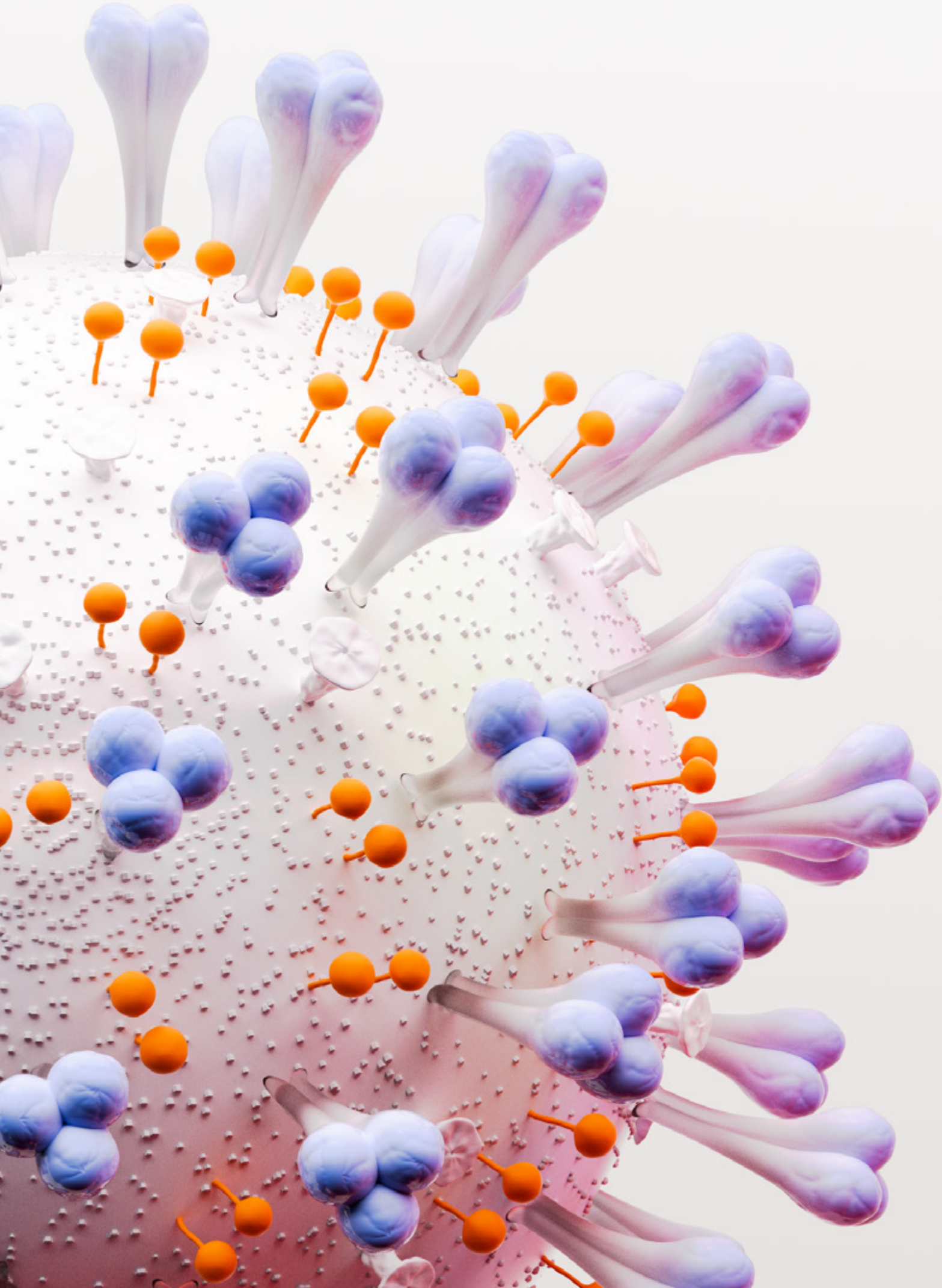
GSK

GSK in Poland

Innovative biopharma company
PARTNER OF THE POLISH ECONOMY



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The report was prepared on behalf of GSK by HTA Consulting sp. z o.o.
and Modern Healthcare Institute sp. z o.o.
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GSK – a global leader in innovation

GSK is an innovative biopharma company with a purpose to unite science, technology and talent to get ahead of disease together. It offers a broad portfolio of vaccines and specialty medicines across four major therapeutic areas: infectious diseases, oncology, HIV and respiratory/immunology. Given the scale of the company's global operations, it is expected to positively impact the health of **2.5 billion people** worldwide over the next 10 years.

Growing importance of operations in Poland

GSK has been present in Poland for 45 years and is one of the largest investors in the pharmaceutical industry. Its first investments in Poland date back to 1998. Since then, the company has invested over **PLN 2.23 billion** in this country.

The restructuring of GSK's global operations has opened up new opportunities for the company's further development in Poland. Poznań and Warsaw are among the fastest growing sites worldwide.

The past few years have seen the company's dynamic growth in Poland, with the **establishment of new teams** to provide highly specialised services for GSK's branches around the world. **Strategic functions**, such as Research and Development or new technologies, are also located in Poland. Both their presence and plans for further development confirm the growing role of Poland in GSK's global operations network.

In 2021, the activities of six existing and new **GSK capability centres** in Poland were consolidated into one, new structure - **GSK Poland Global Hub**. It is the **largest GSK unit of this kind globally**, with others operating in India (Bangalore), Malaysia (Kuala Lumpur) and Costa Rica. A good indicator of the growth of the Polish branch is its growing workforce and rising competency levels in new positions: **750 new highly specialised jobs were created** in 2021. The R&D Hub is growing fastest, having expanded by more than 60 percent last year. In total, GSK employs more than **2,000 people** in Poland.

GSK's contribution to the Polish economy

GSK's activities are of significant importance to the Polish economy. Looking both at direct employment, as well as indirect and induced effects, GSK's operations in Poland contribute to the retention of over **9.7 thousand jobs**. All GSK companies operating in Poland made a direct contribution of **PLN 2.36 billion** to the Polish GDP in 2020.

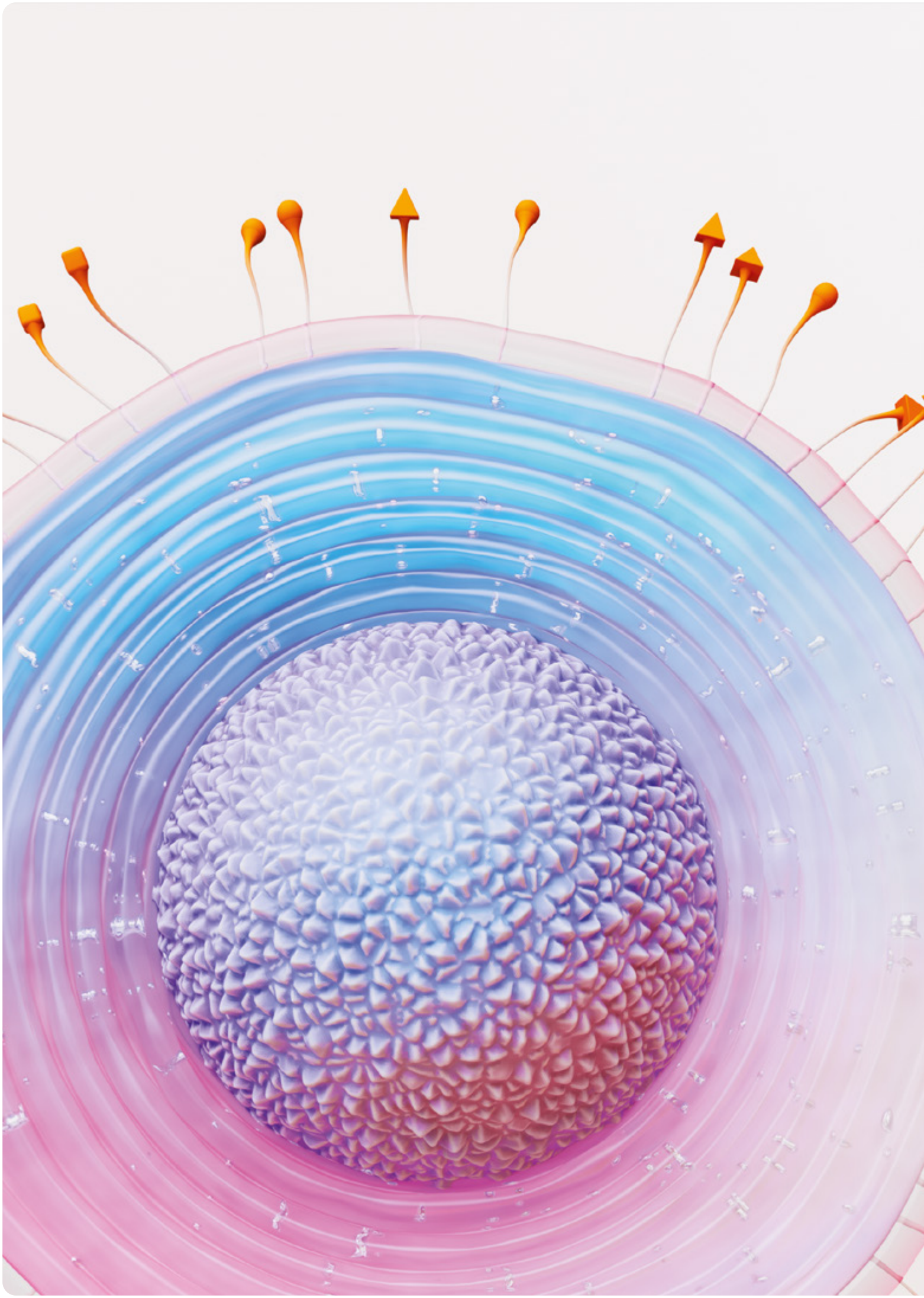
Operating in Poland, GSK transferred a total of **PLN 297 million in taxes and other public levies** to the state budget in 2020. The largest share is attributable to employee and employer Social Security contributions, CIT and PIT, which is withheld from gross salaries.

