Creating the conditions for investment and growth

Pharmaceutical industry investment competitiveness framework 2025

September 2025

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Foreword

In a changing and fiercely competitive international landscape, ensuring that there is a shared understanding between industry and government about the factors which influence investment has never been more critical.

The government's ambition is to make the UK the number one life sciences hub in Europe by 2030, while also transforming health outcomes and building an NHS fit for the future. Achieving that goal is only possible if the UK doubles down on its strengths, urgently addresses systemic weaknesses, and capitalises on areas of unrealised potential.

This framework serves as a vital tool to identify, shape and prioritise the policy interventions needed to make the UK one of the world's leading economies for pharmaceutical industry investment.

Dr Richard Torbett MBE
Chief Executive, Association of the British Pharmaceutical Industry

Executive summary

- The UK is home to one of the world's leading life sciences ecosystems. The government has set out a clear ambition to put life sciences at the heart of its health and growth missions
- The pharmaceutical industry is integral to both missions,contributing £17.6 billion in direct gross value added (GVA) annually to the economy,[1] supporting 126,000 high-skilled jobs across the UK,[2] and investing more in R&D than any other sector.[3]
- To realise the UK's life sciences growth potential, it is vital that government and industry share an aligned view about the factors driving investment decisions.
- This "Competitiveness Framework" supports that shared ambition by benchmarking the UK's performance against competitor markets to identify where action is most needed to attract pharmaceutical industry investment.
- However, faced with unprecedented international competition to attract and retain this globally mobile investment, the UK's world leading status is at risk.
- Life sciences foreign direct investment into the UK fell by 58% from £1,897 million in 2021 to £795 million in 2023.[4] Pharmaceutical industry investment in R&D also fell by nearly £100 million in 2023,[3] and the UK has lagged global growth trends for several years.
- The costs of falling behind in the global race for investment are significant. Had industry investment in pharmaceutical R&D in the UK grown in line with global investment from the world's top 50 pharmaceutical companies, the UK would have received £1.3 billion of extra R&D investment in 2023 alone.[5]
- Reversing these trends is therefore vital to the government and industry's shared growth and health agenda.

£17.6bn

GVA directly contributed to the UK economy in 2021[1]

17%

of business R&D expenditure in the UK was performed by the pharmaceutical sector in 2023[3]

126,000

high-skilled jobs across all UK nations and regions in 2021[2]

- These declines are not due to a lack of foundational strengths. The UK's science base continues to offer world-class scientific expertise and globally respected academic institutions. Robust intellectual property (IP) protections and substantial public investment in research infrastructure augment these strengths, encouraging industry co-location.

Globally, the UK ranks:

2nd Top universities[16]

2nd Research quality[18]

- The UK also boasts one of the world most vibrant environments for biotechs and spinouts, 3rd only behind the US and China,[20] as well as a highly skilled talent base. These factors provide an attractive platform from which the UK can attract significant inward investment, provided it can maintain this advantage amid growing competition.

- However, these strengths are undermined by the UK's long-standing underinvestment in medicines, threatening the growth and retention of industry investment. The UK invests less in medicines than other developed market (9% of healthcare spend in the UK, versus 14% in Germany and 17% in Spain).[6]

- New medicines launched in the UK are regularly made available to highly restricted patient populations, compared to launches in similar markets.[7] New medicines also have lower levels of uptake in the UK than in other countries,[8] with regional variations in UK uptake contributing to health inequalities.[9]

- High clawback rates on pharmaceutical companies' UK revenues exacerbate these persistent structural barriers to investment. The announcement that the 2025 clawback rate for newer medicines would rise to a minimum of 23.5% (above the predicted 15.9%) lowered investor confidence in the UK.[38]

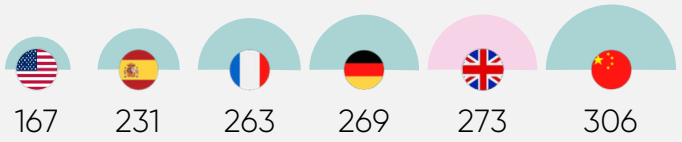
Clawback schemes vary across countries in their design but generally require pharmaceutical companies to pay rebates or return a portion of their revenue if their annual sales exceed a threshold.

