

2023
Highlights

*Life
forward*

Our Company

Improving the health and lives of humans and animals is the goal of our research-driven biopharmaceutical company. Our focus is on diseases in areas with a high unmet medical need.

That is why we concentrate on developing innovative therapies that can improve and extend lives, generating net sales of EUR 25.6 billion in 2023. We invested EUR 5.2 billion or a quarter of Human Pharma sales in research and development.

In Animal Health, we are one of the world's leading providers of vaccines, therapeutics and preventative care offerings that protect animals from disease and pain.

Family-owned since its foundation in 1885, Boehringer Ingelheim is one of the top 20 companies in the global pharmaceutical industry. The aim of our about 53,500 employees is to transform the lives of patients – across generations.



25,611 million EUR
net sales

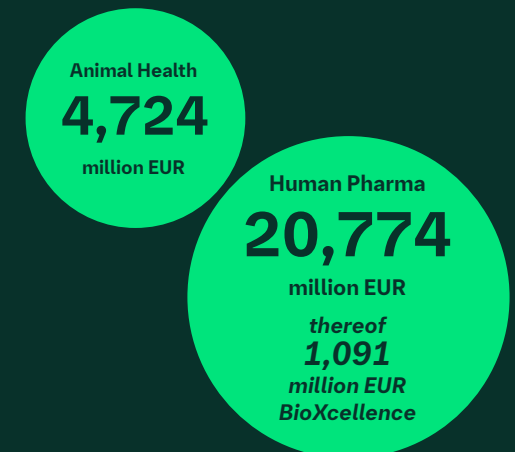


~ 53,500
employees worldwide



5,220 million EUR
Human Pharma expenses in
Research & Development
in 2023

Our businesses

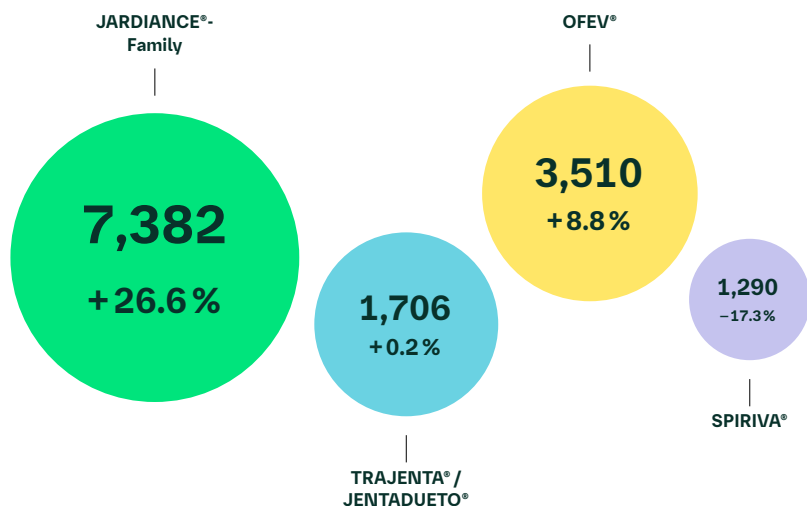


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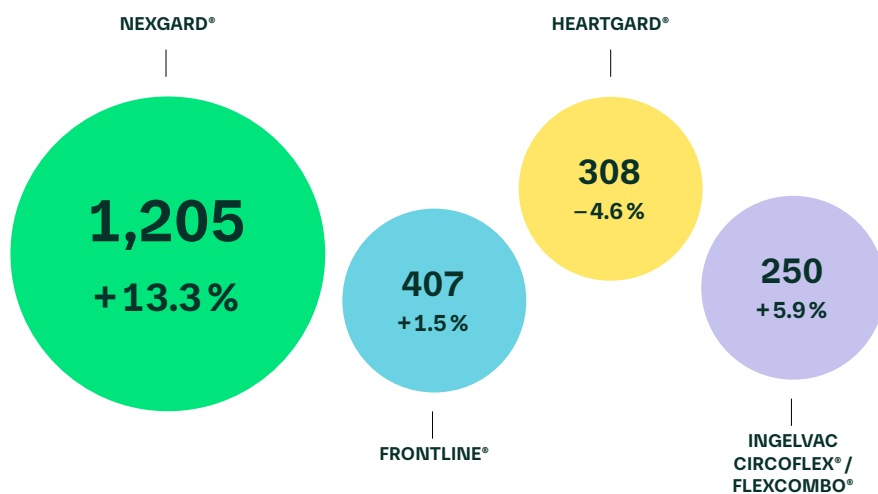
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**Top 4 products –
Human Pharma (Net sales 2023)** (in million EUR)



**Top 4 products –
Animal Health (Net sales 2023)** (in million EUR)



Financial Highlights

Amounts in million EUR, unless otherwise indicated	2023	2022	Change
Net sales	25,611	24,149	+6%
by region			
Americas	48%	48%	
Europe	32%	31%	
Asia/Australia/Africa (AAA)	20%	21%	
by business			
Human Pharma	81%	81%	
<i>thereof: BioXcellence</i>	4%	4%	
Animal Health	19%	19%	
Other sales	<1%	<1%	
Research and development expenses	5,766	5,047	+14%
Average number of employees	53,565	53,155	+1%
Investments in tangible assets	1,043	1,021	+2%

The Shareholders' Perspective



Dear Reader,

Innovation is at the heart of Boehringer Ingelheim. In 2023 our investments in Research & Development (R&D) in Human Pharma grew to 25.1% of net sales, which ranks us among the top R&D investors in the industry. We are committed to upholding these high investment levels to ensure that we bring innovation to patients as fast as possible, knowing that every day that we gain can make a real difference in their lives.

Our independence allows us to research in areas where a long-term commitment is needed to find solutions for unmet needs. Our work in mental health is a good example, aimed at finding treatments for people affected by mental health disorders, such as schizophrenia. We are hopeful that our determination yields successful results, with the first three investigational compounds now progressing into late-stage development.

Our efforts focus on high unmet medical needs, to transform the lives of patients. The innovativeness of our products also shortens hospitalization days, allows for better home care, helps people to return more quickly to active community life, or drives cost down through earlier screening and improved diagnosis. It is our mission to not only help patients with novel treatments, but in doing so also help make healthcare systems more efficient.

At Boehringer Ingelheim we have entered 2024 with great confidence, as we are geared towards 25 new treatment launches in Human Pharma until 2030 and many more in Animal Health. This is only possible thanks to the dedication and passion of our employees. On behalf of the Shareholders' Committee, I would like to express our gratitude to all employees for their commitment.

signed by
Christian Boehringer
Chairman of the Shareholders' Committee

The Board of Managing Directors



Michael Schmelmer

Paola Casarosa

Frank Hübler

Hubertus von Baumbach

Carinne Brouillon

Shashank Deshpande

Key Aspects 2023

Dear Reader,

2023 was a year in which we strongly progressed our pipeline. The number and the breadth of diseases which our assets address underscore our commitment to research. It is also testament of our ambition to pioneer breakthrough treatments in areas of high unmet patient need, such as mental health, oncology, fibrosis and cardio-renal-metabolic diseases.

Our research efforts in mental health continued to evolve, focusing on treatments that can address the biology of the brain more precisely. Phase-III-trials for our investigational therapy iclepertin, which targets cognitive impairment associated with schizophrenia are progressing. And our investigational prescription digital therapeutic designed to treat negative symptoms of schizophrenia, CT-155, which we develop in collaboration with Click Therapeutics, moved towards a Breakthrough Device designation from the U.S. Food and Drug Administration (FDA).

We also received an U.S. FDA Breakthrough Therapy Designation for nerandomilast, a phosphodiesterase 4B (PDE4B) inhibitor for pulmonary fibrosis. We will read out Phase III of the FIBRONEER® Trials towards the end of this year. The Phase II data has shown the potential to stabilize lung function decline in patients with idiopathic pulmonary fibrosis.

In oncology, our MDM2-p53 antagonist brigimadlin advanced into the pivotal trial for the treatment of dedifferentiated liposarcoma, a rare cancer with limited treatment options so far. The clinical development of two additional investigational therapies from our oncology pipeline has been accelerated, based upon positive early clinical data.

JARDIANCE® continued its strong momentum and received regulatory approval in Europe and the United States for treatment of chronic kidney disease, making it potentially available to 850 million people. In addition to existing indications in type 2 diabetes and

heart failure, JARDIANCE® can help manage cardio-renal-metabolic conditions of more than 1 billion people.

Our Animal Health business received the approval of the U.S. Food and Drug Administration (FDA) and the European Commission for SENVELGO®, our revolutionary new oral treatment for cats with diabetes. And we launched NEXGARD® PLUS, an oral combination parasite protection for dogs.

The number of patients we reached has again increased to an impressive 61 million human patients. To be able to do so we have again invested 1.2 billion Euro into our global infrastructure and production network as well as 5.1 billion Euro in R&D across both businesses, representing an increase of 16%.

These advancements are more than just milestones; they are the result of our long-term focus on innovation, as expressed in “Life Forward”. Our passion for innovation lives in the hearts and actions of our dedicated employees and the many partners, who work tirelessly to bring our purpose to life. It is to all of them who we express our deepest appreciation to for their commitment, their contributions, and their shared passion.

signed by
Hubertus von Baumbach

signed by
Carinne Knoche-Brouillon

signed by
Shashank Deshpande

signed by
Michael Schmelmer

signed by
Dr. Paola Casarosa

signed by
Frank Hübler

Corporate Bodies

Shareholders' Committee

Christian Boehringer

Chairman of the Shareholders' Committee

Christoph Boehringer

Erich von Baumbach

Isabel Boehringer

Dr. Mathias Boehringer

Prof. Dr. Dr. Andreas Barner (until 30.06.2023)

Dr. Michel Pairet (from 01.01.2024)

Board of Managing Directors

Hubertus von Baumbach

Chairman of the Board of Managing Directors

Michael Schmelmer

Member of the Board of Managing Directors,
Finance & Group Functions (until 30.04.2024)
Vice Chairman of the Board, Group Functions (from
01.05.2024)*

Carinne Knoche-Brouillon

Member of the Board of Managing Directors,
Human Pharma

Dr. Paola Casarosa (from 01.01.2024)

Member of the Board of Managing Directors,
Innovation

Shashank Deshpande (from 01.01.2024)

Member of the Board of Managing Directors,
Animal Health

Frank Hübler

Member of the Board of Managing Directors
(from 01.01.2024),
Finance (from 01.05.2024)*

Dr. Michel Pairet (until 31.12.2023)

Member of the Board of Managing Directors,
Innovation

Jean Scheftsik de Szolnok (until 31.12.2023)

Member of the Board of Managing Directors,
Animal Health

Advisory Board

Dr. Nikolaus von Bomhard

Chairman of the Advisory Board
Chairman of the Supervisory Boards of
Münchener Rückversicherungs-Gesellschaft AG and
Deutsche Post AG

Dr. Hagen Duenbostel

Former Chief Executive Officer (CEO)
KWS SE

Dr. Frank Mastiaux

Former Chief Executive Officer
EnBW Energie Baden-Württemberg AG
Chairman of the Advisory Board of Sunfire GmbH
Member of the Board of Directors Alstom S.A.

Jan Rinnert

CEO & Chairman of the Board of Managing Directors
Heraeus Group

Karl von Rohr (from 01.01.2024)

President Deutsche Bank (until 31.10.2023)
Chairman of the Supervisory Board
DWS Group GmbH & Co. KGaA

Angela Titzrath

Chairwoman of the Executive Board of
Hamburger Hafen und Logistik AG
Member of the Supervisory Boards of Talanx AG,
Evonik Industries AG and Deutsche Lufthansa AG

* in accordance with the Supervisory Board resolution of Boehringer AG
dated 07.09.2023

Boehringer Ingelheim 2023

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Boehringer Ingelheim 2023

Information about the Group

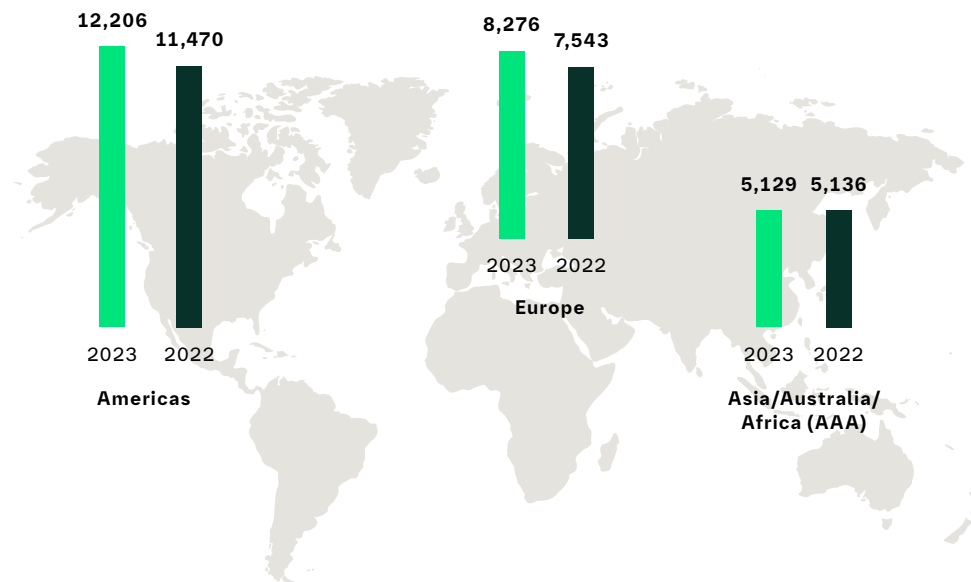
The Group's business model

Boehringer Ingelheim develops therapeutic breakthroughs that transform lives – today and for generations to come. Independent and family-owned, we pursue a long-term and sustainable strategy that is aimed at identifying challenges and developing solutions in areas where medical and therapeutic needs are still unfulfilled or insufficiently addressed. Our aim is to transform the lives of patients – across generations. This goal inspires all of our approximately 53,500 employees to make a real and significant contribution to the health of humans and animals alike. **Boehringer Ingelheim has stood for innovation for nearly 140 years. We are one of the world's leading pharmaceutical research companies and serve over 130 markets.**

Boehringer Ingelheim is divided into two business areas: Human Pharma and Animal Health. The Human Pharma business is the mainstay of our activities and accounts for 81.1 % of overall sales. This business area is underpinned by an innovative portfolio, and in many cases its products are standard treatments in medicine. Our research focuses on therapeutic areas of cardiovascular and metabolic diseases, oncology, respiratory diseases, immunology, mental health, and retinal diseases.

