

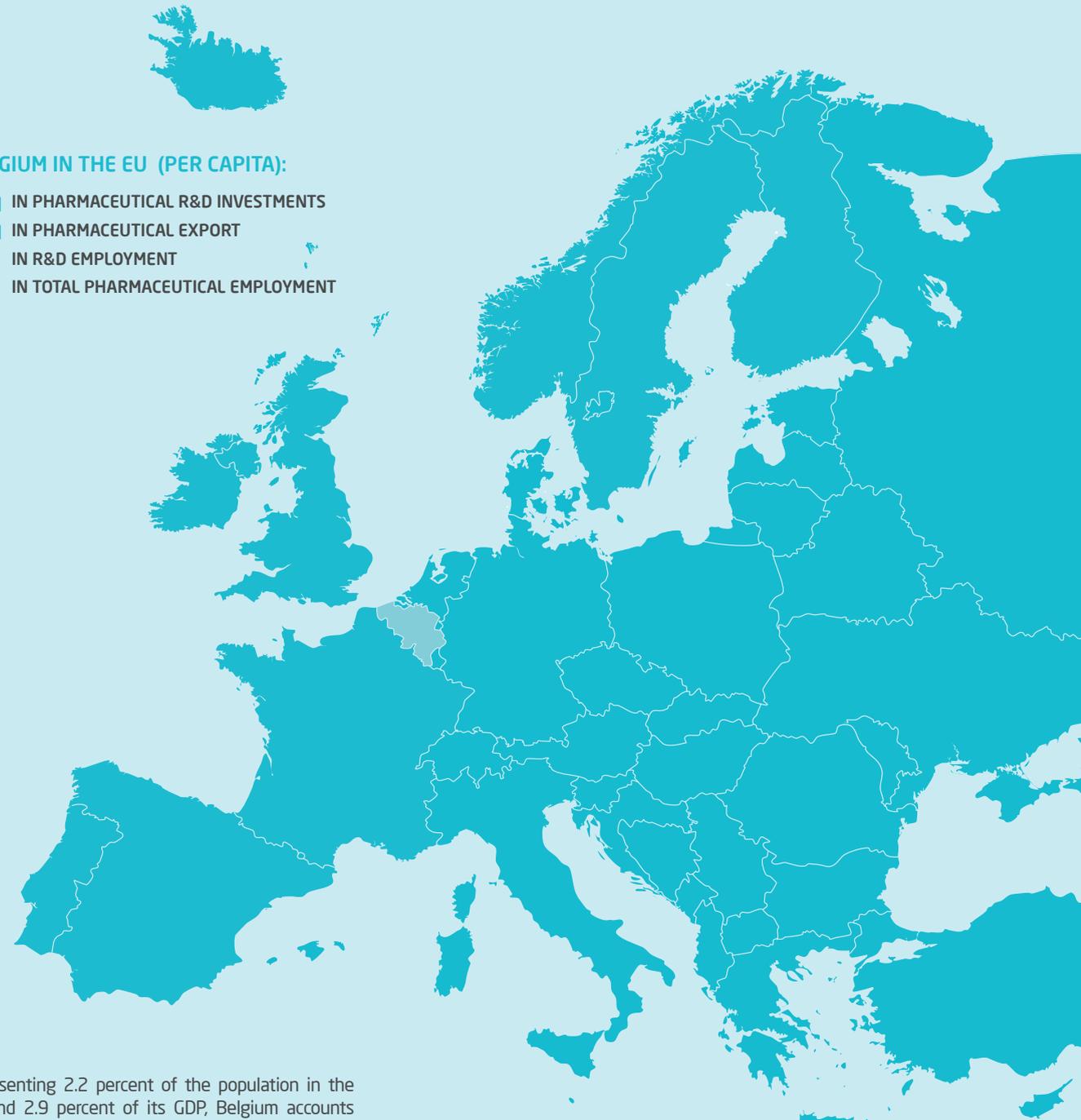
Belgium:

the (bio)pharmaceutical
innovation hub
in the heart of Europe



Pharma figures for 2017
European outlook

pharma.be
ASSOCIATION GÉNÉRALE DE L'INDUSTRIE DU MÉDICAMENT
ALGEMENE VERENIGING VAN DE GENEESMIDDELENINDUSTRIE



BELGIUM IN THE EU (PER CAPITA):