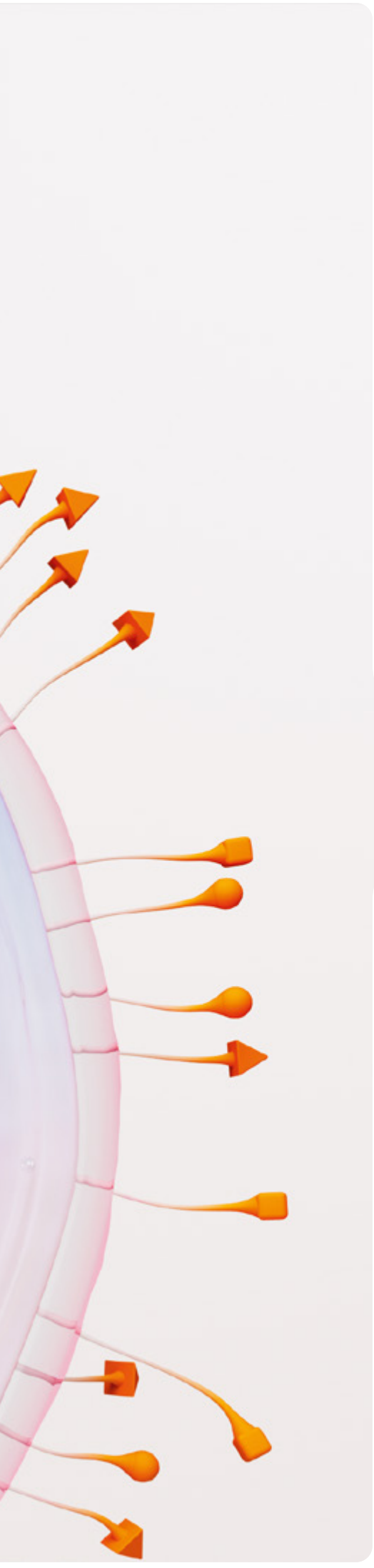
The total amount of remuneration paid to employees, including those employed at the Poznań production plant, reached **PLN 295 million**, while the total impact on the net income of Polish households was **PLN 494.2 million**.

For each PLN 1 of net remuneration at GSK companies, PLN 1.68 of additional net remuneration was generated in the community, and each job at GSK leads to the creation of a further **3 jobs** at other Polish companies.

GSK also invests in clinical trials conducted in Poland. In 2021, the company funded research projects worth **PLN 47.5 million** - an increase of 64 percent in 2020 and 185 percent over 2019. According to simulations based on equilibrium models, GSK's annual expenditure on clinical trials will boost Poland's GDP in the long term by **PLN 77.9 million**.

GSK is one of the most innovative companies operating in Poland and is of **major importance** for the development of the domestic pharma industry and the Polish economy as a whole.





GSK globally

GSK is a global biopharma company with a focus on innovation and a purpose to unite science, technology and talent to get ahead of disease together.

1.1 Company profile

GSK is a company fully focused on biopharmaceuticals and R&D. Its strategic goal is to unite three elements – science, technology and talent – to get ahead of disease together and improve people's health through vaccines, specialty and general medicines. The company aims to have a positive impact on the health of 2.5 billion people over the next 10 years.

GSK pursues three long-term priorities – Innovation, Performance and Trust.

INNOVATION

At the heart of GSK's operations is the company's R&D focus on the science of the immune system, human genetics and advanced technologies. GSK invests in research into novel vaccines and specialty medicines across its four core therapeutic areas of infectious diseases, HIV, oncology, and immunology/respiratory. In 2021, the company received three new drug approvals and initiated phase III clinical trials involving 8 potential new products. A pipeline of more than 60 medicines and vaccines across a range of therapeutic areas provides the basis for further growth of GSK as an innovative biopharma company.

PERFORMANCE

In 2021, GSK delivered 1.7 billion units of medicines, over 767 million doses of vaccines and 3.7 billion consumer healthcare products[1]. The company's strategy is to continue to grow and make a significant step-change in delivery over the next five years.

TRUST

An integral part of GSK's business is building trust through social and environmental responsibility. This includes, for example, areas such as: sustainability, ethical standards, diversity, equity and inclusion.

The company's goals and aspirations with regard to patients and all its stakeholders are reflected in its new organisational culture. It requires that all employees are ambitious for patients, accountable for impact and do the right thing in every situation.

Global transformation of GSK:

July 2022 saw the most significant corporate change for GSK in the last 20 years. It involved the separation of the Consumer Healthcare business to form Haleon, a new, independent company in which GSK holds 68 percent of shares. The company has become a new global leader in the area of OTC medicines and consumer healthcare products.

[1] Annual report 2021 [https://www.gsk.com/media/7462/annual-report-2021.pdf].

GSK GLOBALLY*

1.7 bn
medicine doses delivered

767 m
vaccine doses delivered

GBP 5.3 bn
R&D investments

2.5 bn
people worldwide to benefit from GSK medicines and vaccines over the next 10 years

70,000 employees in more than **80** countries worldwide

1st
in the Dow Jones Sustainability Index

* Annual report 2021 [https://www.gsk.com/media/7462/annual-report-2021.pdf].

The company offers a portfolio of vaccines, specialty medicines and general medicines across 4 major therapeutic areas: infectious diseases, HIV, oncology and respiratory/ immunology.

1.2
Product portfolio

Vaccines

GSK is one of the world's largest vaccine manufacturers. Every day, the company delivers more than 2 million doses of vaccines to patients in approximately 160 countries. Its portfolio currently includes more than 20 vaccines that help protect the health of people across all age groups – infants, children and adolescents, adults and seniors, as well as recommended travel vaccines.

20+
vaccines in the portfolio

~2 m
vaccine doses delivered each day

4 in 10
children globally receive a GSK vaccine each year

Specialty medicines

GSK focuses on innovative specialty medicines, in particular life-changing cancer therapies, pioneering treatments for immune-mediated diseases and novel antiretroviral therapies.

3
marketed oncology therapies and 9 more in development

1st
to pioneer HIV treatments in 1980

1st
new medicine for Lupus in 50+ years

General medicines

GSK's portfolio includes inhaled medicines that have been used for many years to treat respiratory diseases, including asthma and COPD, as well as dermatological, anti-infective, anti-allergic, anti-inflammatory, anti-epileptic, sedative, hypertension medicines, antibiotics and potassium supplements.

150+
general medicines in the portfolio

700 m
patients reached with GSK's general medicines over the next ten years

50 years
helping millions of people with respiratory conditions to breathe more easily

Four core therapeutic areas

INFECTIOUS DISEASES

Vaccines are the best means of preventing infectious diseases. They include products designed to prevent a single infectious disease and combination vaccines, which offer protection against multiple diseases with a single administration. GSK's vaccines protect against measles, chickenpox, diphtheria, pertussis, tetanus, poliomyelitis, mumps, rubella, invasive meningococcal disease, influenza, herpes zoster, infections caused by rotavirus, pneumococcus, HiB, HPV and hepatitis A and B, among others. Almost half of the vaccines and medicines developed by GSK are used to treat infectious diseases. In collaboration with Vir Biotechnology, GSK has developed a therapy for people with COVID-19, based on a monoclonal antibody. The medicine has been approved for the treatment of patients at risk of progression to severe disease.

HIV

GSK is the main shareholder in ViiV Healthcare, which develops antiretroviral (ARV) therapies for the treatment of HIV infection. ViiV is one of the global leaders in the development and manufacture of ARV and pre-exposure prophylaxis (or PrEP) medicines. The company's portfolio includes as many as 17 antiretroviral products. Its new therapies aim to reduce the frequency and number of medicines taken, as well as to minimise side effects. In 2019, the first once-daily, single-pill, 2-drug regimen for the treatment of HIV infection was launched. Another innovation was the first-ever long-acting, injectable treatment regimen for adults living with HIV dosed every two months.

ONCOLOGY

GSK's innovative oncology medicines are therapies used to treat gynaecologic cancers such as ovarian cancer and endometrial cancer, as well as in haematological oncology – for the treatment of multiple myeloma (plasma cell myeloma). GSK's medicines are part of the recent developments in personalised medicine, which uses the latest advances in genetics and immuno-oncology. The mechanism of action of targeted therapies currently used to treat ovarian cancer is based on blocking the DNA damage repair pathway in cells to accelerate programmed tumour cell death. On the other hand, immunocompetent molecules, already approved for the treatment of endometrial cancer, activate a woman's immune system to mount a defence response against tumour growth. In contrast, the company's humanised monoclonal antibody conjugated to a cytotoxic product used in the treatment of plasma cell myeloma is directed against the B-cell maturation antigen.

IMMUNOLOGY

GSK's immunology expertise includes respiratory diseases, lupus erythematosus, rheumatoid arthritis and autoimmune neurological disorders. Among other products, GSK launched the first biologic therapy approved for the treatment of severe eosinophilic asthma (SEA), with its efficacy demonstrated in multiple clinical trials and real-world clinical practice. Recently, it was also authorised for use as an add on treatment in 3 other indications: chronic rhinosinusitis with nasal polyps (CRSwNP), eosinophilic granulomatosis with polyangiitis (EGPA) and hypereosinophilic syndrome (HES). It is currently the only treatment approved in Europe for use in four different eosinophil-driven diseases.