- While high clawback rates have acted as a drag on investment in the UK for several years,[37] the unpredictability and scale of the 2025 rate increase has escalated this issue to a critical point. In many global boardrooms, the UK is now viewed as a contagion risk with practices that, if adopted by other markets, would threaten the sector's ability to invest and innovate globally. As a result, the UK is increasingly being ruled out of consideration as a viable location for pharmaceutical investment.

The UK has the highest clawback rates among peer countries with clawback schemes[10]

- Constraints in clinical trial delivery, historically a UK strength, have further eroded investor confidence. While there are signs of recovery in industry trial activity,[11] the UK still lags competitors such as Spain in influential performance indicators, such as speed of set-up and participant recruitment.

The UK has one of the longest clinical trial set-up timelines among peers (median days)[4]



- The Prime Minister's commitment to reduce trial set-up times to an average of 150 days is a welcome recognition that the UK's performance must improve to rebuild investor confidence, though this will not be sufficient on its own.

- Addressing these structural barriers to investment must be the top priority. To augment these efforts, the UK can enhance its attractiveness to global investors by capitalising on areas of unrealised potential, while building on the UK's existing strengths.

- Improved utilisation of the UK's health data could power the discovery and development of new treatments and support more effective deployment of innovation and improved patient outcomes. The recently announced £600 million investment in a UK Health Data Research Service is a positive step towards realising this opportunity.

- The UK has developed a position of global leadership in cell and gene therapy trials – ranking first in Europe.[12] The UK government and devolved administrations could achieve significant benefits for patients and the economy if the UK were similarly world-leading in the valuation and timely deployment of effective cell and gene therapies within the NHS.

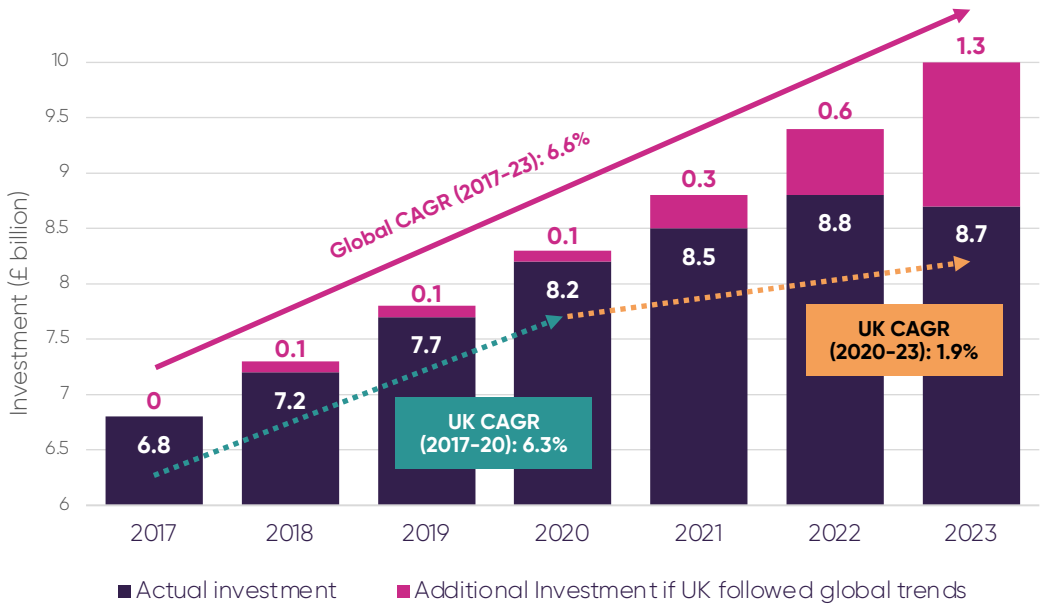
- The UK can also capitalise on its sovereign regulator status by delivering greater agility and flexibility in its regulatory landscape, while improving the reliability of its core functions. Global partnerships, such as the Access Consortium, provide opportunities to further enhance and differentiate the UK's investor offer by positioning the country as a launchpad to enter other markets.