Since 2023, the BioXcellence division (biopharmaceutical contract production) has also been integrated into the Human Pharma business. This organizational change aims to improve collaboration and increase efficiencies in order to provide patients with medicines even more reliably. Our biopharmaceutical activities comprise the manufacture of our own products (such as ACTILYSE®, METALYSE®, PRAXBIND®, and SPEVIGO®) and also – as a global provider – the commercial production of biopharmaceuticals for third-party industrial customers.

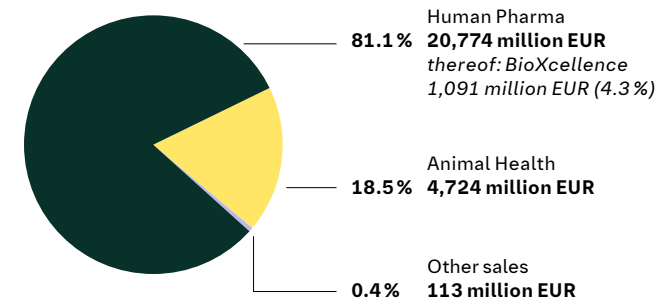
Net sales by region (in million EUR)



Group sales



Net sales by business



JARDIANCE® – a medicine for the treatment of type-2 diabetes that also reduces the risk of cardiovascular diseases for type-2 diabetics with pre-existing cardiovascular conditions – was the Group's best-selling Human Pharma product in 2023. In mid-2023, JARDIANCE® was approved by the US Food and Drug Administration (FDA) and the European Commission (EC) for the treatment of adults with chronic kidney disease – an affliction that affects almost 850 million people worldwide. OFEV® is used for the treatment of the rare respiratory disease idiopathic pulmonary fibrosis (IPF) and also increasingly recorded strong growth in a further indication – systemic sclerosis with interstitial lung disease (SSc-ILD). Three other products also played a significant role in Boehringer Ingelheim's success: TRAJENTA®, which is used for the treatment of type-2 diabetes; SPIRIVA®, which is used for the treatment of chronic obstructive pulmonary disease (COPD) as well as asthma; and PRADAXA®, which is used to prevent strokes in patients with atrial fibrillation and for the prevention and treatment of thromboembolic disorders.

In its Animal Health business, Boehringer Ingelheim is a leading provider of therapeutics and vaccines. Our portfolio includes products for pets and horses as well as livestock: swine, ruminants, and poultry. Our core brands NEXGARD®, followed by FRONTLINE® and HEARTGARD®, are the foundation of our success in the pets segment. A major growth driver in 2023 was the NEXGARD® product portfolio, which saw two additional innovations approved by the US Food and Drug Administration (FDA). NEXGARD® PLUS is a product for dogs, NEXGARD® COMBO is a product for cats, and both products provide combined protection against parasites. In addition, we were able to celebrate another success in 2023 with the FDA approval of SENVELGO®. SENVELGO® – the substance of which comes from our Human Pharma business – is the first solution that can be administered as an oral liquid medication to treat cats with diabetes. In the swine segment, the established swine vaccine INGELVAC CIRCOFLEX® – which is used to treat porcine circovirus type 2 – is an important component of the company's product portfolio. Here, too, the product portfolio was expanded in 2023 with the introduction of INGELVAC® Ery – a monovaccine for active immunization against erysipelas in swine.

Other net sales also include the activities of discontinued operations that are no longer of strategic importance for Boehringer Ingelheim.

In the 2023 financial year, we primarily achieved our sales in the Americas (47.7%) and Europe (32.3%). The Asia/Australia/Africa (AAA) region generated a sales share of 20.0%.

Research and development

Our goal is to research and develop innovative medicines and therapies for the treatment of diseases for which there are still no satisfactory treatments available. In this regard, we would like to make a relevant contribution in areas where the need for treatment is high, as well as in the Human Pharma business and Animal Health business.

We employed an average of 11,031 employees in our two global research networks for Human Pharma and Animal Health in 2023. We are present in eight countries, with central facilities in Germany (Biberach an der Riss and Ingelheim am Rhein), the USA (Ridgefield, Connecticut; Duluth, Georgia; and St. Joseph, Missouri), Austria (Vienna), Japan (Kobe), and France (Lyon) as well as China (Shanghai). Through our activities at these locations, we are continuing to expand and renew our existing product portfolio in order to safeguard the Group's organic long-term growth. Accordingly, we have consistently increased our research and development (R&D) expenses in recent years. And with a total of approximately 5.8 billion EUR invested in the research and development of new medicinal products, we have again increased this value compared to the previous year. This corresponds to 22.5% of consolidated sales. Of this, a large part of the R&D expenditure – 5.2 billion EUR – was invested in the Human Pharma business.

Research and development

	2023	2022	2021	2020	2019
Expenses in million EUR	5,766	5,047	4,127	3,696	3,462
– as % of net sales	22.5	20.9	20.0	18.9	18.2
Human Pharma expenses in million EUR	5,220	4,583	3,710	3,283	3,042
– as % of Human Pharma net sales	25.1	23.5	22.9	21.5	20.6
Animal Health expenses in million EUR	546	464	416	412	419
– as % of Animal Health net sales	11.6	10.2	9.7	10.0	10.4
Average number of employees	11,031	10,691	10,109	9,504	9,154
Investments in tangible assets in million EUR (without investments in infrastructure)	321	298	242	181	183

Long-term collaborations with academic institutions and other public research institutions, biotech companies, and pharmaceutical companies are an integral part of our R&D work. In the scientific field, we are collaborating on over 150 joint projects with more than 120 academic institutions spanning four continents. In addition, we are continually expanding our R&D portfolio through collaboration and licensing agreements as well as company acquisitions. Approximately 50 % of our pipeline is anchored in collaborations with external partners. In this way, we are combining the strengths of our own research with our partners' strengths. The high scientific standards we adhere to, the long-standing business development relationships, and the early investments made by the Boehringer Ingelheim Venture Fund contribute significantly to our success.

Boehringer Ingelheim also confirmed its attractiveness as a partner in 2023 through new partnerships and was able to bolster the pipeline on this basis. In the Human Pharma business, a new strategic partnership with 3T Biosciences, Inc. was concluded at the beginning of the year. The aim of this collaboration is to discover and develop new possibilities for cancer therapy based on T-cell receptors in order to address the high and unmet needs of patients. Furthermore, a research collaboration was initiated with Carl Zeiss Meditec AG in the field of eye diseases. Jointly, we would like to identify markers for early stages of retinal diseases and enable new treatment options in this area. Finally, a further partnership in the field of artificial intelligence was concluded with IBM towards the end of 2023. The focus of this collaboration is the development of an innovative platform that will use generative AI models to significantly accelerate the discovery and development of new biological substances.

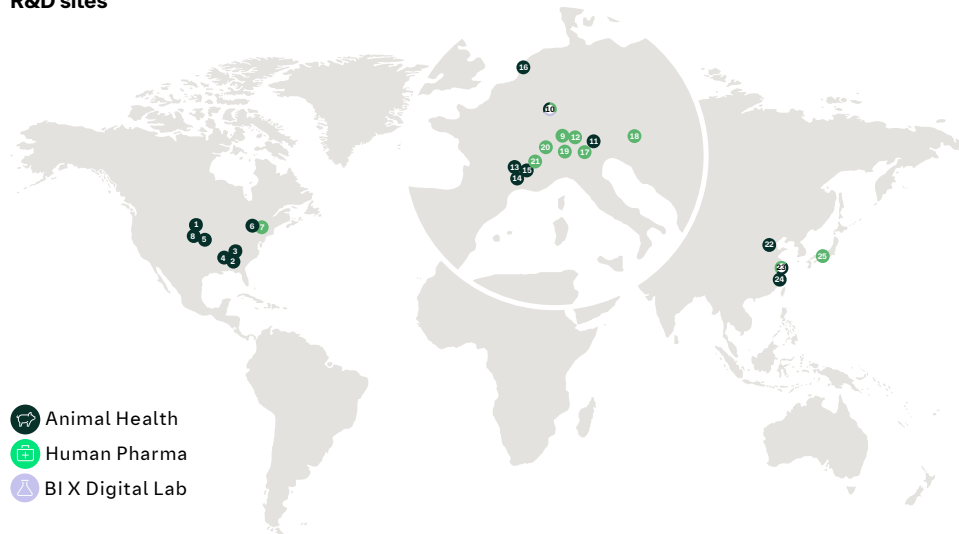
In addition to our partnerships, we further expanded our Human Pharma business pipeline towards the end of 2023 with the acquisition of T3 Pharmaceuticals AG (Allschwil, Switzerland). This Switzerland-based biotech company is developing a therapeutic platform that uses bacteria to deliver bioactive proteins into cancer cells and the microenvironments of tumors. This innovative technology shall enhance our oncology portfolio and create synergies in existing R&D programs.




We also promote the development of targeted approaches to combatting antimicrobial resistance (AMR). This is demonstrated by our investments in the AMR Fund and the joint-venture company Aurobac Therapeutics SAS, which was founded in 2022.

New long-term partnerships were also established in 2023 in the area of Animal Health. In this regard, we are collaborating with the Bill & Melinda Gates Foundation, the Foreign Commonwealth and Development Office (FCDO), and the Global Alliance for Livestock Veterinary Medicines (GALVmed) in order to develop and make available a solution to combat African animal trypanosomiasis (AAT, a tropical disease also known as “sleeping sickness”, which is transmitted by the tsetse fly). The aim of this partnership is to bring a new medical solution to AAT to market before 2030.

Boehringer Ingelheim is also involved in basic and application research in the field of quantum computing. With the current three-year cooperation agreement with Google, as well as other well-known partners such as the University of Toronto and QC Ware Corp. (Palo Alto, USA), we would like to harness the computing potential of the new technology in order to drive innovation in Boehringer Ingelheim's R&D. Furthermore, Boehringer Ingelheim has been a member of the Quantum Technology and Application Consortium (QUTAC) since 2021, which pursues the aim of making quantum computing industrially usable and economically successful.

R&D sites



-  Animal Health
-  Human Pharma
-  BI X Digital Lab

Americas

USA

1. Ames, Iowa (AH)
2. Athens, Georgia (AH)
3. Colbert, Georgia (AH)
4. Duluth, Georgia (AH)
5. Fulton, Missouri (AH)
6. North Brunswick, New Jersey (AH)
7. Ridgefield, Connecticut (HP)
8. St. Joseph, Missouri (AH)

Europe

Germany

9. Biberach an der Riss (HP)
10. Ingelheim am Rhein (AH, HP, BIX)
11. Kathrinenhof-Rohrdorf (AH)
12. Ochsenhausen (HP)

France

13. Lyon – Boreal (AH)
14. Lyon – Porte des Alpes (AH)
15. Saint-Vulbas (AH)

Netherlands

16. Lelystad (AH)

Austria

17. Innsbruck (HP)
18. Vienna (HP)

Switzerland

19. Allschwil (HP)
20. Basel (HP)
21. Geneva (HP)

Asia

China

22. Beijing (AH)
23. Shanghai (AH, BIX)
24. Taizhou (AH)

Japan

25. Kobe (HP)

In close collaboration with its business units, Boehringer Ingelheim's digital lab, BI X, empowers patients and healthcare professionals through user-centered digital solutions. The lab's key areas of focus in the past year include large language models, non-invasive biomarkers, and mental health.

In 2023, BI X launched a comprehensive COPD app in the US to improve the lives of respiratory patients. In Canada, BI X introduced a digital clinical support tool (EXANDRA™) for healthcare professionals managing type-2 diabetes mellitus.

Since 2010, the Boehringer Ingelheim Venture Fund has driven innovation through investments in young companies that are carrying out research into early-stage science and technology. The Venture Fund invests globally in biotech startups with innovative concepts and in young companies in the digital health sector. The Venture Fund also founds companies when it identifies research projects in universities and academic institutions.

The Research Institute of Molecular Pathology (IMP) in Vienna (Austria) is a biomedical basic research institute and a Group company of Boehringer Ingelheim. With more than 220 scientists from approximately 40 countries, the IMP conducts research into molecular and cellular mechanisms that form the basis of complex biological life processes as well as human diseases. The IMP is one of the leading institutions of its kind: As of late 2023, 13 of its 15 Group leaders had received at least one of the prestigious grants awarded by the European Research Council (ERC). Eight of its 15 Group leaders have been elected full members of the European Molecular Biology Organization (EMBO).

