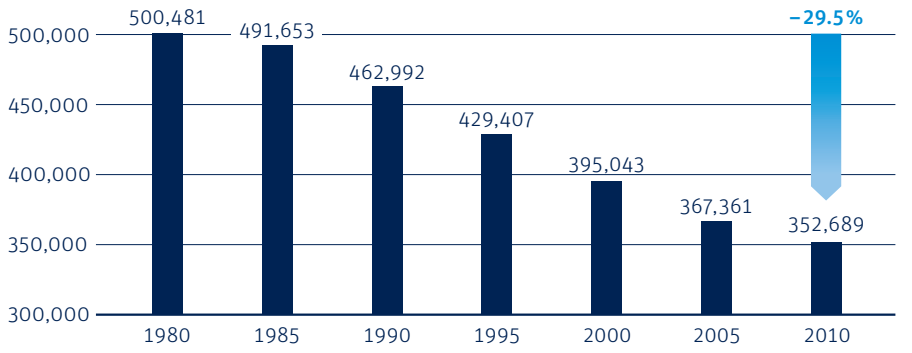
Drug combinations to prevent people infected with HIV from developing **AIDS**

Chance to cure **hepatitis C** using a combination of drugs

With more than 350,000 mortalities in 2010, cardiovascular diseases are still the leading cause of death in Germany. However, since 1980, the number of deaths due to cardiovascular diseases has decreased by around 30 percent. New, effective drugs for high blood pressure, stroke prophylaxis, and for secondary prevention of heart attacks, among other diseases, are partly responsible.

Deaths due to cardiovascular diseases

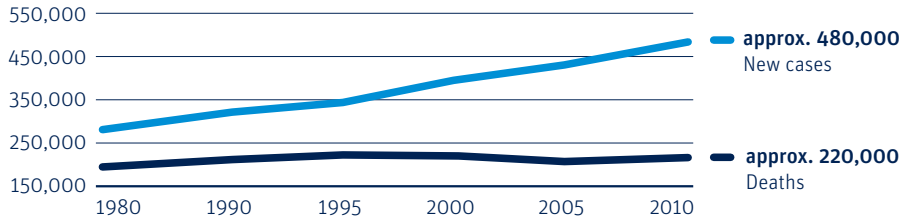
Number



Source: vfa

For years, the number of new cases of cancer has been on the rise. However, new medications have succeeded in stabilizing the number of deaths due to cancer.

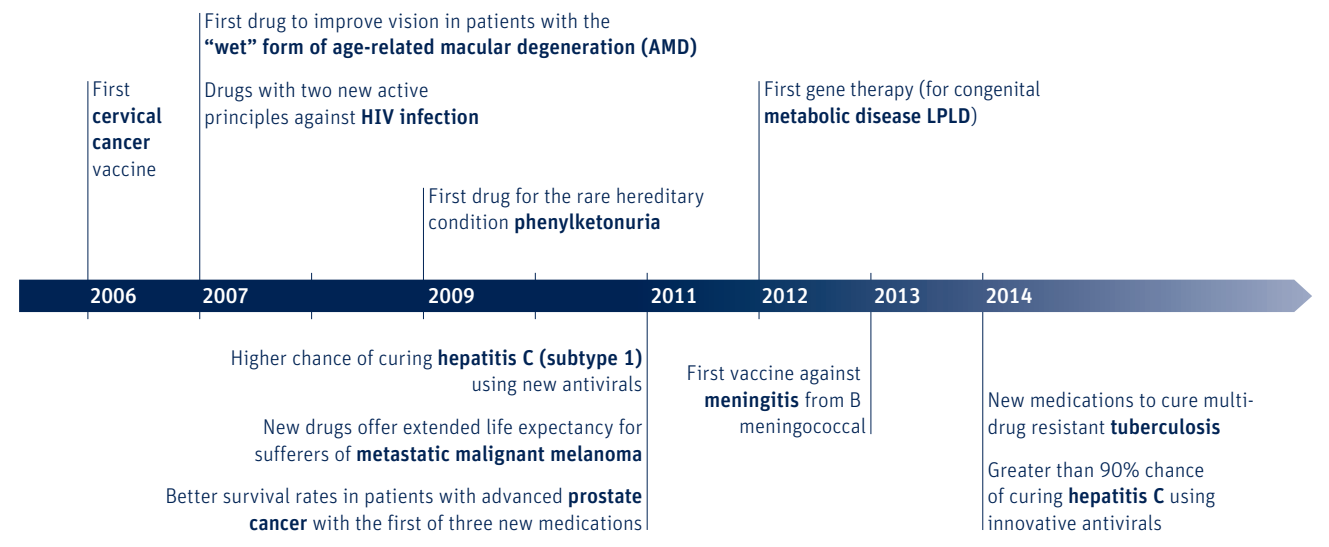
Cancer: new cases and deaths in Germany



Source: RKI

Further milestones in pharmaceutical development

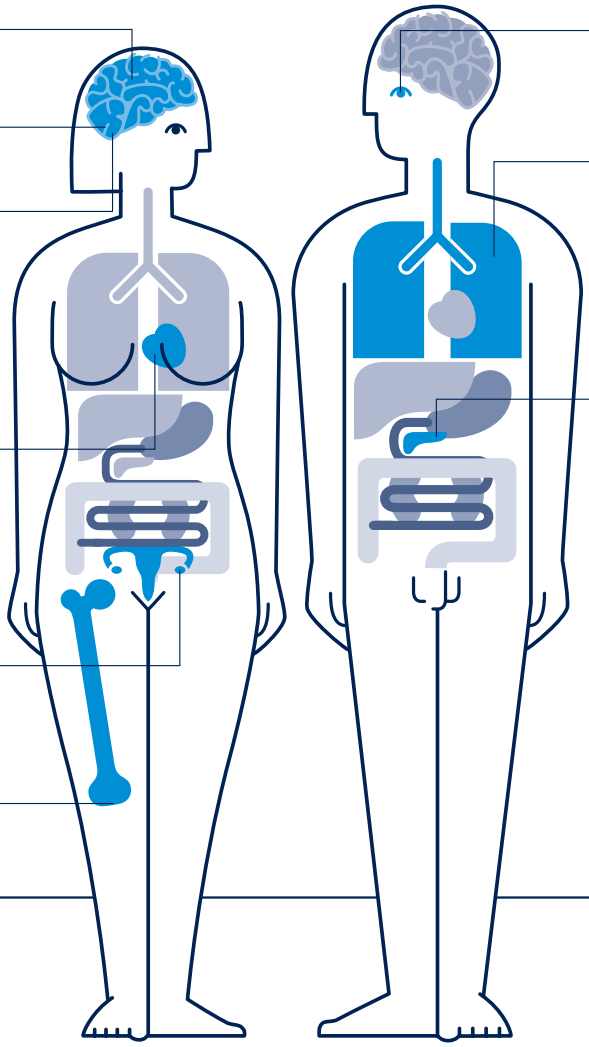
Continued from page 5



All information relates to the year in which the drug was first marketed internationally or received approval for the stated application; covering innovations since approx. 1980.

Pharmaceutical projects of vfa companies promising approval by 2019

Distribution in various medical fields; total number of projects: 328



12 Projects in the field of **pain**

6 Projects in the field of **mental illnesses**

4 Projects in the field of **neurodegenerative diseases**

7 Projects in the field of **other diseases of the nervous system**[1]

25 Projects in the field of **cardiovascular diseases**

58 Projects in the field of **inflammatory disorders**

2 Projects in the field of **female-specific diseases**

2 Projects in the field of **osteoporosis**

3 Projects in the field of **eye diseases**

5 Projects in the field of **chronic obstructive pulmonary diseases**

50 Projects in the field of **infectious diseases**

9 Projects in the field of **type 2 diabetes**

4 Projects in the field of **other metabolic disorders**

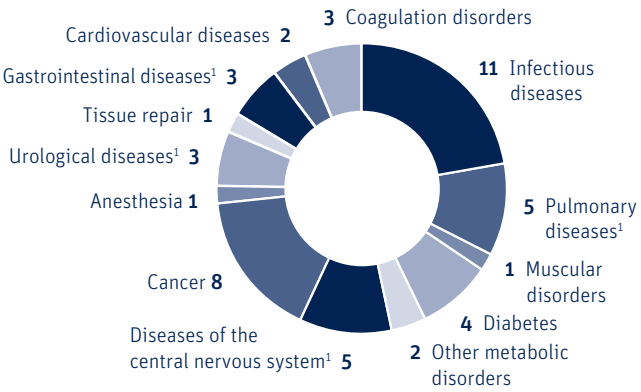
6 Projects in the field of **blood abnormalities**

111 Projects in the field of **cancer**

24 Projects in **other fields of medicine**

As of: August 2015
Source: vfa
[1] Not including cancer

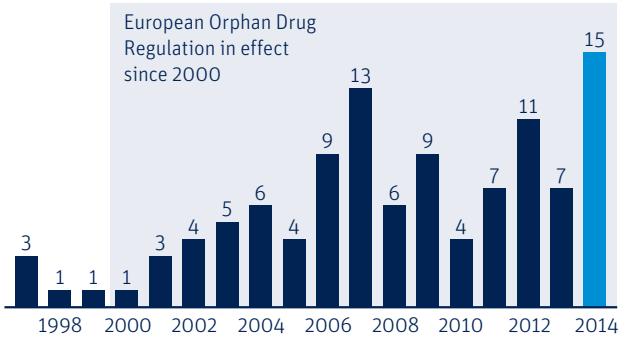
49 medications with new molecular entities in 2014 and their applications



[1] Excluding infections and cancer
Source: vfa

In 2014, infectious diseases and cancer were the therapy areas for which the most new drugs were approved.

Marketing authorizations for medications with orphan drug status[1] (number in the European Union)



[1] Before 2000: drugs that would have qualified for the status

Source: vfa

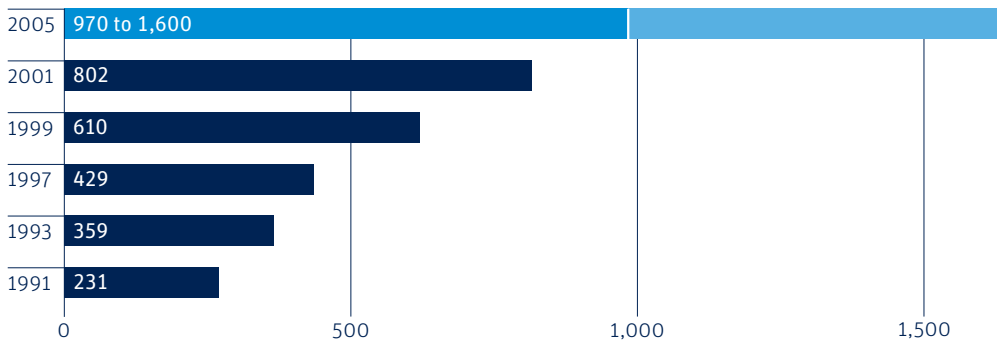
84 medications with orphan drug status are currently authorized (a continually updated list can be found at www.vfa.de/orphans).