- For these opportunities to yield the greatest competitive advantage, decisive action must be taken to address the structural barriers deterring investment. While none of these shifts will happen overnight, reform is possible if government and industry work in partnership to address fundamental blockers and realise opportunities to enhance the UK's competitiveness.

- With a new Industrial Strategy and Sector Plan we are encouraging the government to adopt this framework as a tool to drive delivery of its ambition to make the UK the top life sciences economy in Europe by 2030.

UK competitiveness at a glance

Business investment in pharmaceutical R&D (£ billion)[5]



Pharmaceutical R&D investment in the UK has lagged behind global growth trends for several years, with a significant slowdown from 2020. Had the UK kept pace with these global trends, it would have received an additional £1.3 billion of R&D investment in 2023 alone.

Inward life sciences foreign direct investment (£ million)[4]

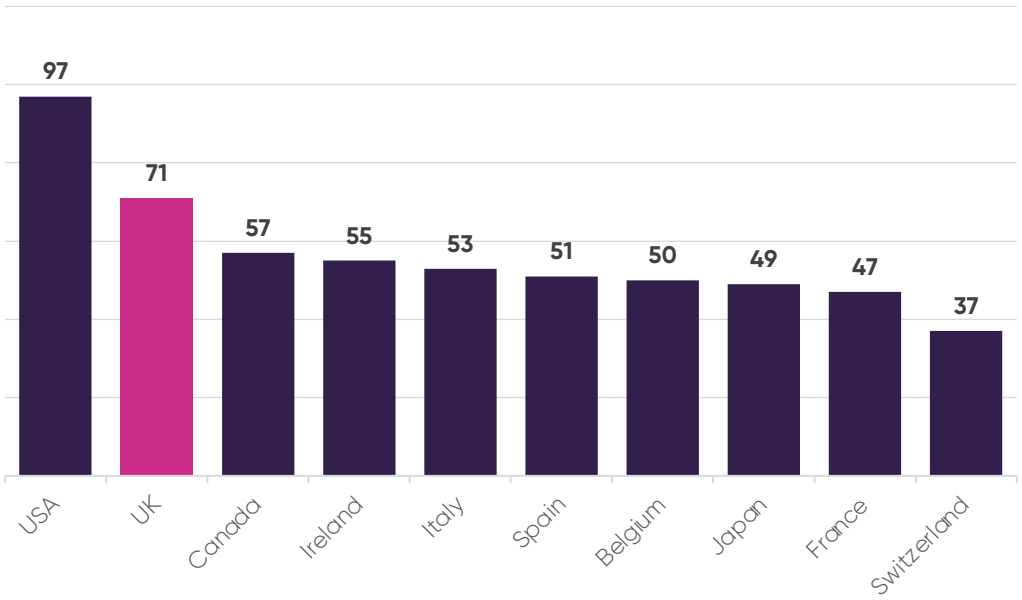
While foreign direct investment (FDI) can fluctuate significantly year to year, the UK's ranking amongst comparator countries shows a clear trend of decline, falling from a high of 2nd in 2017 and 2021 to 7th in 2023.*

CAGR: Compound Annual Growth Rate

*Data shown is capital expenditure

UK competitiveness at a glance

Treatable mortality per 100,000 inhabitants[13]



Amongst comparator countries the UK suffers the second highest treatable mortality rates per 100,000 inhabitants, behind only the US. All other G7 and major European economies have significantly lower rates of treatable mortality.

