



do more
feel better
live longer

**GSK,
a unique
company
in Belgium**

Lucas
Patient

Who we are

We are a science-led global healthcare company with a special purpose: to help people do more, feel better, live longer.

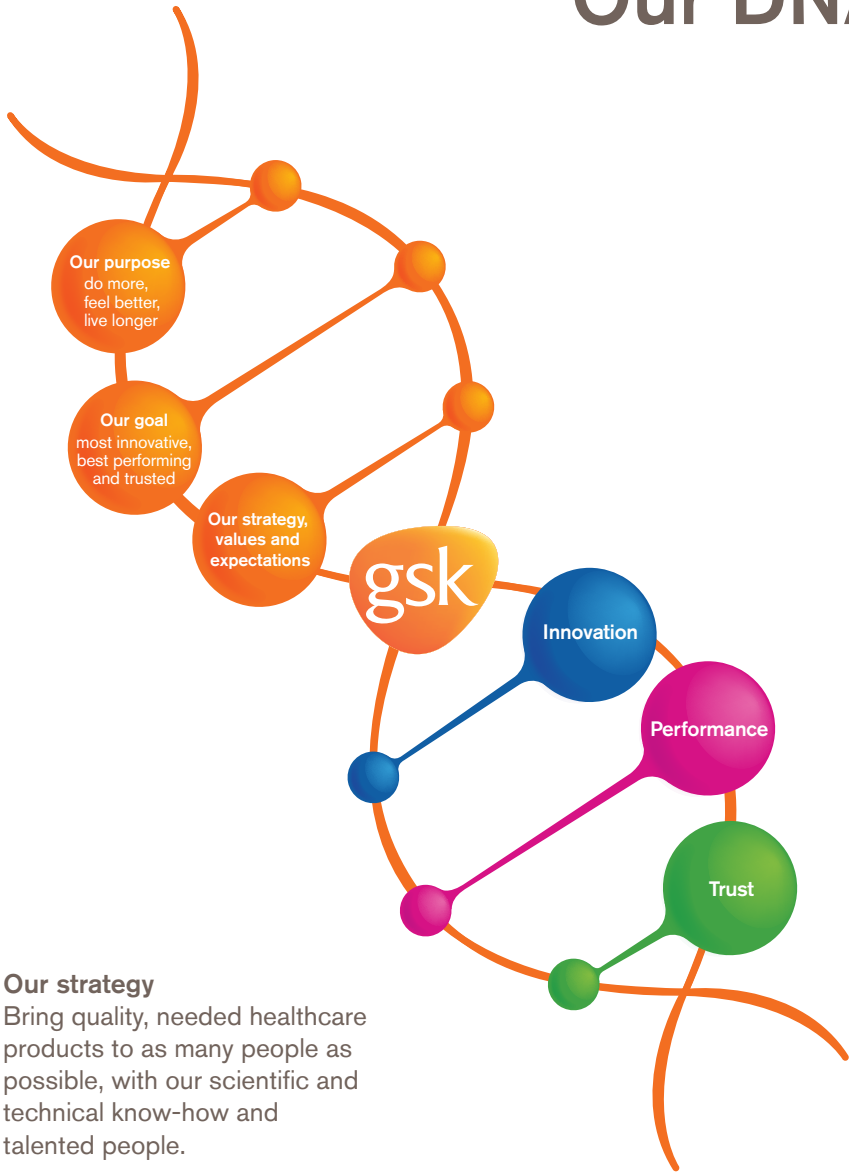
We have 3 global businesses that research, develop and manufacturer innovative pharmaceutical medicines, vaccines and consumer healthcare products.

Our goal is to be one of the world's most innovative, best performing and trusted healthcare companies.



Arthur
Scientist

Our DNA



Our strategy

Bring quality, needed healthcare products to as many people as possible, with our scientific and technical know-how and talented people.

Our values and expectations

- Patient focus
- Transparency
- Respect
- Integrity
- Courage
- Accountability
- Development
- Teamwork

What we do



We aim to bring differentiated, high-quality and needed healthcare products to as many people as possible, with our 3 global businesses, scientific and technical knowhow and talented people.

Mvelo
Patient

Please report adverse events to the Belgian Centre for Pharmacovigilance for medicines for Human use (BCPH) of the Federal Agency for Medicines and Health Products (FAMHP) on the following address: adversedrugsreactions@afmps.be or via the 'yellow card' available on the website <http://www.fagg-afmps.be> or to GlaxoSmithKline Pharmaceuticals s.a./n.v. at the number 010/ 85 85 00.

Vaccines

Our Vaccines business has a broad **portfolio** and innovative pipeline of vaccines to help protect people **throughout life**. These vaccines **help to protect** against many **infectious diseases** such as meningococcal, pneumococcal or rotavirus infections, as well as polio, flu, hepatitis, whooping cough or shingles infections.



