# The Belgian BIOPHARMACEUTICAL sector

Decisively at the top within Europe

## Sharma be

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

#### FOREWORD

With the motto "embracing openness", the government wants to put Belgium on the international map as the country for innovation, collaboration and diversity. The strong presence of the biopharmaceutical industry in our country fully contributes to this. It is one of the most innovative sectors in our country based on intense collaboration within a broad ecosystem of universities, hospitals, research institutions, government agencies, etc. And Belgium is a leader within Europe regarding the footprint of this highly innovative industry, both in terms of research and development, production and exports.

A few figures illustrate this. Belgium represents only 2.6 % of the EU population, yet the biopharmaceutical industry accounts for 7.8 % of jobs, 18.7 % of exports and 19.3 % of research and development expenditures within the EU. Good for third, second and first place in Europe, respectively.

From this Belgian leading position, it is important for our country to pull its weight in Europe. The European Commission has recently developed proposals for reforms to the regulatory framework. These will have the potential to thoroughly redraw the competitive landscape for the biopharmaceutical industry in Europe.

If our country is to embrace innovation, it must continue to pursue measures that promote scientific progress. Without incentives for innovation, the many medicines or vaccines we have today simply would not exist. That should be the guiding principle, the compass against which Belgium should hold its proposed reforms against.

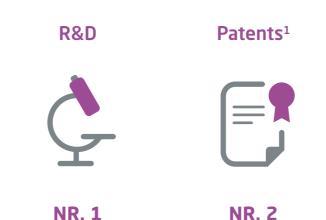
Our country has much to gain, but also much to lose, from the adaptations of the European regulatory framework. Nor should we lose sight of the fact that the international competitiveness of the biopharmaceutical industry is not only, or not so much, at the European level, but at the international level. While Belgium is the leader within Europe, Europe is increasingly losing ground in research and development to the United States and Asia.

For our country, the biopharmaceutical industry is an engine for innovation, growth and employment and is at the top of Europe. A position to be proud of and which we should continue to cherish.

**Caroline Ven CEO** pharma.be

### **KEY FIGURES**

### The role of the Belgian biopharmaceutical sector in the European Union



in R&D expenditures per capita (2021)

NR. 2 in R&D expenditures (2021)

**NR.3** in R&D employment per capita (2021)

NR. 2 in clinical trials per capita (2021)

### Belgium's share within the European Union

in patent applications

per capita (2022)

**NR. 3** 

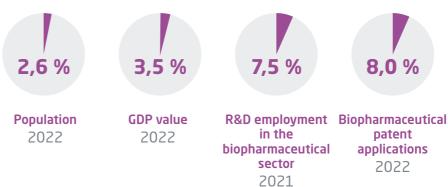
in share of patent

applications in total

number of patent

applications within

the country (2022)<sup>2</sup>



lobs



#### **NR.3**

in share of employment (direct, indirect and induced<sup>3</sup>) in total employment within the country (2021)

#### **NR.3**

in share of direct employment in total manufacturing within the country (2021)

Export



NR. 2 in exports per capita (2022)

#### **NR.2** in exports (2022)

applications



Export of biopharmaceuticals 2022



R&D expenditures in the biopharmaceutical sector 2021

### **NR.1**

in biopharmaceutical R&D expenditures per capita



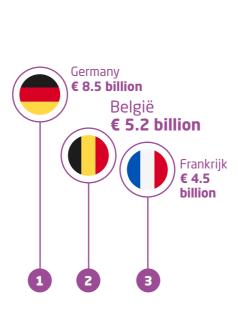
**Biopharmaceutical R&D** expenditure - per capita 2021

Looking at biopharmaceutical R&D expenditures per capita, Belgium leads Europe. Compared to the first runner-up, Denmark, Belgian investments are almost 2.5 times higher. Comparing investments with Slovenia at no. 3, the difference even runs up to a factor of 4. Belgium is the only country of these 3 to have improved since last year. This is definitely an outstanding result.

EU27 15.2 %

**Evolution of biopharmaceutical** R&D expenditures - per capita 2017-2021

Over the period 2017-2021, Belgian R&D expenditures per capita grew by more than 45%, more than three times the growth rate of total R&D expenditures per capita in the EU27. No other country with a significant amount of R&D expenditures per capita realized such strong growth. First runner-up, Denmark, even registered significant negative growth. This allowed Belgium to further improve its position.



in biopharmaceutical

**R&D** expenditures

**NR. 2** 

**Biopharmaceutical R&D** expenditures - total 2021

Although Belgium is a small country, in terms of R&D expenditures it only has to beat Germany. In fact, in 2022, R&D expenditures amounted to € 5.7 billion, or more than  $\in$  15 million a day. Placing this result into perspective, the Belgian biopharmaceutical sector invested more in 2021 than Italy, Denmark, Spain and Sweden - numbers 3 to 6 - combined, while Belgium is only ranked 8th in terms of population.

