

**Belgium, the health
and biotech valley.
Today. Tomorrow.**

**Evaluating and strengthening
the long-term strategy**





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Context

This document is the result of a collaboration between BCG, representatives of the Cabinet of the Prime Minister, the HST Group (UCB, Johnson & Johnson, GSK, and Pfizer), and innovative biopharma and biotech industry associations pharma.be and bio.be/essenscia. In the process, we exchanged ideas with representatives across the private sector, regulatory bodies, public instances, academia, and selected federations

In October 2021, the Belgian government launched its strategy to reinforce Belgium's position as a leading global biopharma¹ hub. The report highlighted the urgency for Belgium to further strengthen its ecosystem given other countries having similar ambitions and preparing moves to reinforce their own positions in the wake of the COVID-19 pandemic. To pursue its ambition of a "Health and Biotech valley", it was highlighted that Belgium needs to act quickly and decisively.

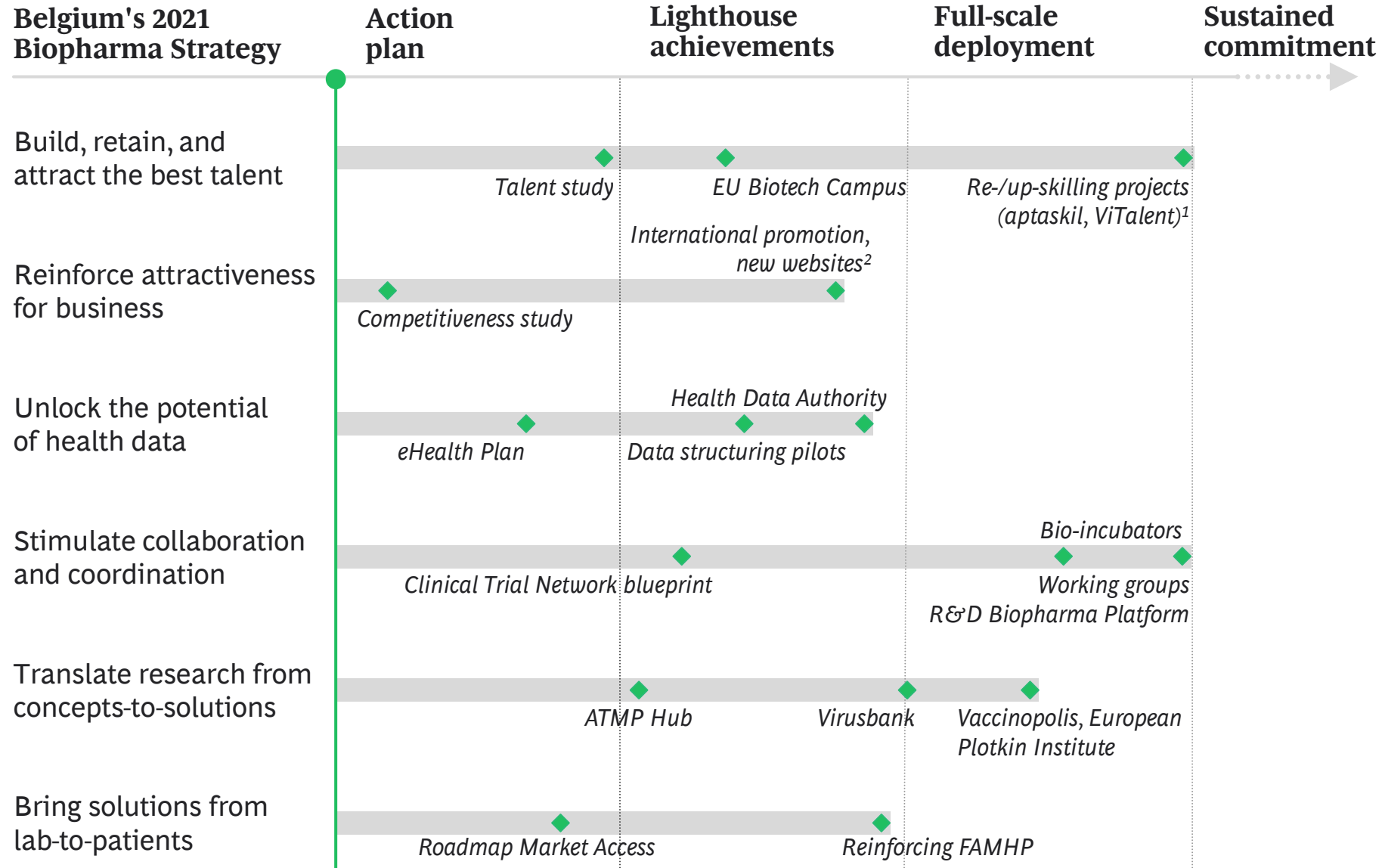
Now, two years later, we evaluate the progress made and identify key focus areas for further execution of the long-term strategy. This report contains a summary of our analysis and conclusions

1. Throughout this report we refer to "biopharma" as the ecosystem involved in researching, developing, and manufacturing biomedical products and vaccines as well as applying those developments in biotechnology for the prevention, diagnosis, and treatment of diseases to improve the quality of life of the human population
Note: BCG's support is provided on a pro bono basis





Good progress made in the last two years on executing long-term strategy



1. In collaboration with regions 2. www.healthbiotechvalley.be; www.embracingopenness.be
Source: Belief audits; R&D Biopharma Platform meeting minutes; BCG analysis

Plans created and lighthouse projects deployed

Not exhaustive

Build, retain, and attract the best talent

Based on a **talent study** by the Observatory for Pharmaceutical Industry (OFI), specific recommendations on Belgium's short- and mid-term biopharma talent needs were made and are being evaluated further. In the meantime, the **competence centers** aptaskil and ViTalent – realized by regional governments – are up- and re-skilling thousands of workers every year. The construction of the **EU Biotech Campus** has begun – Belgium's flagship project from the next gen recovery plan to further accelerate training of skills of the future – and is expected to be operational in 2025. As an international training center, it aims to provide cutting-edge infrastructure for talent development with the newest digital and biomanufacturing skills in biotech and biopharma