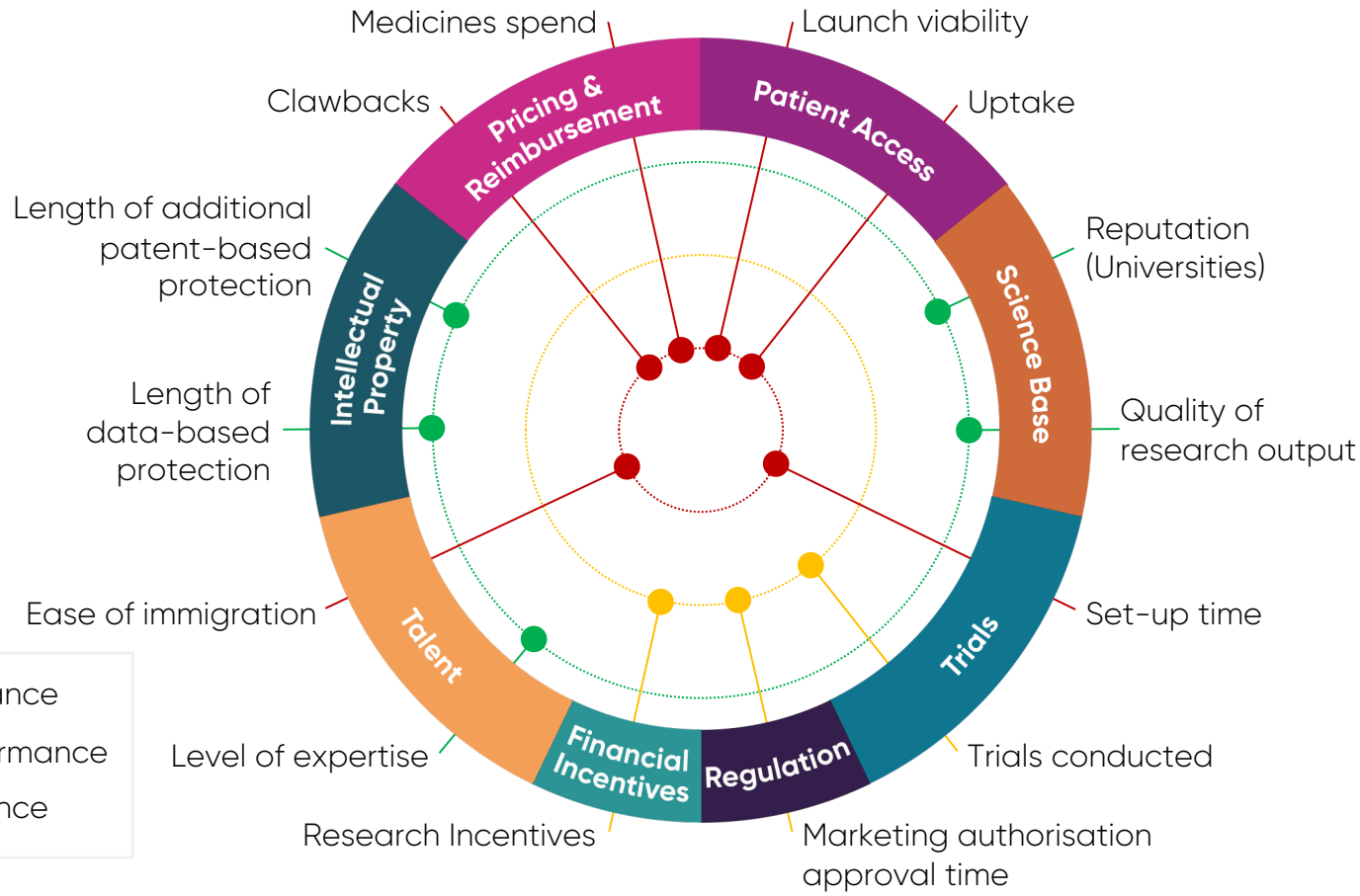
Industry clinical trials initiated per year[11]

The UK has seen its global rankings for industry clinical trial placement steadily decline since 2018, with early signs of improvement in 2023. Spain in contrast has established itself as the number one European destination for industry clinical trials since 2020.

UK competitiveness at a glance – Investment drivers

This chart provides an overview of the UK's performance on several key indicators that influence the investment decisions of pharmaceutical investors. They are categorised as either a strength, area of moderate performance, or a weakness. Further information on these indicators, including international benchmarking, and raw performance data can be found in the Competitiveness Framework section towards the end of this report.

UK performance on a selection of key investment drivers



Introduction

Why have we produced this report?