2nd IN PHARMACEUTICAL R&D INVESTMENTS

2nd IN PHARMACEUTICAL EXPORT

3rd IN R&D EMPLOYMENT

4th IN TOTAL PHARMACEUTICAL EMPLOYMENT

Representing 2.2 percent of the population in the EU, and 2.9 percent of its GDP, Belgium accounts for **12.6 percent** of the R&D investments by (bio) pharmaceutical companies in the EU.

SITUATION IN 2016

Belgium is a leader in (bio)pharmaceutical innovation in Europe

The (bio)pharmaceutical sector lives and thrives on innovation. The **679,575** employees¹ in the European (bio)pharmaceutical industry work every day to find new medicinal products and treatments to provide new solutions to patients. The figures you will discover in this brochure demonstrate that **Belgium occupies** a very special position. In 2017, (bio)pharmaceutical companies invested for a total of **3.51 billion Euros** in R&D in the country and created additional jobs for researchers in their research units. Thanks to these investments, Belgium accounts for **12.6 percent** of the total (bio)pharmaceutical R&D-investments in the European Union. When the number of inhabitants is taken into account, Belgium comes second with regard to the (bio)pharmaceutical R&D investments, **2nd** with regard to export of (bio)pharmaceutical medicines, **3rd** with regard to the number of R&D researchers employed and **4th** with regard to the total number of people that are employed by the (bio)pharmaceutical companies. For the development of new medicinal products and treatments, Belgium is systematically **among the top three countries** in the number of clinical trial applications per million inhabitants. This is yet another indicator of the vitality of our sector.

Belgium, stronger and stronger each year

To preserve and even reinforce its solid position in (bio)pharmaceutical research and production, Belgium has also adopted a unique tool in Europe: “the (bio)pharmaceutical industry observatory”, which was installed in September 2018. Designed to be a real-life control board, it brings together all indicators (scientific, economic, fiscal, etc.) and is able to measure the country’s

appeal in terms of R&D and to issue recommendations. The vibrancy of our sector is striking and illustrates our commit to stand by patients. The Belgian (bio)pharmaceutical industry is an essential partner of medical progress and science in Europe.



Catherine Rutten
CEO pharma.be

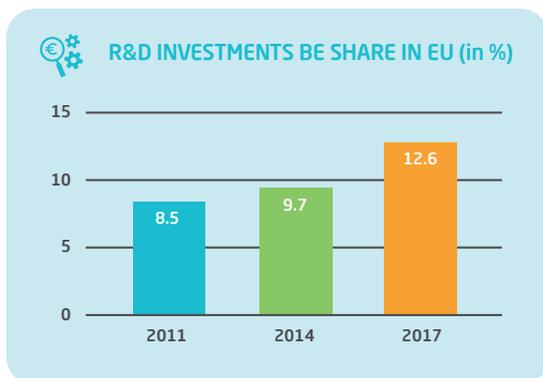
“The (bio)pharmaceutical industry observatory will be able to measure the country’s appeal in terms of R&D and to issue recommendations”

Continued investments in pharmaceutical R&D strengthens Belgium's position in Europe

Over the years, the (bio)pharmaceutical companies have considerably increased their investments in pharmaceutical R&D in Belgium. While in 2011 the total pharmaceutical R&D investments in Belgium were just over 2 billion euros, these have increased by 70 per cent, to 3.51 billion euros in 2017². This means that each day in 2017 pharmaceutical companies invested more than 9.6 million euros in R&D in Belgium. Within the European Union, Belgium holds a top position as concerns R&D investments by (bio)pharmaceutical companies. Belgium comes second to Denmark, when the size of the population of the country is taken into account.

On a daily basis, pharmaceutical companies invest 9.616 million euros in R&D in Belgium (2017).