Research

vfa member companies are currently conducting research projects on more than 120 different illnesses, including common diseases such as type 2 diabetes and prostate cancer, rare diseases such as cystic fibrosis and congenital metabolic disorders, as well as diseases such as Ebola and Schistosomiasis, which occur almost exclusively in emerging and developing countries.

Yet, the path to a new drug is long: From the initial concept to approval, the process takes on average 13.5 years. And of the small number of newly invented drugs that are selected for human trials, only every ninth drug receives final approval. This is why almost no other sector invests as much time and money in research as the research-based pharmaceutical companies: over USD 100 billion in 2013 alone.

Development costs for a new pharmaceutical[1]
In USD million

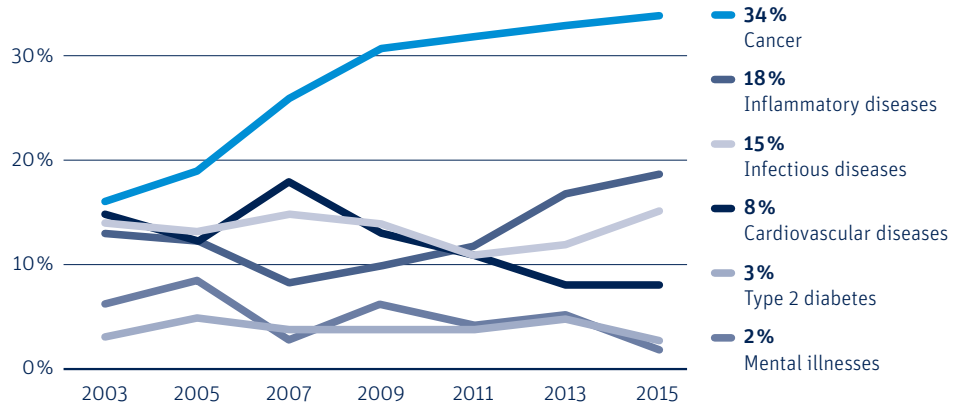


More than half of the costs in 2005 were for clinical development, especially on logistically expensive, multinational phase III studies.

[1] Failures and costs of long-term capital commitment included
Sources: Di Masi J., et al., Tufts University (1991); Office of Technology Assessment (1993); Myers and Howe (1997); Office of Health Economics & Lehman Brothers (1999); Tufts University (2001); "The current state of innovation in the pharmaceutical industry" (Report for the European Commission, June 2008)

Distribution of vfa-member projects across various therapy areas (selection)

100% = All advanced-stage drug projects of vfa companies according to a vfa survey for the stated year. Only projects that could achieve approval within 4.5 years were included.

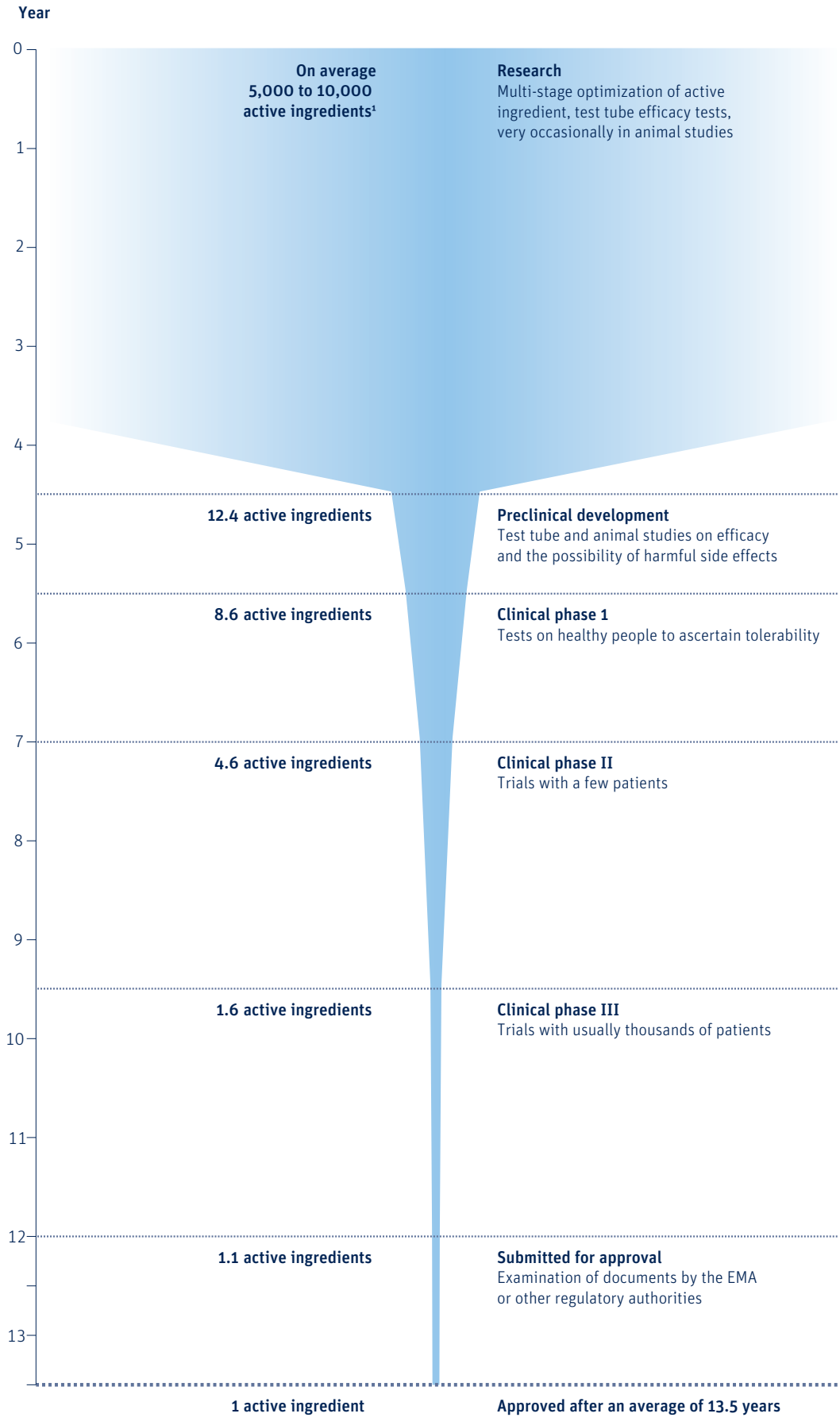


One-third of all projects are focused on improving cancer therapy.

Source: vfa

Only a few active ingredients prove successful

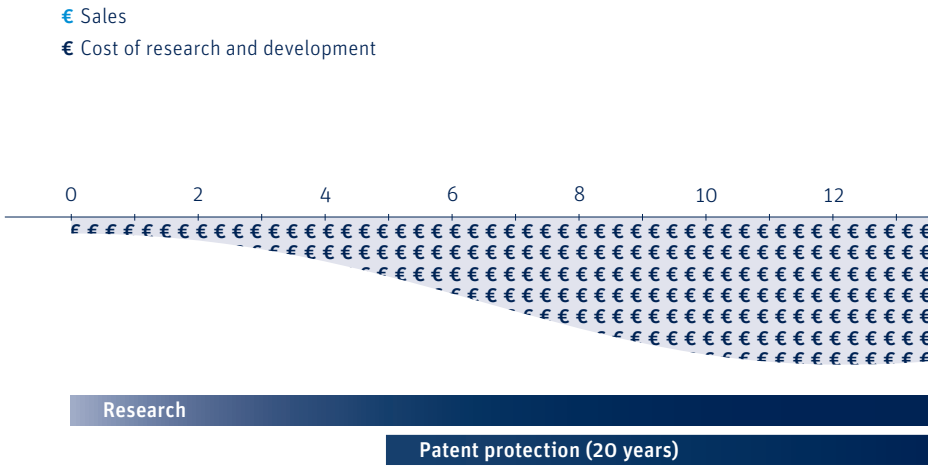
It takes an average of 13.5 years for a drug to go from concept to approval. Even then, many projects make it to the final stages of clinical development, only to fail.



According to Paul, S.M., et al.: *Nature Reviews Drug Discovery* 9, pp. 203–214 (2010)
¹ These are newly synthesized during the research phase; vfa estimate.

A new drug only receives market authorization after an average of 13.5 years of research and development. Only then does it begin to generate revenue, with only a short span of its 20-year patent protection remaining.
During the marketing phase, the drug is subject to additional development costs: for licensing requirements, for further development of the drug for children, and for other clinical and non-interventional studies to improve the application of the drug.
Early on, the drug must already compete with other drugs for the same application. And when its patent protection expires, all other capable producers can copy the drug (with a so-called generic or – in the case of biopharmaceuticals – a biosimilar). The original manufacturer is left with severely diminished revenue, yet its invention and application expertise remain a lasting contribution to medical science.

Lifecycle of a drug

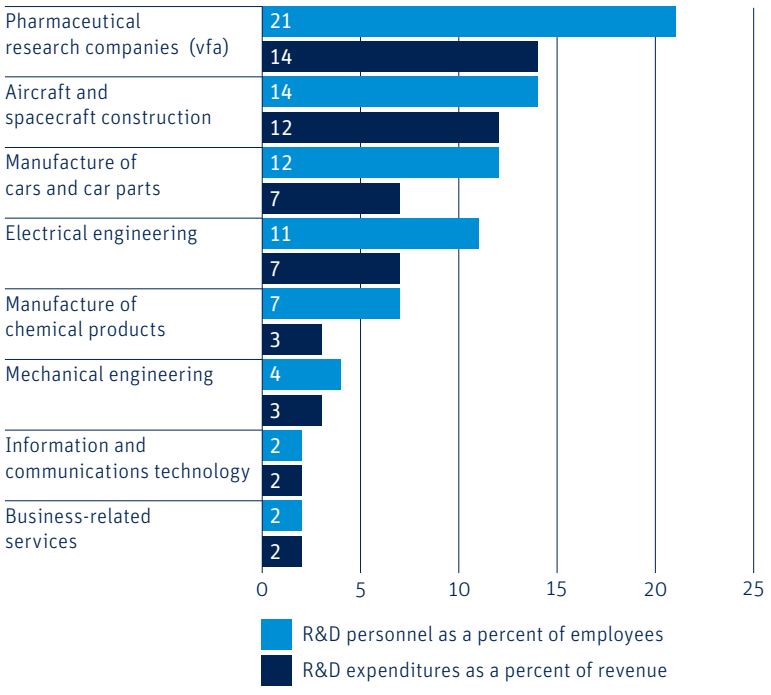


Source: vfa

In terms of the percentage of employees that work in R&D and R&D expenditure, research-based pharmaceutical manufacturers are among the most research-intensive sectors in Germany. Only aircraft and spacecraft manufacturing has similarly high levels of research.