A competitive pharmaceutical sector is central to the government's health and growth missions. Investment fuels the discovery of new medicines and vaccines, enables clinical trials, and powers manufacturing to deliver economic value and health benefits.

With international competition for mobile investment at an all-time high, it is more vital than ever that there is a clear and aligned understanding between government and industry about the factors that influence investment decisions.

While several life sciences strategies have emerged from successive governments with examples of incremental success, the shared scale of ambition between industry and government has never been realised. This unrealised ambition is often due to a lack of alignment or understanding about which factors influence investment decisions and the associated policy interventions that are needed to improve them.

This report compares the UK's attractiveness as an investment location against 12 comparator countries through a newly created "Competitiveness Framework". It draws on robust quantitative analysis and insights to highlight where the UK leads, where it lags, and where targeted reform could unlock high-value growth.

This inaugural edition will become an annual publication designed to support and inform the key policy interventions needed to realise the ambitions set out in the government's Life Sciences Sector Plan.

What is the Competitiveness Framework?

The framework provides a structured approach to assess the UK's attractiveness as a destination for pharmaceutical investment.

It assesses the UK's performance against 12 comparator countries, across the G7, Europe, and Asia, in four areas of pharmaceutical investment: pre-clinical research, clinical trials, manufacturing and distribution, and headquarters and affiliates.

Performance is evaluated by measuring factors that investors consider when deciding where to invest. These investor considerations were identified through a review of public literature and refined in consultation with ABPI member companies.

To ensure this framework is a robust and objective barometer for the UK's relative performance, the investor considerations are divided into sub-considerations and then matched with relevant, credible, and internationally comparable performance metrics.

1 **Investment areas**
Areas along the life sciences value chain where investments are made

2 **Investor considerations**
Factors investors consider when deciding where to place capital

3 **Investor sub-considerations**
Qualities within each consideration that investors typically consider

4 **Performance metrics**
Underlying indicators to assess country attractiveness

Comparator countries included in this analysis

United Kingdom [GBR]
Belgium [BEL]
Canada [CAN]
China [CHN]
France [FRA]
Germany [DEU]
Ireland [IRL]
Italy [ITA]
Japan [JPN]
Singapore [SGP]
Spain [ESP]
Switzerland [CHE]
United States of America [USA]

How are investment decisions made?

Selecting where to place pharmaceutical industry investment is inherently complex and multifactorial.

Investors weigh up a broad mix of factors, from scientific capabilities and fiscal incentives, to regulatory performance and pricing and reimbursement conditions.

The importance of each factor can vary depending on the nature of the investment and the company's global operating strategy. With increasing geopolitical instability and its the knock-on implications for supply security, launch viability, and return on investment, some factors have significantly increased in importance.

To assess the UK's performance, the Competitiveness Framework evaluates a wide selection of metrics aligned to the factors investors consistently cite as critical. Broadly speaking, these investment factors can be categorised in two ways:

- **Essential baseline requirements:** Prerequisite requirements that a country must meet before a company considers it a candidate destination to invest in. This might include factors like robust intellectual property (IP) protections and access to scientific talent.
- **Differentiators:** Factors that can tip an investment decision in or out of a country's favour when multiple countries meet the baseline requirements. Examples include a more favourable incentives regime, or a country's willingness to adopt innovation.

The way factors are categorised will vary by type of investment, and not all factors will carry the same weight. Occasionally, major underperformance in key areas will have an extreme impact on investor decision making and sentiment. These are identified in this report as global contagion risks – factors that can rule a market out of consideration altogether.

Global contagion risks

Unlike other areas of comparative weakness that may delay or redirect investment, contagion risks can knock a market out of contention entirely.

These are policies or factors in an operating environment that are so counterintuitive to innovation that they position a country as a global outlier. The 'contagion risk' arises from the risk that other markets adopt similar policies, threatening the global operating environment that enables pharmaceutical investment and innovation.

Left unaddressed, these risks can outweigh the broader strengths a market can offer. This acts as a decisive barrier to entry, even if the scientific or economic fundamentals of an investment remain strong.

UK Example: A rise in clawback rates from 9.6% to 23.5% created unpredictability and negatively impacted investor sentiment, outweighing positive other aspects of the UK's offer.