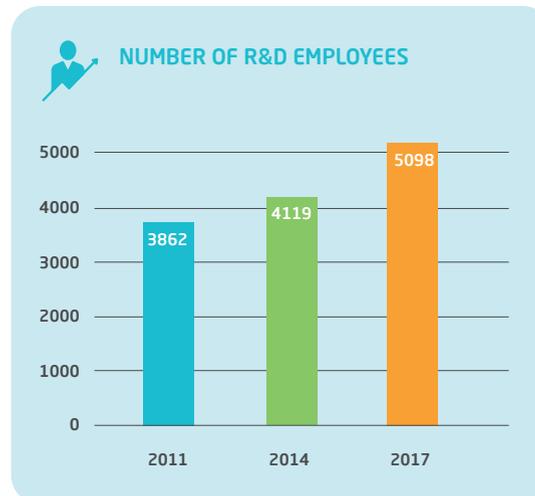
Rising share of Belgium in pharmaceutical R&D investments in EU (2011-2017, in percent)



DEVELOPING TALENT IN PHARMACEUTICAL RESEARCH

The increased investments in R&D are also reflected in the number of researchers that have been employed by (bio)pharmaceutical companies in Belgium. In 2011, 3862 people were employed in R&D positions in Belgium. This number increased gradually ever since, especially as from 2014 onwards. In 2017, more than 5,000 people were employed in research units in (bio)-pharmaceutical companies in Belgium.

Subsequently, the share of Belgium in R&D employment in the (bio)pharmaceutical industry in the European Union rose from 3.6 percent in 2011 to 4.1 percent in 2016.



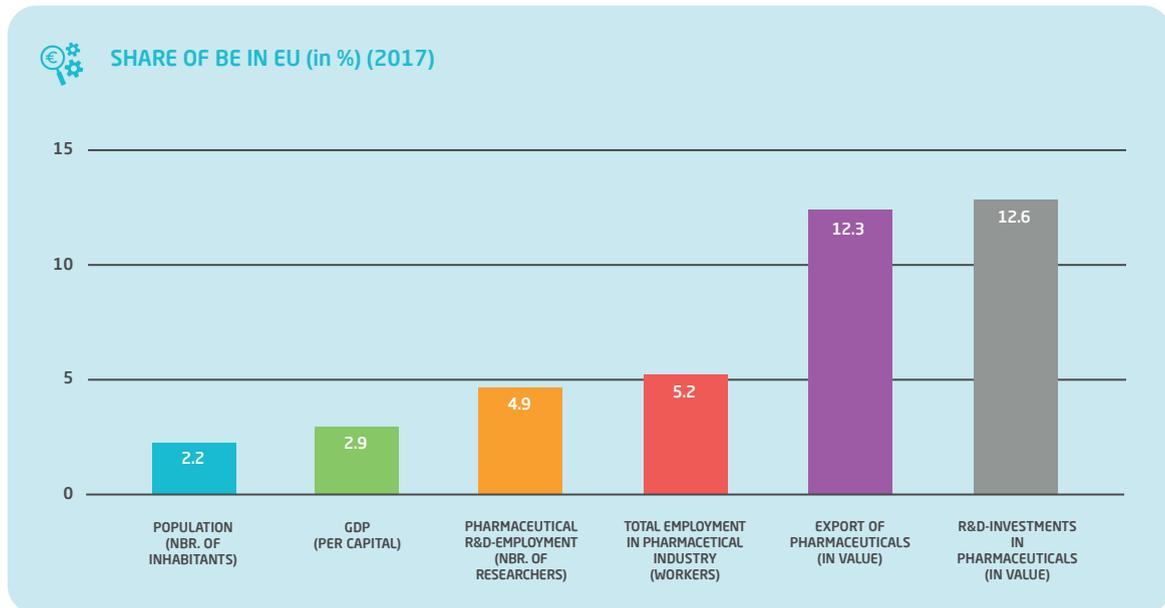
² pharma.be and EFPIA - "The Pharmaceutical Industry in Figures" - Key data 2018 - www.efpia.eu

Belgium: 2nd largest investments in EU in (bio)pharmaceutical R&D

Since 2011, investments in (bio)pharmaceutical R&D in Belgium rose by an annual average of 9.5 percent. This growth rate outpaced the annual growth rate of the overall growth rate in the European Union, which was 2.0 percent. As a consequence, the share of Belgium in the total (bio)pharmaceutical R&D-investments in the European Union rose from 8.5 percent in 2011 to 12.6 percent in 2017. This is a remarkable figure, given the fact that Belgium represents only 2.2 percent of the population in the European Union, and 2.9 percent of its GDP.