Reinforce attractiveness for business

Awaiting the outcome of the **competitiveness study** by the Observatory, the biopharmaceutical industry and Federal Government are proactively collaborating on identifying potential policy measures to further strengthen innovation and investment in the country to maintain its international leadership. Also, **international promotion** by government stakeholders (for example, through international fairs, diplomatic contacts, and business leadership meetings) and two **new websites** have been launched

Unlock the potential of health data

As part of the national **eHealth Action Plan 2022-2024** and corresponding roadmap, the Belgian Health Data Agency (HDA) and the concept of a **Belgian Integrated Health Record (BIHR)** have been created. Several **pilot projects** are ongoing to harmonize and structure primary health data, and the possibility to set up an integrated health data environment is being investigated. The newly established **Health Data Agency** has the objective to optimize secondary use of findable, accessible, interoperable, and reusable data within the context of the European Health Data Space

Stimulate collaboration and coordination

At the initiative of the Prime Minister, various **working groups under the R&D Biopharma Platform** were established to translate the long-term strategy recommendations into action points and concrete policies. As an example, a blueprint for a **clinical trial network** to improve efficiency of clinical trials by coordinating resources and harmonizing processes across hospitals and clinical trial centers has been created. In addition, **international collaboration** is being strengthened through intensified participation in existing initiatives such as HERA, IPCEI, and BeneluxA, and further bilateral alliances

Translate research from concepts-to-solutions

The recently created **VirusBank Platform**, **Vaccinopolis**, and the **European Plotkin Institute**, unique state-of-the-art vaccine and virus research centers, are reinforcing Belgium's leadership position in vaccines. Moreover, with the creation of an ambitious **Advanced Therapy Medicinal Products (ATMP) Hub** project, the country has taken active steps towards strengthening and accelerating innovation in cell and gene therapies by bringing stakeholders from across the value chain together in a development cluster to accelerate scaling new ideas

Bring solutions from lab-to-patients

Recognizing its crucial role in the ecosystem, the government has strengthened the **Federal Agency for Medicines and Health Products (FAMHP)** with additional funding, enabling the successful implementation of the European Clinical Trials Regulation (CTR) in Belgium. A **roadmap for faster market access** has been proposed by the National Institute for Health and Disability Insurance in collaboration with the Ministry of Social Affairs and Public Health

A flourishing Belgian ecosystem

Delivering strongly on economic, societal, and patient benefits...

15k

extra jobs created since 2019¹

25%

year-on-year growth in value added since 2019

1.5

new clinical trials authorized per day

€480k

value contribution per direct employee²

6 billion

vaccine doses exported since 2020³

€100B

pharmaceutical exports in 2022



... and investing for the future through innovation and manufacturing

60

biomedical publications per day and home to the most innovative university in Europe⁴