What steps are being taken to improve the UK's investor offer?

The recently published Life Sciences Sector Plan outlines the government's ambition for the UK to be the leading life sciences economy in Europe by 2030, and the third most important life sciences economy globally, behind the US and China, by 2035. To progress this ambition, the Sector Plan presents a range of policies intended to improve the UK's offer to global life sciences investors:[15]

1 Enable world class R&D

To sustain global science leadership, the following actions will be taken:

- **Invest up to £600 million**, in partnership with the Wellcome Trust, to develop a Health Data Research Service
- **Accelerate reduction of clinical trial setup timelines** to under 150 days, addressing delays that deter investments
- **Establish a pre-clinical translational models hub** to accelerate the understanding of human biology and advance medicines discovery

2 Make the UK an outstanding place to scale-up and invest

To reverse scale-up attrition and strengthen the UK life sciences manufacturing sector:

- **Form at least one strategic partnership annually** with leading life sciences companies
- **Streamline MHRA processes** to give industry a clearer, faster route to market
- **Invest up to £520 million in capital grants** to support inward investment in innovative life sciences manufacturing

3 Driving health innovation and NHS reform

To help shift the NHS from treatment to prevention, the plan outlines intent to:

- **Introduce low-friction NHS procurement**, including an 'Innovator Passport' to rapidly adopt novel medtech products
- **Embed NHS medicine adoption** *metrics* in Trust performance dashboards

While the Life Sciences Sector Plan sets a promising direction for advancing the UK's leadership in life sciences, several areas remain unaddressed.

The reimbursement environment and high clawback rates pose significant barriers and undermine the UK as an attractive destination for life sciences investment.

Addressing these hurdles will be essential to fully realise the plan's ambitions and unlock sustained industry growth.

Chapter 1

What are the UK's competitive strengths?

The UK has demonstrated long-standing competitive strengths in pre-clinical research thanks to its globally renowned science base and vibrant biotech ecosystem. Key assets include the UK's highly skilled talent base, world-class academic institutions, and globally recognised research infrastructure. These strengths are underpinned and made possible through sustained public investment and a well-established framework for intellectual property rights.

Yet despite these well-known and long-standing strengths, inward investment has still declined in the face of rapidly increasing global competition. The UK's strengths must continue to be nurtured, and it must also be recognised that, despite having historically acted as magnets for inward investment, these strengths are not sufficient to offset competitive weaknesses in other areas.

Competitive strengths

The UK remains a world-leading destination for discovery and translational science. UK expertise in these fields is a major draw for pharmaceutical investment, as companies seek to co-locate their R&D facilities with centres of excellence.

However, the UK's position cannot be taken for granted. Other countries, notably China, are investing significantly to outcompete scientific hubs like the UK and USA in both the scale and quality of its pre-clinical research offer.

Talent base and research capabilities

The UK's competitive edge in pre-clinical research starts with its academic institutions, as it has 16 of the world's top 100 universities for life sciences and medicine.[16]

Percentage of graduates with a statistics, maths or natural sciences degree[14]

Globally, the UK ranks:

2nd Top universities[16]

2nd Research quality[18]

These universities provide companies with a rich talent pipeline[14] that enables them to meet their skills needs and grow. Their reputation also helps the UK to attract and cultivate leading scientific expertise[16] that sustain and grow clusters of innovation. These clusters, in turn, attract industry investment and co-location.

The UK's academic capabilities are matched by world-class research infrastructure. Notable examples, such as the UK Biobank, the Francis Crick Institute, and the Laboratory of Molecular Biology, afford companies access to specialist talent, equipment, research and analytical capabilities critical to pharmaceutical R&D.

The UK is equally adept in translating these capabilities into research outputs. Nearly 2% of its medical publications ranked among the world's top 1% most cited,[4] the joint highest share among peer countries. The UK also ranks second globally for quality of health sciences research, according to the Nature Index.[18]

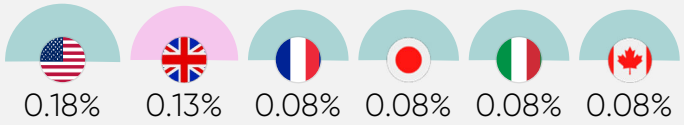
However, the future of these competitive strengths should not be taken for granted. For instance, high visa costs[19] make the UK less attractive to the world's top researchers. The government's commitment to enhance the Global Talent Visa is a welcome step towards addressing this risk.