Of every 8 million euros that is invested in R&D in the EU, by pharmaceutical companies 1 million euros is invested in Belgium.

Belgium represents only 2.2 percent of the population in the EU, but 12.6 percent of the R&D investments in pharmaceuticals

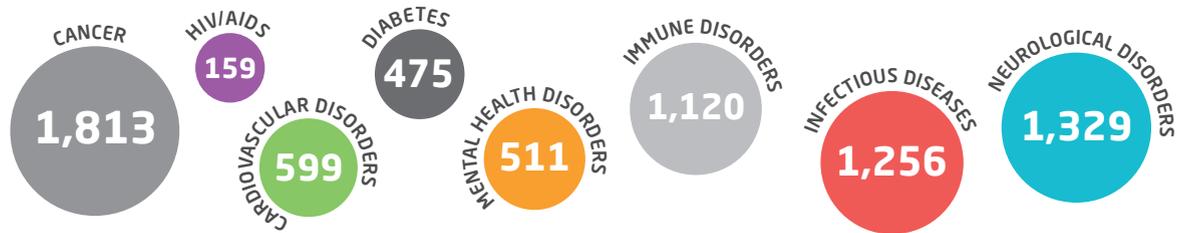


Innovation is a must for patients

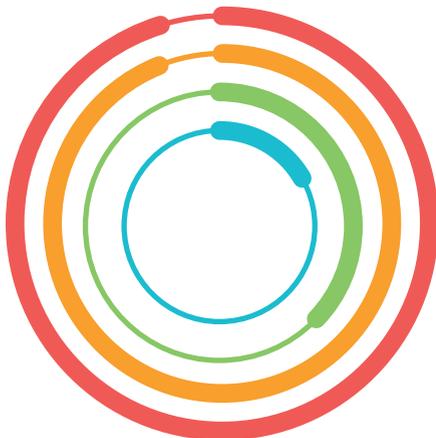
With more than 7,000 medicinal products³ in development globally, medical innovation will play a key role in solving problems of patients and healthcare systems.

Research is carried out in various therapeutic areas to develop new treatments⁴.

NUMBER OF MEDICINAL PRODUCTS IN DEVELOPMENT



Investments made by (bio)pharmaceutical companies allow patients to live longer and enjoy better quality of life⁶.



95% 95% of the 15 million patients in Europe living with **HEPATITIS C** can be cured with an 8- to 12-week treatment

94% Since 1991, there has been a 94% decline in the mortality rate of patients living with **HIV** in France

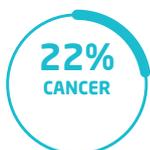
37% Between 2000 and 2012, the mortality rate of **CARDIOVASCULAR DISEASES** dropped by 27% in the EU

21% Since 1991, the mortality rate of **CANCER** has declined by 21%

Belgium, the European leader in clinical trials

Over the years, Belgium has acquired extraordinary expertise in the field of clinical trials to develop new medicinal products and treatments. (Bio)pharmaceutical companies have access to a vast infrastructure including more than **70 hospitals** with high-quality clinical departments and well-trained staff. In 2016, there were **1,399 clinical trials** under way in our country, one third of which were new studies⁴. The quality of the research centres, the concrete expertise of the scientists and a firm desire to collaborate make Belgium an unique ecosystem in Europe.