With its open innovation platform opnMe.com, Boehringer Ingelheim is contributing to the process of scientific collaboration in the pharmaceutical world. Over 80 molecules in the preclinical stage are currently being made available to academic researchers around the world free of charge. This form of collaboration has already enabled new scientific findings in the field of oncology, for example.

Boehringer Ingelheim's R&D activities – both preclinical as well as clinical R&D – are the basis of our sustainable success. The Group's positive business development in recent years has been underpinned by an organic process of renewing its portfolio based on its own R&D activities. In-house R&D – supplemented by external cooperation and partnerships – will also continue to be a top priority in the future. This high level of innovation is also reflected in our pipeline. In this regard, we have been granted the Breakthrough Therapy Designation (BTD) by the FDA for SPEVIGO®. With the help of SPEVIGO®, we would like to develop a new treatment option to prevent flare-ups of generalized pustular psoriasis (GPP) in adolescents and adults.

Our capital expenditure in R&D, which is above the market average and continues to increase, our commitment to delivering significant therapeutic advances, and the breadth, diversity, and depth of our pipeline improve health and change lives. This was also demonstrated in 2023 by further classifications of our research projects by the regulatory authorities. The FDA awarded a total of five additional Fast Track Designations and four Orphan Drug Designations. We received the rarely assigned PRIME designation from the European Medicines Agency (EMA) for survodutide in the NASH indication. Additionally, SPEVIGO® was awarded the Prix Galien USA Best Orphan/Rare Diseases Solution Award.

Human Pharma

In 2023, the human pharmaceuticals business and the R&D organization helped us foster innovation, bringing together scientists, patients, and health systems to jointly develop new, holistic, and sustainable therapeutic breakthroughs that address the biggest health care challenges. We focus our efforts on the connection of cardiovascular, renal and metabolic diseases (CRM), respiratory diseases, oncology, therapy development as well as the redefinition of mental health and retinal diseases.

The Human Pharma research and development pipeline includes over ten new phase-II- and phase-III-trials over the next 12 to 18 months, with approximately 25 new therapeutic licenses by 2030.

Development pipeline end of 2023

Cardiovascular, renal and metabolic diseases	Phase
GLP-1/F GF 21 agonist *	Phase I
NPY2r agonist * †	Phase I
> Anti-fibrotic agent	Phase I
Heart disease modulator *	Phase II
BI 764198 * TRPC6 Inhibitor FSGS	Phase II
Survodutide (BI 456906) * GLP1/GCGR agonist NASH/MASH Fast Track Designation granted by the US Food and Drug Administration Breakthrough Therapy Designation ↗	Phase II
BI 685509 sGC activator CSPH	Phase II
BI 690517 + Empagliflozin Aldosterone synthase inhibitor + SGLT 2 inhibitor CKD Fast Track Designation granted by the US Food and Drug Administration	Phase II
> Survodutide (BI 456906) * GLP1/GCGR agonist Obesity	Phase III
Empagliflozin/New indication SGLT2 inhibitor Prevention of HF post MI Fast Track Designation granted by the US Food and Drug Administration	Phase III
> Empagliflozin/New indication SGLT2 inhibitor CKD	Registration ¹
Oncology	Phase
B7-H6/CD3 T-cell engager *	Phase I
DLL 3/CD3 T-cell engager *	Phase I
CD137/FAP agonist *	Phase I
Ezabenlimab (PD-1 antibody) †	Phase I
Zongertinib (HER2 TKI) Fast Track Designation granted by the US Food and Drug Administration	Phase I
> KRAS Multi-Inhibitor	Phase I
> KISIMA® cancer vaccine * †	Phase I
Brigimadlin * MDM2-p53-antagonist	Phase I
SIRPα-antagonist *	Phase I
> STING agonist (2nd generation)	Phase I
> VSV - GP * †	Phase I
> BI 764532* DLL 3/CD3 T-cell engager 2L SCLC	Phase II

Development pipeline end of 2023 (continued)

> BI 764532* DLL 3/CD3 T-cell engager 3L ES-SCLC Fast Track designation granted by the US Food and Drug Administration	Phase II
> BI 764532 * DLL 3/CD3 T-cell engager 2L epNEC Fast Track designation granted by the US Food and Drug Administration	Phase II
> BI 764532 * DLL 3/CD3 T-cell engager LC-NEC Fast Track designation granted by the US Food and Drug Administration	Phase II
> Brigimadlin (BI 907828) * MDM2-p53 antagonist 2L + BTC	Phase II
> Brigimadlin (BI 907828) * MDM2-p53 antagonist 2L NSCLC	Phase II
> Brigimadlin (BI 907828) * MDM2-p53 antagonist DDLPS Fast Track designation granted by the US Food and Drug Administration	Phase III
Respiratory diseases	Phase
Ion channel inhibitor	Phase I
Lysophospholipase inhibitor	Phase I
> IL11 antibody *	Phase I
BI 1291583 * CatC inhibitor nCFB	Phase II
Nerandomilast (BI 1015550) PDE4B inhibitor PPF	Phase III
Nerandomilast (BI 1015550) PDE4B inhibitor IPF Breakthrough Therapy Designation ↗	Phase III
Immunology	Phase
PD-1 antibody	Phase I
> Immunomodulator	Phase I
TREM-1 antibody	Phase I
BI 706321 Kinase inhibitor CD	Phase II
> BI 685509 sGC activator SSc	Phase II
Spesolimab IL36R antibody HS	Phase II
> Spesolimab IL36R antibody NS	Phase II
> Spesolimab IL36R antibody PG	Phase II

> Spesolimab IL36R antibody GPP flare prevention Breakthrough Therapy Designation ↗	Registration
Chronic and complex mental health conditions	Phase
NMDA regulator	Phase I
> Digital therapeutic *	Phase I
BI 1358894 * TRPC 4/5 MDD	Phase II
BI 1358894 * TRPC 4/5 PTSD Fast Track designation granted by the US Food and Drug Administration	Phase II
Iclepertin GlyT1 inhibitor CIAS Breakthrough Therapy Designation ↗	Phase III
> CT-155 * Prescription digital therapeutic schizophrenia	Phase III
Retinal Health	Phase
Phospholipid modulator	Phase I
Vascular modulator	Phase I
C3-binding polypeptide	Phase I
BI 765128 Ischemia modulator DR	Phase II
BI 764524 Sema3A antibody DR	Phase II

¹ Approved in the EU and US for the treatment in adults of chronic kidney disease, other submissions ongoing

† Being investigated only in combination with other therapies

> Key Pipeline Advances in 2023

* Partnered projects or acquired assets

↗ Breakthrough Therapy Designation or equivalent granted by the US, EU, China, or Japan

Indication abbreviations:

2L+BTC	2nd line treatment, advanced biliary tract cancer	HF	Heart failure
2L epNEC	2nd line treatment of extra-pulmonary neuroendocrine carcinoma	HS	Hidradenitis suppurativa
		IPF	Idiopathic pulmonary fibrosis
2L NSCLC	2nd line treatment of non-small cell lung cancer	LC-NEC	Large cell neuroendocrine carcinoma
2L SCLC	2nd line treatment of small cell lung cancer	MASH	Metabolic dysfunction-associated steatohepatitis
3L ES-SCLC	3rd line treatment of extensive stage small cell lung cancer	MDD	Major depressive disorder
		MI	Myocardial infarction
CD	Crohn's disease	NASH	Non-alcoholic steatohepatitis
CIAS	Cognitive impairment associated with schizophrenia	nCFB	non-cystic fibrosis bronchiectasis
CKD	Chronic kidney disease	NS	Netherton syndrome
CSPH	Clinically significant portal hypertension	PG	Pyoderma gangrenosum
DDLPS	Dedifferentiated liposarcoma	PPF	Progressive pulmonary fibrosis
DR	Diabetic Retinopathy	PTSD	Post-traumatic stress disorder
FGSG	Focal segmental glomerulosclerosis	SSc	Systemic sclerosis
GPP	Generalized pustular psoriasis		

Cardiovascular, renal, and metabolic diseases

Affecting over one billion lives globally, these interconnected diseases are the leading cause of death worldwide, accounting for up to 20 million deaths annually. With the next wave of innovative medicines through our pipeline we are advancing treatments to improve patient lives.

In 2023, JARDIANCE® (empagliflozin) was approved by the European Commission and by the US Food and Drug Administration for the treatment of adults with chronic kidney disease. In addition, the US FDA and the European Commission approved JARDIANCE® (empagliflozin) for the treatment of type-2 diabetes in children 10 years and older. Empagliflozin is the first and only SGLT2 inhibitor approved for this patient population.

In 2023, we advanced survodutide (BI 456906), a glucagon/GLP-1 receptor dual agonist, into pivotal development with three phase-III-trials – SYNCHRONIZE-1, SYNCHRONIZE-2, and SYNCHRONIZE-CVOT. In June 2023, we reported the phase-II-study which showed nearly 19% weight loss in overweight or obese individuals treated with survodutide. Based on our scientific understanding of the interconnected nature of cardiovascular, renal, and metabolic (CRM) diseases including obesity, we are investigating survodutide also in Non-Alcoholic Steatohepatitis (NASH, also called Metabolic Dysfunction-Associated Steatohepatitis/MASH) and potentially in other CRM diseases. The data readout for the phase-II-NASH-study is expected in early 2024. The European Medicines Agency accepted survodutide to the Priority Medicines (PRIME) scheme for NASH in November 2023.

In November 2023, phase-II-results of our novel aldosterone synthase inhibitor BI 690517 on top of empagliflozin were presented and demonstrated significant albuminuria reductions by up to 39.5% vs. placebo, suggesting additive efficacy of BI 690517.

Oncology

Our firm belief in the importance of scientific innovation is particularly reflected in our very diverse pipeline of cancer cell-directed and immuno-oncology examination therapies and the combination of these approaches. We are taking a comprehensive approach by creating a collaborative research network to draw on a variety of ideas, which is particularly important in the field of cancer research.

In 2023, our MDM2-p53 antagonist brigimadlin (BI 907828) further advanced in clinical development. The Brightline-1-trial investigating brigimadlin compared to doxorubicin as first-line treatment for people with advanced dedifferentiated liposarcoma (DDLPS) – a rare and aggressive form of liposarcoma – progressed into clinical phase III and completed enrollment. The US FDA has granted Fast Track Designation to brigimadlin for the treatment of soft tissue sarcoma in January 2023. In July 2023, the European Medicines Agency granted brigimadlin Orphan Drug Designation for the potential treatment of soft tissue sarcoma, including DDLPS.

Zongertinib (BI 1810631) is a human epidermal growth factor receptor 2 (HER2) inhibitor that covalently binds to the tyrosine kinase domain of both wild type and mutated HER2 receptors, including those with an exon 20 insertion. It received US FDA Fast Track Designation in May 2023. The phase-I-Beamion-LUNG-1-trial is investigating zongertinib as a monotherapy in people with NSCLC whose cancer harbors HER2 mutations.

Our asset in immune-oncology, the DLL3/CD3 T-Cell engager BI 764532, received US FDA Fast Track Designation for the second-line treatment of extra-pulmonary Neuroendocrine Tumours (epNEC) and third-line treatment of Extensive-Stage Small Cell Lung Cancer (ES-SCLS) in September 2023 and the second-line treatment of Large Cell Neuroendocrine Carcinoma (LCNEC-L) in November 2023. US FDA Orphan Drug Designation was granted in October 2023 for the treatment of ES-SCLC. BI 764532 advanced into clinical phase II in the indications SCLC, epNEC, and LCNEC-L in late 2023.

Respiratory diseases

Another focus for Boehringer Ingelheim is the R&D of new therapeutic options for people with respiratory diseases where there is high unmet need.

In 2022, results from the InPedILD[®]-trial, investigating the dosing and safety profile of nintedanib in children and adolescents had been published. Consecutively, regulatory applications had been submitted to the European Medicines Agency and to the US FDA. Regulatory interactions are still ongoing.

In 2022, the company reported promising 12-week phase-II-trial data with nerandomilast (BI 1015550), a novel investigational phosphodiesterase 4B (PDE4B) inhibitor, which showed a disease-related reduction in the rate of lung function decline in patients with idiopathic pulmonary fibrosis (IPF). The potential new treatment builds on our leadership in lung fibrosis and nerandomilast (BI 1015550) is being further investigated in two phase-III-clinical-trials initiated in 2022: FIBRONEER[™]-IPF in patients with idiopathic pulmonary fibrosis and FIBRONEER[™]-ILD in people living with other progressive fibrosing interstitial lung diseases. In 2023, the FIBRONEER[™]-IPF team has achieved an acceleration in patient recruitment closing screening of patients five months earlier than planned.

Immunology

Immunological diseases greatly impact patients' lives. Boehringer Ingelheim is dedicated to discovering and developing first-of-their-kind therapies for these serious inflammatory diseases.

With an extensive understanding of molecular pathways, we are pioneering scientific breakthroughs that target, repair, and prevent inflammatory diseases of the skin, gut, and joints. Spesolimab, launched as SPEVIGO[®], is the most advanced immunological compound out of the current Boehringer Ingelheim pipeline. In 2022, spesolimab received approval for the treatment of GPP flares in adults in the US, EU, China, and Japan based on positive phase II data from our EFFISAYIL-1-trial.

In 2023, Boehringer Ingelheim presented the positive results of the EFFISAYIL-2-trial, demonstrating superiority vs. placebo in preventing generalized pustular psoriasis (GPP) flares up to 48 weeks. Based on this data spesolimab received Breakthrough Therapy Designation (BTD) from the US FDA and the Center for Drug Evaluation (CDE) of China's National Medical Products Administration (NMPA) as an investigational treatment for the prevention of GPP flares.