GSK has one of the largest pipelines in the innovative pharma industry. The company is investigating more than 60 potential new medicines and vaccines. In 2021, it invested GBP 5.3 bn in research and development.

1.3
Research and development of new medicines

"Getting ahead means preventing disease as well as treating it. This means innovating together fusing ideas, capabilities, and know-how inside and outside GSK. Our R&D focus is to deliver new vaccines and medicines using the science of the immune system, human genetics, and advanced technologies together with a deep commitment to operate responsibly for all our stakeholders. Prioritizing Innovation, Performance, and Trust".

Emma Walmsley, GSK CEO

In developing new medicinal products, GSK uses a research and development approach that focuses on the science of the immune system, human genetics and advanced technologies, such as functional genomics, artificial intelligence and machine learning. The company's four main R&D areas are infectious diseases, HIV, oncology and immunology/respiratory.

A critical area of focus in the company's R&D strategy is **oncology**. It includes targeted therapies, immuno-oncology agents, cell therapies and synthetic lethality treatments. GSK is currently working on more than a dozen cancer treatment molecules that are undergoing clinical trials. One of its research goals is to develop new treatments for multiple myeloma, which is one of the most common blood cancers. Research projects are also underway on new treatment options for gynaecologic cancers and breast cancer.

There is a number of new **antiretroviral therapies** currently in development or in clinical trials. The ongoing research is aimed at finding new methods of drug administration and developing innovative molecules for the treatment and prevention of HIV infection.

At the same time, GSK is developing **new vaccines** as well as actively advancing and increasing the uptake of existing vaccines in order to protect as many people as possible, expand indications and deliver vaccines wherever they are needed. At the moment, the company is working on more than a dozen new vaccines, including those against influenza, hepatitis B, malaria, meningococcus type ABCWY, staphylococcus, bacillus pneumoniae, enteritis and respiratory syncytial virus (RSV).

Simultaneously, GSK is working on next-generation vaccines against **COVID-19**. The company is participating in research and development projects conducted in partnership with other vaccine manufacturers. As part of these collaboration initiatives, GSK harnesses its adjuvant technology, which enhances the body's immune response. Several second-generation mRNA vaccines that can potentially provide protection against multiple virus variants have entered final stages of clinical development.

To address infectious diseases, GSK is working both on vaccines and **new medicines**, including treatments against COVID-19, urinary tract infections, influenza and respiratory system diseases.

Newly developed medicinal products also include next-generation **antibiotics** designed to combat antimicrobial-resistant infections. One of GSK's Phase III clinical trials involves a new antibiotic for the treatment of urinary tract infections and gonorrhoea.

Using its expertise in **immunology**, the company is researching new therapies for neurodegenerative diseases.

It is also pursuing early-stage projects aimed at developing new therapies for multiple sclerosis and atopic dermatitis.

GSK's extensive clinical research portfolio

In total, GSK is conducting approximately 300 research projects in more than 60 countries worldwide, with nearly 300,000 patients and volunteers enrolled at around 6,000 clinical sites.

These trials involve more than 60 new molecules – potential vaccines and medicines. Nearly thirty different molecules are currently in late-stage clinical trials (as of the end of July 2022).

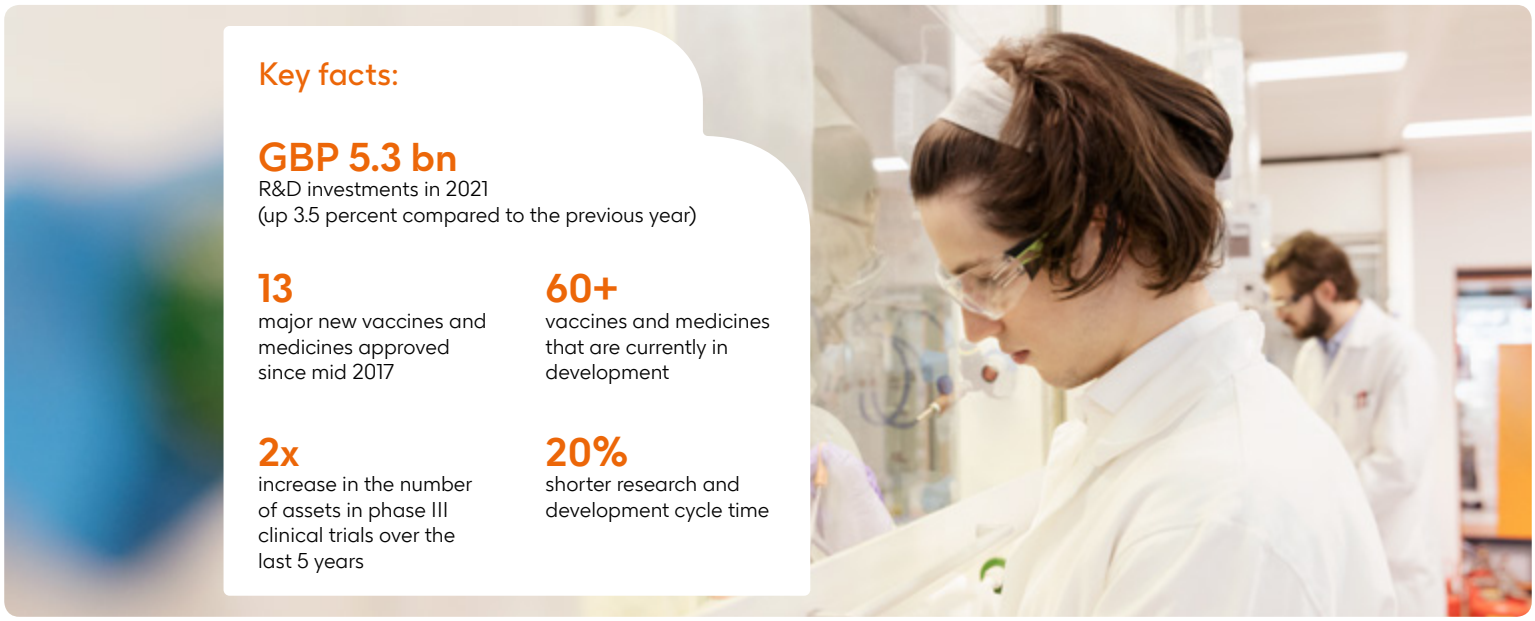
Selected new medicinal products and vaccines approved since 2018:

Vaccines
Shingrix (shingles)
Fluarix Tetra (flu)

Antiretroviral therapies
Juluca (HIV)
Vocabria (HIV)
Rukobia (HIV)

Cancer therapies
Zejula (ovarian cancer)
Jemperli (endometrial cancer)
Blenrep (multiple myeloma)

Other areas
Xevudy (COVID-19)
Trelegy Ellipta (COPD)
Nucala (SEA, CSRwNP, EGPA, HES)
Benlysta (systemic lupus erythematosus, lupus nephritis)



Key facts:

GBP 5.3 bn
R&D investments in 2021
(up 3.5 percent compared to the previous year)

13
major new vaccines and medicines approved since mid 2017

60+
vaccines and medicines that are currently in development

2x
increase in the number of assets in phase III clinical trials over the last 5 years

20%
shorter research and development cycle time

GSK in Poland

One of the largest investors in the Polish pharmaceutical industry, GSK has been operating in Poland for nearly **45 years**. Since 1998, the company has invested a total of more than **PLN 2.23 billion** in Poland, contributing to the country's economic and social development.

2.1
Areas of activity

GSK's history in Poland dates back to 1978, when the Wellcome Foundation opened its Polish branch. In 1993, it implemented the first social campaign "Yellow Week", dedicated to the prevention of hepatitis A and B.

Following the global merger of Glaxo and Wellcome in 1995, the company operated as Glaxo Wellcome. In 1998, it purchased 80 percent of shares in Poznańskie Zakłady Farmaceutyczne Polfa S.A., and acquired the remaining shares in the following years. From 2000, as a result of another global merger, the Polish company began to operate as GlaxoSmithKline and then as GSK. In 2005, a Business Service Centre was established in Poznań. Currently, Poland is one of the fastest growing GSK locations worldwide and is considered a country of strategic importance. The company employs more than 2,000 people in Poland.

COMMERCIAL OPERATIONS

GSK is one of the leading pharmaceutical companies in Poland in terms of sales value and the number of units sold. The company's portfolio includes innovative medicines for the treatment of cancer, infectious diseases, respiratory diseases, HIV infections, autoimmune and inflammatory disorders, as well as 25 approved vaccines for children, adults and travelers. GSK provides Polish patients with state-of-the-art, innovative therapies – over the last four years it has launched 12 new medicines in Poland. In August 2022, 61[4] of the 92[5] GSK medicines available in Poland were eligible for reimbursement.

As part of its commercial activities, GSK launches new products on the market and is also involved in their promotion, sales and distribution. The company also organises patient education activities and works closely with the medical community. It runs social and educational campaigns aimed at raising awareness in the area of disease prevention and health care. The team consists of nearly 160 people based in the Warsaw office and other locations throughout Poland.

[4] Number of medicinal products (individual product presentations) for which GSK is the marketing authorisation holder that are included in the Ministry of Health's announcement on the list of reimbursed medicines, foodstuffs for special nutritional use and medical devices. This includes products included in the medicinal product register and available under drug programmes.
[5] Number of marketing authorisations for products that are currently on the market (not including those for different pack sizes).