>40 **vaccines**

for children, adolescents,
adults and travelers.



A tradition of innovation

GSK pioneers innovative
vaccines worldwide.

1956
Polio

1986
Engerix B

1992
Havrix

1997
Twinrix



2007
Cervarix

2006
Rotarix

2003
Boostrix

2002
Infanrix hexa

1999
Priorix



2009
Priorix-Tetra

2010
Synflorix

2015
Alpharix-Tetra

2017
Bexsero



and in
the near
future...
Shingrix

Pharmaceuticals

Our Pharmaceuticals business has a broad portfolio of innovative and established medicines with commercial leadership in respiratory and HIV. Our R&D approach focuses on science related to the immune system, use of genetics and advanced technologies.

Respiratory

>45 years

of research and development for innovative respiratory drugs.



1969
Ventolin

1972
Beconase

1973
Becotide

1990
Flixonase

1993
Flixotide

1999
Seretide

2018
Trelegy Ellipta

2016
Nucala

2015
*Anoro Ellipta &
Incruse Ellipta*

2014
Relvar Ellipta

2008
Avamys

HIV



A unique company fully dedicated to the fight against **HIV**, specialised in **treatment** with currently

>10 **specific medicines**

for people living with the virus.

Consumer Healthcare

Our Consumer Healthcare business develops and markets an innovative portfolio of consumer preferred and expert recommended brands in the **Oral health**, **Pain relief**, **Respiratory**, and **Skin health** categories.

160 years
of experience



Parodontax



Depiction of Hydroxyapatite
like crystals which *NovaMin*
helps to form.



How we do it



Everyone at GSK is focused
on 3 priorities:

Innovation

Performance

Trust

Aliza
Respiratory scientist

Innovation

We invest in scientific and technical excellence to develop and launch a pipeline of new products that meet the needs of patients, payers and consumers.

€4.3bn

R&D investment
in 2017



3

major launches in
2017 – *Shingrix*,
a vaccine for
shingles, *Trelegy
Ellipta* for COPD
and *Juluca* for HIV

27

immunomodulatory
new molecular
entities in the
pipeline for a range
of diseases

11,000

people working
in R&D around
the world



In 2018 GSK announced a new collaboration with **23andMe**, to develop innovative new medicines and potential cures, using human genetics as the basis for discovery.



Rodrigo
Cell Transduction Scientist

Performance

We aim to achieve industry-leading growth by investing effectively in our business, developing our people and delivering flawlessly.

€33.4bn

total turnover in
2017

No.1

dolutegravir is the
most prescribed
core agent for
HIV treatments
worldwide

>€1bn

Sensodyne
sales - world's
number one dentist
recommended
toothpaste for
sensitive teeth

>100m

Ellipta inhalers
produced to treat
asthma and
COPD



Around 40% of the
world's children are protected with
at least one GSK vaccine.

2 millions doses

of our vaccines are delivered
to 160 countries per day.



Our long-term priorities

Trust

We are a responsible company and commit to use our science and technology to address health needs, make our products affordable and available and to be a modern employer.

119,000

of our people and their families in 93 countries have access to healthcare with our Partnership for Prevention programme

1st

candidate vaccine showing efficacy against malaria and 1st single dose medicine to treat relapsing malaria

1st

in class medicines in the pipeline and a much needed candidate vaccine to help fight tuberculosis

84%

of employees are proud to work for GSK




Our approach to global health focuses our science on three of the biggest health challenges affecting children and young people in the developing world – HIV, TB and malaria.

Each year **6 million children** under the age of five die, most from preventable causes in developing countries.