Germany's strongest industries in terms of research

Share of R&D personnel and R&D expenditures

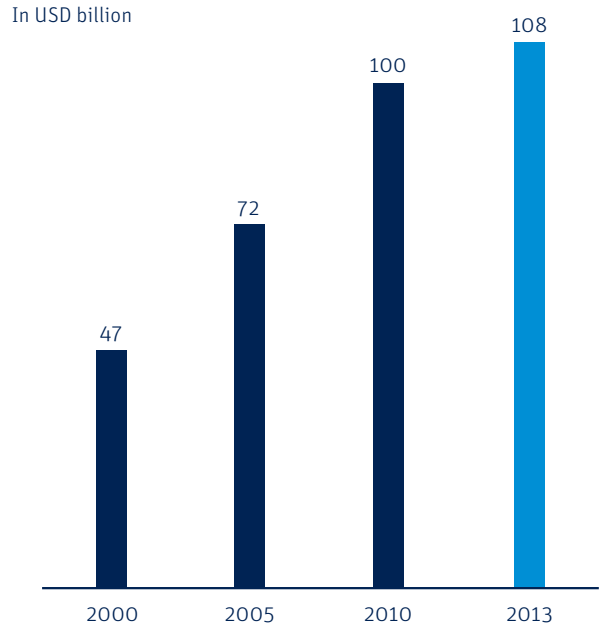


As of: 2013
Source: destatis, Stifterverband, vfa

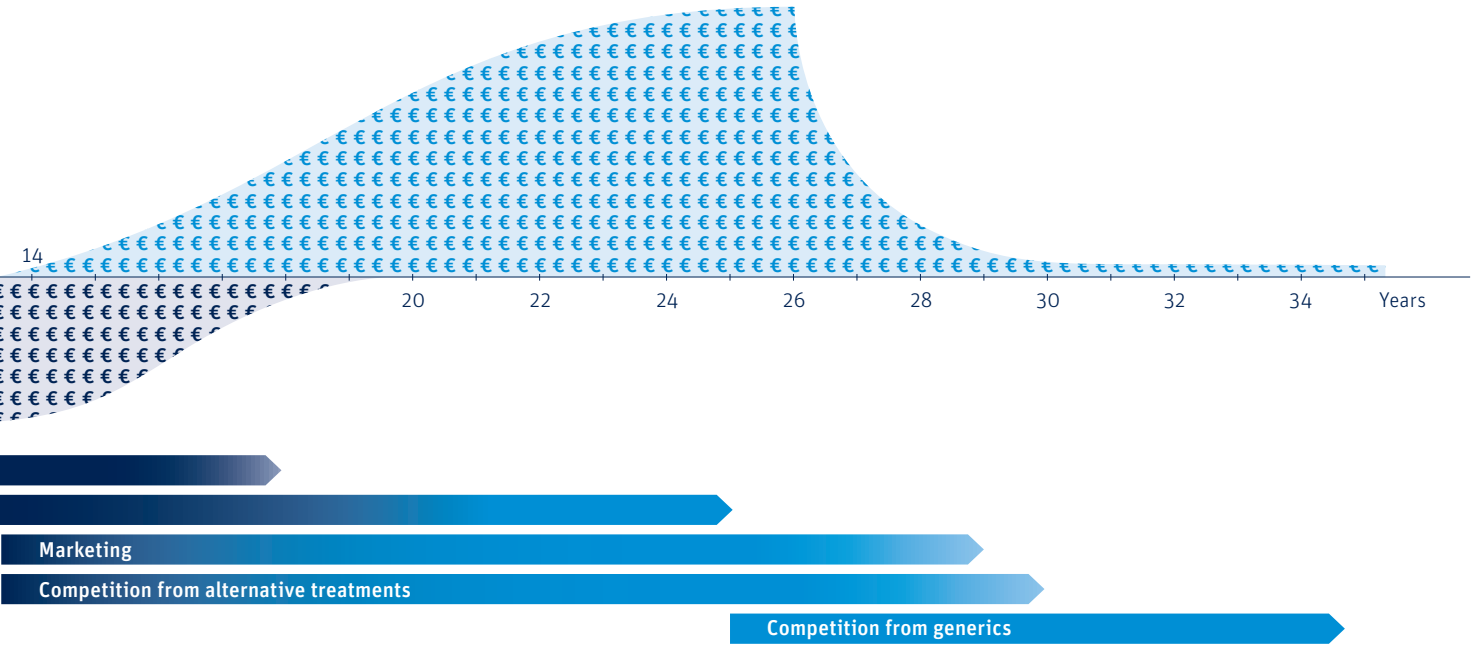
Research expenditures of pharmaceutical manufacturers worldwide again increased significantly in 2013. With 7 percent, Germany's R&D expenditures are higher than those of all other countries except the USA and Japan.

R&D expenditures

Worldwide

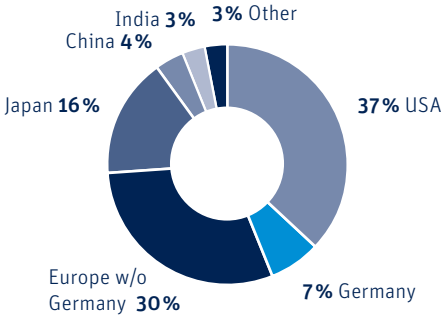


2013: provisional data
Source: EFPIA, PhRMA, vfa

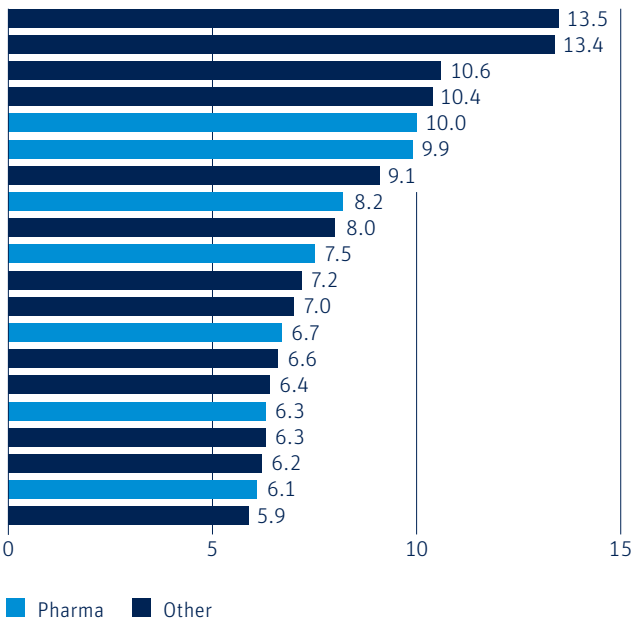


Ranking of the 20 companies with the highest expenditures in R&D

Share (2013)



2014 expenditures in USD billion



Source: Strategy&

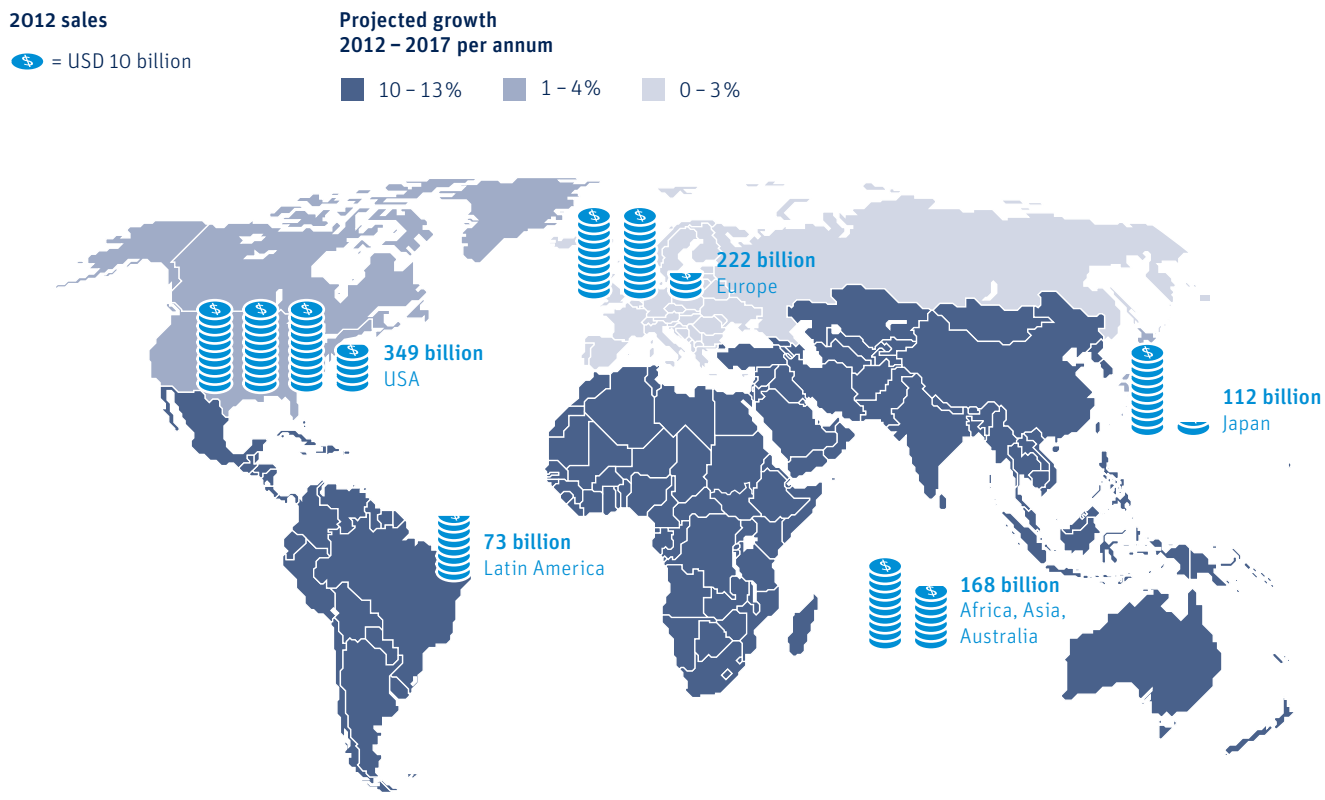
R&D expenditures of pharmaceutical manufacturers in Europe, Japan, and the USA reached around USD 108 billion in 2013. No fewer than seven pharmaceutical companies – all members of the vfa – are among the 20 companies with the world's highest research expenditures.