€500M

in venture capital funding attracted in 2022, growing by 25% YoY since 2019

€6B

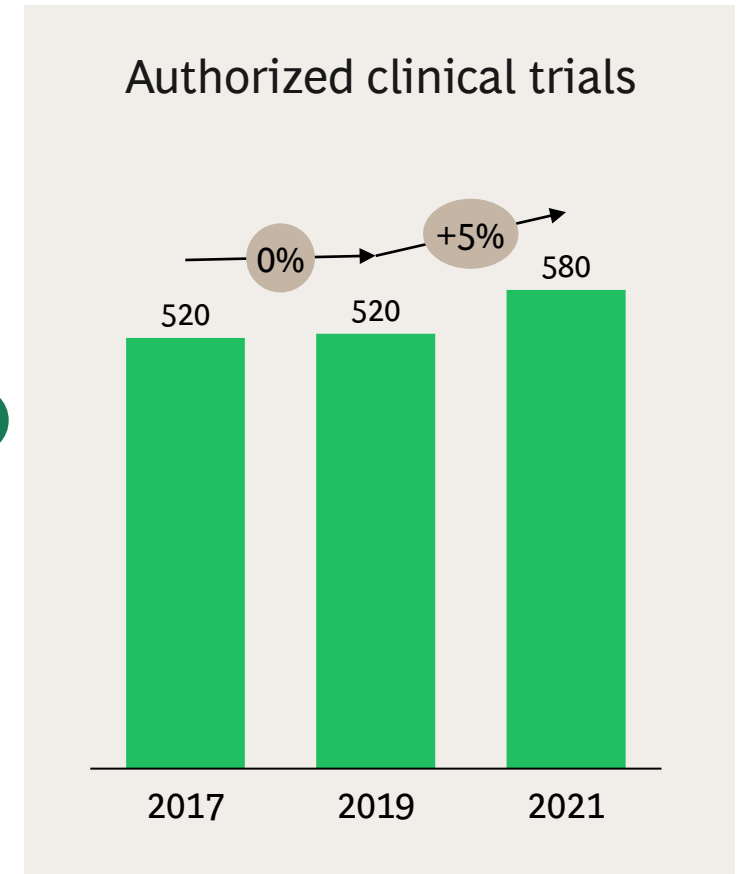
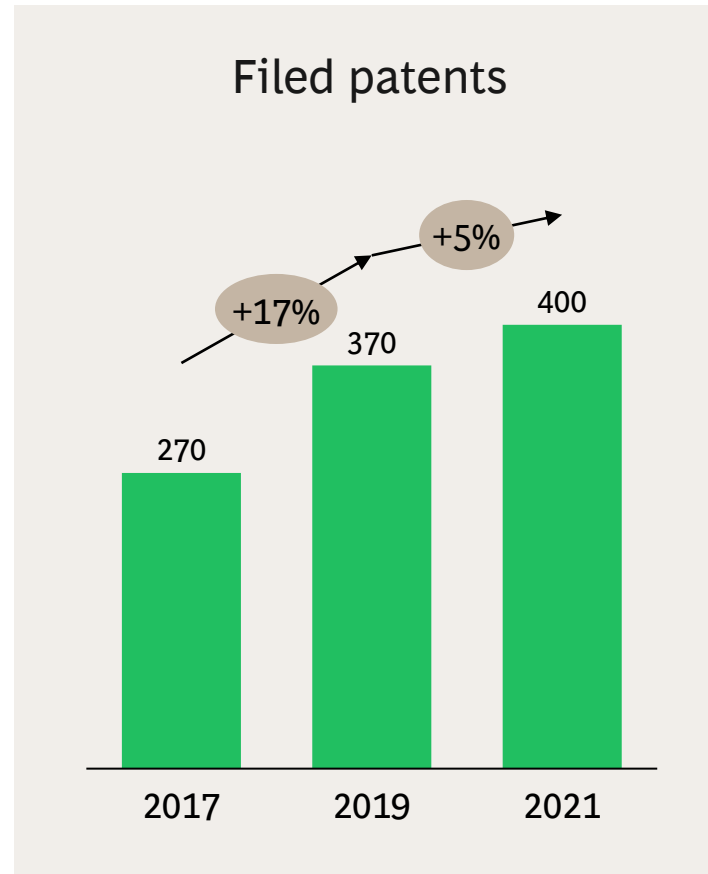
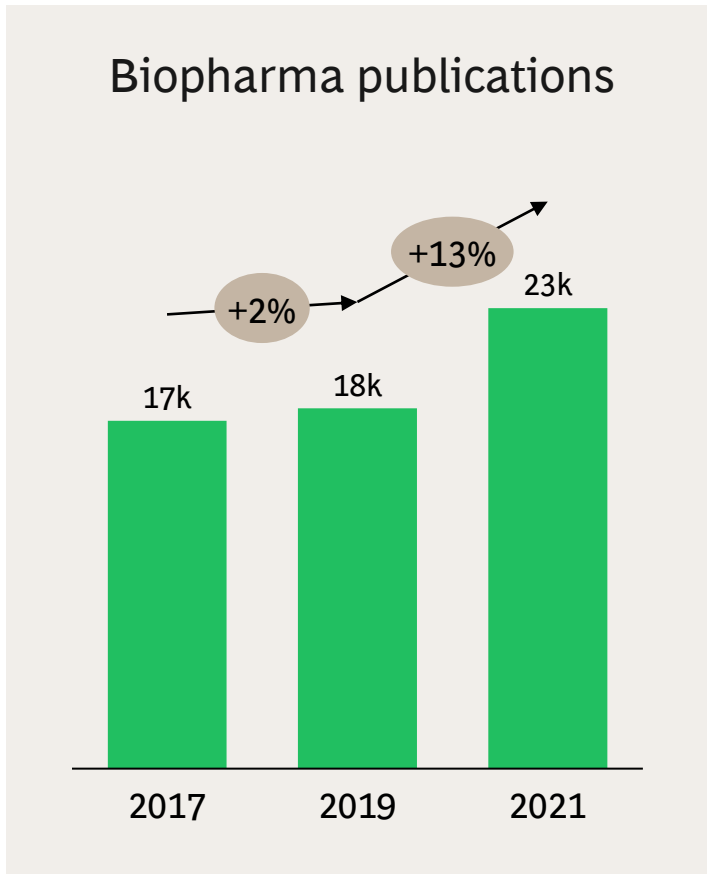
invested in biopharma R&D in 2022, more than 30% of R&D expenditure in Belgium

€3B

invested in new manufacturing platforms since 2021, growing footprint by 20%

1. Direct, indirect and induced jobs created by biopharmaceutical sector 2. Based on 43,500 direct employees in 2022 3. Includes COVID-19, zona, flu, and other infectious diseases 4. Includes Medicine, Immunology & Microbiology, and Biochemistry, Genetics & Molecular Biology publications; Catholic University of Leuven #1 in Reuter's Most Innovative University in Europe since 2016 (2019 results, not updated after) Source: bio.be/essencia; OFI Report; HST Group; pharma.be; RSZ; Oxford Economics; Scimago Journal & Country Rank; European Patent Office; Pitchbook; Capital IQ; UN Comtrade; Web research; Belief audits; BCG analysis