A high percentage of clinical studies in Europe are conducted in Belgium⁵



22.5% of clinical studies in the area of cancer research are performed in Belgium



15.8% of clinical studies to investigate diseases affecting the nervous system take place in Belgium



16.7% of clinical studies conducted to research diseases affecting the immune system are done in Belgium



14.2% of clinical studies in paediatric diseases are conducted in Belgium

Multiple research areas

(Bio)pharmaceutical companies in Belgium have developed great expertise in cancer research, but clinical studies conducted in our country also concern many other therapeutic areas⁵.

TOP 5 THERAPEUTIC AREAS OF NEW CLINICAL TRIALS LAUNCHED IN BELGIUM IN 2017*

CANCER 28.1% (n=142)

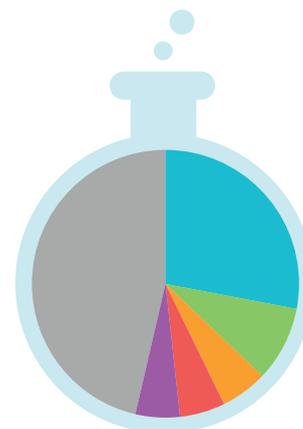
NERVOUS SYSTEM 8.9% (n=45)

DIGESTIVE SYSTEM 5.7% (n=29)

IMMUNE SYSTEM 5.5% (n=28)

RESPIRATORY TRACT 5.5% (n=28)

OTHER 46.2% (n=234)



⁴ pharma.be "Belgium, a European leader in clinical trials". Update Dec. 2017 | ⁵ Deloitte: "Belgium as clinical trial location in Europe" - 04/05/2018 - www.pharma.be | * FAMHP. The therapeutic fields are mutually exclusive. Cancer, nervous system, digestive system, immune system, respiratory tract.

Export : strong expertise in (bio)pharmaceutical export

Ideally located in the heart of Europe, Belgium is often chosen as the pharma gateway for pharmaceutical exports to Europe and to the Rest of the World.

Exports of (bio)pharmaceutical products from Belgium have increased sharply in the past decade, and exceeded 40 billion euros of value for three last consecutive years (2015-2017).



This figure illustrates the sector's high degree of specialization and expertise. Belgium represents **12.3 percent**⁶ of all export of pharmaceuticals in the European Union.

⁶ pharma.be estimations for 2017 | <https://ec.europa.eu/eurostat>

Belgium has strong assets

Thanks to excellent road, railroad and waterway infrastructure, and the expertise of a dense network of logistical partners, Belgium is renowned for fast and top quality shipping of medicines and vaccines in the best conditions to patients around the globe.

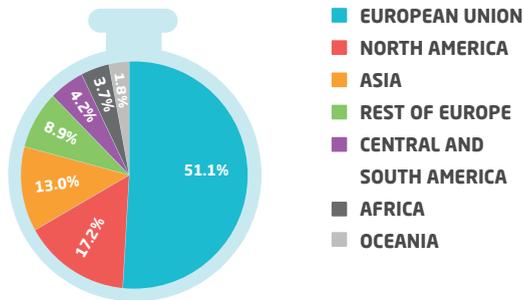
Belgium is number 2 in (bio)pharmaceutical exports (in millions of EUR). In absolute numbers, Belgium comes second to Germany⁷.



In relative terms (to number of inhabitants), Belgium comes second to Ireland⁷.



40.3 billion euros: Belgium is an export champion



Geographical spread of Belgian exports of pharmaceutical products (as % of total) in 2017