The International Pharmaceutical Market

The worldwide pharmaceutical market is growing: It now accounts for around USD 1 trillion. The reason for this is that more and more people have access to an ever more comprehensive supply of medications, which in turn has a positive effect on life expectancy. The rest of the world is catching up with the traditional industrialized countries. Not only do emerging countries expect strong market growth, annual growth rates of higher than 10 percent are forecast for developing countries as well. Growth in industrialized countries will see a modest decrease or even stagnate.

In a Europe-wide comparison, Germany's per capita pharmaceutical expenditure ranks in the middle range. However, taxes and duties are higher in Germany than in any other European country.

Sales and projected growth

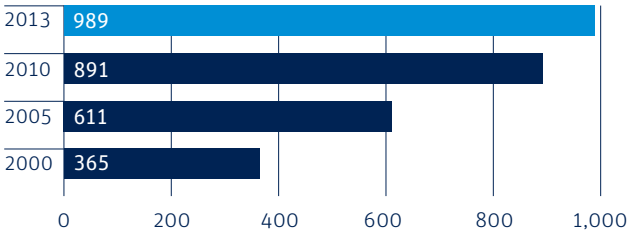


Source: IMS Health, vfa

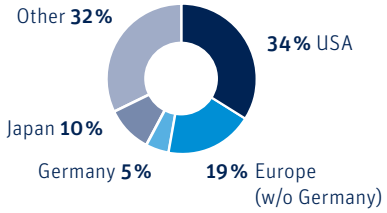
The countries in Latin and Central America, Africa, and Asia show signs of the highest growth over the coming years, while the traditionally strong markets in the USA, Europe, and Japan will experience significantly less growth, or none at all.

International pharmaceutical market

In USD billion



Share (2013)

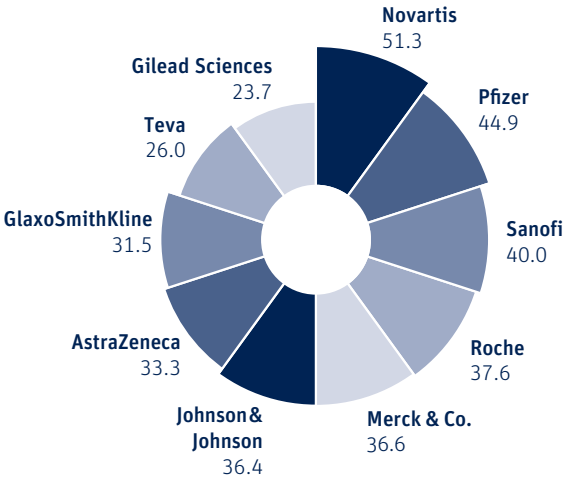


Sales at manufacturer prices for pharmacies; Source: IMS Health, vfa

Global pharmaceutical sales have almost tripled since 2000. The USA, with around 34 percent, is still the world's largest single market, followed by Europe and Japan. However, the share of the "big three" is decreasing. The rest of the world combined accounts for over 30 percent of sales, perhaps even more considering the unreliability of data. The Latin American and Asian markets are developing most strongly.

The largest pharmaceutical companies in 2014

Sales in USD billion (only pharmaceutical sales)

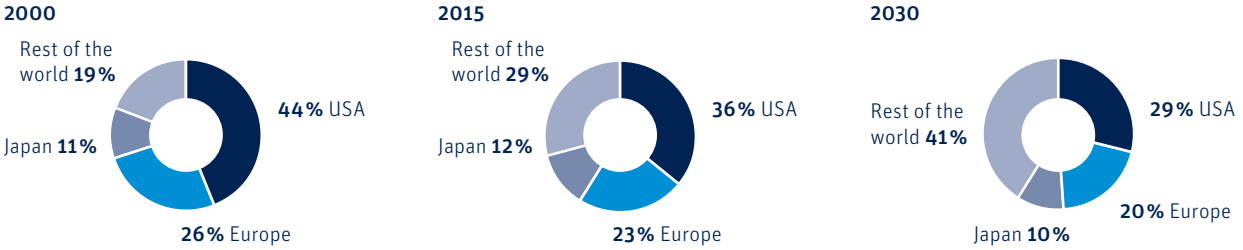


Source: IMS Health

The world's eight largest pharmaceutical companies are members of the vfa. Sales, and thus rankings, have decreased in recent years due to corporate mergers and patent expiration.

The rise of "pharmerging markets"

Share of global sales



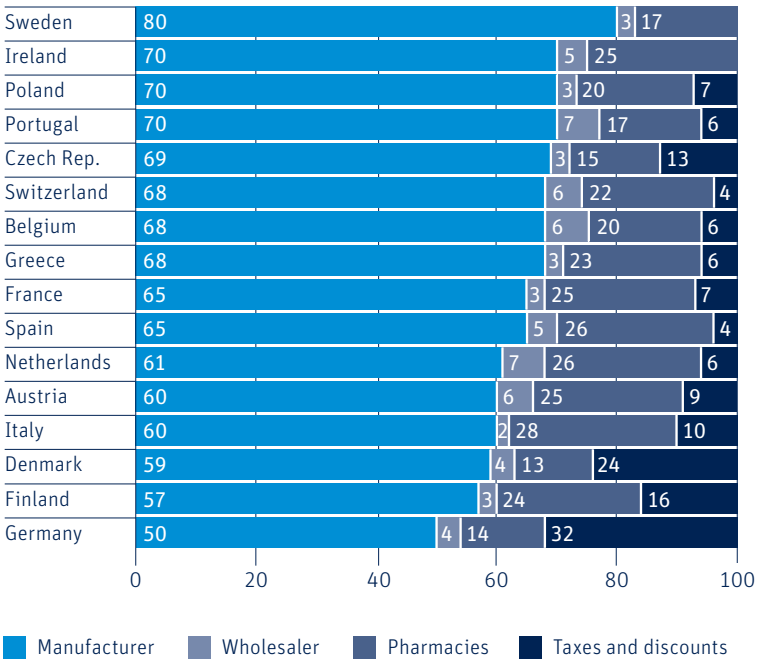
Source: vfa

The share of the "big three" – USA, Europe, and Japan – will continue to decrease. The rest of the world, which currently accounts for more than a quarter of sales, will grow in importance.

With a manufacturer's share of 50 percent of the retail price, Germany is located at the bottom of a European ranking. With the combined statutory rebates for manufacturers and pharmacies, duties amount to 32 percent of the end price, the highest such rate in Europe. In most other European countries, tax burdens for pharmaceuticals are reduced or altogether waived.

Pricing structure in Europe

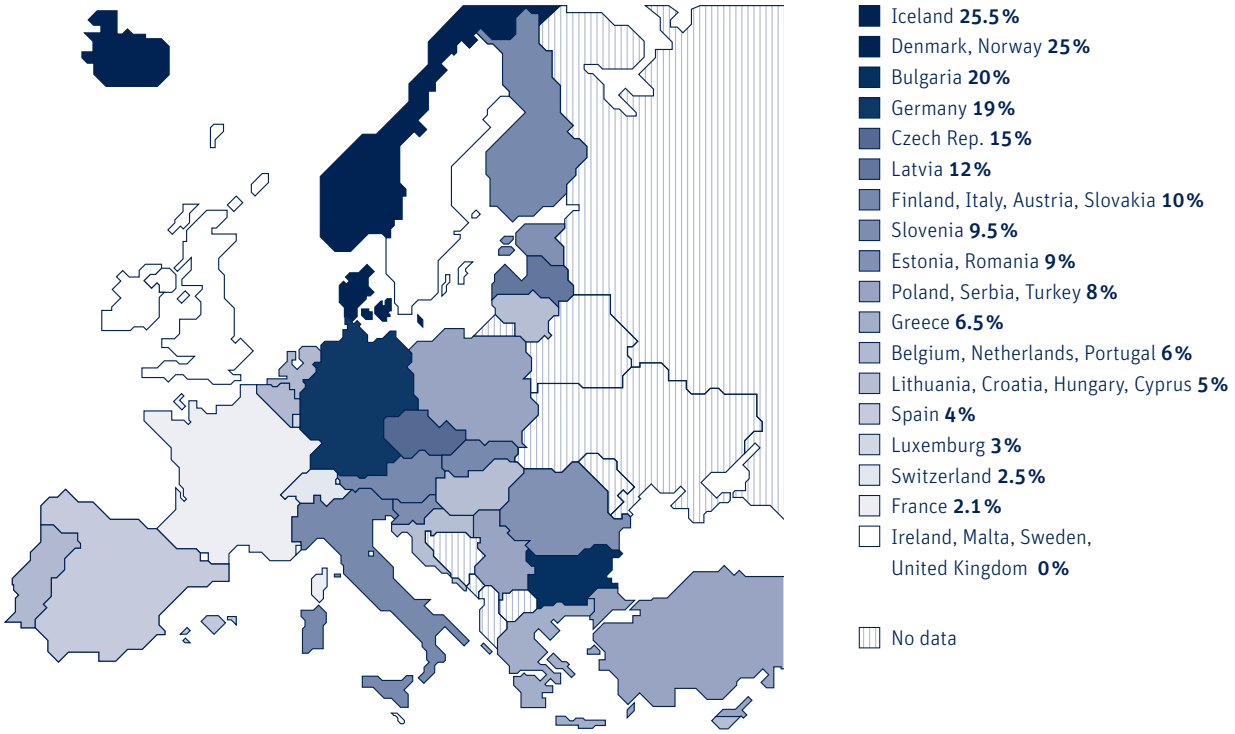
Share in percent



Prescribed or reimbursed pharmaceuticals; as of 2013 (Germany 2014)
Source: EFPIA, Pharmaceutical associations of European countries, vfa