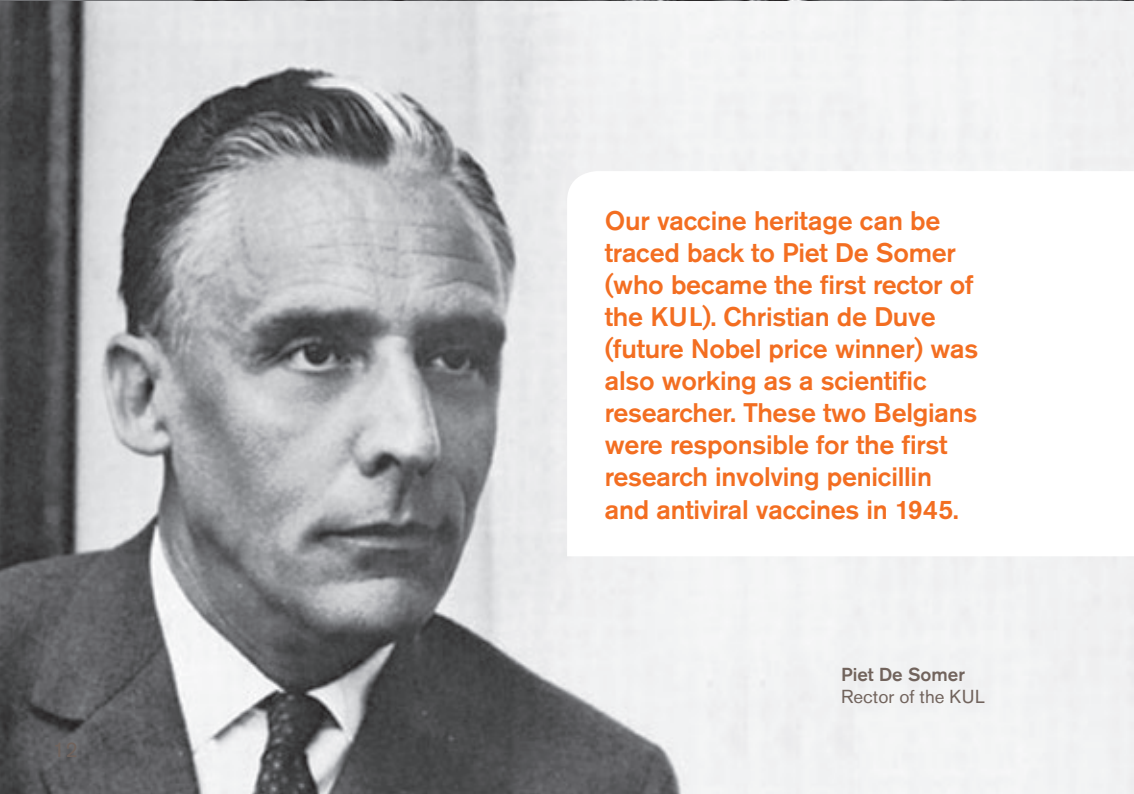
Eva
Scientist



GSK in Belgium

A black and white portrait of Christian de Duve, an elderly man with white hair, wearing a dark suit and tie. He is looking slightly to the right. In the background, a chalkboard is visible with some faint writing, including "2-60'" and "SERV".

Christian de Duve
Nobel price winner

A black and white portrait of Piet De Somer, a middle-aged man with dark hair, wearing a dark suit and tie. He is looking slightly to the right.

Our vaccine heritage can be traced back to Piet De Somer (who became the first rector of the KUL). Christian de Duve (future Nobel price winner) was also working as a scientific researcher. These two Belgians were responsible for the first research involving penicillin and antiviral vaccines in 1945.

Piet De Somer
Rector of the KUL

GSK is one of the few pharmaceutical companies that has integrated **all operations: from research to development, to production** and finally commercialisation of **vaccines**:



R&D
(research
and clinical
development)



**manufacturing
and packaging**
(primary and
secondary)



distribution in
Belgium and
export all around
the world

But also the **commercialisation of medicines** against respiratory disease and HIV (the virus responsible for AIDS), as well as many consumer healthcare products.

Belgium: the heart of GSK Vaccines

3 major vaccine sites

of GSK in Belgium (in Wavre, Rixensart and Gembloux), including the **global headquarters** from the **vaccines division** of the group.

We represent the **largest industrial network** for vaccines worldwide.



📍 Rixensart

- Founded in 1958, this was the **foundational vaccines site** in Belgium. Many of our vaccines were discovered and produced here.
- The site is unique and is home to **the largest vaccines R&D unit**. Our other R&D sites are in Italy and the USA.
- There are specific **laboratories** dedicated to research and **development of vaccines** as well as **vaccine manufacturing**.
- Our R&D team brings together a **vast and unique international expertise** across the **fields of adjuvants** as well as **viral** and **bacterial infections**.



The names of our vaccines developed in Belgium always end with **-RIX**.





Surface as big as

70 football fields

📍 Wavre

- Inaugurated in 1995, this site is **the largest vaccines manufacturing site in the world** with a total surface of 550.000m². It is equipped with a large manufacturing infrastructure (producing antigens, formulation, filling, packaging, and infrastructure for quality assurance and control).
- The vast majority of GSK Vaccines distributed worldwide are produced in Wavre.

📍 Gembloux

- Created in 1997, this site is dedicated to upscaling **vaccine manufacturing techniques** before their implementation in our Belgian and international manufacturing centers.
- This site is also important for the storage of our vaccines (commissioned since 2010).



GSK in Belgium, in numbers

14 candidate vaccines



currently in development, representing the **largest pipeline** compared to other vaccine producers*.



65 years of innovation

in vaccines, with currently

~2,000 researchers working in R&D.