Chronic and complex mental health conditions

Boehringer Ingelheim is evolving mental health research. We are strategically taking an intentional approach, designing treatments that have the potential to target the biology of the brain more precisely. We have a pipeline of owned and partnered assets which follow the approach to change precision psychiatry profoundly in indications of high unmet need.

The phase-III-trials for our investigational therapy iclepertin which targets cognitive impairment associated with schizophrenia are ongoing.

Our precision psychiatry approach goes beyond the idea that mental health treatment is just a pill. We are driven to provide more holistic support through psychological and psychosocial interventions, e.g. through prescription digital therapeutics for people living with chronic and complex mental health conditions.

One example of this approach is CT-155, an evidence-based prescription digital therapeutic developed together with our partner Click Therapeutics, Inc. which moved into the pivotal phase in 2023. CT-155 is being investigated for people experiencing negative symptoms of schizophrenia such as emotional withdrawal and lack of pleasure.

Retinal Health

Over the past decade we have built a diverse retinal health pipeline, focusing on the preservation of vascular function, and targeting inflammation and neuroprotection. One of our most advanced assets is BI 764524, a first-in-class antibody targeting the Sema3A pathway. Results from a phase-II-study supported further clinical development in people living with diabetic retinopathy, a leading cause of acquired blindness. Furthermore, we announced, together with our partner CDR-Life, the initiation of phase-I-evaluation of BI 771716, an antibody fragment-based treatment developed to preserve vision of people living with geographic atrophy (GA).

We are working towards a paradigm shift in retinal health through early detection and intervention with the end goal of preventing vision loss and protecting eyesight. In 2023, we embarked on strategic collaborations with leaders in ophthalmic digital technology, including Optina Diagnostics and RetinAI Medical, to accelerate the development of digital and AI tools that enable earlier detection of disease and disease progression. Our newly established collaboration with ZEISS (Carl Zeiss Meditec AG, Jena, Germany) will pave the way for the development of precision therapies and intervention before irreversible damage occurs.

Additionally, we are proud to be the first and founding industry member of the Ryan Initiative for Macular Research (RIMR) AMD Imaging Consortium. This non-profit consortium will create a database on a large scale to identify new biomarkers and endpoints and understand differences between subgroups. By doing so, we aim to develop treatments for Age-related Macular Degeneration (AMD) before it causes permanent damage.

Animal Health

Our goal is to pioneer first-in-class innovations in preventing, detecting, and treating diseases in pets, livestock, and equine. The research and development strategy is based on the approach of capturing disease causes and mechanisms in order to discover new ways to reduce or intervene in the disease process. Our focus areas include infectious diseases, noninfectious diseases, and parasiticides:

- In infectious diseases, we are working on detecting and preventing the spread of trans-boundary and emerging diseases. We also investigate the immune system and new vaccine technologies to reduce infections in both livestock and pets.

- For noninfectious diseases, we invest in innovative therapies for conditions such as heart disease, diabetes, chronic kidney disease, atopic dermatitis, and cancer.
- In parasiticides, we address key unmet needs, including convenience, resistance, and sustainability. We invest in developing new molecules and innovative technologies.

To deliver innovation in the various geographical regions, we organize our 16 R&D sites into four regional innovation centers located in the USA, Europe, and China. This allows us to concentrate critical mass and expertise. Designated sites within each region focus on specific segments of our overall strategy. Our local presence strengthens our execution capabilities and facilitates the development of regional external networks and partnerships.

Collaboration between our Human Pharma and Animal Health divisions is crucial. Our research and development teams collaborate to share knowledge about disease mechanisms, chemistry, compounds, and cutting-edge techniques. This collaboration has led to successful product introductions like SENVELGO® and SEMINTRA®. With more promising compounds in our pipeline, we anticipate further innovation in noninfectious diseases through this connection.

External collaborations also play a key role in complementing our in-house R&D capabilities. We focus on various disease areas in partnerships, including cardiometabolic diseases, immunology and inflammation, oncology, oral health, and infectious diseases, with a focus on bacterial infections. We partner with a range of institutions, from early academic research to established biotech companies, to develop new solutions for areas with a high medical need. For example, our collaborations with the Friedrich-Loeffler-Institut, the Pirbright Institute, and Oxford University in African Swine Fever (ASF) aim to develop more effective approaches to prevent ASF. In 2023, we expanded our collaboration with Saiba Animal Health AG (Pfäffikon, Switzerland) in vaccine technologies.

Major product innovations in 2023

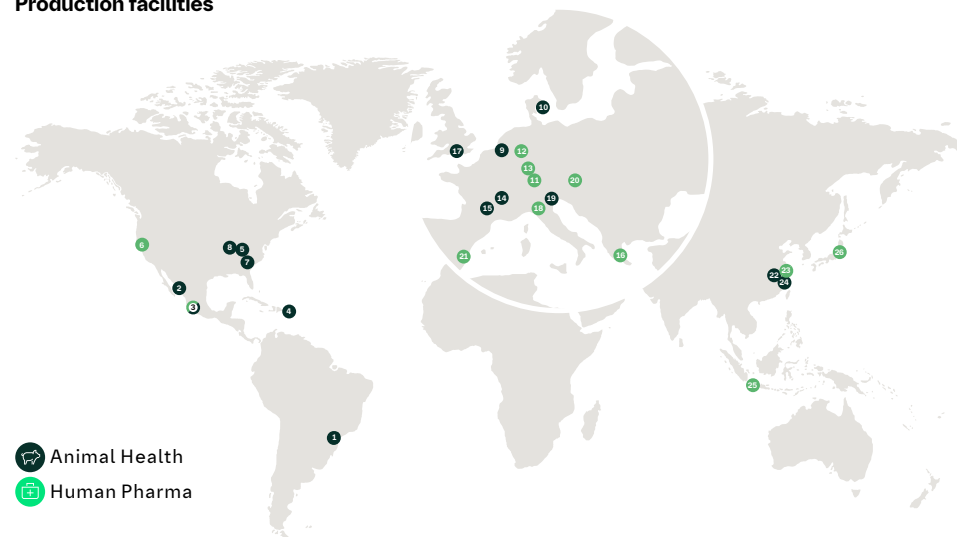
In 2023, we launched several new products. Notable approvals in 2023 include SENVELGO® in the US, the EU, and Great Britain, the first oral liquid medication for diabetes in cats. SENVELGO® is the first liquid once-daily, orally administered prescription medication to improve glycemic control in cats with diabetes mellitus. It makes treating feline diabetes simple and convenient for both cats and cat owners. Boehringer Ingelheim further completed its robust parasiticide portfolio with marketing approvals in the US for NEXGARD® PLUS and NEXGARD® COMBO. NEXGARD® PLUS is a monthly beef-flavored soft chew that protects dogs from flea, ticks, heartworm disease, roundworm, and hookworms. By combining internal and external parasite protection, NEXGARD® PLUS helps make monthly compliance easy and enjoyable for pets and pet owners. NEXGARD® COMBO is the only broad-spectrum protection for felines that covers fleas, ticks, roundworms, hookworms, heartworm disease, and tapeworms.



Production

Human Pharma

In the Human Pharma business, our production facilities are responsible for the steady supply of top-quality medicines for patients. The ongoing development of the company's internal production facilities and our strategic cooperation with external manufacturers have established a modern, global, and flexible network for market supply that encompasses the entire value chain, from suppliers of starting materials to worldwide logistics and the distribution of finished pharmaceutical products. Boehringer Ingelheim's production facilities focus on products that are strategically important for the company as well as on state-of-the-art manufacturing technologies. At the same time, partnerships with external manufacturers add specialist technologies to our production network that are not available in-house. They also expand the production capacity of standard technologies for products that have very high-capacity requirements or are already far advanced in terms of their life cycle. Boehringer Ingelheim's biopharmaceutical activities also comprise process development, launch preparation, and commercial production of biopharmaceuticals for third-party industrial customers.

Production facilities



-  Animal Health
-  Human Pharma

Americas

Brazil

1. Paulínia (AH)

Mexico

2. Guadalajara (AH)
3. Xochimilco (AH, HP)

Puerto Rico

4. Barceloneta (AH)

USA

5. Athens, Georgia (AH)
6. Fremont, California (HP)
7. Gainesville, Georgia (AH)
8. St. Joseph, Missouri (AH)

Europe

Belgium

9. Evergem (AH)

Denmark

10. Kalundborg (AH)

Germany

11. Biberach an der Riss (HP)
12. Dortmund (HP)
13. Ingelheim am Rhein (HP)

France

14. Grand Lyon Industrial Biologic Center* (AH)
15. Toulouse (AH)

Greece

16. Koropi (HP)

Great Britain

17. Pirbright (AH)

Italy

18. Forno (HP)
19. Noventa (AH)

Austria

20. Vienna (HP)

Spain

21. Sant Cugat (HP)

Asia

China

22. Nanchang (AH)
23. Shanghai (HP)
24. Taizhou (AH)

Indonesia

25. Bogor (HP)

Japan

26. Yamagata (HP)

* composed of the three sites Lyon Porte-des-Alpes, Lentilly, Jonage

In the 2023 financial year, this global network included Boehringer Ingelheim's own plants in ten countries. The Group has four biopharmaceuticals facilities. It also has two facilities for the chemical manufacture of substances and one that produces medical devices. In addition, finished pharmaceuticals are manufactured and packaged at seven facilities. The production site in Brazil was sold to a leading Brazilian pharmaceutical company in the 2023 financial year as a result of the corporate realignment.

Boehringer Ingelheim was able to ensure a steady supply of medicines for patients also in 2023. Alongside the use of appropriate safety stocks, this was possible thanks to the establishment of key manufacturing steps and technologies at multiple facilities that are in different geographical regions in some cases and by further strengthening the resilience concept for every link in the supply chain. A substantial contribution to the further development of supply security was the progress in the digital transformation of the production network and the entire supply chain in 2023. The control of the value chain from the supplier to the customer ("end-to-end") has been further optimized through the advanced implementation of the supply network strategy. The use of digital and automated processes and technologies enables a high level of transparency and efficient control of the global production network's supply chain.

Delivery capability and patient care are top priorities for Boehringer Ingelheim. We consistently make important investments in the development and transformation of production capacities in our chemical, biological, and pharmaceutical network. Capital is being expended at the headquarters in Ingelheim am Rhein (Germany) for a launch factory for the aseptic production of drugs for injection purposes. Expansion of production technologies and capacities for active pharmaceutical substances at the Ingelheim am Rhein (Germany) and Fornovo (Italy) facilities and for pharmaceutical medicinal products at the Ingelheim am Rhein (Germany), Koropi (Greece), Sant Cugat (Spain), and Yamagata (Japan) facilities were initiated or pushed forward in a sustained manner to ensure the supply of antidiabetics (in particular JARDIANCE®) as well as pipeline products. The commissioning of our biopharmaceuticals large-scale cell culture production building at our Vienna (Austria) facility represented a milestone in the expansion of our capacities in our network for newly developed products as well as a strengthening of the biopharmaceutical business.

At Boehringer Ingelheim, quality is not just our focus – we live it. Through close cooperation within our global network of communicators, we have managed to successfully implement Quality Culture 2.0. Here, the patient is at the center of our actions, with every employee actively making their contribution. The success of our initiative is reflected in the answers to a recent global employee survey, which confirmed a high level of commitment and active participation from each individual employee. All of these efforts support us in the continuous realization of our vision: "Quality & safety in all we do."

Animal Health

In 2023, Animal Health products were manufactured in a network of 15 production facilities in nine countries. In addition to the company's own facilities, approximately 70 contract manufacturers produced medicines for Boehringer Ingelheim in 2023. The product portfolio essentially consists of vaccines, pharmaceutical products, and nutraceuticals. It was successfully expanded with the market launches of NEXGARD® PLUS, NEXGARD® COMBO, FRONTPRO®, SENVELGO®, and further rollouts including TwistPAK® in other countries. A vaccine against the currently rampant, highly pathogenic avian influenza in Europe was also made available at short notice.

These chemical medicines and vaccines are supplemented with stem cell therapeutics and diagnostic products, as well as monitoring solutions.

Boehringer Ingelheim continues to invest in its manufacturing capacity for vaccines of the highest biological safety class in Jonage/Lyon (France) as well as the expansion and renewal of the aseptic production of vaccines in North America. The production network optimization that has already begun will be further advanced. The objective is the reliable and efficient delivery of all products.

Employees

In 2023, Boehringer Ingelheim employed an average of 53,565 people worldwide. This represents an increase of +0.8% over the previous year.

Average number of employees by region

	2023	2022
Americas	13,248	13,248
Europe	29,709	29,221
Asia/Australia/Africa (AAA)	10,608	10,686
	53,565	53,155

Our committed employees – who identify with our corporate values and objectives – are an indispensable success factor driving our Group’s positive development. A positive, respectful, and appreciative working atmosphere is crucial in this regard. With their high level of personal commitment every day, they help us to fulfill our joint promise of ensuring the supply of vital medicines. There are many opportunities for regular conversations, such as through employee reviews held at least biannually. In addition, we receive important feedback through our annual global employee survey, which enables us to continuously improve our work environment.

Boehringer Ingelheim’s success is based on the innovation developed by its employees in 79 countries. The global nature of our value chain, the international nature of our clientele, and the stringent and greatly varying requirements of national regulators demand great flexibility from our organization as a whole. We are convinced that relationships based on trust as well as mutual openness, respect, and empathy are values that make us strong and competitive. Diversity of thought and a spirit of inclusion in our relationships with one another promote a capacity for innovation in every area of our business.