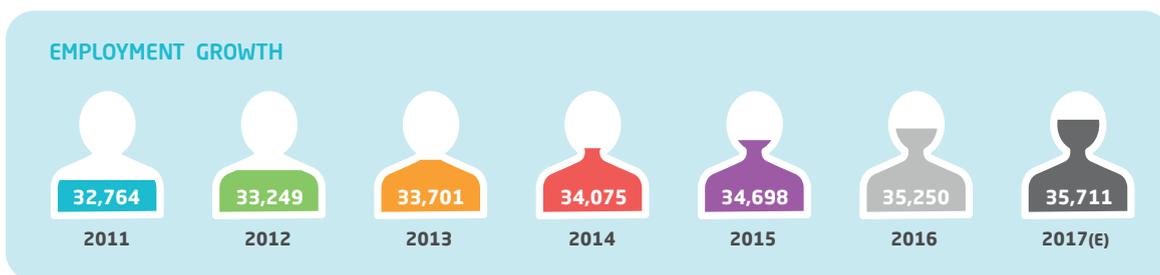
EXPORT DESTINATIONS OF THE BELGIAN BIOPHARMACEUTICAL MEDICINES AND VACCINES

For Belgian exports as a whole, three quarters (72.4 percent) go to the European Union and just over one quarter is shipped to the rest of the world⁵. However, for the biopharmaceutical industry taken on its own, we are looking at very different proportions: **about half of the exports** of biopharmaceutical medicines and vaccines is destined to countries **outside the EU**. This figure underlines the vital role that Belgium plays in the global supply of biopharmaceutical medicines and vaccines.

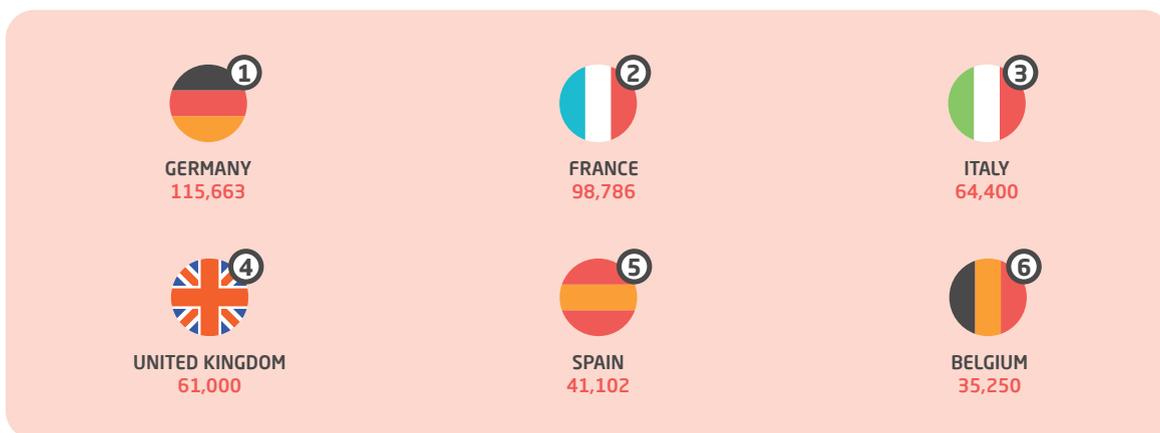
⁷ EFPIA - "The Pharmaceutical Industry in Figures" Key data 2018 - www.efpia.eu

Employment in the (bio)pharmaceutical sector: constant growth⁸

Investments by (bio)pharmaceutical companies in our country have also created additional jobs. The (bio)pharmaceutical companies employ some 35,700 people in 2017. Since 2011 they have created more than 3,000 additional jobs.



In 2016 Belgium ranked **sixth** in the European Union in number of people employed by the (bio)pharmaceutical companies.



⁸ EFPIA - "The Pharmaceutical Industry in Figures" Key data 2018 - www.efpia.eu

Belgium is consolidating its future with a unique tool at the European level: the (bio)pharmaceutical industry Observatory

On 19 September 2018, Belgium created the (bio)pharmaceutical industry Observatory. This unique tool, the legal grounds of which are based on the Royal Decree of 25 May 2018, is tasked with analysing the competitive strength of the sector. Every two years, the Observatory, which is managed by the government under the auspices of the Federal Public Service of Economy, will publish a report and make recommendations based on international data.

The observatory is composed of 16 members with representatives of the Federal Agency for Medicines and Health Products, the National Institute for Health and Disability Insurance (INAMI-RIZIV), the Federal Public Service of Public Health, the Federal Planning Bureau, the National Bank of Belgium and the innovation sector of the (bio)pharmaceutical industry.

The decision to create the Observatory was made on the R&D Bioplatform between the pharmaceutical industry and the federal government (19 December 2017).