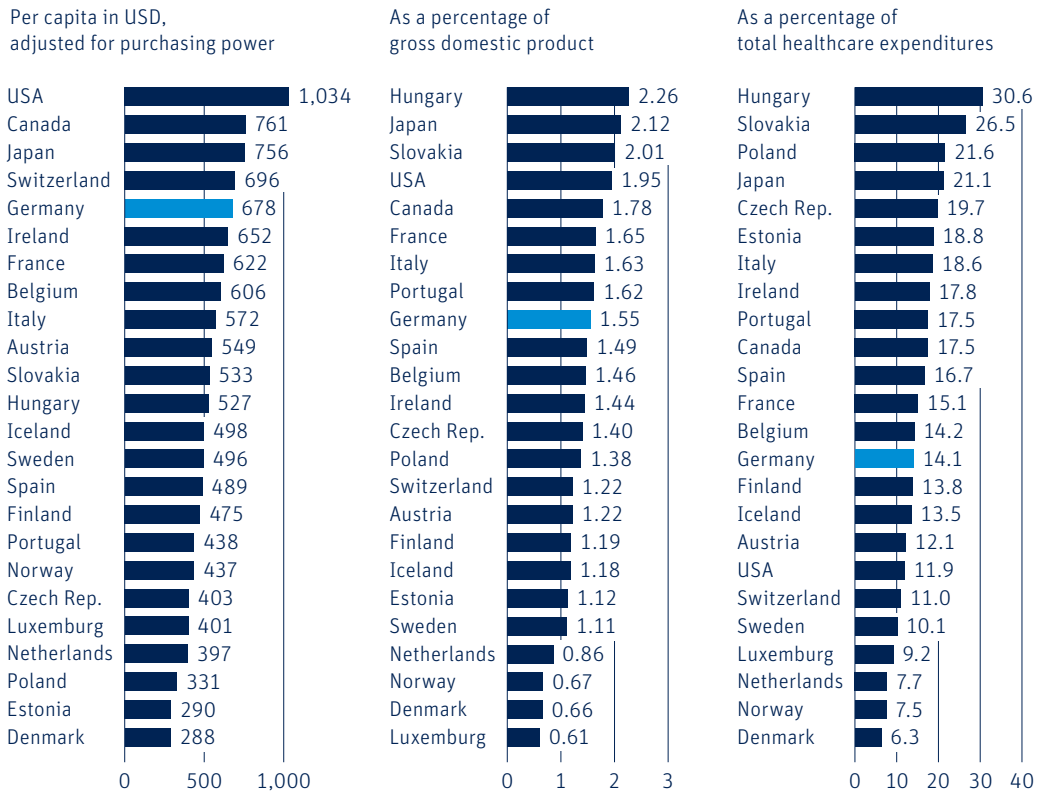
Value added tax on pharmaceuticals

European comparison



As of: 2014
Source: vfa

Pharmaceutical expenditures

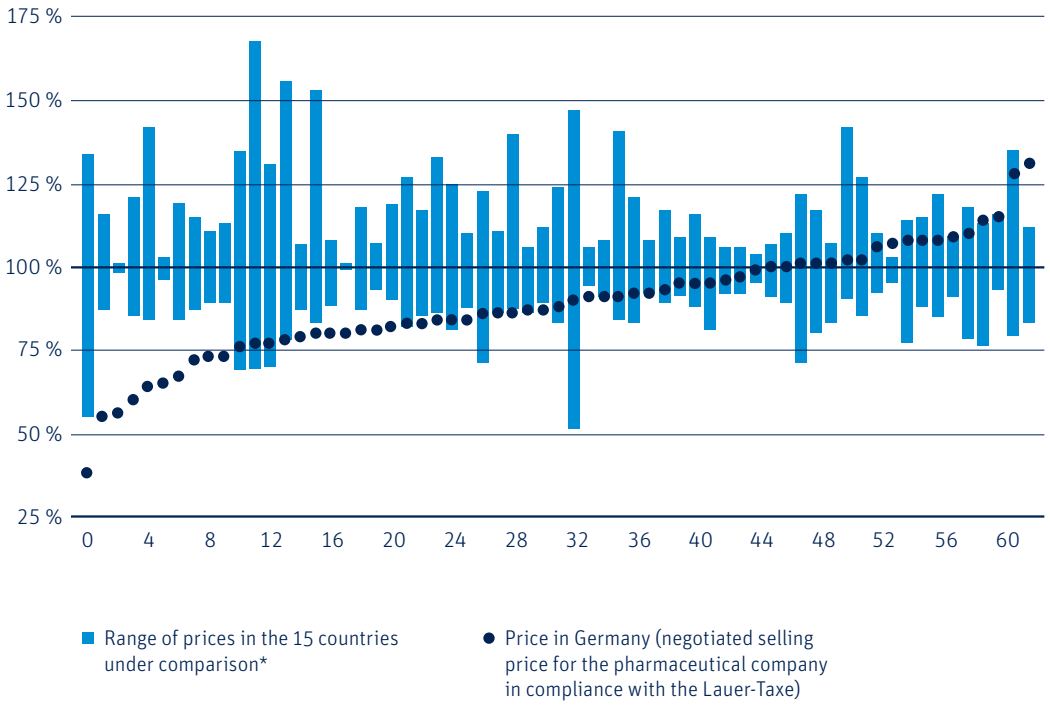


As of: 2015
Source: OECD

In an international comparison, Germany ranks in the middle-to-upper range for per capita expenditures on pharmaceuticals. When taking into account economic performance (measured as gross domestic product) or other healthcare spending, Germany falls into the middle range of the comparison scale.

Prices for new medications in a European comparison

Negotiated reimbursement prices for 63 new drugs in Germany in comparison to the prices in 15 European countries* (100% = average price)



Source: ÖBIG, Lauer-Taxe (as of: May 2015)
* DNK, SWE, FIN, CZE, AUT, SVK, GRC, ITA, ESP, PRT, FRA, BEL, IRL, GBR, NLD

Since the introduction of the AMNOG in 2011, in most cases the reimbursement amounts for newly introduced drugs are below average in a European comparison, while some even fall at the bottom of the comparison scale.

The German Pharmaceutical Market

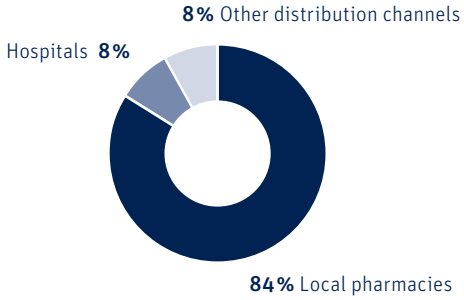
Total health expenditures in Germany rise hand in hand with increased expenditures on drugs. The lowering of the elevated mandatory discount in 2014 from 16 percent to 7 percent is reflected in a boost in company sales, which rose from EUR 16 billion to EUR 18 billion. After inpatient treatment and office-based doctor's care, pharmaceuticals are the third largest expenditure item for the statutory health insurance system.

And this despite an overall trend of continually decreasing prices: While other expenditures for private consumption have risen almost 25 percent since 2000, drugs have become cheaper by about 15 percent over the same period.

Contractual and statutory discounts totaled almost EUR 5 billion in 2014.

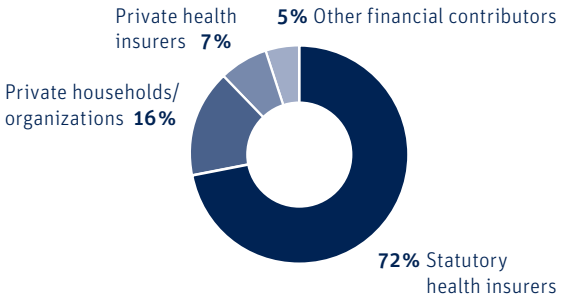
The local pharmacy is still the most important source for pharmaceuticals. On average, three-quarters of the cost is covered by statutory health insurers.

How do drugs reach the patients?



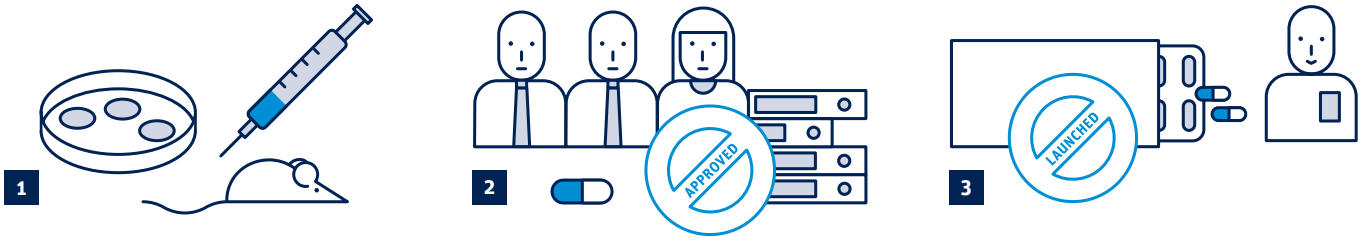
Source: destatis

Financing of pharmaceuticals



Source: destatis

How does a new drug enter the market?



Testing
Drugs are tested for efficacy, safety, and technical quality before being submitted for approval. This includes required tests with cell cultures and animals, then on healthy individuals, and finally on patients.

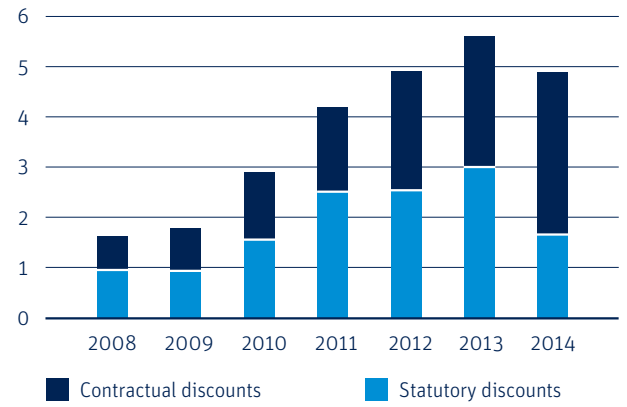
Approval
Experts at the relevant authorities examine the results of all laboratory tests, animal tests, and studies as well as the technical quality (e.g. purity) of the drug. If the result of their review is positive, the drug is approved.

Market launch
The drug enters the market and can be prescribed to patients. Doctors, manufacturers, and authorities monitor for any possible, rare side effects. The package insert is constantly updated.