GSK IN POLAND

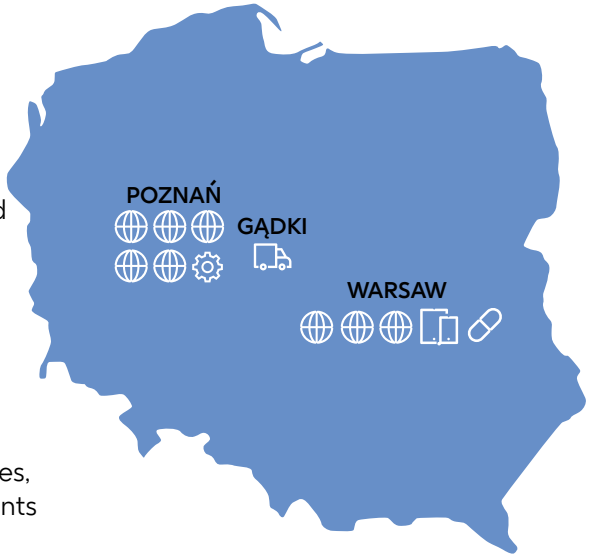
PLN 2.23 bn
in investments (2021)

45 years
in Poland

PLN 297 m
public levies (CIT, PIT, VAT, ZUS) (2020)

2 000+
employees (2021)

750
new jobs at GSK Poland Global Hub in 2021



PLN 2.36 bn
total contribution to Poland's GDP (2020)

PLN 494 m
Polish household income generated from GSK activity (2020)

48 clinical trials worth
PLN 47.5 m
conducted in 240 centres, with 4.6 thousand patients (2021)

9,700
total number of jobs created as a result of GSK activity (2020)

25 million units
of pharmaceuticals and vaccines delivered to Polish patients (2021)

100 million units
of pharmaceuticals and other GSK products manufactured in Poland, exported to 130 countries (2020)

Commercial contracts with **646** local suppliers, orders and assignments totalling
PLN 651 m (2020)

GSK'S GLOBAL TRANSFORMATION HAS LED TO A SIGNIFICANT EXPANSION OF OPERATIONS IN POLAND

WARSAW

Poland Global Hub:
- GSK R&D Hub
- GSK Procurement Hub
- GSK Finance Hub – Europe

GSK Commercial

GSK Digital Hub

POZNAŃ

Poland Global Hub:
- GSK R&D Hub
- GSK Global Capability Center Tech Poznań
- GSK Finance Hub – Europe
- GSK People Service – EMEA Service Center
- GSK Global Supply Chain Poland Hub

Distribution and logistics centre (MultiMarket Warehouse)

Manufacturing site (DELPHARM)

GLOBAL HUB

Poland is home to GSK's global capability centre involved in all major business processes, i.e. new drug development and the delivery of authorised medicines and vaccines to patients worldwide.

For more than 15 years, Polish teams have been supporting GSK in other countries in the area of information technology and registration of new pharmaceutical products.

In recent years, as a result of its global transformation, the company has modernised and streamlined its way of working at a global level, placing more emphasis on better use of technology, new solutions and competencies.

As part of this process, the company decided to expand the scale of GSK's operations in Poland and develop new global HR, procurement and supply chain support functions, as well as establish a new global R&D Hub.

In 2021, the company established a new organisation in Poland – **GSK Poland Global Hub** – consolidating within one organisation 6 global functions (existing and brand new), which had previously operated independently. The HUB is based in Poznań and Warsaw and provides highly specialized services to GSK's branches around the world.

GSK Poland Global Hub – a global hub, integrating various business support functions and R&D activities. By now, it encompasses 6 areas and employs approximately 1,900 people:

1. **GSK R&D Hub**
2. **GSK Global Capability Center Tech Poznań**
3. **GSK Finance Hub – Europe**
4. **GSK Procurement Hub**
5. **GSK People Service – EMEA Service Center**
6. **GSK Global Supply Chain Poland Hub**

GSK's hubs in Warsaw and Poznań are playing an increasingly important role in the global operational network.

One indicator of growth of the GSK Poland Global Hub is the rapid increase in headcount and rising competence levels at new positions. In 2021, nearly 750 new highly specialised jobs were created, including many strategic functions and business-critical management-level roles. The newly created R&D Hub experienced the most dynamic growth, with employment levels going up by nearly 60 percent in 2021 compared to 2020.

Poland Global Hub is one of two largest HUBs in GSK's structures. Another, similar business unit operates in India (Bangalore). There are also two regional GSK hubs located in Malaysia (Kuala Lumpur) and Costa Rica.

MANUFACTURING AND DISTRIBUTION

In October 2021, the sale of GSK's Poznań manufacturing facility to the French company Delpharm was finalised. The acquisition agreement provides that GSK medicines previously manufactured in Poznań will continue to be produced at the site for the next five years. At present, Delpharm's manufacturing plant in Poznań is commissioned by GSK to deliver over 100 million packages of medicines and other GSK products, which are exported to 130 markets worldwide.

With its logistics and distribution centre in Gądki near Poznań (MMW MultiMarket Warehouse), Poland is the central management hub for the supply of medicines and vaccines to a number of foreign markets. In 2021, GSK supplied more than 2.8 million doses of vaccines for Polish patients alone, including around 2 million doses for the National Immunisation Programme.

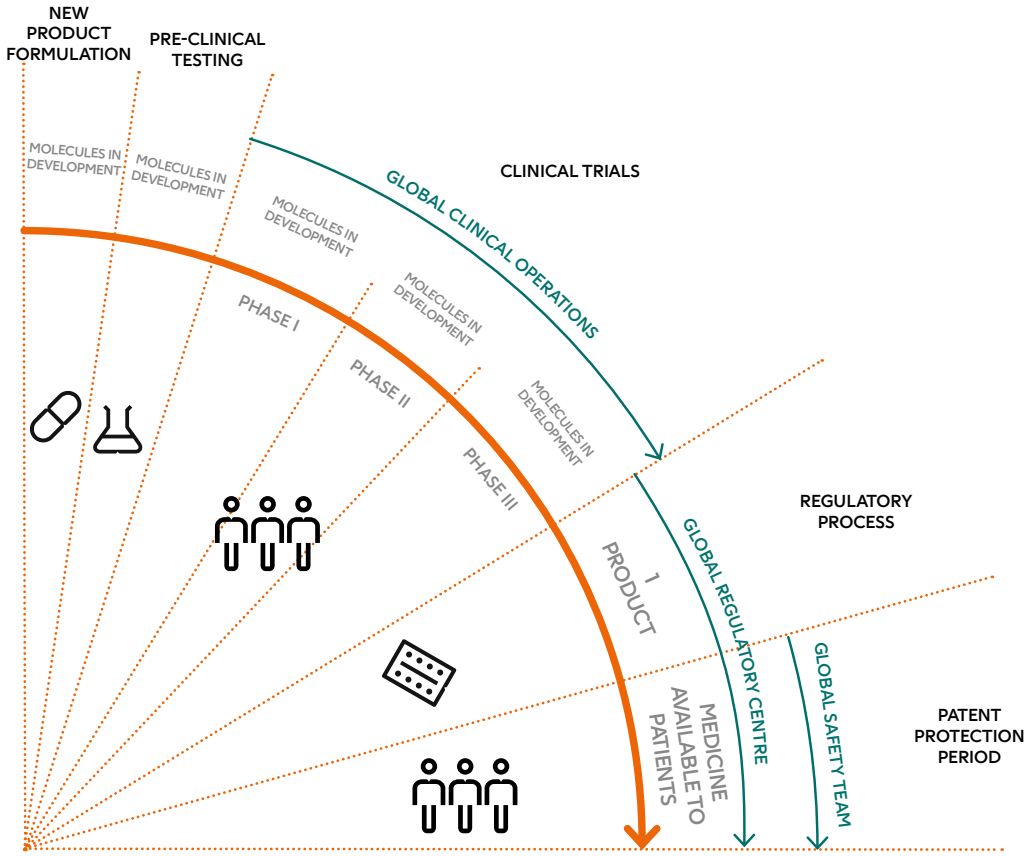
The Polish R&D Hub is expanding dynamically and plays a significant role in global biopharmaceutical research and development.

2.2
Research and Development

In 2020, the company decided to locate new functions and a new global R&D organisation in Poland – the **GSK R&D Hub**. Similar R&D centres are located in India, Belgium, Italy, the UK and the US.

In December 2021, GSK joined the **Warsaw Health Innovation Hub (WHIH)**, a joint project of the Medical Research Agency and industry leaders from the medical, pharmaceutical and biotechnology sectors. In doing so, GSK has become a member of a pioneering initiative on the Polish market, with an impact on shaping the future of the Polish healthcare system.

The R&D Hub comprises of more than a dozen teams working in Warsaw and Poznań. They are involved in global development processes of potential medicines and vaccines, covering the range of functions during subsequent stages of drug discovery and development pathway. Among other things, the R&D Hub team is responsible for conducting and coordinating clinical trials worldwide, authorization procedures for new medicinal products, pharmacovigilance, assuring scientific and medical integrity as well as plausibility of clinical trial data. The headcount of GSK R&D Poland Hub increased by 60% in 2021, as compared to 2020.



GLOBAL CLINICAL OPERATIONS

The Global Clinical Operations team has been part of the R&D Hub since 2021 and is responsible for conducting clinical research, data collection and analysis, centralized monitoring, quality and risk management. Members of international, interdisciplinary research teams are present in Poland and lead these efforts from R&D Poland Hub. They contribute to the planning, execution and reporting of more than 300 clinical trials in the areas of oncology, vaccination, inflammatory diseases or HIV, involving a total of several thousand patients, volounteers and medical centers in more than 60 countries. The Global Clinical Operations team comprises of several highly specialized teams, such as:

Global Study Start Up Team

Manages start-up activities for projects or programmes, oversees the following processes: site feasibility, study launch applications to regulatory registration authorities and bioethics committees, contracting of study sites.

