The Belgian biopharmaceutical sector

A front runner in the competitive European biopharmaceutical landscape





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Our latest figures demonstrate the important role of the Belgian biopharmaceutical sector in Europe. This became extra clear during the Covid-19 pandemic, when the Belgian biopharmaceutical

sector really stepped up. Indeed, in every essential aspect of the biopharmaceutical value chain, from R&D and clinical trials to production, logistics and exports, Belgium holds a strong position.

This is thanks to Belgium's unique combination of a welldeveloped ecosystem, a highly skilled workforce, and a wellestablished collaboration with public authorities and research centers. This position must not be taken for granted, however.

The benefits of our strong biopharmaceutical sector are clear, both from a healthcare and an economic point of view. Other countries envy Belgium for this and show increasing ambitions to take over this leading role. That is why pharma.be emphasizes the need for sustained and even heightened support, to strengthen our leading position in the coming years.

Through close collaboration between the biopharmaceutical sector, researchers, scientific institutions, public authorities, related industry sectors and stakeholders, we can achieve remarkable results.

Sources

The indicators developed in this brochure are based on the following sources:

- · Statbel
- · Eurostat
- · The National Bank of Belgium
- · National Social Security Office
- · EFPIA, The Pharmaceutical Industry in Figures, Key Data 2022
- · PWC, Technical Report June 2019: The economic and societal footprint of the pharmaceutical industry in Europe

· Deloitte, Belgium as clinical trial location in Europe

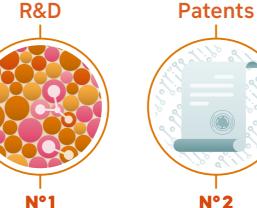
· pharma be · European Patent Office (EPO) survey among members

Methodological notes

In scope of the comparison made in this brochure are the FU27 countries (UK not included)

IN A NUTSHELL

The role of the Belgian biopharmaceutical sector in the European Union



in biopharmaceutical **R&D** expenditures per inhabitant (2020)

N°2 in biopharmaceutical R&D expenditures (2020)

N°3

in biopharmaceutical R&D employment per inhabitant (2020)

N°2

in clinical trials per inhabitant (2020)



in number of biopharmaceutical patent applications per inhabitant (2021)

N°3 in share of biopharmaceutical patent applications in total number of patent applications within the country¹ (2021)



N°3 in share of biopharmaceutical employment (direct, indirect and induced2) in total employment within the country (2020)

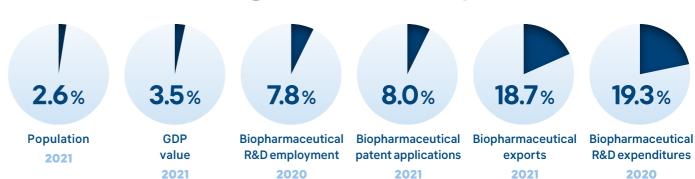
N°3 in share of direct biopharmaceutical employment in total manufacturing employment within the country (2020)

Exports

N°2 in export of biopharmaceuticals per inhabitant (2021)

in export of biopharmaceuticals (2021)

Share of Belgium in the European Union



- 1 -Scope limited to countries with at least 2,000 patent applications to avoid problems of comparability
- 2 In addition to direct employments in the sector itself, we also take into account indirect jobs (for example jobs in Belgium at subcontractors who supply raw materials or services to the biopharmaceutical sector) and induced jobs (jobs created in Belgium by the expenditures of employees active in the biopharmaceutical sector)



An innovative key player in the European biopharmaceutical landscape



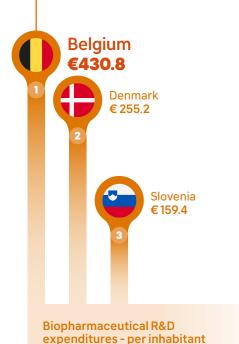
in biopharmaceutical R&D expenditures per inhabitant

Belgium is by far the country with the highest biopharmaceutical R&D expenditures per inhabitant in Europe. Compared to the no. 2, Denmark, the Belgian expenditures is almost 70% higher and it is even almost three times higher than the expenditures of Slovenia, the no. 3. A truly exceptional result.

Over the period 2016-2020, Belgian R&D expenditures per inhabitant increased by almost 70%, more than three times the growth rate of the total EU27 R&D expenditures per inhabitant. First runner-up Denmark registered a negative growth.