At Boehringer Ingelheim, we are convinced that the future holds unique opportunities for more innovation, greater sustainability, and better health. Our company-wide purpose “Transforming lives for generations” unites us all as an expression of our ambition to create a better future for upcoming generations. In order to optimally equip our employees for the future requirements of the constantly changing health and labor market, we have made lifelong learning and further development of our personnel a priority in our

corporate strategy. With the introduction of Boehringer Ingelheim University, the company is driving a sustainable learning culture and helping to link the organization’s objectives with its employees’ capabilities. The learning content is made accessible to all employees worldwide at any time via the new learning platform, the “Virtual Campus”. These learning recommendations are tailored to the profiles of the employees. The service comprises internal and external content and is as diverse as the company itself. This includes the Data Science Academy, where different target groups from beginners to data experts find tailor-made learning opportunities, and the University of Medicine Excellence. The new Leadership Academy offers both new and experienced managers orientation with targeted programs and is a material component for further promoting the learning culture. More than 21,500 employees worldwide have started their further training in the new learning environment since the “Virtual Campus” opened in October 2023.

Another important cornerstone for developing the specialists of tomorrow is our training programs: With 33 different scientific, technical, and commercial training courses and cooperative study programs, our company offers young people an opportunity to get started in their professional lives. For the first time, students from the “Data Science and Artificial Intelligence” cooperative study program are among the young talents. An average of 754 young people worldwide were enrolled in Boehringer Ingelheim’s vocational training program in 2023. A total of 234 young people started their careers at the German facilities of Boehringer Ingelheim alone. The selection of training places and cooperative study programs is closely coordinated with our disciplines in order to ensure that the curricula and training programs meet our needs.

One of the company’s most important objectives is to further enhance the appeal of Boehringer Ingelheim as an employer. In addition to attractive career paths, Boehringer Ingelheim offers additional benefits to the workforce. These include a range of company pension plans, flexible and home-based work options, and numerous health-related benefits. In 2023, our company once again won recognition as a top employer from the auditors of the international and independent Top Employers Institute. Boehringer Ingelheim is particularly recognized for its outstanding employer benefits in the areas of “well-being” as well as “work environment” and “rewards and recognition”. The results reflect the company’s holistic approach to workforce health and well-being. Here, the concepts of physical, social, and mental health are integrated, along with financial security.

The award in 29 countries and three regions – including first place in Latin America – makes us a “Global Top Employer” for the third time in a row. 15 employers worldwide held this title in 2023. In addition to the German facility, Boehringer Ingelheim has operations in Argentina, Australia, Austria, Brazil, Chile, China, Colombia, Ecuador, France, Hungary, India, Indonesia, Italy, Malaysia, Mexico, the Netherlands, New Zealand, the Philippines, Poland, Romania, Saudi Arabia, Singapore, South Korea, Spain, Thailand, the United Arab Emirates, the United Kingdom, and Vietnam.

Sustainable Development for Generations

Sustainability has always been part of Boehringer Ingelheim’s journey, born out of our Leitbild. Our sustainability strategy is based on our strengths as a global human and animal health company and our ambitious commitments strive to achieve greater impact on health, for society and the planet. The current sustainability framework, “Sustainable Development for Generations” was formally launched in 2021 and takes an integrated holistic approach that is based on three pillars:

- MORE HEALTH – Good Health for People & Animals
- MORE POTENTIAL – Good Health for Communities & Our People
- MORE GREEN – Good Health for Our Planet

The framework incorporates initiatives we have been implementing for many years, continuously evolving them in consideration of shifting sustainability challenges, and in alignment with the UN Sustainable Development Goals. We strive to embed them into our core business, which is uniquely positioned to address the intertwined connection between humans, animals, and the environment.

By 2030, we aim to achieve the following commitments:

MORE HEALTH: expanding access to healthcare for 50 million people in underserved communities, investing 35 billion EUR in health innovation and research to tackle non-communicable diseases and an additional 250 million EUR in partnerships to combat emerging infectious diseases.

MORE POTENTIAL: improving the lives of another 50 million people in underserved communities around the globe, by engaging employees, partners, and social entrepreneurs to collaborate and create solutions that achieve more economically sustainable, inclusive, and healthy communities.

MORE GREEN: We will be carbon neutral in our operations (Scope 1 and 2), cut our resource footprint by half across the value chain and continue to create best practices in a range of areas, from water stewardship and waste-to-landfill to tackling anti-microbial resistance.

Boehringer Ingelheim has a strong commitment to health, and we have been developing lifesaving medicines for decades. Today, we are helping millions of people worldwide live longer, healthier lives. But our ultimate goal is to create social impact for the entire population – capable of serving every patient. To achieve this, we address health equity and wellbeing across the whole patient continuum of care: from pharmaceutical innovation over prevention and healthcare delivery to tackling equitable access. We focus on rapid innovation, integrating sustainability along our value chain and fostering multi-stakeholder collaboration. In particular to improve the lives of people and animals living in underserved communities.

In consideration of increasing global healthcare disparities due to social, economic, and environmental factors, we see a need to improve access to healthcare. Subsequently, in 2023, we evolved our sustainability strategy further to concentrate on nine programs that sharpen our focus on health equity and where we believe our company makes the most relevant contribution to society and environment. These programs are Innovation, Disease Prevention, Access, Healthcare Delivery Support, Social Engagement Models, Impact through our People, Responsible & Sustainable Sourcing, Sustainable Medicines, and Decarbonization & Water Management.

External Recognition

External recognition of our sustainability efforts is an additional validation of the effectiveness of our strategy, our progress in implementation and strong commitments. In 2023, Boehringer Ingelheim received the German Sustainability Award for our global efforts in pioneering transformation in the pharmaceutical industry. The award was given in recognition of our global efforts to improve health care and reduce social inequality, demonstrated for example through our “Angels” initiative and efforts to control animal diseases through monitoring, research, and vaccine production. In addition, Boehringer Ingelheim received a silver medal from EcoVadis in the 2023 annual sustainability assessment, placing us within the top 25% of all rated companies. The results are used as a basis for further improvement, such as to enhance our sustainability reporting in alignment with European and international sustainability reporting standards. Moreover, our decarbonization targets (Scopes 1, 2 and 3) were validated and approved by the Science Based Target initiative, demonstrating Boehringer Ingelheim's alignment with and support of the 2015 Paris Climate Accord.

MORE HEALTH – Good Health for People and Animals

MORE HEALTH follows our ambition to develop better therapies and enable better solutions for global healthcare challenges. The pillar includes a number of projects and initiatives, reflecting the diversity of our patients and the expertise of our partners. These include:

Access to Healthcare

These initiatives seek to improve healthcare in underserved communities, from disease awareness, diagnosis, effective prevention, and care up to availability of medicines. Examples of activities and milestones in 2023 include:

- In 2023, Boehringer Ingelheim continued to support the Defeat-NCD Partnership on four interconnected pillars: National NCD Capacity Building, Community Scale-Up of NCD Services, Affordability and Accessibility of Essential NCD Supplies, and Financing for Country-Level NCD Programming in India, Gambia, Rwanda, and Djibouti. Boehringer Ingelheim joined the Defeat-NCD Partnership in 2019. This is a public-private-people partnership launched in 2018 and envisions universal health coverage for non-communicable diseases (NCDs) in less developed regions.

- Our “Access to Healthcare” initiative offers a comprehensive program in non-communicable diseases to patients from screening to treatment to follow-up. It aims to provide equitable access to Diabetes, Hypertension, and Chronic Obstructive Pulmonary Disease (COPD) therapies. In 2022, the initiative was started in Kenya as a pilot country with screenings and referrals, followed by patients’ enrollment to access SPIRIVA®, TRAJENTA®, and MICARDIS® at a tiered price to achieve equitable access and support adherence for patients with low income in underserved communities. In 2023, the initiative screened over 29,000 people.
- The PATHWAYS Indigenous Health Collaborations project in Canada aims to impact the lives of members of Indigenous communities by addressing the high prevalence of certain non-communicable diseases in these communities. The program was established in 2018. It is Indigenous-led and Indigenous-informed and has the vision to close the health gap experienced by Indigenous communities, while focusing on relationship building and a more sustainable future for all partners. To date, the program has impacted over 50,000 people in more than 30 Indigenous communities across Canada through eight pilot projects (British Columbia, Alberta, Manitoba, Ontario, Nova Scotia, and Nunavut). Each is tailored to the individual needs of the respective community.
- In 2023 Boehringer Ingelheim announced a three-year partnership with Heart of Australia, a program focusing on delivering specialist healthcare services to rural communities through state-of-the-art mobile medical clinics. Under the NextGen Medics Program supported by Boehringer Ingelheim, we aim to raise awareness of the healthcare needs in rural and remote Australia, and boost sustainability of regional healthcare workforce. 20 medical and allied health students travelled over 6,500 kilometers across Queensland, serving approximately 300 patients while being immersed in Heart of Australia’s rural health program.

Angels

The “Angels” initiative aims to increase the number of patients treated in stroke-ready hospitals and optimize the quality of treatment in all existing stroke centers. In 2023, we added 1,000 clinics and ca. 67,000 doctors, nurses, and paramedics to our network. To date, the “Angels” initiative is the largest stroke community in the world to include over 170,000 healthcare professionals from more than 8,100 hospitals in 155 countries and has helped over 16 million stroke patients.

In 2019, the initiative partnered with the World Stroke Organization and University of Macedonia to implement the FAST Heroes program. This is an award-winning educational initiative targeted at children and aims to raise awareness of early stroke symptoms and necessary actions. It leverages children’s enthusiasm for learning and encourages knowledge sharing with the rest of the family. To date, we have supported to implement this initiative in 8,446 schools and reached over 400,000 children, who were asked to educate two grandparents. In 2023, more than 110,000 grandparents were reached.

LastMile

The “LastMile” initiative now reaches well over 40,000 smallholder farmers in Kenya, Cameroon, Nigeria, Mali, Burkina Faso and Ethiopia. It has enabled 56 product registrations. This initiative was launched in 2018 and aims to increase access to healthcare solutions, vaccines, and treatments to optimize the health and productivity of livestock. It also aims to increase awareness for smallholder farmers in underserved communities on better prevention of animal diseases.

Product Donations

Product donations are aimed at complementing Boehringer Ingelheim’s access to healthcare efforts, by providing medicines to underserved communities, who otherwise would not have access. In 2023, product donations reached over 149,000 patients in 48 countries.

STOP Rabies

Through our “STOP Rabies” program, we work to deliver on-the-ground solutions to prevent rabies, in collaboration with governmental and non-governmental organizations, health authorities, veterinarians, dog owners, and other organizations. Our approach includes three components:

- **Vaccination:** providing high-quality vaccines and sharing best practices for dog vaccination campaigns
- **Education:** improving awareness and knowledge of the disease and prevention measure in underserved communities
- **Surveillance:** monitoring dog vaccination campaigns and rabies incidents, using tools developed by the Global Alliance for Rabies Control (GARC)

By 2038, we aim to provide 500 million vaccine doses and educate 15 million children.

In 2023, we provided 43.2 million rabies vaccine doses and carried out vaccination campaigns in endemic countries. This includes vaccinating over 7,000 dogs and cats across Vietnam and Malaysia, through our partnership with GARC, local governments, and universities. In India, we collaborated with the local government of Mumbai and the Pet Practitioners Association to vaccinate 30,000 animals (dogs and cats). In South Africa, we supported the vaccination of over 25,000 dogs through the collaboration with the Khula Outreach program and South African Veterinary Association Community Veterinary Clinics.

Through different models for education, we reached over 50,000 children in Africa and Latin America to increase awareness on the disease and necessary preventative measures. In addition, we financially supported the launch of a rabies prevention education campaign in 100 schools in Ghana in collaboration with the Ghana Education Service.

MORE POTENTIAL – Good Health for Communities and Our People

MORE POTENTIAL builds on our culture to activate our employees and partners for impact. It integrates work that enables our people to realize their potential through our culture and leadership approach and aims to improve the health of underserved communities with social engagement models.

Diversity, Equity & Inclusion (DEI)

Through our core values of empathy, respect, passion, and trust, we foster a diverse, equitable, and inclusive work environment, which is key for innovation, value creation, and sustainable growth. Boehringer Ingelheim is convinced that valuing diversity and fostering an inclusive environment with an equitable approach is the right thing to do for our people and communities. It also enables us to better understand and fulfill the different needs of our patients, customers, and partners around the globe.

DEI is part of our Code of Conduct, which lays the foundation for a workplace free of discrimination and harassment. We encourage our employees to speak up and report any behavior or activities that contradict our values. We firmly believe that a company culture based on integrity depends on every individual and we continuously train leaders and employees on DEI topics and our DEI framework, as well as unconscious bias and inclusive behaviors. One example is a dedicated section on DEI in the new First Line Leaders Program, which was piloted in 2023.

Furthermore, DEI is emphasized in the recruitment and onboarding process of new employees. An example of this is the inclusion of a DEI session into our onboarding academy. In 2023, we introduced “ColorADD”, a color identification system for people with color vision impairment, to further develop inclusive communication for all our employees.

Our organizational set up includes a Corporate DEI office, over 20 DEI Champions around the globe, and a Global Culture and DEI Council. Boehringer Ingelheim also encourages Employee Resource Groups (ERGs) and networking. To date, the company has over 40 ERGs or networks that are voluntarily formed and leadership sponsored. Furthermore, the company enables employees to raise their voice in case of any potential non-compliance or discrimination through the Speak Up procedure and pursues the mediation of biases and inequities within systems, processes, and practices.