Clinical Data Management

Manages clinical trial data and the strategy for collecting, cleaning and delivering data for the Clinical Study Report, in line with the highest quality standards (Good Clinical Practice), other required standards and the agreed budget, and in accordance with the study plan, from building the database through data validation to closing the database and submitting data for analysis.

Global Clinical Delivery

Supports the implementation of global clinical trials by coordinating the execution and delivery of trials and the proper closure of the database. Coordinates the preparation of clinical trial documentation, country selection, as well as the operations of local teams and other organisations involved in the clinical trial, e.g. CROs (Clinical Research Organisations), suppliers (e.g. central laboratories) and trial oversight institutions.

Centralized Monitoring & Data Acquisition

It implements the “Quality by Design” philosophy through the design and implementation of the RBQM (Risk-Based Quality Management) methodology in GSK-sponsored interventional clinical trials. Additionally, the team provides solutions for the assessment and monitoring of the risks involved in conducting a clinical trial.

CLINICAL RESEARCH CONDUCTED BY GSK IN POLAND

The Global Clinical Operations team operating within the R&D Hub also includes the local Clinical Research Department, a team responsible for managing clinical trials conducted in Poland, active since 1984. It currently employs several dozen people who coordinate the implementation of global trials in Polish clinics and hospitals, as well as oversee trials conducted in Romania and Hungary.

In 2021, the GSK funded research projects worth PLN 47.5 million – an increase of nearly 64 percent in 2020 and 185 percent over 2019.

The company is currently running 48 research projects in Poland, half of which are carried out directly by the local team. A total of more than 240 clinical sites and almost 4,600 patients are involved in research. Most trials are being conducted in the area of oncology, across indications such as lung cancer, breast cancer, multiple myeloma and head and neck cancers. Overall, GSK has 18 clinical trials of new oncology therapies underway with Polish sites and patients. Another 6 trials are in preparation, including studies on new vaccines against RSV and meningococcal disease.

Polish Clinical Research Department:

Scope of activities: conducting GSK clinical trials in Poland, supervising trials conducted in Romania and Hungary

1984
year of establishment

48
tongoing trials in 2022.

242
study sites

4,600
participants

5
therapeutic areas (oncology, inflammatory diseases, respiratory diseases, infectious diseases, gastroenterology)

4
types of cancer (breast cancer, head and neck cancer, lung cancer, multiple myeloma)

GLOBAL CLINICAL DEVELOPMENT

An integral part of the Clinical Development Organisation, the Clinical Trial Medical Review Team is responsible for ensuring the high quality and integrity of comprehensive clinical trial data. It provides “end-to-end” and “in-stream” medical review of data, driven by scientific principles and priorities of projects.

It pursues a strategy of innovative clinical trial design and molecule development by implementing targeted solutions and creating medical database standards tailored to specific indications and therapeutic areas.

GLOBAL REGULATORY CENTER

The preparation and management of application dossiers for GSK medicines and vaccines is handled by the Global Regulatory Center, which has been operating in Poland since 2005. It supports the management of more than 20,000 marketing authorizations issued for GSK products in 170 countries (this includes: preparation of the contents of marketing authorization applications for new and developed products, post-approval changes, maintenance and extension of marketing authorizations to new markets, global product labelling). The team is also responsible for compiling and tracking global regulatory applications for GSK's latest medicines, including GSK's priority portfolio, cancer therapies, and vaccines.

GLOBAL SAFETY TEAM

The Global Safety Team analyses reported side effects and conducts pharmacovigilance procedures. It is responsible for safety assessment and risk management over the entire product lifecycle. It implements potential preventive measures with regard to the safe use of GSK medicines and vaccines by patients worldwide.

The team develops safety profiles of more than 60 active ingredients of GSK products to help physicians and patients make informed decisions concerning the benefits and risks of their use. On top of that, it monitors the safety of clinical trials and prepares analyses for marketing authorization procedures and patent protection applications.

For the past two years, the team has also been involved in monitoring the safety of GSK's new products in various stages of development, contributing greatly to the company's business decisions. Among others, the team supports the cross-functional team for the development of new vaccine adjuvants, overseeing the activities of GSK partners involved in the development of new COVID-19 vaccines.

The R&D Hub also includes the following teams:

Medical Affairs;
Quality, Capability and Risk Management;
Digital Analytics & Performance and Clinical Lab Sciences.

Research and development and new technologies

The R&D activities are supported by the R&D Digital and Tech Team.

It plays an extremely important role in GSK's R&D activities, particularly in the areas of artificial intelligence and machine learning. These tools will increase the ability to interpret and understand genetic and genomic data and support the drug discovery and development process. The team is also responsible for the R&D IT platforms, which support scientific and clinical software applications as well as analytical functions. These platforms enable scientific collaboration between approximately 10,000 researchers involved in drug discovery, manufacturing and biopharmaceutical process development, clinical trials, regulatory affairs, quality and patient safety. The Polish R&D Digital and Tech team supports research and development activities across all GSK products and therapeutic areas, including vaccines, biologics and cell therapies.


Volume:

GSK's global capability centres located in Poland are involved in all of the company's key processes and support GSK companies operating in other countries.

2.3
Global Capability Centres

Apart from the R&D, GSK Poland Global Hub includes various business Support Functions.

All capability centres provide highly specialised services to GSK's branches around the world.

GSK Tech Global Capability Center in Poznań

The GSK IT Centre was established in Poznań in 2005, and since 2020 it has been one of GSK's two Global Tech Capability Centres worldwide. It employs several hundred New Tech specialists and cooperates with numerous IT experts.

It is the largest technology centre within the GSK organisation and has the highest headcount within the Poland Global Hub. It provides advanced technological services at all GSK locations – both for employees and all business units across all business areas, including R&D, manufacturing, supply chain, commercial and pharmacovigilance. This means that technology support is available at every stage of a product's life cycle – from discovery of new medicines or vaccines, through manufacturing, to sales. Tech team from Poland provides specialized support to GSK employees in all locations.

Other areas of focus within the Hub include cyber security, core tech risk and compliance, strategy and transformation, as well as HR and e-learning platforms. There are also teams working on artificial intelligence and machine learning, which are crucial for interpreting and understanding genetic and genomic data and supporting the drug discovery and development process.

A recognisable brand on the Polish market, the Hub has a long-term development strategy and is a partner of, among others, the Association of Business Service Leaders ABSL.

Tech teams support the entire product life cycle:

Tech teams support the entire organisation:

GSK Finance Hub – Europe

The GSK Finance Hub – Europe was established in 2019 in Poznań and in Warsaw. It is one of three financial centres operating within GSK's global structures.
It employs several hundred people who provide advanced financial services for GSK in the fields of financial management, controlling, planning and forecasting and support other specialised accounting processes, including production accounting and accounting for R&D transactions and partnerships. They also have an important role in overseeing the work of strategic partners responsible for transaction financing services.

Activities are carried out using the latest technological developments and optimised digital processes.

The unit provides support for more than 30 markets in Europe and other locations around the world. The hub's employees are eligible for funded training programmes to improve their professional skills. With access to the awarded CIMA Finance Leadership Program (CIMA FLP) and ACCA certification programmes, team members are offered a chance to acquire internationally recognised qualifications.

GSK Finance Hub – Europe Teams:

Global Tax	**R&D** (Research & Development)	**Corporate Teams**	**TPF** (Trading Finance Partners)
C&C (Close & Control)	**P&F** (Planning & Forecasting)	**SMAS** (Specialised Management Accounting Services)	**GPOs** (Global Process Owners)
O2C (Order to Cash)	**P2P** (Purchase to Pay)	**HUB support team**	

GSK Procurement Hub

The GSK Procurement Hub was established in 2018 and its located in Warsaw and Poznan. It is the first international procurement hub within the organization. Procurement Hub provides strategic procurement support to all businesses globally in the areas related to GSK operations, including direct procurement categories, R&D, manufacturing or indirect categories such as marketing and sales, technology, corporate &professional services, facilities and logistic as well as CW global process owner and TE process system owners.

GSK Procurement Hub Teams:

R&D (Research & Development)	**MS&T** (Marketing, Sales & Technology)	**FC&L** (Facilities, Capital & Logistics)	**COE** (Center of Excellence)
GDC (Global Delivery Center)	**Future Ready & Corporate Categories**	**LOC** (Local Operating Company)	**Direct & Sites**

GSK People Services – EMEA Service Center

The GSK People Services - EMEA Service Center was established in Poznań in 2020.

Following a global transformation of HR structures, it has taken over the management of human resources and payroll processes that were previously handled locally. It provides consistent service to GSK's circa 45,000 employees across 24 markets in Europe and the Middle East (EMEA). The Poznań team is responsible for end-to-end employee services, data management, payroll and benefits, mobility and HR quality in the EMEA region. It also manages and supports processes related to employment, job transitions, development and training, employee relations and employer branding.

All high-volume, transactional and standardised activities have been transferred to Service Centres, that are managed in a standardised way (in line with global performance indicators). With this new approach, any employee can access HR support via the ServiceNow portal, which is the primary HR information platform. Along with the ServiceNow functionality, new processes and technologies have been implemented to improve the employee experience. HR support is provided in 7 languages.