Source: vfa

Discounts provided by pharmaceutical companies

In EUR billion



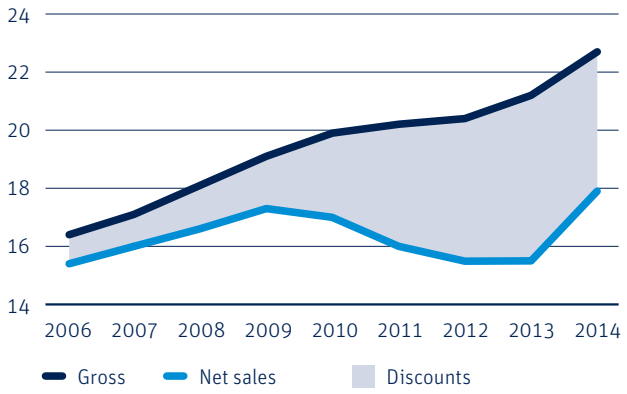
Source: Federal Ministry of Health, IGES, vfa

After the temporarily elevated discount expired, the statutory rebates decreased to EUR 1.64 billion in 2014. However, the additional contractual rebates subsequently rose by EUR 300 million to EUR 3.15 billion in 2014 (provisional data). Discount agreements are increasingly being concluded for patented innovations.

The pharmaceutical manufacturer receives half of the list price of a prescribed medication. The other half is split between sales tax, the discounts – which must be accorded by the pharmaceutical companies and the pharmacies of the statutory health insurance system – and the compensation for the services of the pharmacy and wholesaler.

Manufacturer sales in the SHI pharmaceutical market

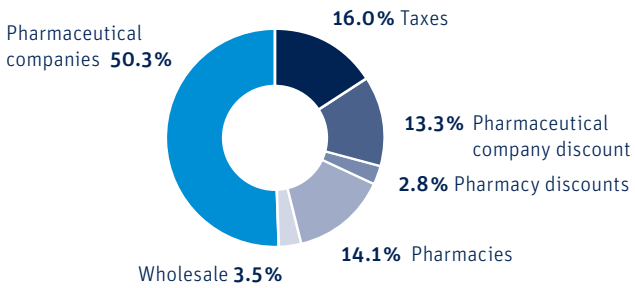
In EUR billion at pharmaceutical company prices



Source: InsightHealth, Federal Ministry of Health, vfa

Price structure in the SHI pharmaceutical market in 2014

Percent share of the retail price (list price) in pharmacies



Source: InsightHealth, vfa

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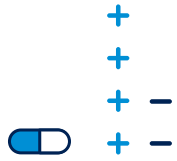


Benefit analysis

A scientific review determines whether a drug has any additional benefits over and above comparable therapies as well as the extent of these additional benefits.

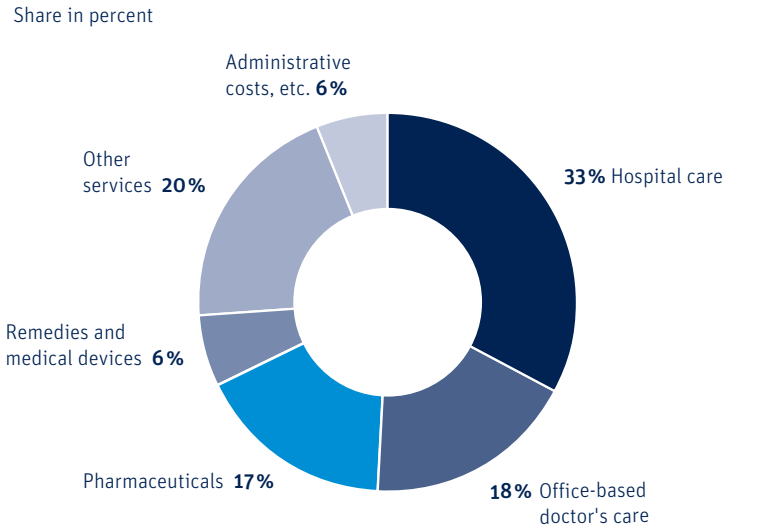
5

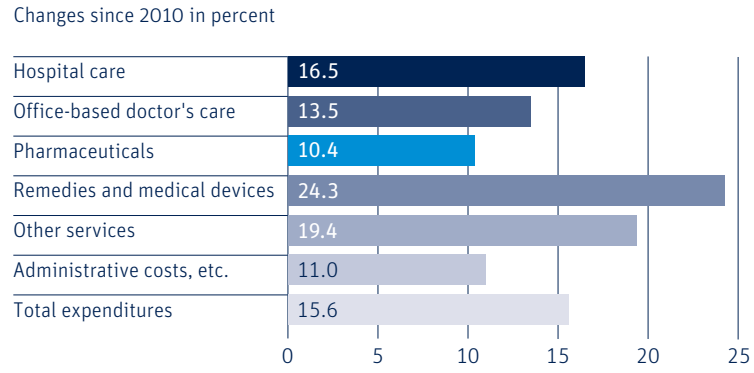
Price setting

Within six months after receiving a decision in direct negotiations with the National Association of Statutory Health Insurance Funds, pharmaceutical companies must agree on a SHI refund as the discount on the pharmaceutical manufacturer price for drugs that have been deemed – through a benefit analysis by the Federal Joint Committee (G-BA) – to have an additional benefit as well as for drugs that have no additional benefits and cannot be assigned to any particular reference price group.

At around EUR 65 billion, one third of all SHI expenditures – a total of EUR 198 billion – goes to hospital care. Expenditures for office-based doctor's care (EUR 36 billion; 18 percent) and pharmaceuticals (EUR 32 billion; 17 percent) together make up another third. Administrative costs constitute EUR 10 billion (6 percent). In 2013, pharmaceutical expenditures were only marginally higher than in 2010, while all other service areas became significantly more expensive.

Expenditures in the Statutory Health Insurance System in 2014



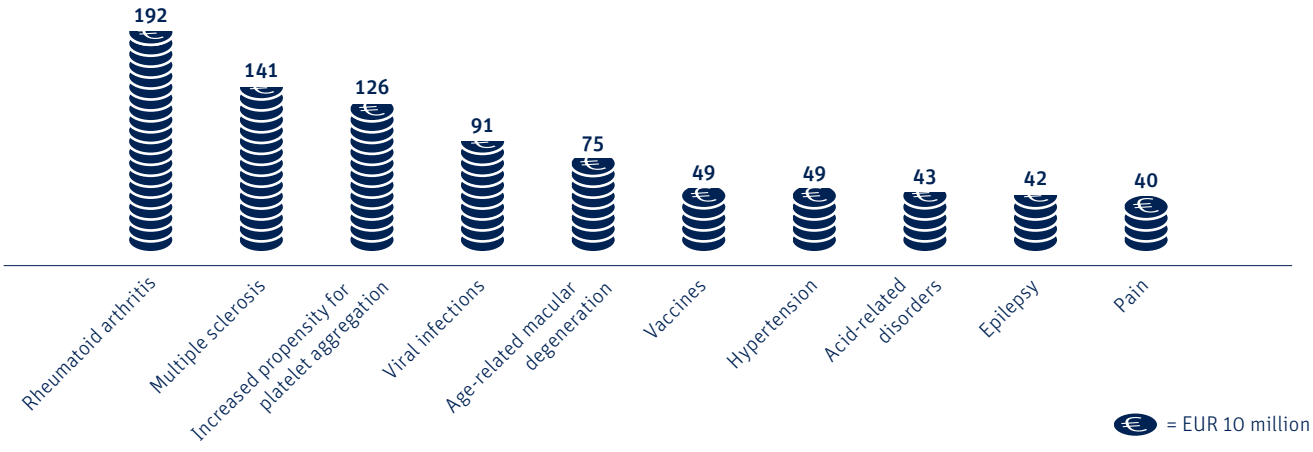


Provisional data; data includes additional payments by insured patients
Source: BMG

Most increases in consumption-related spending are connected to the treatment of severe and chronic illnesses, especially for rheumatic diseases, multiple sclerosis, and metabolic disorders.

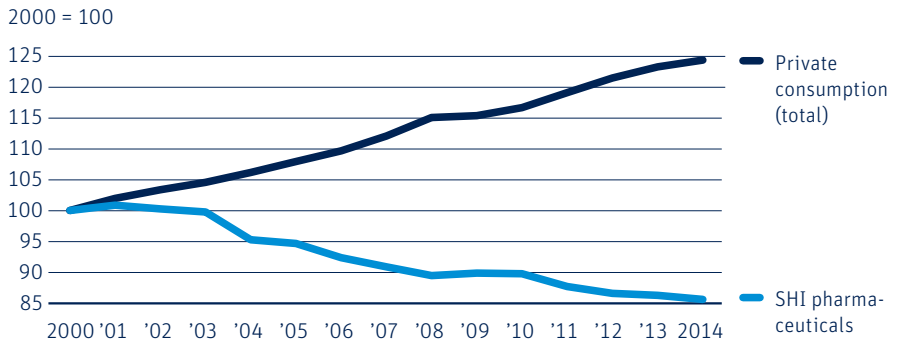
Consumption-related spending increases in 2014 based on health disorders

Changes in sales in EUR million



Source: IGES

Price trends

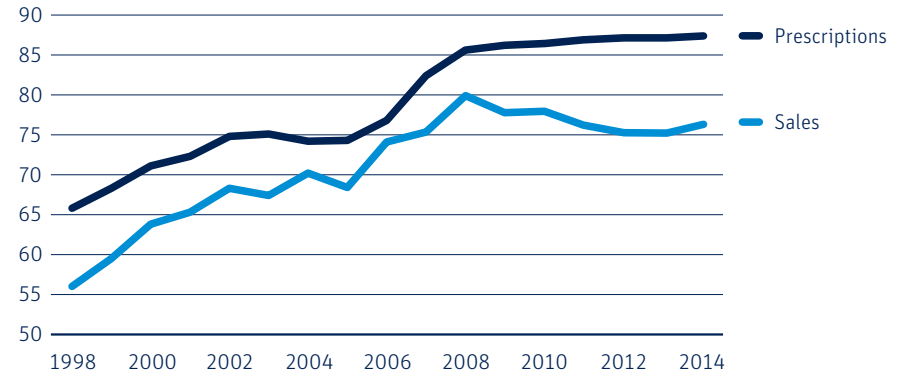


Source: destatis, WIdO

Pharmaceutical prices hardly changed up until 2003, at which point they began to decrease significantly. Pharmaceuticals are now 15 percent cheaper than they were in 2000. In contrast, overall prices for consumer goods and services for private consumption have increased by almost 24 percent since 2000.

Generic drugs in the SHI market

Share of the generics-eligible market (in percent)



Source: "Arzneiverordnungs-Report" (through 2007), SHI quick drug data (since 2008)

When patents expire, the imitation products of other manufacturers (generic drugs) can be authorized for marketing alongside the original pharmaceuticals. In Germany, 86 percent of SHI prescriptions and 46 percent of sales are generated in this so-called generics-eligible market.