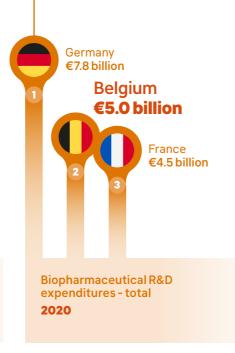
in biopharmaceutical R&D expenditures Although Belgium is a small cour

Although Belgium is a small country, the total biopharmaceutical R&D expenditure area is at the same level of much bigger countries, reaching almost 5.2 billion euros in 2021, the equivalent of 14 million euros a day. In 2020, Belgium held the second place in Europe with an R&D investment of over 13 million a day. This is more than Italy, Denmark, Spain and the Netherlands together, while in terms of inhabitants, Belgium ranks only 8th.



2020





The unique Belgian biopharmaceutical ecosystem is the ideal breeding ground for innovation



Over the period 2016-2021, the increase in biopharmaceutical patent applications was more than two times higher in Belgium compared to the EU27.

Evolution of number of patent applications in the domain of pharmaceuticals and biotechnology - total **2016-2021**



Regarding patent applications per inhabitant in the domain of pharmaceuticals and biotechnologicals, Belgium ranks 2nd in 2021, with 398 patent applications in total or more than one filed per day on average.

in share of biopharmaceutical patent applications within the country³

Belgium's 3rd place in share of biopharmaceutical patent applications compared to the total number of patent applications within the country, underlines the importance of the sector. The share in the next country on the ranking is already less than 10%.

in number of clinical trials per inhabitant

In 2021, 578 clinical trials were approved by the Belgian authorities, an increase of more than 20% compared to 2020. When looking at the number of clinical trials per inhabitant, Belgium is the 2nd most important country to set up clinical trials in Europe.



Number of patent applications in the domain of pharmaceuticals and biotechnology - per inhabitant **2021**



Share of biopharmaceutical patent applications in total number of patents applications within the country³ - total



Number of clinical trial applications - per inhabitant **2020**

 $\mathbf{3}-\mathsf{Scope}$ limited to countries with at least 2,000 patent applications per year to avoid problems of comparability.



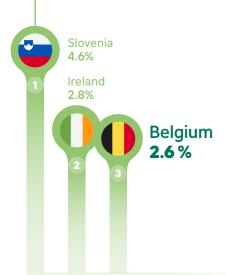
A highly skilled workforce

Having highly skilled workers is one of the key pillars of the success of the Belgian biopharmaceutical sector



in total employment within the country¹

In 2021, the biopharmaceutical sector provided for 132,411 jobs (direct, indirect and induced). Thus, more than 1 in 40 Belgian jobs is related to the biopharmaceutical value chain.



Share of biopharmaceutical employment (direct, indirect and induced) in total employment within the country - total 2020

Every year, the number of researchers in the Belgian biopharmaceutical sector increases, at a significantly higher pace than the European average growth.

in share of direct biopharmaceutical employment

in total manufacturing employment within the country

Looking at the share of direct biopharmaceutical employment in total manufacturing employment, Belgium ranks 3rd, with a total of 42,062 employees in the biopharmaceutical industry in 2021.



Share of direct biopharmaceutical employment in total manufacturing employment within the country - total 2020

in biopharmaceutical R&D employment per inhabitant

Belgium is also a leading country when it comes to biopharmaceutical R&D investments and personnel. In 2021, the biopharmaceutical sector employed a total of 6.342 researchers.



Belgium

Increase in biopharmaceutical R&D employment - total 2016-2020

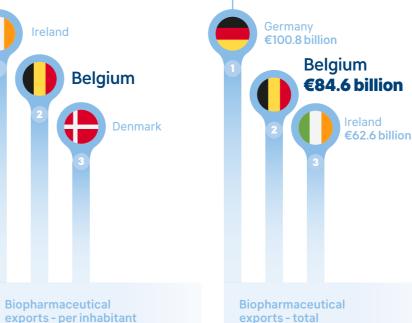


Export hub

Belgium is a crucial link in the international trade of medicines and vaccines



As a leader in the international biopharmaceutical trade, Belgium has many assets which result in a strong position as a main exporter of biopharmaceutical goods.



in export of biopharmaceuticals

Though Belgium is a small country, it even delivers an excellent exports result in absolute numbers. What's more, with two airports and a seaport offering tailored services for the export of biopharmaceuticals, Belgium holds a top position on the world map.



Evolution

of export of

biopharmaceuticals

manages to leverage its assets and

to strengthen its position as a main

biopharmaceutical logistics hub.

Compared to 2020, Belgium

Evolution of export of biopharmaceuticals - total 2020-2021

exports - total 2021

pharma.be

pharma.be, the General Association of the Innovative Medicines Industry, brings together more than 125 innovative biopharmaceutical companies operating in Belgium. These companies focus on research and development of new medicinal products for both human and veterinary use and employ more than 40,000 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 delivering 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 resulting from our research and development.

