The Belgian biopharmaceutical sector

A frontrunner in the competitive European biopharmaceutical landscape





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Our latest figures bring to light the important role that the Belgian biopharmaceutical sector plays within Europe. This became very clear during the Covid-19 pandemic where the Belgian biopharmaceutical sector really took up the gauntlet, from research and production to the distribution of new innovative solutions for the patient.

Indeed, on every essential aspect of the biopharmaceutical value chain, which runs from research and development and clinical trials over production and logistics, to export, Belgium holds a strong position. The reason is a unique combination of a well-developed ecosystem, a highly skilled workforce, and an important collaboration with public authorities and research centers.

However, we do need to be aware that this position cannot be taken for granted. The benefits of the strong presence of our biopharmaceutical sector are clear, both from a healthcare and an economic perspective. Other countries envy Belgium for this and show increasing ambitions to take over this role.

Therefore, pharma be emphasizes the necessity to continue the protection and support of our leading position and to seize the opportunity to strengthen this in the coming years. By 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
- \cdot Eurostat
- $\cdot\,$ The National Bank of Belgium
- National Social Security Office
- EFPIA, The Pharmaceutical Industry in Figures, Key Data 2021
- · European Patent Office (EPO) · pharma.be,
- PWC, Technical Report June 2019: The economic and societal footprint of the pharmaceutical industry in Europe
- Deloitte, Belgium as clinical trial location in Europe, Results for 2019
 - pharma.be, survey among members

Methodological notes

In scope of the comparison made in this brochure are the EU27 countries (UK not included).

IN A NUTSHELL

The role of the Belgian biopharmaceutical sector in the European Union



Nº1

in biopharmaceutical R&D expenditures per inhabitant (2019)

N°3

in biopharmaceutical R&D employment per inhabitant (2019)

Nº2

in number of clinical trials per inhabitant (2019)

Patents



Nº2

in number of biopharmaceutical patent applications per inhabitant (2020)

N°2

in share of biopharmaceutical patent applications in total number of patent applications within the country! (2020)

Employment



N°3

in share of biopharmaceutical employment (direct, indirect and induced²) in total employment within the country (2019)

N°3

in share of direct biopharmaceutical employment in total manufacturing employment within the country (2019)

Exports



N°2

in export of biopharmaceuticals per inhabitant (2020)

N°3

in export of biopharmaceuticals (2020)

Share of Belgium in the European Union



Population 2020



GDP value



Biopharmaceutical R&D employment 2019



Biopharmaceutical patent applications 2020

14.0%

Biopharmaceutical export



Biopharmaceutical R&D expenditure 2019

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 Research and Development expenditures per inhabitant

Belgium is by far the country with the highest biopharmaceutical R&D expenditures per inhabitant in Europe, followed by Denmark and Sweden. A comparison with these countries shows that the Belgian biopharmaceutical R&D expenditures are about 26% higher than those in Denmark and even more than three times higher than those in Sweden, which clearly underlines this exceptional result.

Over the period 2015-2019, Belgian R&D expenditures per inhabitant increased by more than 45%, two times more compared to the growth of the total EU27 R&D expenditures per inhabitant. The other top three R&D countries registered almost no growth (Denmark) or even a negative growth (Sweden).



Biopharmaceutical R&D expenditures - per inhabitant **2019**



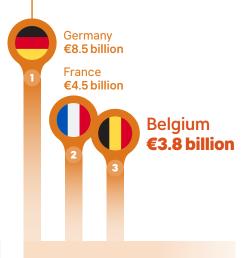


Evolution of biopharmaceutical R&D expenditures - per inhabitant

2015-2019

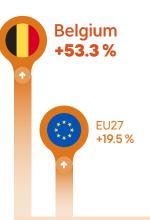
in biopharmaceutical Research and Development expenditures

Although Belgium is a small size country, the total biopharmaceutical R&D expenditures are comparable with these of much larger countries, reaching almost €5 billion in 2020, the equivalent of €13 million a day. But also in 2019, with an R&D investment of more than €10 million a day, almost two and a half times more than the next country on the ranking, Belgium holds the third place, while in terms of inhabitants, Belgium ranks only 8th.



Biopharmaceutical R&D expenditures - total **2019**

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



Over the period 2015-2020 the increase in the number of biopharmaceutical patent applications was almost three times higher in Belgium compared to the EU27.

Evolution of number of patent applications in the domain of pharmaceuticals and biotechnology - total **2015-2020**

in number of biopharmaceutical patent applications per inhabitant

With more than one patent application filed per day on average in the domain of pharmaceuticals and biotechnologicals in 2020, 371 in total, Belgium ranks second looking at the number of patent applications per inhabitant.

in share of biopharmaceutical patent applications within the country 3

The second place of Belgium when looking at the share of biopharmaceutical patent applications in the total number of patent applications within the country³ underlines the importance of the sector.

in number of clinical trials per inhabitant

In 2020, 503 clinical trials were authorized by the Belgian authorities. When looking at the number of clinical trials per inhabitant, Belgium is the second most important country to set up clinical trials in Europe.



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



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



Number of clinical trial applications - per inhabitant **2019**



A highly skilled workforce

The availability of highly skilled individuals is one of the key pillars of the success of the Belgian biopharmaceutical sector.

in share of biopharma-ceutical employment in total employment within the country¹

Since the total biopharmaceutical employment equals 127,381 jobs (direct, indirect and induced¹) in 2020, one in forty Belgian jobs is related to the biopharmaceutical value chain.

Slovenia 4.5 %

Denmark 2.6 %

Belgium 2.5 %

Share of biopharmaceutical employment (direct, indirect and induced') in total employment within the country - total 2019

in share of direct biopharmaceutical employment

in total manufacturing employment within the country

Belgium occupies the third place when looking at the share of direct biopharmaceutical employment, which totals 40,464 employees in 2020, in total manufacturing employment within the country.

Denmark 8.3 %

Belgium 7.5 %

Share of direct biopharma-

Share of direct biopharmaceutical employment in total manufacturing employment within the country - total 2019 in biopharmaceutical Research & Development employment per inhabitant

Linked with the very high investments in R&D, Belgium is also a leading country when looking at the number of researchers active in the biopharmaceutical sector, with a total of 6,234 persons in 2020.



Biopharmaceutical R&D personnel - per inhabitant **2019**

Year after year, the number of researchers active in Belgium in the biopharmaceutical sector increases, much more compared to the European average growth.

Increase in biopharmaceutical R&D employment - total **2015-2019**





Export hub

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



Belgium has many assets to be a leader in international biopharmaceutical trade, which results in a strong position as a main exporter of biopharmaceutical goods.



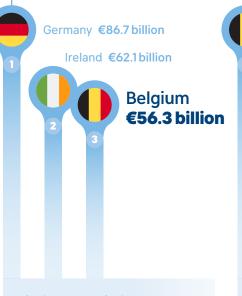
Biopharmaceutical export - per inhabitant **2020**

N°3 in export of biopharmaceuticals

Even when looking at export in absolute numbers, Belgium as a small country delivers an excellent result. As a matter of fact, 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

Belgium manages to leverage its assets and to strengthen its position as a main biopharmaceutical logistics hub, which is reflected by the increasing export activities.



Biopharmaceutical export - total **2020**



Evolution of export of biopharmaceuticals - total

2019-2020

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.