GSK People Services – EMEA Service Center Teams:

- **Regional Effectiveness**
- **HR Data Management**
- **HR Customer Support**
- **HR Quality & Audit**
- **Compensation & Benefits**
- **Payroll**
- **Mobility**

GSK Global Supply Chain Poland Hub

Established in 2021, the GSK Global Supply Chain Poland Hub is based in Poznań and Warsaw. It manages GSK's Global Supply Chain (GSC) operations. It also serves as a centre of excellence, driving the implementation and development of processes in areas such as customer service, quality assurance, external supply and planning.

GSC Poland Hub is the only logistics and quality capability centre in the Wielkopolskie Voivodeship. The teams operating within the GSC Poland Hub provide services to many different markets and control multiple global processes. Globally, it is the largest hub in the GSK supply chain.

GSK Global Supply Chain Poland Hub Teams:

- **Customer Services**
- **External Supply**
- **LOC Quality**
- **Other GSK TEAMS**

Digital Marketing Team (GSK Digital Hub)

Poland is also home to the Digital Hub, an independent, international team operating in Warsaw since 2018. It is responsible for preparing and implementing cutting-edge marketing initiatives, including multi-channel, optimised digital campaigns aligned with global and regional strategic priorities in the area of general medicines.

The aim is to effectively reach both healthcare professionals and patients and to create positive brand experience without having to involve local sales, marketing or medical teams.

2.4 Manufacture of medicines in Poland

GSK's medicines have been produced in Poland continuously since 1998, when the company purchased a pharmaceutical plant in Poznań. Until 2021, the company consistently invested in the modernisation of the plant, with the production of over 90 medicines moved to the site. In 2021, the Poznań plant was purchased by the French company Delpharm. Irrespective of the ownership change, under the terms of the transaction, the plant is to continue to produce for GSK all its previously manufactured medicines on a contract basis for a minimum of 5 years.

Currently, the Poznań site produces more than 80 medicines for GSK in Poland and for 130 markets worldwide. It manufactures over 8.7 million tablets and 1.3 million capsules each day. In 2020, a total of 68.7 million packs of tablets, 23 million packs of capsules and 15.2 million packs of creams and ointments were produced. GSK's pharmaceuticals produced in Poznań are used in the treatment of HIV, respiratory, genitourinary and skin diseases, autoimmune and inflammatory disorders, cardiovascular diseases and neurological diseases.

2.5 Distribution and Logistics Centre

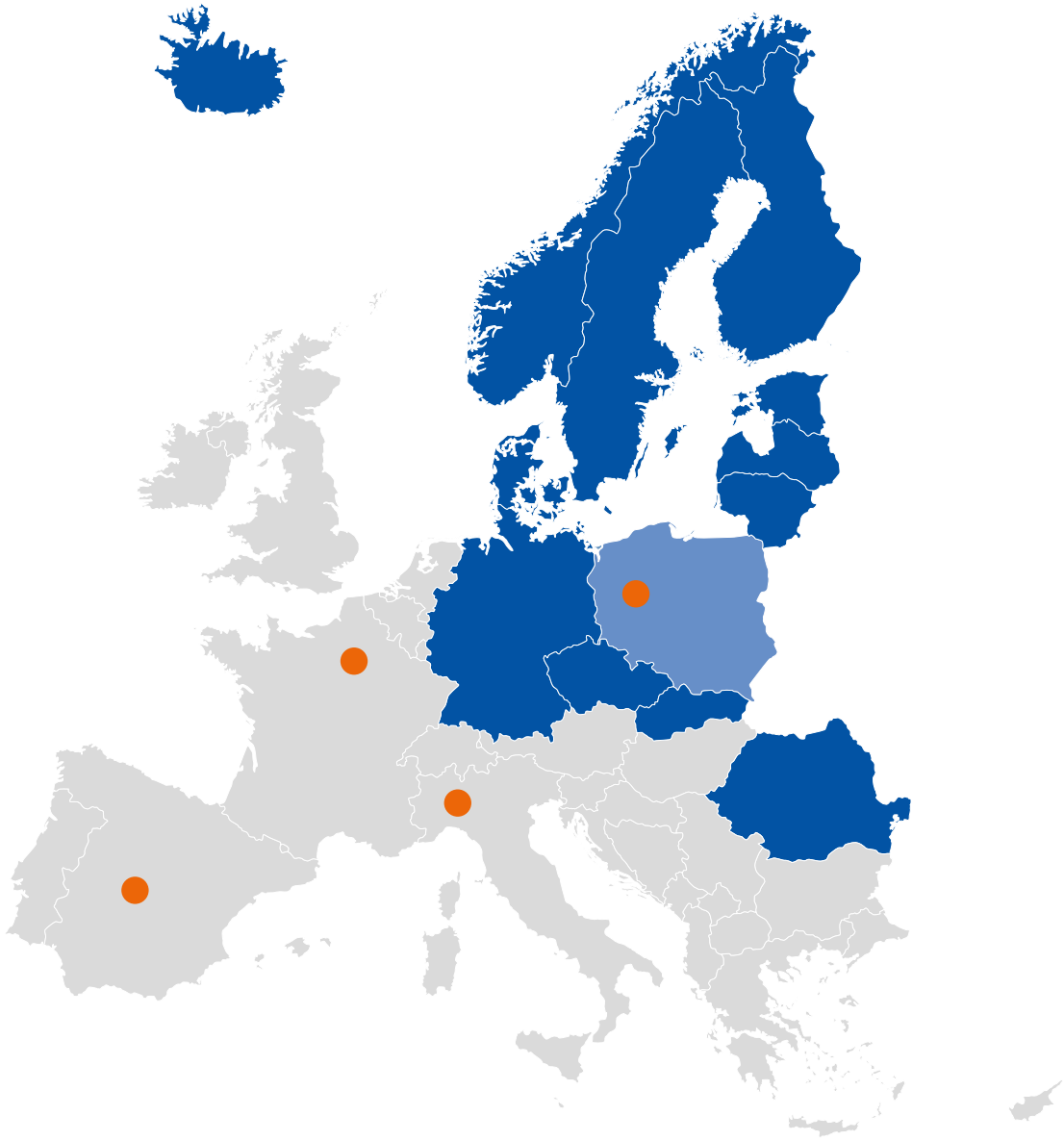
The Distribution and Logistics Centre in Gądki near Poznań (MMW – MultiMarket Warehouse) is responsible for supplying GSK medicines and vaccines to more than 30,000 customers in 13 European countries.

It handles around 220,000 orders per year, helping to deliver 60 million packs of medicines and 10 million doses of vaccines to patients. It also distributes the monoclonal body used in the treatment of COVID-19 in Europe under an agreement with the European Medicines Agency.

In 2021, GSK supplied more than 25 million packs of medicines and doses of vaccines for Polish patients, including around 2 million doses for the National Immunisation Programme. These were delivered to 6,600 sites all over Poland.

The centre is also involved in repackaging and serialisation of products.

MMW – MULTIMARKET WAREHOUSE POZNAŃ
SUPPLY NETWORK FOR EUROPEAN PARTNERS



Warehousing and distribution

- 13 EU markets: **Poland, Germany, Czech Republic, Slovakia, Norway, Denmark, Sweden, Finland, Iceland, Lithuania, Latvia, Estonia, Romania**
- Deliveries to more than 30,000 customers
- 220,000 orders per year
- Production of 1.2 milion bundle packs annually under GMP license
- Serialisation
- Sampling and quarantine warehouse for dermatological products from the Bernard Castle site (Brexit)

GSK's contribution to the economic and social development of Poland

Every enterprise has a much greater impact on the economy than can be inferred from a review of its financial statements. The modern economy is made up of numerous relationships, markets and other forms of cooperation between businesses for mutual benefit. Exerting a positive economic influence on the environment is one of the main mechanisms driving growth, prosperity and technological development.

GSK'S CONTRIBUTION TO THE POLISH ECONOMY

Analysis overview

INVESTMENTS:

Over **PLN 2.23 bn** invested in Poland since 1998.

CLINICAL RESEARCH:

48 clinical trials in 2021, amounting to **PLN 47.5 m**, involving 242 sites and 4,600 patients.

GSK's annual expenditure on clinical trials will boost Poland's GDP in the long term by **PLN 77.9 m**.

EMPLOYMENT:

Over **2,000** employees with employment contracts.

750 new jobs created in 2021.

SUPPLIER NETWORK:

Business relations with **646** domestic suppliers, orders and assignments totalling **PLN 651 m** (2020).

TAX CONTRIBUTION AND PUBLIC LEVIES:

PLN 297 m in public levies: CIT, PIT, VAT, ZUS paid to the state budget in 2020 by all GSK companies.

MANUFACTURING AND DISTRIBUTION:

More than **100 million** packs manufactured each year. Exports from Poland to 130 countries.

25 million packs of medicines and doses of vaccines delivered to Polish patients (2021).

GSK'S CONTRIBUTION TO GDP:

Total contribution to Poland's GDP amounted to **PLN 2.36 bn** (2020).

IMPACT ON HOUSEHOLD INCOME:

PLN 494 m – Polish household income generated from GSK activity (2020).

IMPACT ON JOBS RETENTION:

9,700 jobs created in Poland as a result of GSK activity (2020).

Source: Own analysis based on data provided by GSK and Statistics Poland (GUS)
2020 data is inclusive of all GSK companies, including the manufacturing site in Poznań

3.1 Contribution to GDP (gross value added)

GSK companies operating in Poland made a direct contribution of PLN 1.58 billion to the Polish GDP in 2020. Taking into account indirect and induced effects, the total contribution in the form of gross value added was nearly 50% higher and amounted to PLN 2.36 billion.