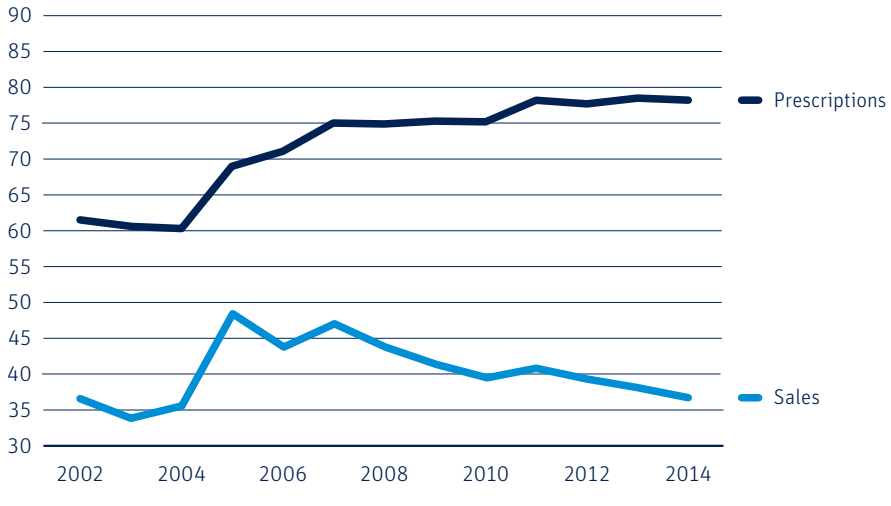
Germany has evolved into the world's most generics-friendly country. Original products often lose almost their entire market share to generic drugs within a few months after a patent expires. An average of 87 percent of prescriptions and 76 percent of sales in the generics-eligible market were generated by imitation products in 2013.

Since the introduction of indirect price regulation based on reference prices, more and more drugs have been subject to this measure. Almost 80 percent of all pharmaceuticals prescribed in Germany must currently adhere to this regulation. However, the share of pharmaceutical sales subject to reference prices has decreased in recent years, above all due to persistent reductions in reference prices.

As of December 2014, a total of around 32,000 pharmaceutical products were subject to the regulation. As a result, the statutory health insurance funds saved around EUR 6.9 billion in 2014.

Reference prices in the SHI market

Share in percent



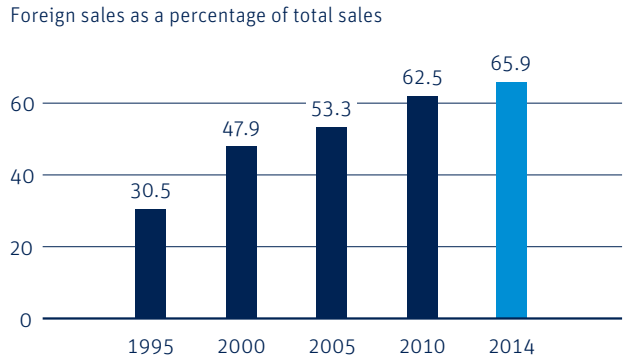
Source: GKV, vfa, GamSi (since 2006)

Germany

Germany's pharmaceutical industry continues to rely predominantly on exports: Of all the drugs manufactured in Germany, almost two-thirds are now exported. Production has increased by almost 5 percent in the past year. The industry is among the most productive economic sectors: The net value added per employee is EUR 115,000, a figure significantly higher than in comparable industries within Germany.

After the USA, Germany is now the world's most important location for industry-funded clinical trials and has become a major financier and driver of innovation for academic institutions.

Export share of pharmaceutical manufacturers in Germany



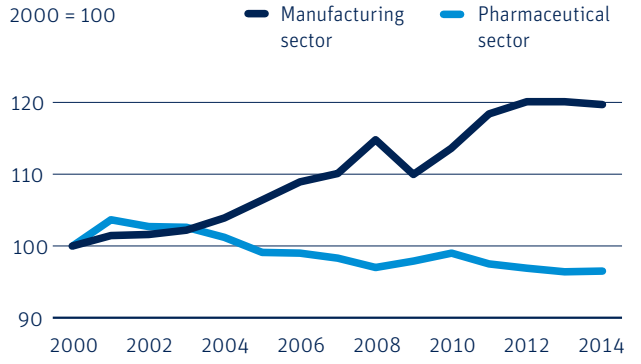
2014: provisional data
Source: destatis

Due to various types of regulations, the domestic pharmaceutical market has lost its significance for German pharmaceutical manufacturers in the long term. However, the export market has become ever more important. The export share of drugs produced in Germany has more than doubled over the last 15 years. Only in the last two years have domestic sales regained some significance.

In 2014, pharmaceuticals worth EUR 30.5 billion were produced in Germany – an increase of 5 percent over the previous year.

Producer prices

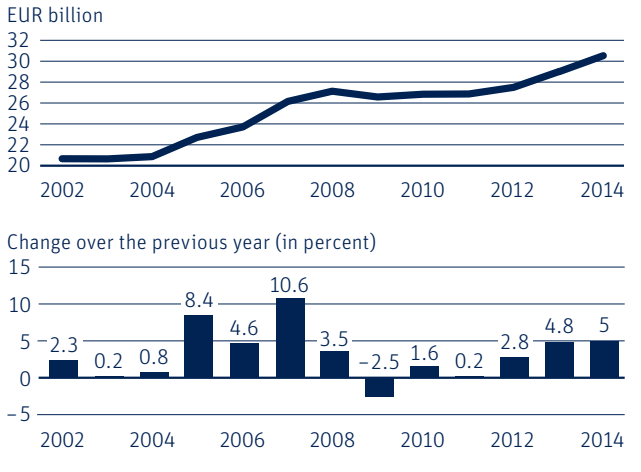
For pharmaceutical products



Source: destatis

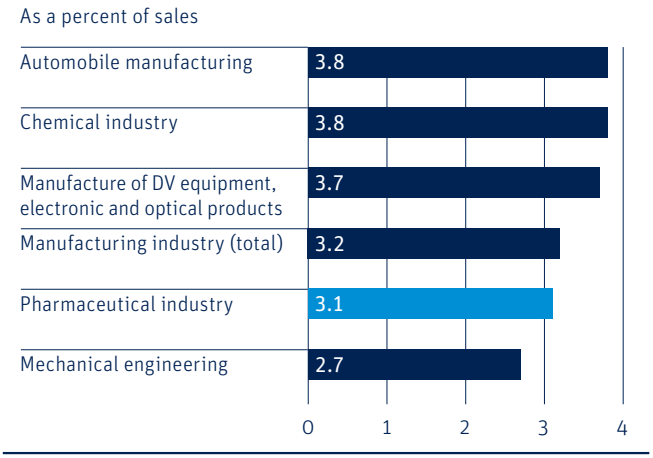
In 2014, producer prices for pharmaceutical products consistently remained at a low level. Pharmaceutical drugs are now less expensive than they were in 2000, whereas prices for other industrial products have risen by 20 percent since 2000.

Production of pharmaceutical products in Germany



2014: provisional data
Source: destatis

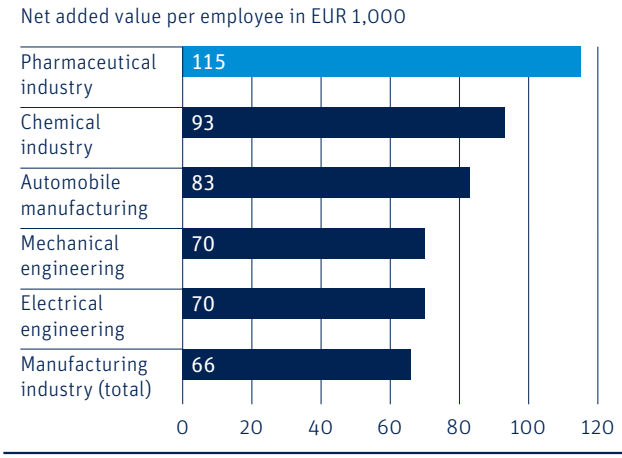
Capital expenditures



As of: 2013
Source: destatis

With capital spending at only 3.1 percent of sales, the pharmaceutical industry is below the average for industry as a whole in 2013. Governmental interventions in recent years, including the price freeze at 2009 levels and mandatory rebates of up to 16 percent, are significant factors in this development.

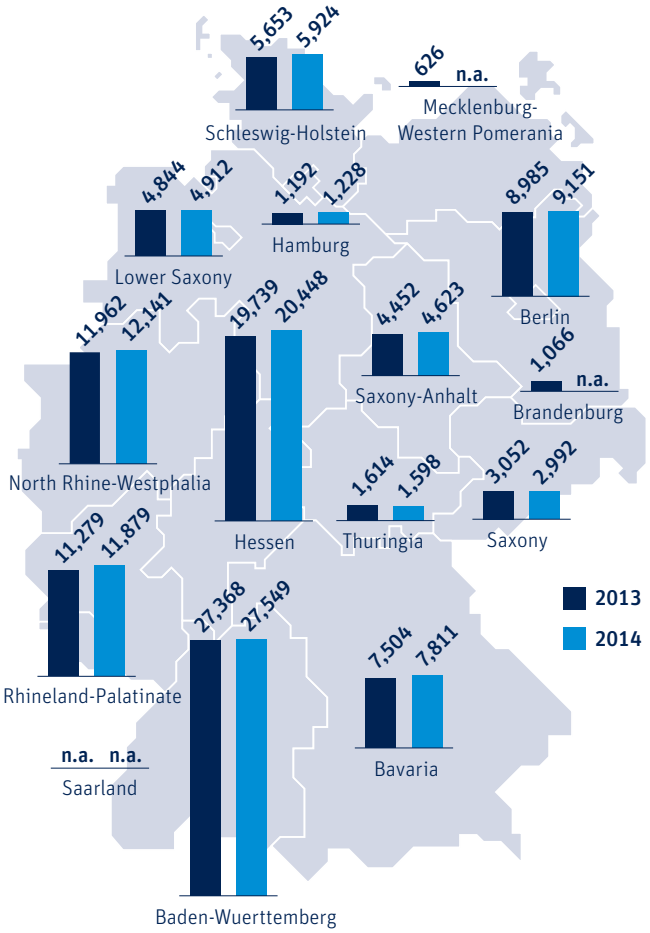
Added value



As of: 2013
Source: destatis

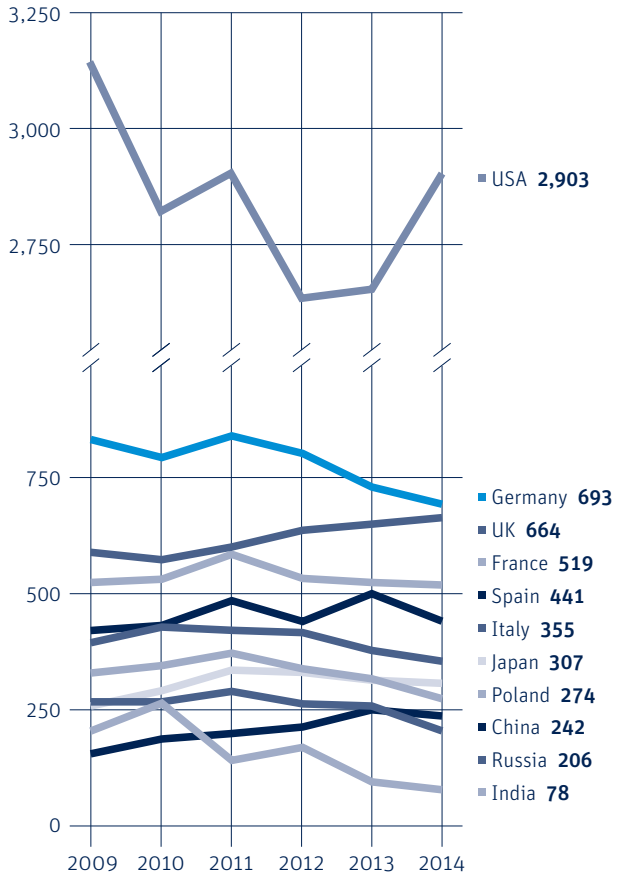
The net added value of EUR 115,000 per employee in 2013 makes the pharmaceutical industry one of the best performing and most productive sectors in Germany.