It was also mentioned in the **'Pact for the Future'** of July 2015.

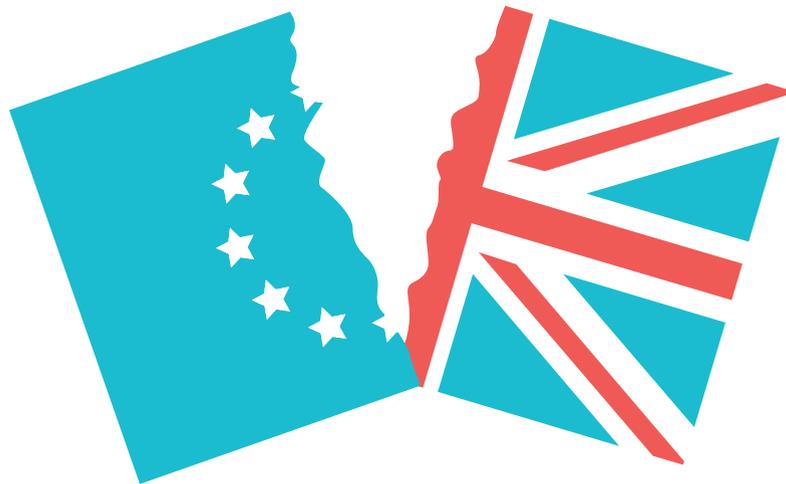
In order to reinforce investments in Belgium, the (bio)pharmaceutical sector signed an **ambitious 'Pact for the Future'** with the federal government in July 2015. This pact, unique in Europe, gives (bio)pharmaceutical companies the necessary predictability and oxygen to ensure that Belgium remains the global leader in innovation.



Brexit: challenges and opportunities

In the current state of affairs and following the June 2016 referendum, the United Kingdom will leave the European Union on 29 March 2019. This withdrawal has a considerable impact on the (bio) pharmaceutical sector. About 45 million boxes of medicinal products are exported from the United Kingdom to the European Union each month, and about 37 million are shipped in the opposite direction. Belgium plays an important role in this respect as an export hub.

This British withdrawal forces the sector to face many challenges in different areas: production, fundamental research, clinical research results, distribution and customs formalities. But Brexit is also a huge opportunity to further strengthen Belgium's position as a (bio)pharmaceutical focal point in Europe. As a result, (bio)pharmaceutical production and distribution companies installed here have been working with the Belgian authorities since day one to plan the transition. Their aim is to yet further emphasize Belgium's expertise in the export and distribution of (bio)pharmaceutical products.



Employees in the (bio)pharmaceutical sector in Belgium demonstrate their passion for research and their commitment to patients



pharma.be launched the information campaign #LeCombatContinue / #WijGevenNietOp (We Won't Rest) in Belgium. This campaign, initiated at the European level underlines the capacity for innovation and the importance of the (bio) pharmaceutical sector in our country, through testimonials and quantified data. "We honor the 35,700 employees in the (bio)pharmaceutical sector in Belgium, as they explain their motivation to work tirelessly to find new therapies for patients in Belgium and around the world," explains Catherine Rutten, CEO of pharma.be.





pharma.be, the General Association of the Innovative Medicines Industry, brings together more than 130 innovative (bio)pharmaceutical companies active in Belgium. These companies focus on research and development of new medicinal products for both human and veterinary use and employ more than 35,700 employees in Belgium.

Partner in health and innovation

As a committed partner of physicians, pharmacists, hospitals, authorities and other health partners, pharma.be's mission is to promote the best healthcare by promoting therapeutic innovation in the field of medicinal products for human use. Its top priority is therefore to allow patients the fastest possible access to the most recent treatments from research and development.



pharma.be

ASSOCIATION GÉNÉRALE DE L'INDUSTRIE DU MÉDICAMENT
ALGEMENE VERENIGING VAN DE GENEESMIDDELENINDUSTRIE

Managing publisher: Catherine Rutten, pharma.be - 166 Chaussée de la Hulpe, 1170 Brussels - Belgium
Legal deposit: D/2019/4021/3