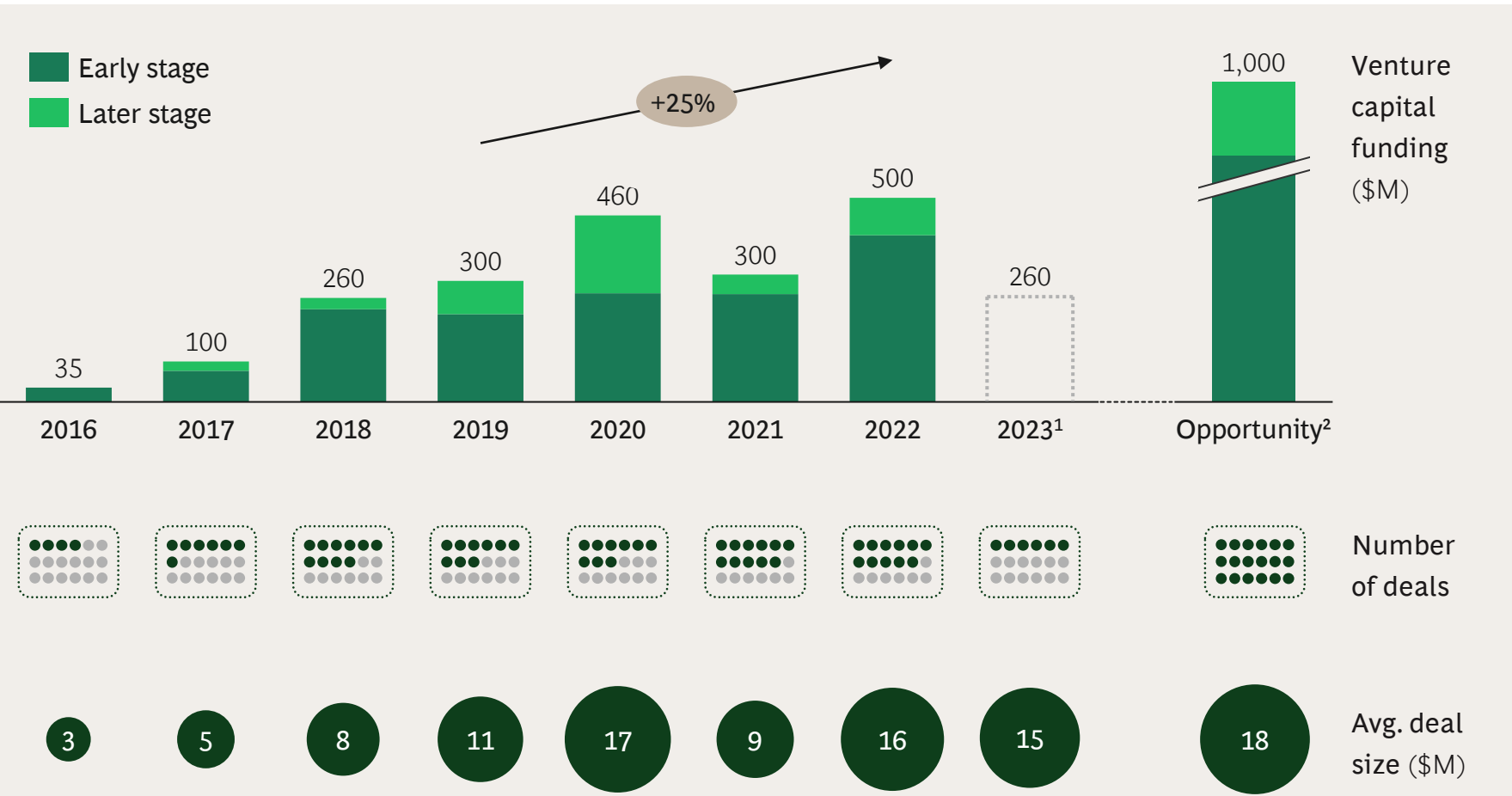
R&D cornerstone, recording continued growth



xx% Compound annual growth rate

Note: Includes Medicine, Immunology & Microbiology, and Biochemistry, Genetics & Molecular Biology publications and Biotechnology & Pharmaceuticals patents filed with the European Patent Office by country of origin
Source: Scimago Journal & Country Rank; Eurostat; European Patent Office; pharma.be; World Health Organization; BCG analysis

Belgian biopharma is attractive for venture capital



Univercells raised €44M in late-stage funding from prominent public and private investors including the Bill & Melinda Gates Foundation

October 2022

Agomab signs the largest private capital round ever in Belgian biotech, securing \$100M from the largest American and European biotech funds

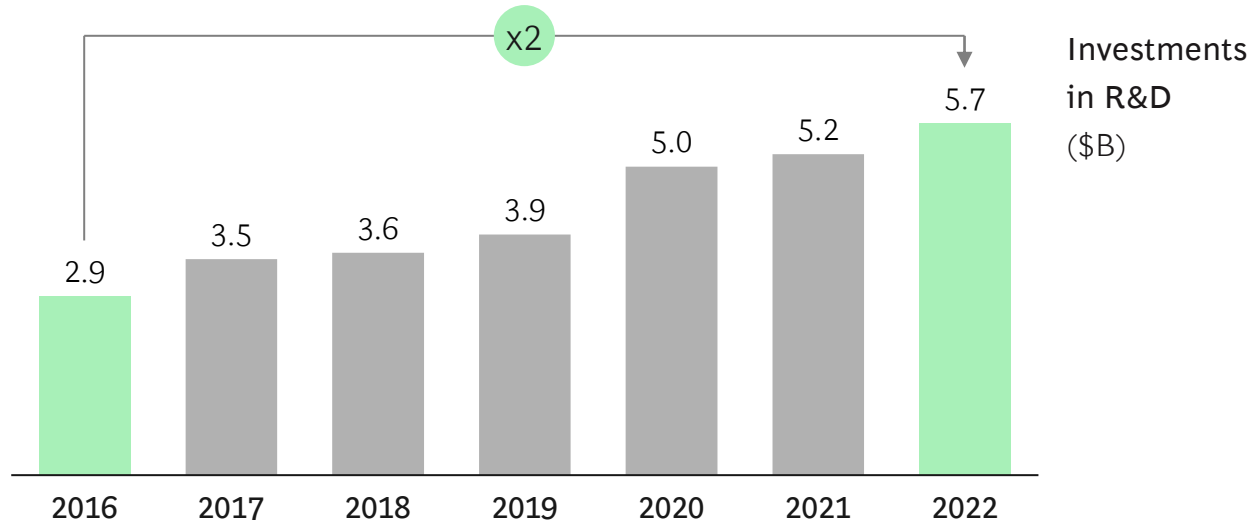
October 2023

Opportunity to double venture capital to develop current pipeline of biopharma and biotech start-ups

1. YTD data until September 25th including Agomab deal 2. Yearly average for 2024-2027 to scale existing start-ups based on average funding path of selected Belgian comparative set
 Note: Investments for 170 biotech & biopharma start-ups active between 2008-2023
 Source: Pitchbook; De Tijd; Web research; BCG analysis

Investing in solutions "from lab to patient"

Invented in Belgium...