Contribution to GDP (value added)	GSK total
direct effect	PLN 1,577 m
indirect effect	PLN 505 m
induced effect	PLN 278 m
Total economic impact	**PLN 2,360 m**

Source: Own analysis based on data provided by GSK and Statistics Poland (GUS)

3.2 Impact on household income

The total value of net wages paid by GSK in 2020 was PLN 295 million. while the total economic impact on the net income of Polish households was PLN 494 million. This means that for each PLN 1 of net remuneration at GSK companies, PLN 1.68 of additional net remuneration was generated in the community.

Net household income	GSK total
direct effect	PLN 295 m
indirect effect	PLN 128 m
induced effect	PLN 71 m
Total economic impact	**PLN 494 m**

Source: Own analysis based on data provided by GSK and Statistics Poland (GUS)

3.3 Impact on jobs retention

The number of jobs retained by the three GSK companies and the former GlaxoSmithKline Pharmaceuticals S.A. amounts to 2,363. However, taking into account the indirect and induced effect, GSK's operations in Poland contribute to the retention of more than 9,700 full-time jobs in supplier companies and businesses that profit from the generated consumer demand.

Jobs retained	GSK total
direct effect	2,363
indirect effect	4,642
induced effect	2,705
Total economic impact	**9,710**

Source: Own analysis based on data provided by GSK and Statistics Poland (GUS)

These high employment multipliers mean that GSK companies have a particularly strong impact on sectors with high labour intensity, i.e. a high ratio of employees to output. Such characteristics may be important in the scenario of a worsening situation on the Polish labour market and an increase in unemployment.

3.4 Public levies

Operating in Poland, GSK transferred a total of PLN 297 million in public levies to the state budget in 2020.[6] The largest share is attributable to employee and employer Social Security contributions, CIT and PIT, which is withheld from gross salaries. In the case of PIT, it can be estimated that half of the PLN 50 million went to the budgets of local governments in the regions, where GSK companies operate. In the context of the tax changes coming into effect in 2022 (increasing the tax allowance to PLN 30,000 and raising the threshold for the 32% rate to PLN 120,000), high-salary businesses such as GSK have become even more important for municipal budgets.

[6] Data is inclusive of former GSK Pharmaceuticals.

3.5 Supplier network

In Poland, GSK works with 646 suppliers. In 2020, the value of purchases from companies operating in our country amounted to PLN 650.6 million.

3.6 Indirect and long-term impact

The pharmaceutical sector is listed among the priority objectives set by the government in its strategy for responsible development. As a leading company in the sector, GSK contributes to Poland's economic development, as well as the country's innovation index. The sector's influence is also due to the so-called scientific spillover effect, i.e. the impact of a new technology on further innovative solutions. This is confirmed by a comprehensive analysis by Dachs et al. (2012)[7,8], according to which:

- a 1% increase in labour productivity in foreign companies leads to a 0.4% increase in labour productivity in domestically-owned businesses;
- a 1% increase in the number of jobs in foreign firms leads to a 0.44% increase in the number of jobs in domestically-owned businesses;
- a 1% increase in R&D expenditures in foreign companies contributes to a 0.05% increase in labour productivity in domestically-owned businesses.[9]

The above results indicate that GSK has a significant and positive impact on the Polish economy by creating new high-productivity, highly-paid jobs.[10] Dynamic growth is particularly evident in the case of jobs related to the provision of specialised business and technology services, and scientific activity (GSK Services company). Further employment growth is planned for 2022.

GSK's contribution to the Polish economy is also driven by research and development investments, especially clinical trials. In 2021, GSK funded research to the value of PLN 47.5 million[11], over 64% more than in the previous year.[12] Innovation arising from partnerships with external researchers and physicians becomes increasingly important, which is a global trend.[13] The socio-economic benefits of these investments will not become apparent until several years from now, possibly over a decade later. According to simulations based on general equilibrium models, GSK's 2021 expenditure on clinical trials (PLN 47.5 m) will boost Poland's GDP in the long term by PLN 77.9 million.[14] This means that every PLN 1 m spent by GSK on clinical trials will generate PLN 1.64 m in goods and services produced in Poland. The effects of R&D expenditure are not limited to Poland or to economic performance. One can also expect a positive impact on health, as measured in Life Years, and quality of life.[15]

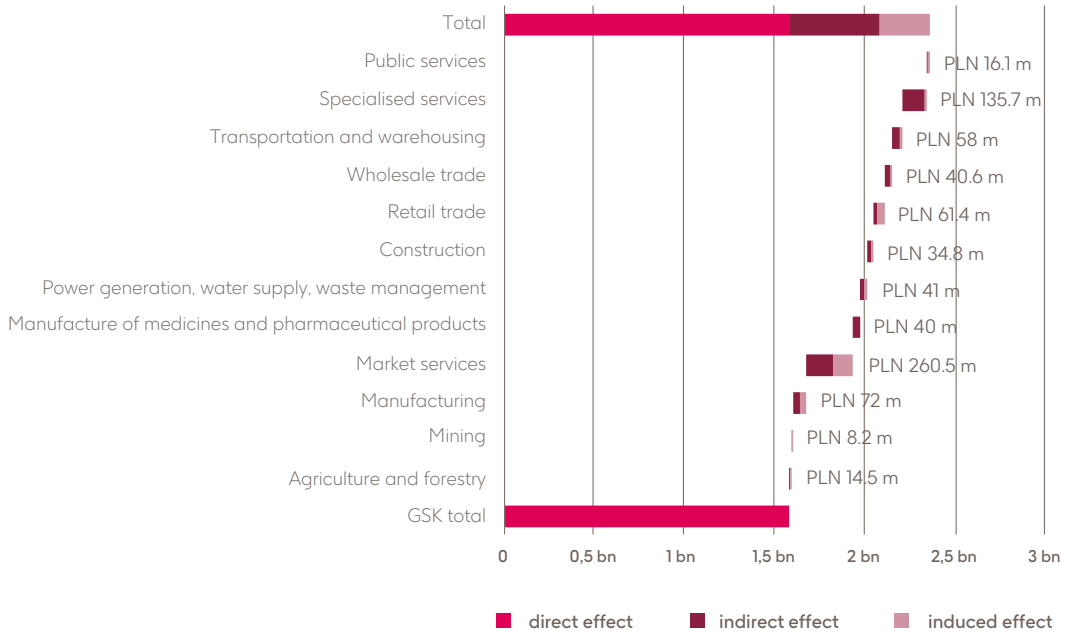
[7] Bernhard Dachs, Doris Hanzl-Weiss, Franziska Kampik, Sandra Leitner, Thomas Scherngell, Robert Stehrer, Waltraud Urban, Georg Zahradnik (2012), Internationalisation of business investments in R&D and analysis of their economic impact, Analysis Report, http:// citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.401.5464&rep=rep1&type=pdf
[8] The above results should be interpreted as a contribution to the environment over a period of several years (not as short-term effects).
[9] The results of econometric analyses are presented for a sample consisting of sectors of EU economies, due to the relatively high number of observations and good model fit.
[10] According to neoclassical economic theory, wage levels are equal to the marginal productivity of labour. Many empirical studies confirm the strong relationship between wage levels and labour productivity.
[11] http://efpiadisclosurecode.gsk.com/GSK_PL_2020_EFPIA_HCPO_Disclosure_Report.pdf
[12] http://efpiadisclosurecode.gsk.com/GSK_PL_2019_EFPIA_HCPO_Disclosure_Report.pdf
[13] Deloitte, Nurturing growth. Measuring the return from pharmaceutical innovation 2021, https://www2.deloitte.com/global/en/pages/lifesciences-and-healthcare/articles/measuring-the-return-from-pharmaceutical-innovation-2021.html
[14] Analysis based on the multiplier for R&D expenditure obtained in the simulation of the general equilibrium model (CGE) for the Czech economy. See: Zuzana Kristkova (2012), Impact Of R&D Investment On Economic Growth Of The Czech Republic - A Recursively Dynamic CGE Approach, Prague Economic Papers
[15] Lichtenberg F Sources of U.S. longevity increase, 1960-2001. Quart Rev Econ Finance. 2004;44(3):369-89.

From a macroeconomic perspective, the pharmaceutical industry is one of the most sought-after, as it creates stable jobs for highly skilled professionals, ensures high profitability and increases the global production value. According to simulation studies based on the hypothetical extraction method, one person employed in the pharmaceutical industry generates more than three further jobs around the industry. The manufacture of pharmaceuticals at the Polish plant for other markets as part of GSK's global supply chain boosts exports, positively impacting Poland's trade balance. Local production increases the country's medicine security. The presence of the pharmaceutical industry has a positive impact (both direct and indirect) on the development of medical science in Poland.

The pharmaceutical industry is at the forefront of the digital economy. It implements the latest solutions and drives changes in other sectors. Digital technologies are used in production facilities, warehousing and logistics, as well as distribution. They are also associated with connectivity, data acquisition and processing, process automation, Internet of Things, cyber security, artificial intelligence algorithms and machine learning. The use of digital technologies is changing the way all GSK suppliers and partners do business.