Employee Health and Wellbeing

In 2023, we established a holistic approach to employee wellbeing across four dimensions of health: mental, physical, social, and financial. The approach is person-centered, training both managers and employees, and designed to make wellbeing resources easily accessible. By enabling everyone’s wellbeing, we create a healthier and safer workforce, supporting motivation, employability, and performance.

This builds on our internal “BE SAFE” program, which has proven instrumental in contributing to a safer work environment, by increasing safety awareness and promoting responsible conduct. In 2023, we sustained an Accident Frequency Rate (AFR) of 1.3. We also initiated a global reassessment to evaluate safety culture across all regions. Based on these findings, we aim to launch an upgraded safety culture program in 2024. Furthermore, 2023 marked Boehringer Ingelheim’s re-engagement in the European Agency for Safety and Health at Work (EUOSHA) “Lighten the Load” campaign, where we now serve on the EU steering committee.

Our complementary “BE HEALTHY” program focuses on supporting employees’ physical and mental health and helps us foster collaboration around mental health between different therapeutic areas. In 2023, we continued to evolve the program and have now successfully implemented it at all sites worldwide. By 2025 we aim to train 2,000 employees to become health and wellbeing ambassadors (“Health Navigators”). In 2023, 333 employees were trained. By becoming a Health Navigator, the employee is responsible for acting as an ambassador for leading a healthy and balanced work life, by guiding colleagues on health-related questions, including Ergonomics, Mental Health, and Nutrition. In addition, preventive screenings are promoted.

Employee Volunteering Engagement

In 2023, we launched a global integrated approach for Employee Volunteering Engagement. This aims to provide all employees with an opportunity to contribute to our sustainability strategy through social impact. It offers a range of hands-on to skills-based volunteering activities, where employees have opportunities to develop, while helping to solve pressing social challenges. In 2023, 8,625 employees volunteered.

Human Rights

Our approach to Human Rights is aligned with the United Nations’ Guiding Principles on Business and Human Rights. The key principles are embedded in our company culture and underlined in our Human Rights Policy Statement and Environmental, Health, Safety & Sustainability guidelines. Moreover, Human Rights are integrated in our Code of Conduct, our Supplier Code of Conduct, and our Environmental, Health, Safety (EHS) Compliance program. We are a member of the “Pharmaceutical Supply Chain” initiative (PSCI). Our Supplier Code of Conduct and EHS guidelines are aligned to the PSCI’s principles.

In 2023, we expanded our commitment to Human Rights by implementing a multi-layered governance structure and appointing a Human Rights Officer to further increase oversight. Our 2023 Human Rights Risk Analysis was completed and in June our first Human Rights Policy Statement was published. A new third-party risk management process was implemented to address Human Rights in the supply chain. In addition, we strengthened our speak-up measures and increased internal awareness on Human Rights through selected Human Rights risk management and due diligence trainings for experts, as well as general information sessions for all colleagues.

Making More Health (as of 2024, under the “Social Engagement Model” program)

Central to our strategy is an all-encompassing approach that covers a wide portfolio of initiatives with different approaches, ranging from supporting underserved communities through community activation and innovative social entrepreneurs, to developing and sustaining selected social startups through grants and impact investments. We have named this the “Boehringer Ingelheim Social Engagement Continuum”. It has the objective to address diverse needs, while linking interdependent issues such as economic development, infrastructure, education, culture, and healthcare. It also leverages the skills and know-how of employees, by providing employee engagement opportunities to increase social impact.

Our initiative “Making More Health” was jointly established in 2010 with our partner Ashoka, the world’s largest network of social entrepreneurs. To date, we support over 130 social entrepreneurs worldwide, engaged in the areas of human and animal health. Supporting innovative social entrepreneurs and empowering our partners and employees is key to our strategy to positively impact underserved communities and contribute to the United Nations Sustainable Development Goals. We recognize that achieving this ambition requires collaboration. In 2023, we evolved our partnership approach to include Villgro Africa as a key partner. Villgro Africa is an impact investor incubator supporting early-stage social entrepreneurs in Africa.

Highlights in 2023 include:

- **Community Activation:** In 2022, the System Changer Network (SCN) was initiated in Kenya to leverage systemic change and empower underserved communities more holistically. After a first successful pilot year, which covered topics such as health, energy, water, nutrition, organic farming, and animal health, an additional SCN was launched in India in 2023.
- **Social Business Incubation and Acceleration:** These programs assist social start-ups in sub-Saharan Africa with financial means and management skills through employee engagement to accelerate and scale-up their business model. To date we have supported over 30 social enterprises. In 2023, and in collaboration with our partner Villgro Africa, another eight social enterprises were selected to join our business incubation program “Rising Stars”. These focus on prevention, detection, and treatment of chronic kidney disease. Moreover, five social start-ups joined as the next cohort of the “Business Accelerator program”.
- **Impact Investment:** The Boehringer Ingelheim Social Engagement Fund is a 50 million EUR fund dedicated to impact first investment. It uses financing tools linked to in-kind contributions from Boehringer Ingelheim employees and partners to scale and sustain social startups working towards improving the health and wellbeing of humans and animals in underserved communities. In 2023, the social enterprises GenePlus and Ilara Health were announced as the next recipients. The investment in GenePlus intends to support farmers in rural communities over the next seven years, by increasing essential farming resources aimed at boosting productivity. The investment in Ilara Health is to provide additional diagnostic devices for underfunded primary healthcare clinics over the next five years and improve access to treatments for underserved, low-income patients in informal settlements.
- The “**Making More Health Together 2023**” convention was a two-day hybrid event in Ingelheim am Rhein (Germany). 1,100 participants from social entrepreneurship, industry, civil society, academia, and impact financing came together to discuss sustainable solutions for pressing healthcare issues. MMH Together is an annual event and strives to build a strong network of complementary stakeholders driving sustainable social impact.

MORE GREEN – Health for Our Planet

A healthy planet is a prerequisite for healthy people, animals, and communities. Environmental challenges should not be seen in isolation, as they have tangible effects on the health of whole societies. MORE GREEN focuses on 1) reducing the environmental footprint of our operations, 2) promoting a sustainable use of resources along the value chain, and 3) increasing internal awareness on environmental sustainability, in order to help safeguard the health of current and future generations.

Carbon Footprint

We are committed to becoming carbon neutral in our company operations (Scope 1 and 2) by 2030. In 2023 our targets (Scope 1, 2 and 3) were validated and approved by the “Science Based Target” initiative. Additional milestones include:

- New carbon neutrality certification of our sites at Paulínia (Brazil) and Fornovo (Italy).
- Re-certification of our sites at Dortmund and Kathrinenhof (Germany), Gainesville (USA), Shanghai (China), and Sant Cugat (Spain) as carbon neutral.
- The amount of renewable electricity purchased worldwide has increased to over 70 % in 2023. This is due to the transition to renewable solutions at various locations, including sites in Austria, Germany, Spain, and the USA. This also includes a new 1.2 MW solar plant, which assumed operations at our corporate headquarters in Ingelheim am Rhein (Germany) in August. In 2024, a new biomass power plant will assume operations at our corporate headquarters.
- Extension of the strategic supplier engagement to include 200 suppliers, which is continuously monitored via a global performance measurement tool, in order to reduce Scope 3 emissions.
- Increased climate contributions beyond our value chain to 15 carbon reduction projects in 11 countries worldwide since 2019 – with more than 230,000 tCO₂e captured or avoided.

Circular Economy and Resource Use

Boehringer Ingelheim implements a data-driven circular economy and resource use approach, in order to continuously optimize resource use in our operations, reduce the environmental footprint of new and existing products and devices, and promote waste and cost reductions. This is achieved by implementing optimization measures, including life cycle assessments (LCA), eco-design, and environmental risk assessments.

Milestones in 2023 include:

- The production site in Dortmund (Germany) became the third site to achieve a “Zero Waste to Landfill” certification, accredited by TÜV Rheinland. Sites in Shanghai (China) and Sant Cugat (Spain) were recertified.
- The continued reduction of packaging waste. One example is our production site in Yamagata (Japan), where the team found a way to decrease the plastic film used in blister packaging by two millimeters, leading to a reduction of 1.8 tons of waste and savings of 18,000 EUR per year.
- In 2023, we installed a bio-digester at our canteen in Ingelheim am Rhein, which has the capacity to serve 8,500 employees daily, enabling a significant reduction of food waste.
- The product environmental footprint was evaluated through a lifecycle assessment (LCA) for the products JARDIANCE® and NEXGARD® in 2023. In addition, a lifecycle assessment for OFEV® was conducted and certified by TÜV Rheinland and confirms that the assessment meets international standards.

Green Chemistry (as of 2024, the “Sustainable Medicines” program)

Boehringer Ingelheim is working towards advancing circular economy aspects and reducing our environmental impact by developing more sustainable, green medicines using eco-design: These aspects are implemented across all stages of the pharmaceutical value chain to minimize waste and apply eco-design and green chemistry concepts in new products. Our ambition is that by 2030, 100 % of our R&D projects and products will apply these principles.

Through continuous optimization measures, we have reduced our annual volume of waste to landfills and resource use, while increasing our recycling and reuse rates since 2010, thus optimizing the environmental footprint of future products.

Specifically, by integrating eco-friendly criteria into standard R&D activities, our Innovation Unit (IU) is working towards further reducing the environmental footprint of our medicines. This approach utilizes principles of eco-design and green chemistry across the global R&D organization, starting from the synthesis of drug substances, drug products, and devices to the final packaged medicines. Milestones for 2023 are:

- Implementing the “Eco-design Playbook”: This checklist of eco-design criteria is currently being evaluated for every project at specific milestones during the drug development of small molecules and biologicals.
- Operationalizing the “IU MORE GREEN Grant” program, which supports eco-design with open innovation on opnMe.com. OpnMe is our global platform to collaborate with researchers for the advancement of preclinical projects in healthcare, currently over 5,000 users are registered. To date we have initiated four research grants, covering a broad spectrum of topics from biocatalysts in fluorination and peptide synthesis, to mechanochemistry, the intensification of downstream biological processes, stable biological formulations, and biodegradable primary packaging. Each selected project receives a 80,000 USD grant for a 12-month research collaboration.
- Implemented the second “IU MORE GREEN Award” in November, the recipient was recognized for their exceptional application of eco-design in the production of antibody-based medicines. This achievement has led to increased efficiencies, decreased environmental impact and a reduction in costs.

MORE GREEN Fund

The “MORE GREEN Fund” provides an additional 130 million EUR to promote more environmentally sustainable technologies and solutions for internal projects, focusing on circular economy, decarbonization, water management, and biodiversity. It serves as an accelerator for the implementation of innovative and forward-looking clean technologies, as well as a database of best practices for our sites around the world.

Since 2020, the fund has supported 66 Capital Expenditures (CapEx) investment projects, 15 of these were incorporated in 2023. The fund has also supported an additional 40 initiatives worldwide, six of which were added in 2023. Milestones in 2023 include:

- Increase of on-site renewable energy generation through a solar panel system at our production site in Shanghai (China).
- Inauguration of a new 1.2 MW solar power plant at our site in Ingelheim am Rhein (Germany).
- Installation of electrical vehicle (EV) charging systems at our sites in Dortmund (Germany) and Ridgefield (USA).
- The support of the installation of biogas plants and solar panels in underserved communities in Webuye (Kenya). This ensures, for example, that vaccines and medications can be stored safely and environmentally sustainable.
- In 2022, the “MORE GREEN Fund” supported the construction of a solar-powered water tower and water dispenser stations to improve access to clean water to underserved communities in Kibisi (Kenya). In 2023, water distribution was made accessible to 1,100 families which is approximately 6,600 individuals, amounting to a total of 956,400 liter of water. In 2024, the goal is to target 6,000 households.

Water Stewardship

Boehringer Ingelheim implements water management and water risk programs at all production sites and aims to implement a “Water Stewardship” certification by the Alliance for Water Stewardship (AWS) at all sites affected by water scarcity. To date, our production sites in Fremont (USA) and Promeco (Mexico) are AWS certified. In 2023, the production site in Sant Cugat (Spain) initiated AWS implementation.

Moreover, we assess active pharmaceutical ingredients (APIs) and other trace substances in the environment. This is the basis for our “Clean Water” initiative, which ensures traces of pharmaceuticals in wastewater remain significantly below any effect level. This initiative collaborates with industrial networks and suppliers across the entire value chain.

Report on economic position

Macroeconomic environment

In 2023, the global economy was once again faced with immense economic challenges. After a strong economic recovery at the beginning of the year – which was boosted by falling energy prices and relaxed COVID-19 regulations in China – growth expectations fell to a moderate level in the middle of the year. According to the International Monetary Fund (IMF), global economic growth decreased from +3.5% in 2022 to +3.1% in 2023. The decline in economic growth and the slow recovery result from various factors. On the other hand, the effects directly associated with the COVID-19 pandemic were largely overcome. In May 2023, the World Health Organization (WHO) lifted the global COVID-19 health emergency status. According to the IMF's assessments, the severely affected supply chains have largely returned to normal – both delivery costs and delivery times have returned to pre-pandemic levels. Conversely, the remaining long-term consequences of the COVID-19 pandemic and the ongoing wars in Ukraine and Israel had a negative impact. Economic measures such as tightening monetary policy to reduce inflation and withdrawing fiscal support also influenced global economic performance. Furthermore, increasing geopolitical tensions and conflicts caused greater uncertainty.