Investments in R&D (\$B)



EMA approvals by companies located in Belgium¹

... and made in Belgium

Since 2021, investments in manufacturing for new platforms amount to about...

€1B

in advanced therapy medicinal products, medicines based on genes, tissues and cells

€2B

in virus and vaccines, including mRNA technology and other next-generation vaccine platforms

... growing biopharmaceutical manufacturing in Belgium by more than 20%²

1. 3-year rolling average, based on location of incorporation 2. Based on fixed assets book value for manufacturing of basic pharmaceutical products in Belgium (2017-2021)
 Note: Belgium new drug approvals based on country of incorporation according to EMA data
 Source: pharma.be; HST group; European Medicines Agency; Capital IQ; BCG analysis

Frontrunner in Europe and globally

Indicative

Economic value creation

Since 2019, Belgium's biopharma ecosystem consistently delivered 25% year-on-year growth in **value added**, topping an €18B contribution to the country's economy in 2022. The country ranks second worldwide in biopharmaceutical **export** value per capita (with about €100 billion exported in 2022), supported by its central location and strong logistics network. More than six billion vaccine doses were exported from Belgium since 2020, making the country the global leader in **vaccine exports** by gross trade value exceeding the European average by more than 15 times. With its strong growth, Belgium's biopharma industry remains among the fastest growing globally

Employment and talent

Biopharmaceutical companies in Belgium **directly employ** more than 43,000 people, representing 5% of the European pharmaceutical workforce, and including indirect and induced employment the sector creates over 137,000 jobs. The number of life sciences employees (3.6 per 1,000 inhabitants) further increased since 2019 (by 4% YoY) and is nearly three times the European average. Every year, more than 9,000 highly qualified and productive **life sciences postgraduates** join the workforce. The number of life sciences graduates (0.8 per 1,000 inhabitants) increased steadily (by 3% YoY since 2019) and is nearly twice the European average. Many of these highly skilled workers are employed as **researchers** in R&D – a group that has grown by 50% since 2015. It is estimated that the Belgian biopharma industry will need about 20% more workers in the coming five years, half of which with (post)graduate university degrees, and with employment needs outgrowing university outflow, Belgium could explore adding foreign talent to its existing workforce in the short term

Innovation

Belgium remains an innovation leader. Seven of Belgium's **universities** feature in the top 100 in Reuters' ranking of most innovative universities and the Catholic University of Leuven has undisputedly held the top spot in Europe since 2016. Belgium continues to rank among the highest in Europe in the absolute value of biopharma **R&D investment** with close to €6 billion invested by the biopharmaceutical sector in 2022. Investment grew by more than 14% per year from 2019 through 2022. The country boasts strong **supporting institutions** that successfully help translating **research** (+13% YoY since 2019) into **patents** (+5% YoY since 2019). As an illustration, researchers at the Catholic University of Leuven and CD3, in collaboration with scientists from Johnson & Johnson, in 2021 developed an ultrapotent antiviral against dengue – a first in its kind – and published their findings in Nature. Also, with the VirusBank Platform, a state-of-the-art research laboratory, Belgium has a crown jewel and global reference in the discovery and characterization of antiviral strategies against viruses with high epidemic/pandemic potential. Even though today's biopharma innovators in Europe continue to face lower **venture capital** availability compared to the US, capital attracted for biopharma in Belgium grew by 25% YoY since 2019 to \$500 million in 2022. Large sums for later-stage funding remain especially challenging to secure and Belgian biopharma and biotech start-ups struggle to attract non-European venture funding (more than 70% of venture capital comes from within Europe, whereas about 80% of capital raised through IPO or corporate takeovers are initiated from the US). In the coming years and based on the average venture capital funding path of recent Belgian biopharma start- and scale-ups, an opportunity exists to double venture capital inflow compared to 2022 to develop the current pipeline of Belgian start- and scale-ups to the stage of IPO or corporate takeover

Clinical trials

Belgium confirmed its position as European leader in clinical trials with about 570 **authorized trials** in 2021 (remaining #2 in Europe per capita), about 10% more compared to 2019. The country remains renowned for the quality of clinical trial centers, extensive experience and expertise of trial investigators, and a rapid phase 1 trial evaluation process. The **Federal Agency for Medicines and Health Products (FAMHP)** is recognized internationally for its deep expertise (e.g. in vaccines) and as key reference in Good Clinical Practice (GCP) inspections, enabling vaccine approvals in record time. With Vaccinopolis opening its doors in 2022, Belgium has a state-of-the-art vaccine research centre with the ability to conduct Controlled Human Infection Model (CIHM) studies – unique in its kind and magnitude in continental Europe

Note: YoY = year-on-year

Source: Oxford Economics; Eurostat; World Bank; Reuters; Scimago Journal & Country Rank; WIPO; EPO; EMA; Capital IQ; Statista; Pitchbook; EFPIA; OFI; pharma.be; Belief audits; BCG analysis

€3B+ for new platforms since 2021

Not exhaustive

Business climate

Belgium's biopharma ecosystem is a unique network of close **cooperation** between universities, academic centers, start-ups and spin-offs, international companies, logistics partners, agencies, and federal and regional governments. Effective public-private collaboration and **continuous dialogue**, since 2005 embodied in the R&D Biopharma Platform under direct leadership of the Prime Minister, has succeeded in creating a stable, predictable, and transparent business climate. The strength of Belgium's biopharma ecosystem is exemplified by the strong industry presence of leading global biopharma companies and a flourishing network of small and medium-sized enterprises