Employees in the pharmaceutical industry



Rhineland-Palatinate 2013: Employee total includes Bremen (for statistical reasons)
Source: destatis

Number of industry-initiated clinical studies: A country comparison



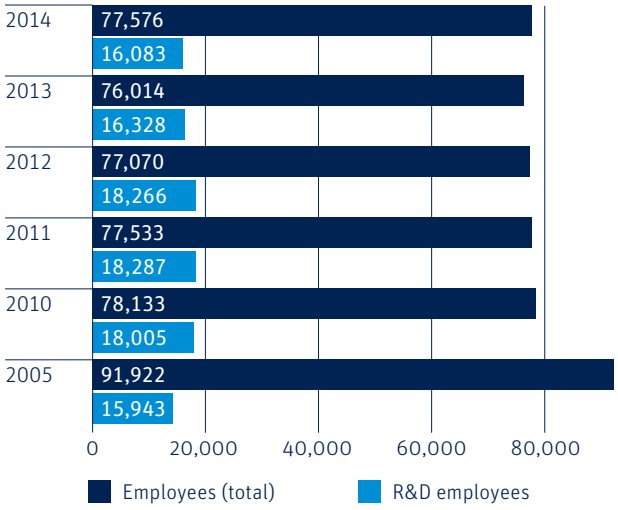
Source: vfa, based on the study register of clincaltrials.gov; as of: August 2015

The vfa

The number of people employed at vfa member companies rose significantly over the past year after a slight decline in 2014. Although the number of employees involved in research and development again showed a modest decrease, they still represent a high share (over 20 percent) of the total workforce of the companies. On the other hand, investments in buildings and machinery (long-term assets such as research laboratories and production facilities) rose sharply again and have reached 2005 levels.

Employees of vfa member companies

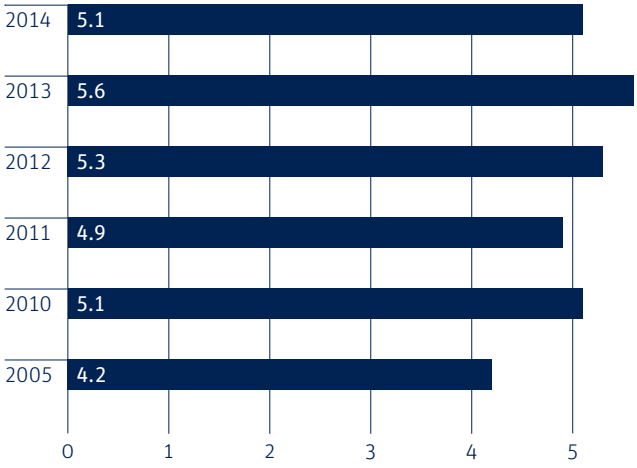
Number



2014: provisional data
Source: vfa member survey, Stifterverband

R&D expenditures of vfa member companies

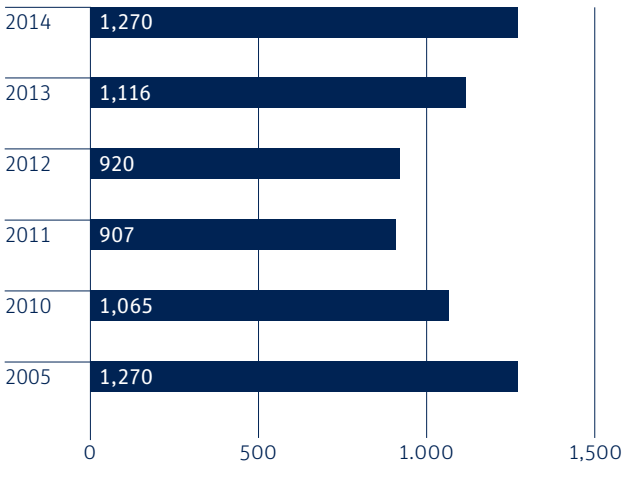
In EUR billion



2014: provisional data
Source: Stifterverband, vfa

Capital expenditures of vfa member companies

In EUR million

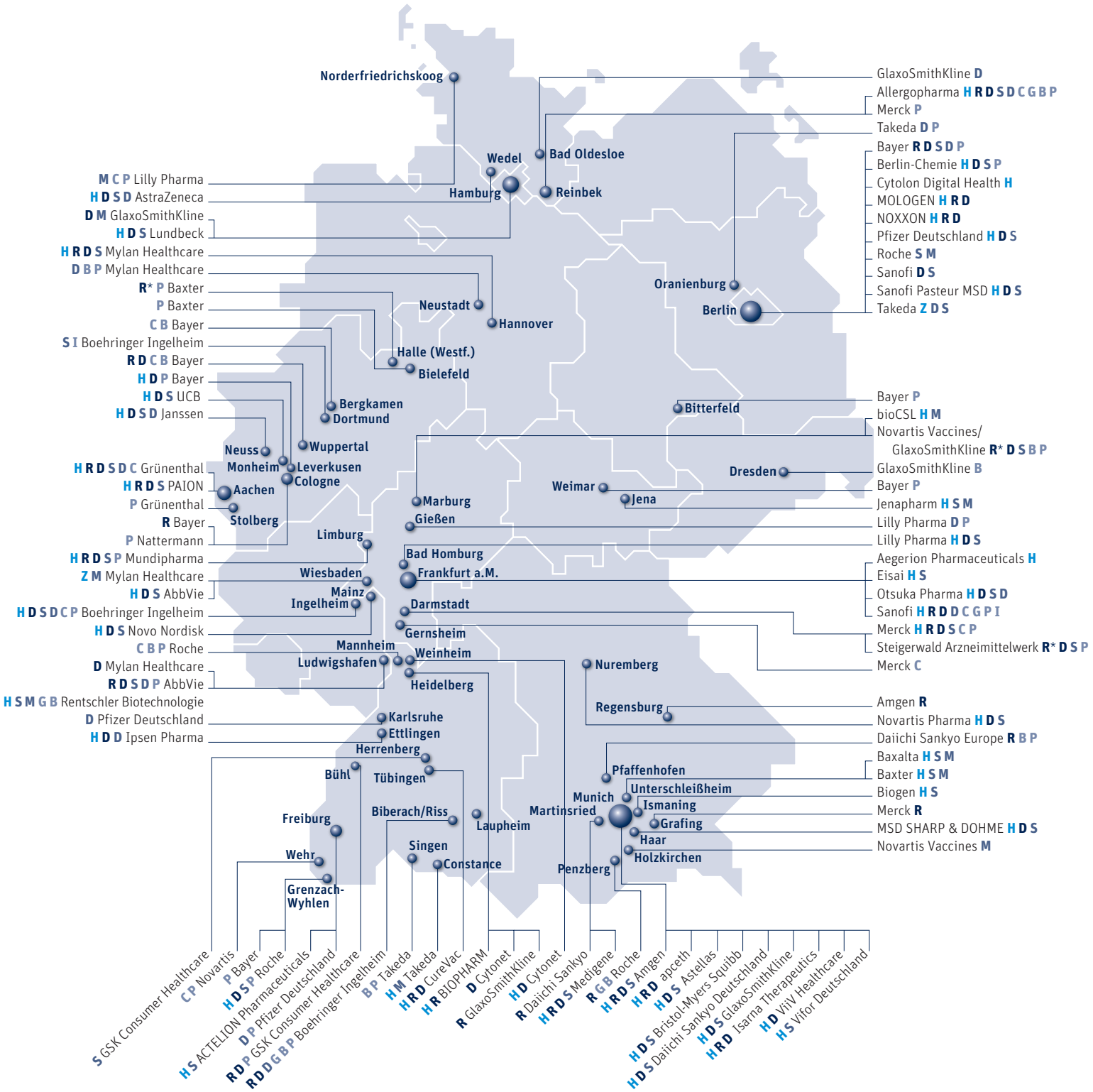


Data after 2013 based on membership status on January 1, 2015; 2014: provisional data
Source: vfa member survey, Stifterverband

The research-based pharmaceutical companies of the vfa have been a stabilizing factor during the economic crisis. Again in 2014, investment in long-term fixed assets increased significantly over the previous year (from EUR 1.12 billion to EUR 1.27 billion).

vfa member sites and their subsidiaries

An interactive map can be accessed at www.vfa.de/standortkarte



H Company headquarters
Z Second location
R Research/preclinical development
R* Only preclinical development
D Clinical development

S Sales & marketing
D Distribution/Shipping
M Management

C Chemical API production
G Genetic API production
B Biotechnology API production without genetic engineering
P Production of finished pharmaceuticals
I Production of inhalers or injection devices

As of: November 2015

Member companies

Associate members

Imprint

Published by
Verband Forschender Arzneimittelhersteller e.V.
(German Association of Research-Based
Pharmaceutical Companies)
Hausvogteiplatz 13
10117 Berlin, Germany

Printing
Ruksaldruck
Berlin, Germany

Design
adlerschmidt kommunikationsdesign
Berlin, Germany

Photo credits
Title: Getty Images
P. 1: vfa

Updated
November 2015

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