The global pharmaceutical market grew to approximately 1.28 trillion EUR last year, which corresponds to an average annual growth of +8% over the last five years (source: IQVIA). In comparison to other industries, the pharmaceutical market is shaped in the long term by the performance of the economy and, in particular, the demographics of society. Accordingly, IQVIA expects the strongest growth in total medicine volumes in the coming years up to 2027 in Latin America, Asia, and Africa. This is due to the comparatively higher population growth and improved access to medical care in these countries. However, more moderate medicine volume growth is forecast in North America and Europe.

The high inflation rates led to higher energy and production costs for pharmaceutical companies – and also for Boehringer Ingelheim. However, the sales prices, which are often regulated, did not change. In 2023, the health systems of many countries continued to be exposed to increasing pressures due to rising costs and an aging population.

In order to address these challenges, many healthcare systems relied on quick-acting measures such as mandatory price reductions for medicines, external reference pricing systems, and lengthy and complex pricing processes that delay access to innovative medicines.

Such measures carry the risk of restricting investments in new treatment options and the provision of innovative medicines. The pharmaceutical industry works closely with governments and public health authorities to meet these challenges in order to ensure and improve access to medicines in a sustainable manner, reduce delays in market approval, and provide patients with innovative medicines. A reliable legal framework that promotes innovation and ensures the protection of intellectual property remains an important prerequisite for achieving this objective. Tendencies at the EU level aimed at weakening incentive instruments would send the wrong signal. Cutting-edge research, investment in pharmaceutical innovation, and competitiveness would be in decline. This could make it more difficult for European patients to participate in clinical trials and access new, innovative therapies.

The Animal Health market – consisting of the pet, horse, and livestock segments – continued its growth trend in 2023. The long-term drivers of growth are primarily population growth, the rising standard of living of many people in growth markets, and the increased life expectancy of animals due to constant improvements in veterinary care. Additionally, the increasing humanization of the growing pet population is a key driver of increased investment in animal health by pet owners. The livestock sector is benefiting from increased demand for animal proteins as well as increasing interest in food safety from government health organizations worldwide. Furthermore, growing consumer expectations for sustainable protein production that is focused on animal welfare reinforces the importance of preventive animal health. In general, consolidation through mergers on the customer side is ongoing, which leads to increased competition. In the future, growth in the Animal Health business will largely be driven by digital, therapeutic, and preventative innovation. In order to grow with the market, investments need to be continuous, sustainable, and competitive.

Although the fear of a recession appears to have been overcome, the risks to the global economy remain high. After inflation in numerous countries in 2022 reached a high level not seen in decades, the sharp increases in key interest rates are starting to show their first effects. Inflation figures are falling in the major economic areas of the US, Canada, and the EU, but they are still far from their targets. The IMF sees headline inflation globally at 6.8% in 2023 and at 5.8% in 2024. These high inflation rates lead to a loss of purchasing power and economic uncertainty. At the same time, the increased interest rates are impacting investment demand and putting pressure on global financial markets.

According to the IMF, global economic growth will amount to +3.1% in 2024. According to the Organisation for Economic Cooperation and Development (OECD) and the IMF, inflation will decline but remain above target. The likelihood of a soft landing – with no significant decline in economic activity and only a moderate increase in unemployment – has increased. However, according to the IMF, there are numerous risks that could have a significant impact on global economic growth: The ongoing crisis in China's real estate sector could intensify and impact other areas, such as exports of commodities and raw materials. In addition, higher inflationary pressures could lead to further increases in key interest rates. This particularly affects low-income developing countries that are threatened or already affected by a debt crisis.

Furthermore, global supply chains could be permanently disrupted due to “geopolitical fragmentation” and consequently make cooperation on climate policy more difficult. Moreover, ongoing climate change is increasing the risk of the occurrence of natural disasters and therefore of the related health and economic impacts. The IMF emphasizes that effective monetary policy, the right political framework, and good communication are crucial to meeting these challenges.

Currency development

Boehringer Ingelheim's global presence means that currency trends influence its financial performance. The US dollar (USD), the Japanese yen (JPY), and the Chinese renminbi (CNY) are particularly worthy of note here. The US dollar fluctuated between a high of 1.06 EUR/USD (October) and a low of 1.11 EUR/USD (July) in 2023. The Japanese yen started January at a high of 140.5 EUR/JPY and fell to a low of 161.84 EUR/JPY (November). The Chinese renminbi reached a high of 7.32 EUR/CNY (January) at the beginning of the year and recorded a low of 7.95 EUR/CNY (July) in the middle of the year. Significant transactional currency risks are hedged through suitable currency instruments.

Currency development

Average rate – basis: 1 EUR	2023	2022	Effect on net sales (in million EUR)
US dollar	1.08	1.05	–214
Japanese yen	151.94	138.00	–133
Chinese renminbi	7.66	7.08	–85

Net sales

For Boehringer Ingelheim, stable and competitive financial performance and solid financing are the basis for independence, making them the focus of our actions. On this basis, we can implement our corporate purpose “Transforming lives for generations” and invest in innovation on a competitive scale, thereby making our contribution to improving human and animal health with innovative therapies.

Boehringer Ingelheim continued its positive growth trend in 2023. We generated net sales of 25,611 million EUR, which corresponds to an increase of +6.1% compared to the previous year's net sales of 24,149 million EUR. Exchange rate effects adversely affected the sales trend in 2023. Once adjusted for these effects, Group growth was +9.7%.

Net sales by region (in million EUR)

	2023	2022	Change	currency-adjusted
Americas	12,206	11,470	+6.4%	+9.4%
Europe	8,276	7,543	+9.7%	+11.4%
Asia/Australia/Africa (AAA)	5,129	5,136	-0.1%	+7.5%

Adjusted for currency effects, we were able to achieve sales growth in all regions. As in previous years, with net sales of 12,206 million EUR and a 47.7% share of overall sales, the Americas region was Boehringer Ingelheim's key sales market, growing by +6.4% (currency-adjusted +9.4%). The Europe region recorded the strongest sales growth in the previous financial year at +9.7% (currency-adjusted +11.4%). Sales, which also include the global licensing business, amounted to 8,276 million EUR and corresponded to a 32.3% share of Group sales. This positive trend was driven by the global licensing business allocated to this region as well as the markets in Germany, Italy, Poland, and Spain. In our Asia/Australia/Africa (AAA) region, net sales decreased by -0.1% (currency-adjusted +7.5%) to 5,129 million EUR.

Development of the businesses

In the past financial year, Boehringer Ingelheim's activities were divided into the Human Pharma and Animal Health businesses.

Net sales by businesses (in million EUR)

	2023	2022	Change	currency-adjusted
Human Pharma	20,774	19,485	+6.6%	+10.3%
<i>thereof: BioXcellence</i>	1,091	1,024	+6.5%	+7.1%
Animal Health	4,724	4,559	+3.6%	+6.9%
Other sales	113	105	+7.6%	+8.9%

Human Pharma

In our Human Pharma business, we once again made our products available to more patients in 2023 thanks to new approvals in additional countries; we also further strengthened established products. An estimated 61 million patients¹ were treated with our products in 2023.

The Human Pharma business is the mainstay of Boehringer Ingelheim's activities and accounts for an 81.1% share of the Group's net sales. Net sales in our Human Pharma business increased by +6.6% (currency-adjusted +10.3%) in the 2023 financial year to 20,774 million EUR. This growth was mainly driven by the established products of the JARDIANCE® family as well as OFEV®. The growing licensing business – in particular the SKYRIZI® product licensed out to and sold by AbbVie – also contributed significantly to the positive development of the Human Pharma business.

In the BioXcellence division – which was integrated into the Human Pharma business in 2023 – net sales of 1,091 million EUR were +6.5% (currency-adjusted +7.1%) above the previous year's level due to the increased demand for market products from our business partners. The order situation for the entire business developed positively, resulting in a high level of capacity utilization.

Human Pharma: Net sales Top 5 products (in million EUR)

	2023	2022	Change	currency-adjusted
JARDIANCE® family	7,382	5,832	+26.6%	+31.0%
OFEV®	3,510	3,227	+8.8%	+12.8%
TRAJENTA® / JENTADUETO®	1,706	1,703	+0.2%	+4.4%
SPIRIVA®	1,290	1,560	-17.3%	-14.9%
PRADAXA®	845	1,108	-23.7%	-20.9%

¹ Patient reach is on the basis of ex-factory sales and a yearly adherence factor of 1.6, derived from real-world data (RWD) of key products in focus markets.

The highest-selling product was JARDIANCE®, which, in addition to treating type-2 diabetes and chronic heart failure, has also been used since 2023 to treat people with chronic kidney disease. The JARDIANCE® family generated net sales of 7,382 million EUR, which was therefore +26.6% (currency-adjusted +31.0%) higher than in the previous year.

OFEV®, the second most successful product in terms of net sales in 2023, is primarily used to treat idiopathic pulmonary fibrosis as well as two other indications – SSc-ILD (interstitial lung disease in systemic sclerosis) and PF-ILD (progressive fibrosing interstitial lung disease). OFEV® recorded net sales of 3,510 million EUR and therefore achieved a growth rate of +8.8% (currency-adjusted +12.8%).

Sales of the products TRAJENTA® and JENTADUETO® for the treatment of type-2 diabetes increased slightly by +0.2% (currency-adjusted +4.4%) to 1,706 million EUR.

Our product SPIRIVA®, which is used to treat chronic obstructive pulmonary disease (COPD) and asthma, was developed in line with the product life cycle. At –17.3% (currency-adjusted –14.9%), net sales in 2023 of 1,290 million EUR were below the previous year's level as expected.

Net sales of the anticoagulant PRADAXA® also declined in line with the product life cycle and fell by –23.7% (currency-adjusted –20.9%) compared to the previous year. However, with net sales of 845 million EUR, PRADAXA® continued to be one of Boehringer Ingelheim's five top-selling medicines in the 2023 financial year.

An increase in net sales of +22.0% (currency-adjusted +25.2%) was achieved in license income for SKYRIZI®. This product, which is marketed globally by our partner AbbVie, is based on the substance risankizumab, which was largely developed by Boehringer Ingelheim and is used to treat moderate to severe plaque psoriasis and psoriatic arthritis. Additionally, the medicine was approved in further markets in 2023 for the treatment of moderately to severely active Crohn's disease. The sales volume in the 2023 financial year therefore also reflects related non-recurring milestone payments.

The Human Pharma business achieved currency-adjusted growth year-over-year in every region. In terms of the regional distribution of the net sales, the USA remained our strongest region with a growth rate of +6.4% (currency-adjusted +9.2%) to 7,982 million EUR. This represents a share of 38.4% of the Human Pharma business's overall net sales.

In 2023, we achieved the highest growth rate in the EUCAN region (Europe and Canada) with +10.0% (currency-adjusted +12.5%). With net sales of 6,522 million EUR, the EUCAN region accounted for 31.4% of net sales.

The company's emerging markets also registered an improved volume of net sales in the past financial year, with a growth rate of +5.4% (currency-adjusted +11.3%). Overall, net sales in these countries rose to 3,900 million EUR.

Japan accounted for 6.2% of total net sales in the Human Pharma business. Here, net sales fell by –3.8% (currency-adjusted +5.9%) to 1,279 million EUR due to the significantly weaker Japanese yen compared to the euro.

Human Pharma: Net sales by region (in million EUR)

	2023	2022	Change	currency-adjusted
USA	7,982	7,501	+6.4%	+9.2%
EUCAN	6,522	5,931	+10.0%	+12.5%
Emerging markets	3,900	3,700	+5.4%	+11.3%
Japan	1,279	1,329	–3.8%	+5.9%
BioXcellence	1,091	1,024	+6.5%	+7.1%

Animal Health

In the past financial year, the Animal Health business achieved net sales totaling 4,724 million EUR and therefore provided almost 18.5 % of the Group's net sales. Animal Health was able to increase net sales by +3.6 % (currency-adjusted +6.9 %).

Animal Health: Net sales Top 4 products (in million EUR)

	2023	2022	Change	currency-adjusted
NEXGARD®	1,205	1,064	+13.3%	+17.2%
FRONTLINE®	407	401	+1.5%	+4.6%
HEARTGARD®	308	323	-4.6%	-2.0%
INGELVAC CIRCOFLEX® / FLEXCOMBO®	250	236	+5.9%	+9.9%

Our top-selling Animal Health medicines come from the pet business: The antiparasitic NEXGARD® recorded sales growth of +13.3 % (currency-adjusted +17.2 %) to 1,205 million EUR in 2023 and therefore remained the highest-selling product family in the portfolio of the Animal Health business in the 2023 financial year. Due to the continued growth and the market launches of NEXGARD® PLUS and NEXGARD® COMBO, the NEXGARD® family was one of the top-selling brands in the Animal Health industry in 2023 and was able to continue the strong growth path from previous years.

Net sales development for the antiparasitic FRONTLINE® stabilized and expanded. After a decline had to be recorded in the previous year, net sales of the product increased by +1.5 % (currency-adjusted +4.6 %) to 407 million EUR in 2023.

Sales of the medicine HEARTGARD® fell by -4.6 % (currency-adjusted -2.0 %).

The development of our swine vaccine INGELVAC CIRCOFLEX® was also positive in 2023. Net sales increased by +5.9 % (currency-adjusted +9.9 %) to 250 million EUR, particularly due to strong growth in China. In 2023, we achieved the milestone for the vaccine of four billion doses sold.