Commercial manufacturing

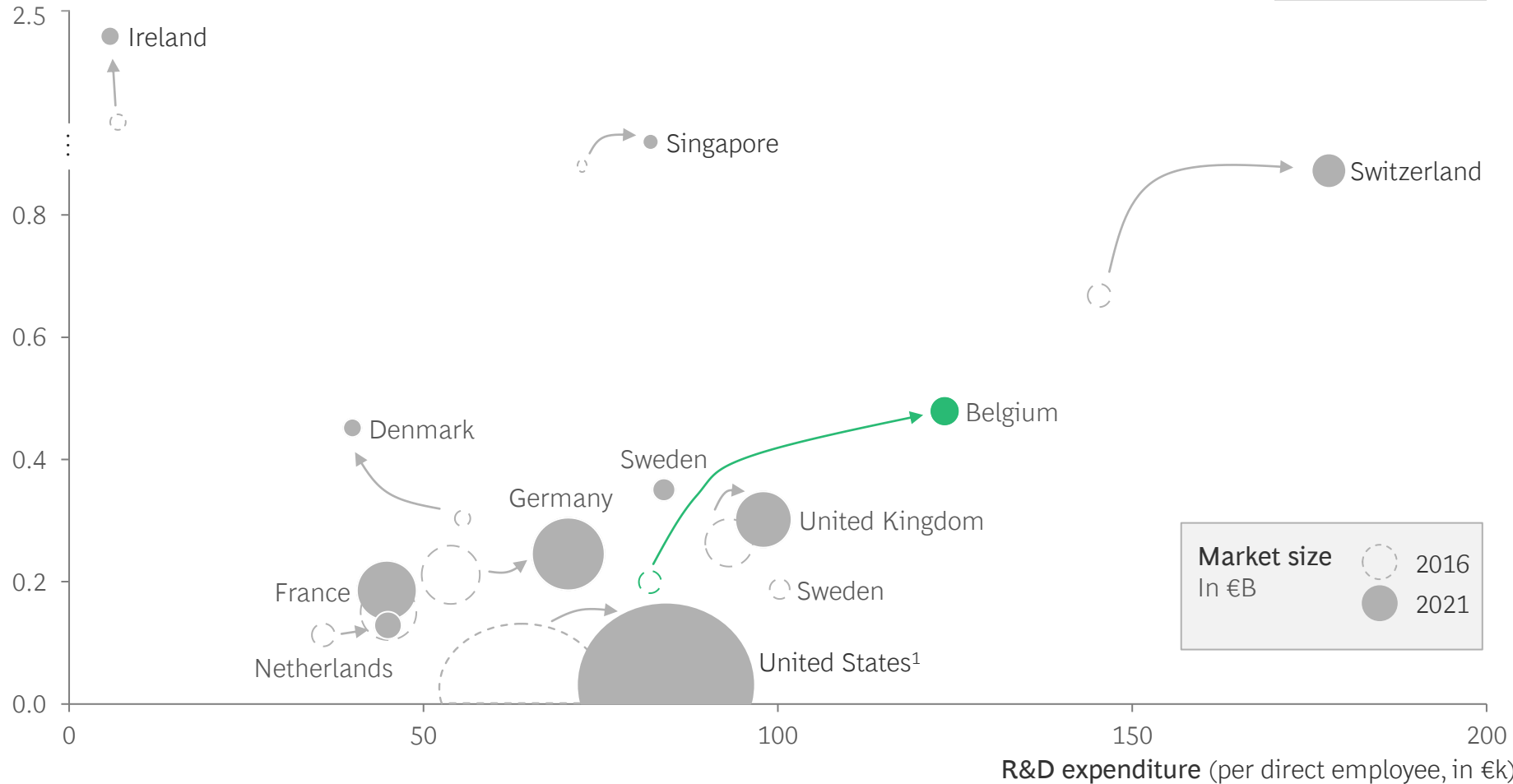
About €3 billion has been invested in additional manufacturing capacity for **new platforms** since 2021, growing the production footprint in the country by more than 20%¹. About €1 billion went into manufacturing and logistics for **Advanced Therapy Medicinal Products (ATMP)** - medicines based on genes, tissues, and cells. For example, Legend-Janssen invested €300 million in a CAR-T manufacturing plant in Ghent, Takeda put €300 million into a plasma therapy facility in Lessines, UCB committed €200 million for a gene therapy facility in Brain L'Alleud, and Catalent invested €100 million in a cell therapy facility in Gosselies. In addition, the industry invested about €2 billion in **vaccines manufacturing**, including mRNA and other next-generation technologies. This includes, amongst others, Pfizer's €1.2 billion investment in Puurs for a new vaccines manufacturing plant, GSK's €250 million new lyophilization unit in Wavre and €75 million state-of-the-art pharmaceutical warehouse in Gembloux, and Quantoom Bioscience's €20 million for mRNA vaccine manufacturing. Beyond these large-scale investments, many small and medium-sized enterprises continue to invest strongly into the Belgian ecosystem

Public-Private Partnerships

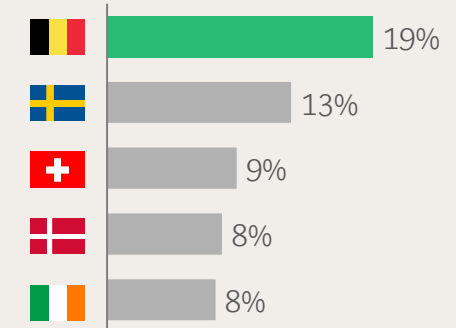
Beyond the investments in commercial manufacturing and logistics, **Public-Private Partnerships** have committed more than €300 million to develop **biopharma hubs and incubators, research and talent centers, and advanced data solutions**. For example, €108 million has been invested in BioWin (the Walloon Health Cluster in Namur), €40 million in Vaccinopolis in Antwerp, €27 million to establish the Health Data agency, €25 million in the EU Biotech Campus in Gosselies, €24 million in the VIB bio-incubator in Ghent, €20 million in the VirusBank Platform in Leuven, €20 million in the BSCB biotech incubator in Charleroi, €15 million in the ViTalent Biotech School in Niel, €11 million in aptaskil in Seneffe and Liège, and €8 million in MEDVIA (the Flanders Health Cluster)