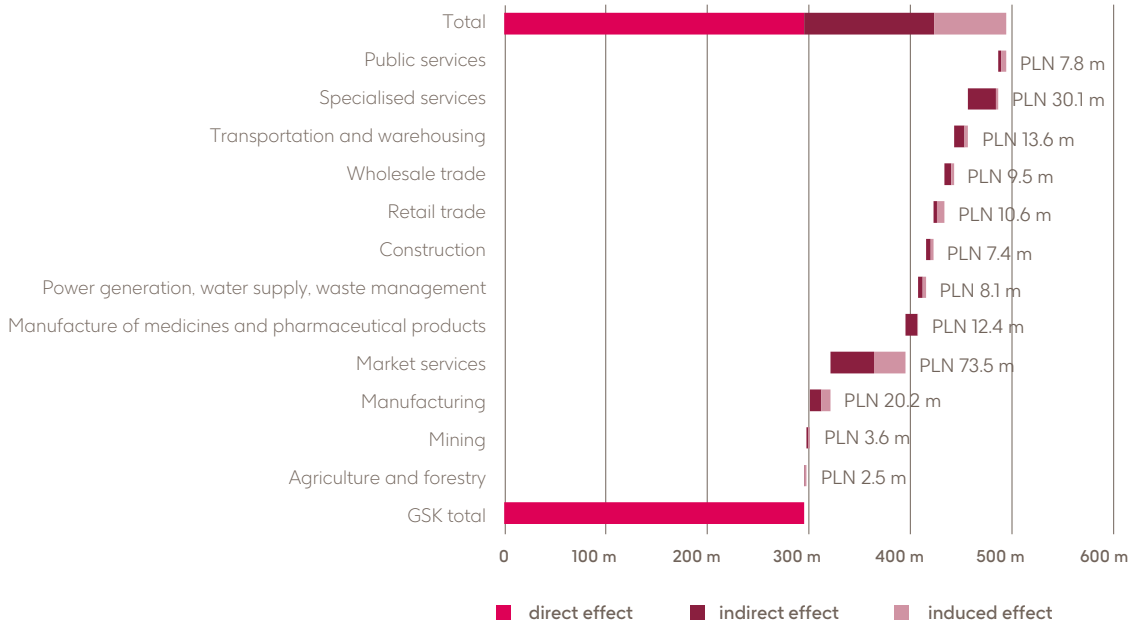
As one of the largest employers in Poznań, GSK builds and helps stabilise the local labour market. The city and region benefit from the company's presence in terms of attractiveness and prestige. The company's and its employees are involved in local initiatives, supporting the development of the local community. The pharmaceutical industry stabilises the local economy, by generating growth even in adverse pandemic conditions.

Contribution to gross value added: PLN 2.36 bn*



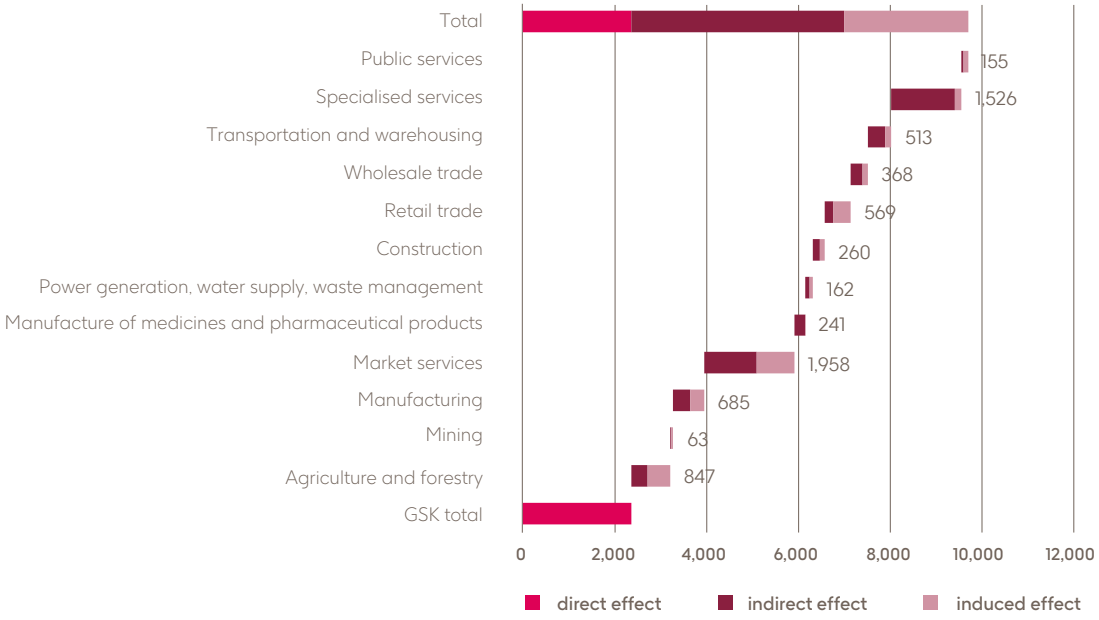
Source: Own analysis based on data provided by GSK and Statistics Poland (GUS) / * Data is inclusive of former GSK Pharmaceuticals. Input-output tables published by Statistics Poland (GUS) were used to perform the analysis and develop input-output models.

Impact on net household income: PLN 494.2 m*



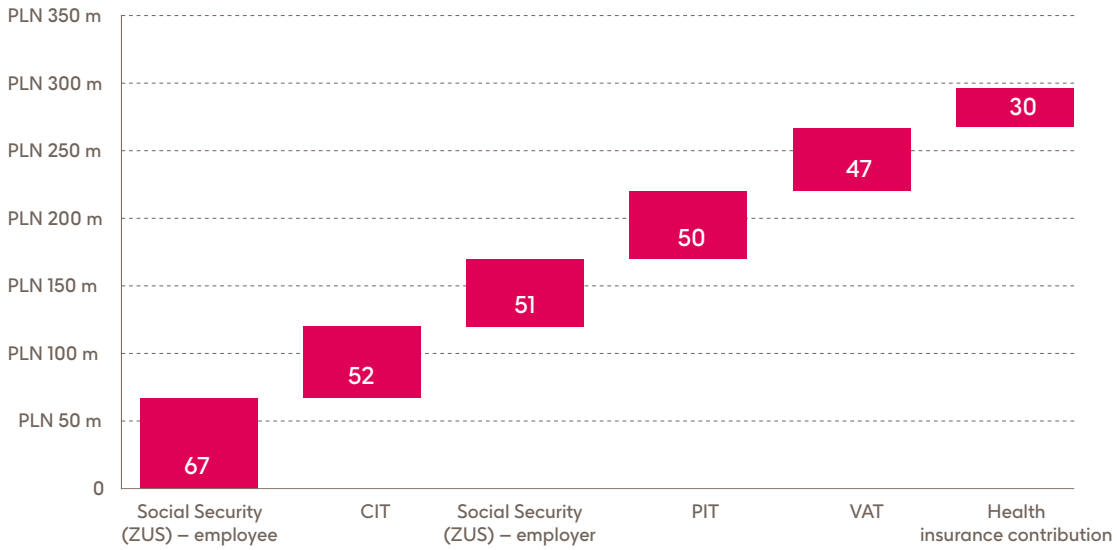
Source: Own analysis based on data provided by GSK and Statistics Poland (GUS) / * Data is inclusive of former GSK Pharmaceuticals. Input-output tables published by Statistics Poland (GUS) were used to perform the analysis and develop input-output models.

Impact on jobs retention (number of jobs retained): 9 710*



Source: Own analysis based on data provided by GSK and Statistics Poland (GUS) / * Data is inclusive of former GSK Pharmaceuticals. Input-output tables published by Statistics Poland (GUS) were used to perform the analysis and develop input-output models.

Public levies: 297 mln zł *



Source: Own analysis based on data provided by GSK and Statistics Poland (GUS) / * Data is inclusive of former GSK Pharmaceuticals. Input-output tables published by Statistics Poland (GUS) were used to perform the analysis and develop input-output models.

Methodological annex

1. What is and how to understand economic impact

The production of virtually any goods or services involves costs, some of which are the revenues of other companies - suppliers. Purchases of goods and services for the purposes of production are referred to as intermediate consumption. One simple example would be energy or packaging materials purchased by a pharmaceutical manufacturer. This is how gross added value is created in a company – in addition to intermediate consumption, the manufacturer uses other inputs, primarily labour, capital and know-how, to produce goods and services, which it then sells on the market. By definition, value added is the difference between a company's output and intermediate consumption:

gross value added = output – intermediate consumption

Gross value added is a very important measure, because:

- at the company level, it shows what economic value the company "adds" in the value chain, i.e. by how much the value of the goods and services produced exceeds the costs of the goods and services purchased to produce them;
- at the level of the economy, gross value added is a major component of Gross Domestic Product, which is a measure of the value of final goods and services produced, and an important indicator of a society's standard of living.

Any enterprise operating in a market economy must create positive gross value added in order to be able to cover wage costs, depreciation, taxes on products and, finally, to generate profit. If no economic value is generated, it cannot be distributed to pay wages or dividends, to cover depreciation and to pay public levies.

2. Methodology of analysis

The analysis is based on input-output models. The main advantage of adopting this model is that it can be used to estimate additional business effects, beyond the direct gross value added created, jobs retained or wages paid. Thus, in addition to the direct business effects of GSK companies, the following can be distinguished and estimated:

- indirect effects, related to purchases of goods and services from other companies, by which they generate revenues and added value, maintain jobs and pay wages;
- induced effects, related to household income from work in GSK companies and supplier companies, which contributes to consumer demand and, as a result, drives the production of a wide range of goods and services in the economy. As with the indirect effect, this production translates into income, value added, employment and wages paid.

Input-output tables published by Statistics Poland (GUS) were used to perform the analysis and develop input-output models for individual entities. The table used is the latest available. It was published in 2019 and shows the structure of relationships in the Polish economy for 2015. Due to their high complexity and labour intensity, input-output tables are published every few years.

For the analysis of job impacts, other sources published by Statistics Poland (GUS) were used: Yearbook of Labour Statistics 2021 and Statistical Yearbook of Industry 2020.

The source of the data for GSK companies in Poland is GSK, which is also responsible for its accuracy.