The UK also faces growing competition from countries like France, which ranks joint first for most-cited medical publications,[4] and China, which ranks third in the Nature Index.[18] Many of these countries are home to world-class research infrastructure with capabilities that may soon rival the UK's assets. As the life sciences sector looks to create up to 70,000 new jobs by 2035,[17] the UK must enhance its science base with continued investment to remain competitive in pre-clinical research.

R&D funding environment

The UK's research capabilities and talent base are underpinned by investments in R&D made by the government and research charities.

Government spending on health R&D as a share of GDP[4]



Among the comparator countries, the UK ranks second for share of government spending on health R&D[4] and joint third for charitable R&D funding.[4] This long-term funding is vital in sustaining the talent pipeline and research infrastructure that attracts global investment in pre-clinical research to the UK.

Intellectual property protection

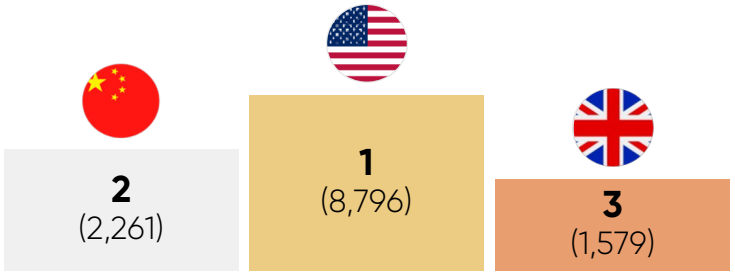
Robust protections for intellectual property (IP) also underpin many of the UK's strengths. A stable and strong IP framework is a baseline requirement for industry investment.

The UK's framework for IP rights is seen as one of the world's most advanced. For example, the durations of the UK's data- and patent-based protections are comparable with other leading economies. However, companies can receive a shorter period of patent-based market exclusivity if their product is approved in the European Union before the UK, which does reduce the UK's strength in this key area.

Biotech ecosystem

A notable and positive consequence of the UK's strengths in discovery and translational science is its rich ecosystem of biotech companies, which ranks third globally and first in Europe.[20]

Total number of biotech companies[20]



This ecosystem demonstrates the UK's ability to translate academic excellence into commercial potential. For example, in 2024, UK universities produced 399 pharmaceutical spinouts, more than any other sector.[21] Furthermore, between 2017 and 2024, UK-based biotechs raised over $10 billion in venture capital, more than any other European country.[22]

This cycle of spinouts and early investments augments the transfer of ideas and talent that makes the UK's innovation clusters so attractive to global investors. The 'crowding-in' effect that results from this ecosystem is a major reason why many global pharmaceutical companies to operate headquarters or affiliates in the UK – ranking second in Europe, behind Germany.[20]

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Pharmaceutical and medtech companies in the UK[20]

Competitor countries at a glance

Switzerland

Switzerland consistently ranks among the most attractive global destinations for pharmaceutical investment because of pro-innovation policies, including:

- Gold-standard IP protections[23] that underpin its strengths in pre-clinical research and streamlined visa policies that attract global talent to cities like Basel, one of the world's top science and technology clusters.[24]
- Sustained investment in health, education, and public infrastructure, combined with strong political stability and legal certainty, has positioned Switzerland as the world's most competitive economy.[25]
- A network of 33 free trade agreements with 43 trading partners, covering 70% of its exports,[26] has made Switzerland a leading investment destination for pharmaceutical manufacturing and distribution.

These conditions have helped make Switzerland one of the most R&D-intensive economies in the world,[27] with 87 biotechnology companies per million people. This scientific excellence is effectively translated into economic output, with over £94 billion of annual pharmaceutical exports, representing 11.9% of the global export market.