Belgium is a leader, but cannot slow down

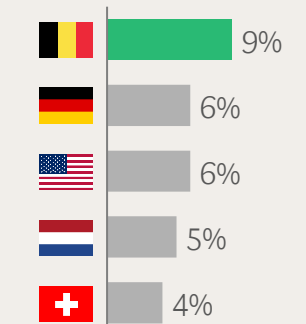
Production value added (per direct employee, in €M)



Top-5 value added growth
(Yearly, per employee, 2016-2021)



Top-5 R&D growth
(Yearly, per employee, 2016-2021)



1. United States market size illustrative and shown at 20% of real value. Note: Based on EFPIA data. Ireland, France R&D expenditure constant in study period. Missing 2021 R&D data for Singapore, 2020 shown, using private sector R&D expenditure for biomedical and related services. EUR/SGD at 1.53 in 2016 and 1.59 in 2021; EUR/USD at 1.11 in 2016 and 1.18 in 2021. Source: EFPIA; OECD; Oxford Economics; SingStat; Statista; BCG analysis

Other countries deploying focused strategies

Belgium's position

Belgium is a frontrunner in R&D expenditure and value creation today, building on its position as one of the innovation leaders in Europe. Its solid pool of highly-qualified talent, proven track record in clinical trials, extensive expertise in selected platforms, and stable business climate have resulted in strong growth in R&D investments and production value added in the period 2016-2021. Nonetheless, Belgium cannot rest on its laurels. Given the importance of the biopharma sector to its national economy and as other countries are rapidly strengthening their respective industries deploying focused strategies with active policy and incentives, there is an urgency for Belgium to determine how best to further strengthen its ecosystem so that it remains an attractive market for activities such as R&D, clinical trials, the manufacturing of medicines, and the introduction of innovative medicines and vaccines

Production strategy

Ireland focuses on attracting large investments in commercial manufacturing, offering low corporate tax rates and a sizeable tax credit on qualifying research and development. Its strategy focuses on sustainable biopharmaceutical manufacturing, growing API (contract) manufacturing and attracting related business services. For more than two decades, **Singapore** has pushed biopharmaceutical manufacturing policy by providing both fiscal and non-fiscal incentives and significantly investing in developing related infrastructure and capabilities

Innovation strategy

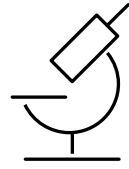
Switzerland puts the focus on being a leader in research and development through effective IP protection, growing clinical trials through fast approvals, and high-quality health data, and provides an appealing fiscal framework. The country is renowned for its strong talent pool and competitive business climate. **Denmark's** national strategy for life science foresees in dedicated government funding of €10-15 million per year for the implementation of 38 specific initiatives. The country provides comprehensive funding and financial incentive programs for R&D activities as well as competitive fiscal expat regimes to attract foreign investment in the sector. It claims its pharmaceutical industry is built on quality research, strong collaboration between universities and industry clusters, and a skilled workforce. **Sweden** aims to be leader in advanced therapies and sustainable healthcare, building on research and innovation through an ecosystem built on micro-sized companies and academic spin-offs, which are strategically funded by early initial public offerings. Sweden is noted as a reference in the health data space, among others on the use of Real World Data, digital solutions, and artificial intelligence. The **Netherlands** aims to establish itself internationally as leading research country, offering a competitive and stable tax regime, fiscal incentives supporting R&D, and specialized venture capital investment firms. The country focuses on facilitating clinical trials leveraging real-life health data and on simplification of processes and procedures

Market strategy

Germany, home to the largest patient market in Europe, is increasingly strengthening its biopharma sector with particular focus on manufacturing, fast market access, and digitization. Accelerated by the pandemic, the state's preparedness to invest public money in R&D (€1.3 billion invested in COVID-19 vaccine development) and manufacturing (leveraging €3.4 billion of Federal Funding for Energy and Resource Efficiency) is growing. Als, Germany is actively promoting its biotechnology clusters and proximity to other sectors such as mechanical engineering. The **United Kingdom** aims to develop and deploy innovative solutions globally, building on its science and clinical research infrastructure and harnessing unique genomic and health data. The country has lined up sizeable support programs across the value chain, such as the Life Sciences Innovative Manufacturing Fund (£277 million) to boost manufacturing capacity and strengthen innovation, and a Life Sciences Growth Package (£650 million) to enhance clinical trials, boost investment, and drive up talent. Aiming to jumpstart its life sciences industry, **France**, home to the second largest pharmaceutical market in Europe, has launched a €7.5 billion initiative to turn the country into the European leader in health innovation by creating biotech hotspots, streamlining clinical trial organization, and simplifying market access. About half of this funding is intended to support industrial investments and the industrialization of start-ups. The remaining €4 billion is marked for strengthening research and development, including clinical trials, new therapies, and digital health initiatives. Keen to attract top-level talent, France has appointed a Special Envoy for Healthcare Innovation to promote the French healthcare system abroad



Changing EU context requires short-term decision making



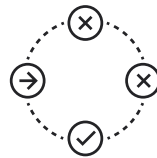
Innovation

Proposed changes to EU pharmaceutical legislation are **limiting regulatory intellectual property protection**, while the adopted Regulation on Substances of Human Origin could **slow down developments in cell & gene therapies**



Market access

Belgium is **at risk of becoming a late stage launch country** as lead times for reaching final reimbursement decision are increasing¹ to more than 4x longer than the fastest EU country² and patient access to innovative products is decreasing



Clinical trials

The EU Clinical Trials Regulation is triggering the need for higher efficiency, better coordination (across Member States) and focus on data for **Belgium to maintain its competitive advantage** built on fast Phase I trial evaluations



Industrial policy

Stringent EU legislation (e.g., sustainability directives, taxation policy), and differences in local implementation and State Aid Policy affect **competitiveness** and ability to attract investments in new platforms