>90% of the vaccines

in our pipeline were developed through Belgian and international partnerships. In 2018, we had



13 scientific collaborations

with Belgian academic institutions.

Investments are key to anticipate the future in a complex domain

~1 billion € invested in R&D

as from Belgium in 2017. On top of that, **3 billion €** were invested in Belgian infrastructure the last 10 years.



The launch of a new vaccine is a long process and requires massive investments in R&D (including clinical trials) as well as in development and building state-of-the-art facilities.



Our investments in R&D have continuously increased over the last decade.



99% of our vaccines
are exported to

>160 countries

of which at least

70%

are developing countries with
low and middle incomes.



>2 million doses

of vaccines are produced every day

800 million doses

of vaccines distributed in 2017, or

25 doses/second

An attractive and modern employer

In the last 10 years, GSK has created more than 3.000 jobs, which corresponds to almost

1 job created/day.



In 2017, GSK hired about 1,000 employees.

>9,000

employees in Belgium

without counting about 16.000 indirect jobs created. GSK is by far the largest pharmaceutical company in Belgium.

A **Top 10** company in Belgium

**45% women and
55% men**



>80 nationalities

across our workforce in Belgium.

**25% operators
35% administrative &
technical functions
40% managers**



Future Leaders Programme*

Every year through this **programme** **young talent** has the opportunity to experience different parts of our business.



In 2017, close to 2,000 of our GSK employees dedicated their time to

137 charity projects.

Consistently recognized as an **attractive employer** over several years.



The impact of our vaccines on public health



Next to clear water, **nothing has a bigger impact than vaccination in its ability to save lives***.

The WHO estimates **2-3 million** of deaths are prevented each year thanks to vaccination**.

>40 vaccines

on the market which help protect against infectious diseases at **all stages of life** - from infants to elderly, as well as pregnant women and travelers.

The majority of Belgians will receive **at least 1 GSK vaccine during their lifetime**.



GSK has a vaccine for each infectious disease mentioned in the Belgian vaccination calendar.



40% of children

worldwide are protected with at least one GSK vaccine.



*WHO, UNICEF, World Bank. State of the world's vaccines and immunization, 3rd ed. Geneva, World Health Organization, 2010

**www.who.int/mediacentre/factsheets/fs378/fr/

WHO – World Health Organization

Debora, Elomvi, Imaculé, Koké, Kodjo, Essenam
Patients





The impact of our vaccines on global health

We focus our science on three of the biggest health challenges affecting children and young people in the developing world - HIV, TB and malaria. After more than 30 years of research by our scientists in Belgium in collaboration with international partners, the **first vaccine, Mosquirix, indicated for malaria prevention** is finally available for children living in Sub-Saharan Africa.

GSK will distribute this vaccine at **access pricing** and has committed to **donate the first 10 million doses** to WHO.

Making our vaccines available for as many people as possible

In order to increase access of our vaccines and medicines to patients, independently of their financial situation, we collaborate with partners (UNICEF, GAVI...) to set up different **help programmes**. GSK is the main vaccine supplier to these organisations.

GSK has ranked top of the **Access to Medicines Index** for the past ten years as the company contributing most to improve the access of medicines throughout the world.

unicef 

Gavi 
The Vaccine Alliance

access TO
medicine
INDEX 

7/10
of our vaccines

are distributed to developing countries where we apply a differentiated pricing policy.



400,000
people

die every year from malaria, mostly children and pregnant women... **that's one child every 2 minutes.**



Producing a vaccine: a long and complex process

Vaccines are **complex biological products** where the manufacturing is based on living organisms.

The **reproducibility** of the manufacturing process is technically complex.

The different steps of vaccine manufacturing

R&D

10-30 years



Receipt of raw materials

2 weeks



Cold chain ± 18-26 months



Packaging, batch release and transport

6-18 weeks



Manufacturing of the vaccine antigens

10-12 months



Quality checks all through the process

70%

of the manufacturing process is dedicated to quality control.

>100

quality controls are needed for producing and before releasing a vaccine batch.



Formulation, filling and quality control

6-10 months

Quality checks:



from the producer



from the exporting country



from the importing country

GSK, a unique company in Belgium!

Unique...

... historical R&D site in **Rixensart**, explaining why most of our vaccines end with “-RIX”.

... **broadest portfolio of vaccines** that help protect **people throughout life** against infectious disease.



... not only do we have **the largest “pipeline”** of vaccines, but we are also **the largest vaccine manufacturer** worldwide.

... GSK has **massively invested in R&D** and infrastructure during the last decade.

... Wavre is **the largest vaccine production facility** in the world.



... **>3,000 direct jobs** created in 10 years.

... our pharmaceutical business has integrated all **biopharmaceutical activities** in one location (from R&D to commercialisation).



For more information, please consult our website <http://be.gsk.com>

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