In our Animal Health business, we surpassed the previous year's sales volume in every region. In the USA, we grew by +2.4 % (currency-adjusted by +5.1 %) and were able to grow particularly in the pet segment, which includes horses. In the EUCAN region, we achieved sales growth of +4.9 % (currency-adjusted +7.0 %), particularly thanks to growth in the pet segment and the swine segment. We achieved a greatest sales growth in the financial year in the ALAMEA region (Asia, Latin America, Middle East, Africa). Sales grew by +5.1 % (currency-adjusted +10.4 %) and totaled 1,088 million EUR.

After the easing of COVID-19 regulations, we were able to stabilize net sales in the TCM (The Chinese Market) region. Compared to the previous year, net sales increased by +1.0 % (currency-adjusted +7.2 %). The swine segment in particular contributed significantly to the growth.

Animal Health: Net sales by region (in million EUR)

	2023	2022	Change	currency-adjusted
USA	2,065	2,016	+2.4%	+5.1%
EUCAN	1,278	1,218	+4.9%	+7.0%
ALAMEA	1,088	1,035	+5.1%	+10.4%
TCM	293	290	+1.0%	+7.2%

Other sales / discontinued operations

Other net sales also include the activities of discontinued operations that are no longer of strategic importance for Boehringer Ingelheim.

Report on expected developments

Boehringer Ingelheim can look back on a successful financial year in 2023, in which we achieved our objectives in terms of our contribution to the well-being of patients, livestock, and pets, as well as in terms of key financial data. Despite the very volatile environment, we were able to ensure the company's sustainable development.

The influential global economic developments of the past year will also influence the coming 2024 financial year and present us with challenges. We expect global inflation rates to decline and central bank monetary tightening to be near its peak. These material changes will increasingly impact the global economy and its recovery from the COVID-19 pandemic. Energy prices, particularly in Europe, are expected to ease again only in the medium term. After the terrorist attacks by Hamas on Israel and the subsequent escalation of the conflict within the region, including global shipping routes, the development of oil prices has become more uncertain. Accordingly, expectations for the global economy in the coming year remain cautious.

We believe opportunities will outweigh risks for Boehringer Ingelheim in 2024 and plan to invest in this opportunity accordingly. This will enable us to continue to contribute, improve the lives of people and animals and grow sustainably. However, a more exact outlook remains difficult in the current economic situation.

In addition to increasing geopolitical tensions, the greatest uncertainty over the coming years will be the potential impact of monetary policy measures and various government economic recovery, sustainability, and support programs on the respective government's budget planning and whether this will result in policy shifts related to innovative medicines. We expect moderate market growth in 2024 for prescription pharmaceuticals (excluding COVID-19 medication) but are also observing increasing global institutional efforts to lower the prices of medicinal products. In view of this development, the financial ability to act with regard to sustainable growth and innovation remains of great importance to us.

We also expect moderate market growth in the Animal Health business in the new financial year, for which research and innovation are of central importance. Together with our business partners, we intend to continue to provide our customers with innovative solutions. For Boehringer Ingelheim, various new launches in both the pet and livestock segments will enable growth in the magnitude of the market.

Our consistently high R&D expenditure, which once again increased in 2023, is in line with our strategic focus on continuing to drive growth and the flow of new products. In 2023, we once again achieved our goal of obtaining some of our R&D through external innovation and partnerships. We will continue to actively pursue this strategy in 2024. We invest in our own and external R&D after close investigation of the therapeutic benefit and the associated prospects for success. The continuous development and expansion of our research and development pipeline indicates short-, medium-, and long-term growth potential. We expect to see a further increase in R&D investments in new medicines in 2024 and intend to reach new milestones in research and development as well as individual market approvals.

In addition to patent expiry, the major challenges facing the research-driven pharmaceutical industry are the increasing amount of investment in R&D as well as bigger hurdles and increased costs associated with product approvals. On the sales side, the already mentioned increasing cost burden on the healthcare system is intensifying the pressure on the sales prices of medicines.

In conjunction with the long planning and development cycles for new products, growing public cost pressure means that business is less predictable. This requires us to quickly recognize and seize opportunities in both Human Pharma and Animal Health while also continuously monitoring and adjusting costs and business processes. In 2023, we implemented measures in all our business areas to accelerate the speed of our response to changes, reduce the complexity of the organization, and optimize the cost base. In this way, we are creating potential for capital expenditure and securing the company's long-term success.

Boehringer Ingelheim develops therapies that transform lives – today and for generations to come. As a family owned company, we have thereby ensured our competitiveness and long-term entrepreneurial independence since we were founded in 1885. We are confident that we will achieve our ambitious targets in all of our business areas, thanks to our great innovative strength, which rests on a competitive portfolio of prospective products, our global presence, and the support of our highly qualified and motivated employees.

Overview of selected consolidated companies

C.H. Boehringer Sohn
AG & Co. KG, Ingelheim am Rhein

Boehringer Ingelheim Vetmedica GmbH,
Ingelheim am Rhein

Argentina D

Boehringer Ingelheim Animal Health Argentina S.A.,
Buenos Aires

Australia D

Boehringer Ingelheim Animal Health Australia Pty. Ltd.,
North Ryde

Belgium D P

Boehringer Ingelheim Animal Health Belgium S.A., *Brussels*
Boehringer Ingelheim Veterinary Medicine Belgium NV,
Evergem

Brazil D P

Boehringer Ingelheim Animal Health do Brasil Ltda.,
São Paulo

Canada D

Boehringer Ingelheim Animal Health Canada Inc.,
Burlington

China D P R

Nanchang Boehringer Ingelheim Animal Health Co., Ltd.,
Nanchang
Boehringer Ingelheim Animal Health (Shanghai) Co., Ltd.,
Shanghai
Boehringer Ingelheim Animal Health Operations (China)
Co., Ltd., *Taizhou*
Boehringer Ingelheim Vetmedica (China) Co., Ltd., *Taizhou*

Denmark D P

Boehringer Ingelheim Animal Health Denmark A/S,
Copenhagen

France D P R

Boehringer Ingelheim Animal Health France, *Lyon*

Great Britain D P

Boehringer Ingelheim Animal Health UK Limited, *Bracknell*

Italy D P

Boehringer Ingelheim Animal Health Italia S.p.A., *Milan*

Japan D R

Boehringer Ingelheim Animal Health Japan Co., Ltd., *Tokyo*

Mexico D P

Boehringer Ingelheim Animal Health México S.A. de C.V.,
Mexico City

Netherlands D R

Boehringer Ingelheim Animal Health Netherlands B.V.,
Alkmaar

New Zealand D

Boehringer Ingelheim Animal Health New Zealand Limited,
Auckland

Philippines D

Boehringer Ingelheim Animal Health Philippines, Inc.,
Makati City

Puerto Rico P

Boehringer Ingelheim Animal Health Puerto Rico LLC,
Barceloneta

South Africa D

Boehringer Ingelheim Animal Health South Africa Pty Ltd.,
Midrand, Gauteng

South Korea D

Boehringer Ingelheim Animal Health Korea Ltd., *Seoul*

Spain D

Boehringer Ingelheim Animal Health España, S.A.,
Barcelona

Taiwan D

Boehringer Ingelheim Animal Health Taiwan Co., Ltd.,
Taipei

Thailand D

Boehringer Ingelheim Animal Health (Thailand) Limited,
Bangkok

USA D P R

Boehringer Ingelheim Animal Health USA, Inc., *Wilmington,
Delaware*

Germany D P R

Boehringer Ingelheim Corporate Center GmbH,
Ingelheim am Rhein

Boehringer Ingelheim GmbH, *Ingelheim am Rhein*
Boehringer Ingelheim Pharma GmbH & Co. KG,
Ingelheim am Rhein

Boehringer Ingelheim microParts GmbH, *Dortmund*
Boehringer Ingelheim Venture Fund GmbH,
Ingelheim am Rhein

Boehringer Ingelheim Biopharmaceuticals GmbH,
Ingelheim am Rhein

Boehringer Ingelheim Middle East & Africa GmbH,
Ingelheim am Rhein

Boehringer Ingelheim Therapeutics GmbH, *Ochsenhausen*
BI X GmbH, *Ingelheim am Rhein*

**C.H. Boehringer Sohn
Grundstücksverwaltung GmbH & Co. KG,
Ingelheim am Rhein**

**Boehringer Ingelheim International GmbH,
Ingelheim am Rhein**

Argentina D

Boehringer Ingelheim S.A., *Buenos Aires*

Australia D

Boehringer Ingelheim Pty. Ltd., *North Ryde*

Austria D P R

Boehringer Ingelheim RCV GmbH & Co. KG, *Vienna*
Boehringer Ingelheim Pharma Gesellschaft mbH, *Vienna*
Forschungsinstitut für molekulare Pathologie
Gesellschaft mbH, *Vienna*
Vira Therapeutics GmbH, *Rum*

Belgium D

Boehringer Ingelheim SComm, *Brussels*

Brazil D P

Boehringer Ingelheim do Brasil Química e Farmaceutica
Ltda., *São Paulo*

Canada D

Boehringer Ingelheim (Canada) Ltd., *Toronto*

Chile D

Boehringer Ingelheim Ltda., *Santiago de Chile*

China D P

Boehringer Ingelheim Shanghai Pharmaceuticals Co., Ltd.,
Shanghai
Boehringer Ingelheim Biopharmaceuticals (China), Ltd.,
Shanghai
Boehringer Ingelheim (China) Investment Co., Ltd.,
Shanghai
BI X E-Health Technology (Shanghai) Co., Ltd., *Shanghai*

Colombia D

Boehringer Ingelheim S.A., *Santa Fé de Bogotá*

Croatia D

Boehringer Ingelheim Zagreb d.o.o., *Zagreb*

Czech Republic D

Boehringer Ingelheim, spol. s.r.o., *Prague*

Denmark D

Boehringer Ingelheim Danmark A/S, *Copenhagen*

Ecuador D

Boehringer Ingelheim Del Ecuador Cia. Ltda., *Quito*

Finland D

Boehringer Ingelheim Finland Ky, *Espoo*

France D

Boehringer Ingelheim France S.A.S., *Paris*

Great Britain D

Boehringer Ingelheim Ltd., *Bracknell*

Greece D P

BOEHRINGER INGELHEIM HELLAS SINGLE MEMBER S.A.,
Athens

Hong Kong D

Boehringer Ingelheim (Hong Kong) Ltd., *Hong Kong*

India D

Boehringer Ingelheim India Private Ltd., *Mumbai*

Indonesia D P

PT Boehringer Ingelheim Indonesia, *Jakarta*

Israel D

Boehringer Ingelheim Israel Ltd., *Tel Aviv*

Italy D P

Boehringer Ingelheim Italia S.p.A., *Milan*
Bidachem S.p.A., *Fornovo S. Giovanni*

Japan D P R

Nippon Boehringer Ingelheim Co., Ltd., *Tokyo*
Boehringer Ingelheim Seiyaku Co., Ltd., *Yamagata*

Mexico D P

Boehringer Ingelheim Mexico S.A. de C.V., *Mexico City*
Boehringer Ingelheim Vetmedica S.A. de C.V., *Guadalajara*
Boehringer Ingelheim Promeco S.A. de C.V., *Mexico City*

Netherlands D

Boehringer Ingelheim B.V., *Alkmaar*

New Zealand D

Boehringer Ingelheim (N.Z.) Ltd., *Auckland*

Norway D

Boehringer Ingelheim Norway KS, *Asker*

Peru D

Boehringer Ingelheim Peru S.A.C., *Lima*

Philippines D

Boehringer Ingelheim (Philippines), Inc., *Makati City*

Poland D

Boehringer Ingelheim Sp. z o.o., *Warsaw*

Portugal D

Boehringer Ingelheim Portugal, LDA, *Lisbon*

Russia D

LLC Boehringer Ingelheim, *Moscow*

Saudi Arabia D

Boehringer Ingelheim Saudi Arabia Trading, *Riyadh*

Serbia D

Boehringer Ingelheim Serbia DOO Beograd, *Belgrade*

South Africa D

Ingelheim Pharmaceuticals (Proprietary) Ltd.,
Midrand, Gauteng

South Korea D

Boehringer Ingelheim Korea Ltd., *Seoul*

Spain D P

Boehringer Ingelheim España S.A., *Barcelona*

Sweden D

Boehringer Ingelheim Aktiebolag, *Stockholm*

Switzerland D R

Boehringer Ingelheim (Schweiz) GmbH, *Basel*
NBE-Therapeutics AG, *Basel*
Amal Therapeutics S.A., *Geneva*
T3 Pharmaceuticals AG, *Allschwil*

Taiwan D

Boehringer Ingelheim Taiwan Ltd., *Taipei*

Thailand D

Boehringer Ingelheim (Thai) Ltd., *Bangkok*

Türkiye D

Boehringer Ingelheim İlaç Ticaret A.Ş., *Istanbul*

USA D P R

Boehringer Ingelheim Pharmaceuticals, Inc.,
Wilmington, Delaware
Boehringer Ingelheim Fremont, Inc., *Wilmington, Delaware*
Boehringer Ingelheim USA Corporation, *Wilmington,
Delaware*

Vietnam D

Boehringer Ingelheim Animal Health Vietnam Limited
Liability Company, *Ho Chi Minh City*
Boehringer Ingelheim Vietnam Limited Liability Company,
Ho Chi Minh City

Imprint

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represented by the Board of Managing Directors:
Hubertus von Baumbach (Chair),
Michael Schmelmer, Carinne Knoche-Brouillon,
Dr. Paola Casarosa, Shashank Deshpande, Frank Hübler

Concept, design and layout

3st kommunikation GmbH, Mainz
www.3st.de

Photos

Urban Zintel

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