1. Availability 51% in '18-'21 (vs. 53% in '15-'18) and time to availability 546 days in '18-'21 (vs. 439 days in '15-'18)
2. Germany 128 days on average in '18-'21 Source: IQVIA W.A.I.T. report; pharma.be; Belief audits, BCG analysis

Belgium can double-down along 4 focus areas

Building the bridge towards the Health & Biotech Valley of Tomorrow



Anchor long-term competitiveness



Leverage 2024 as opportunity to reinforce strengths by ensuring continuity of R&D Biopharma Platform, maintaining a predictable business climate, and leading crucial debates on the European stage

Build and attract talent of tomorrow



Strengthen pool of local and international talent

Bring breakthrough innovation to patients



Accelerate, fund, and deploy novel solutions

Lead the digital and sustainable transition



Enable data, deep tech, and sustainability





24 specific initiatives paving the way to the Valley of Tomorrow



Anchor long-term competitiveness

1. Hardwire continuity of R&D Biopharma Platform
2. Uphold supportive policy and incentive schemes
3. Ensure policy agreement on sustainable market access
4. Reinforce clinical trial advantage
5. Strengthen FAMHP's leading role and expertise
6. Increase international promotion and connectivity
7. Form perspective and lead debate on EU IP protection
8. Drive coherent/simultaneous EU legislation implementation



Build and attract talent of tomorrow

9. Stimulate industry and academia collaboration
10. Establish dedicated life sciences training programs
11. Launch Belgium ambassador campaign
12. Facilitate expat attraction, relocation, and integration
13. Simplify residence and work permit procedures
14. Accelerate development of skills-of-the-future



Bring innovation to patients

15. Expand research and collaboration infrastructure
16. Restore Belgium as early-launch country
17. Stimulate (later-stage) venture capital investment
18. Attract local offices of international funds
19. Create public biotech fund with industry experts



Lead the digital and sustainable transition

20. Implement data strategy top-down and at pace
21. Prioritize structuring data based on agreed standards
22. Enable Health Data Agency and secondary data use
23. Strengthen digital and deep tech capabilities
24. Lead digital and sustainable manufacturing

24 specific initiatives with clear actions

- | | | | |
|---|--|--|--|
| 1. Hardwire continuity of R&D Biopharma Platform | Ensure success formula of internal coordination under lead of Prime Minister in federal coalition agreement in 2024 | 13. Simplify residence and work permit procedures | Single agency for work and residence permits, 'Trusted Partner Model', 2-year visa extension for graduates |
| 2. Uphold supportive policy and incentive schemes | Continue stimulating innovation in R&D and bio-production and maintain favorable and competitive investment climate | 14. Accelerate development of skills-of-the-future | Support for up- and re-skilling initiatives such as ViTalent, aptaskil and EU Biotech Campus, incentive framework |
| 3. Ensure policy agreement on sustainable market access | Refine and put into practice policies to ensure swift and sustainable pharmaceuticals market access for patients | 15. Expand research and collaboration infrastructure | Create collaboration platforms and infra (like ATMP hub), support incubators, promote industry academia partnerships |
| 4. Reinforce clinical trial advantage | Fully deploy clinical trial network to simplify processes and procedures across trial centers, launch digital patient platform | 16. Restore Belgium as early-launch country | Improve separation of assessment and appraisal phase in the reimbursement process, consider early access programs |
| 5. Strengthen FAMHP's leading role and expertise | Reinforce strong expertise on GMP inspections, new vaccine platforms and ATMP, create industry-wide knowledge platform | 17. Stimulate (later-stage) venture capital investment | Support creation of VIB 'mega fund', facilitate matchmaking process, no introduction of additional tax on venture capital |
| 6. Increase international promotion and connectivity | Share success stories, highlight investment assets, and boost connection with international biotech hubs | 18. Attract local offices of international funds | Targeted campaigns and missions to foreign funds, fiscal incentives and other measures |
| 7. Form perspective and lead debate on EU IP protection | Develop position and drive thought leadership on regulatory protection of IP ref. proposed EU Pharmaceutical Legislation | 19. Create public biotech fund with industry experts | Consider public investment fund with investment board made up of industry experts to stimulate private investment |
| 8. Drive coherent/simultaneous EU legislation implementation | Avoid gold-plating in translation at local level, drive uniform (tax) legislation implementation in Member States | 20. Implement data strategy top-down and at pace | Structure, standardize, and improve quality of data for primary care, expand to secondary and multidisciplinary care |
| 9. Stimulate industry and academia collaboration | Internships and dual learning, curriculum alignment with industry needs, facilitate transition from industry to teaching | 21. Prioritize structuring data based on agreed standards | Improving data quality leveraging FAIR guiding principles, pioneering EHDS as overarching framework |
| 10. Establish dedicated life sciences training programs | 'MBA-type' holistic cross-ecosystem traineeship, STEM immersion, initiatives bridging gap with secondary education | 22. Enable Health Data Agency and secondary data use | Enable secondary health data use, ensure adequate accessibility and data protection, building on EU Health Data Space |
| 11. Launch Belgium ambassador campaign | Increase international awareness of Belgian biopharma and biotech ecosystem and talent, e.g., via CEO ambassadorships | 23. Strengthen digital and deep tech capabilities | Drive digital, advanced data analytics, and automation across research, clinical trials, and manufacturing |
| 12. Facilitate expat attraction, relocation, and integration | Evaluate compensation package, English language in official documents and schools, expat network and referral system | 24. Lead digital and sustainable manufacturing | Create attractive environment for (attracting investments in) factories of the future (most digital and sustainable factories) |

Note: GMP = Good Manufacturing Practices; FAIR = Findable, Accessible, Interoperable and Reusable; EHDS = European Health Data Space
Source: Belief audits; BCG analysis

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If you would like to discuss this topic, please contact one of the authors

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