### **NR. 2**

in number of biopharmaceutical patent applications per capita



Number of patent applications in the field of pharmaceuticals and biotechnology - per capita 2022

Regarding the number of patent applications per capita in the field of pharmaceuticals and biotechnology, Belgium ranked 2nd in 2022, with 422 patent applications in total or an average of well over one application per day.

### **NR. 3**

in share of biopharmaceutical patent applications in the country<sup>2</sup>



Share of biopharmaceutical patent applications in total number of patent applications in the country<sup>2</sup> - total 2022

Belgium's third place, with 16.2% of all patent applications linked to biopharmaceuticals and biotechnology, underlines the importance of the sector in Belgium's research and innovation efforts. In France, the next country on the ranking, this share already drops below 9%.

#### A unique ecosystem of strong players as a stepping stone to innovation

In the period 2017-2022, the number of biopharmaceutical patent applications in Belgium increased three times more than in the EU27.



2017-2022



Denmark Belgium 16.2 %

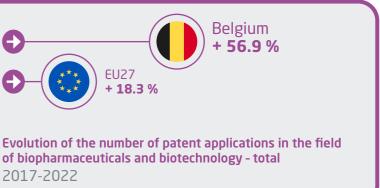
### **NR. 2**

in number of clinical trials per capita



Number of approved clinical studies - per capita 2021

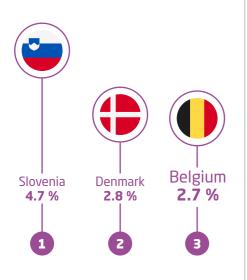
In 2022, Belgian authorities approved 474 clinical studies. In 2021, Belgium was the country with the highest number of clinical trials per capita, after Denmark.



### **BIOPHARMACEUTICAL EMPLOYMENT ALSO SCORES HIGH IN EUROPEAN PERSPECTIVE**

### **NR.3**

in share of biopharmaceutical employment in total employment within the country

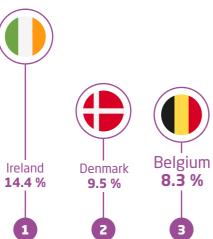


Share of biopharmaceutical employment (direct, indirect and induced) in total employment within the country - total 2021

In 2022, the biopharmaceutical sector accounted for 136,941 jobs (direct, indirect and induced). More than 1 in 40 jobs in Belgium is linked to the biopharmaceutical value chain.

### **NR.3**

in share of direct biopharmaceutical employment in total manufacturing employment within the country



Share of direct biopharmaceutical employment in total manufacturing employment within the country - total 2021

Looking at the share of direct biopharmaceutical employment in total manufacturing employment, Belgium ranks third, with a total of 43,501 biopharmaceutical jobs in 2022.



in biopharmaceutical R&D jobs per capita



**Biopharmaceutical R&D jobs** per capita 2021

Belgium also occupies a top position in terms of biopharmaceutical R&D jobs. In 2022, the biopharmaceutical sector employed a total of 6,397 researchers.

### MEDICINES AND VACCINES GLOBALLY **AVAILABLE THANKS TO BELGIUM**

#### NR. 2

Ireland

1

per capita

2022

in exports of biopharmaceuticals per capita

Belgium

2

Belgium has many strengths that

enabled the country to become a

leader in international biopharma-

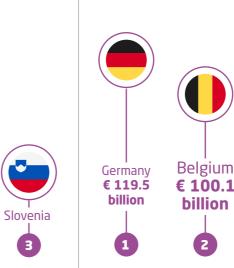
ceutical trade. Ranking second in

Europe in terms of exports per cap-

ita, Belgium is firmly in the lead.

Exports of biopharmaceuticals -

### NR. 2



**Biopharmaceutical exports - total** 2022

Belgium may be small country, it records excellent export results in absolute terms. More so, with two airports and a seaport offering tailor-made services for biopharmaceutical exports, Belgium comes in an excellent 2<sup>nd</sup> place, behind much larger Germany.

#### Belgium increasingly appealing to researchers

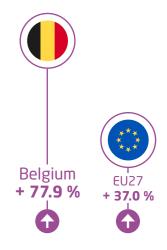
Every year, the number of researchers in the Belgian biopharmaceutical sector increases at a significantly faster rate than the average European growth rate. Between 2017 and 2021, such growth was as much as three times higher in Belgium compared to the EU27.



Increase in biopharmaceutical R&D employment - total 2017-2021

#### in export of biopharmaceutical





Evolution of biopharmaceutical exports - total 2020-2022

Compared to 2020, Belgium kept using its assets to strengthen its position as a major international biopharmaceutical hub. This led to solid growth in export activities, linked, among other things, to the crucial role Belgium played in the production and distribution of the COVID-19 vaccines.

#### Footnotes

- **1.** Biopharmaceutical patents refer to patents in the technological fields of "pharmaceutical products" and "biotechnology"
- **2.** Scope limited to countries with at least 2,000 patent applications to avoid problems of comparability
- 3. 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)

#### 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
- European Patent Office (EPO)
- 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, survey among members

#### **Methodological notes**

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

Data for 2022 are not yet available for certain indicators. In that case, the comparison was based on data for 2021.



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