Competitor countries at a glance

China

China's pharmaceutical industry has grown rapidly over the past 15 years despite the country ranking last in a range of essential baseline requirements, such as protections for IP.[28] While much of this growth is attributable to the economies of scale offered by China's large market, the policy agenda of its government has also played a key role:

- Spending on healthcare increased from 3.7% of GDP to 5.4% between 2007 and 2022.[29] This investment grew China's pharmaceutical market from $200 billion in 2016 to $251 billion in 2021, and it is forecast to grow at an annual rate of 7% to $332 billion by 2025.[30]
- Sustained support for universities and research infrastructure means China now has 26 of the world's top 100 science and technology clusters[24] and ranks third in the Nature Index for research quality in health sciences.[18]
- Public investment in infrastructure, including renewable energy generation, has helped increase China's World Competitiveness ranking from 20th in 2020 to 16th in 2025.[31]
- Efforts to align China with some global standards, such as admitting its medicines regulator to the ICH,[32] have helped to facilitate inward investment from global pharmaceutical companies.
- This policy agenda has been effectively communicated through high-profile meetings between government and industry leaders to build and maintain investor confidence in China's operating environment.[33]

The results of China's policy agenda are impressive. Of the countries analysed in this Competitiveness Framework, China is the only one that saw annual industry clinical trial numbers increase between 2019 and 2023.[11] China has also grown its portfolio of assets licensed to overseas companies, with $8.4 billion of upfront payments made in 2024 alone.[34]

However, this growth is tempered by the fact that only one of China's top 10 pharmaceutical companies is globally headquartered in China.[35] As such, future growth will remain heavily dependent on inward investment, which is at risk from increased geopolitical volatility.

ICH: International Council for Harmonisation of Technical Requirements for Pharmaceuticals for Human Use

Chapter 2

What are the threats to future investment?

Structural barriers continue to deter inward investment into the UK. Of these competitive threats, the UK's underinvestment in innovative medicines poses the greatest risk to future investment, including its restrictive access arrangements and low uptake. The scale and unpredictability of clawback rates on company revenues in the UK has escalated this issue to a critical point, with many global investors now viewing the UK as a contagion risk, rendering the country unviable as a destination for industry investment.

The government's recent commitment to improve clinical trial delivery is a welcome recognition that UK performance must improve to rebuild investor confidence. This level of ambition must be applied to addressing the UK's other competitiveness challenges.

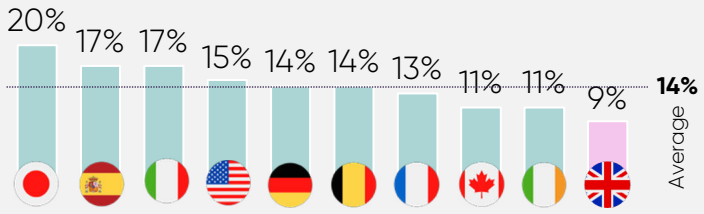
Threats to investment

The Competitiveness Framework shows that the government cannot solely rely on existing strengths to make the UK the top life sciences economy in Europe by 2030. Instead, decisive action must be taken to address the structural barriers deterring inward investment, especially its long-standing underinvestment in medicines.

Patient access and uptake

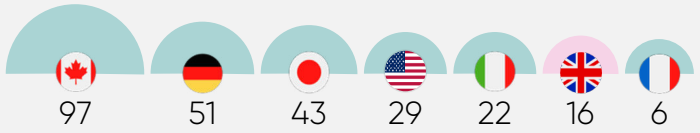
The UK invests significantly less in medicines, as a proportion of healthcare spending, than other developed countries. Specifically, the UK invests around 9% of its healthcare spend in medicines, compared with 17% in Spain.[6]

UK share of health spend invested in medicines[6]



UK patients' access is limited, as just 37% of new medicines are made fully available for their licenced indications, compared to 90% in Germany.[7] ABPI data also shows that more than 60 medicines/indications did not launch in the UK or were delayed between 2019/20 and 2022/23.[36] Nearly 70% of these decisions were made because of the UK's pricing requirements, including NICE thresholds and the additional value for flexible commercial arrangements.[36]

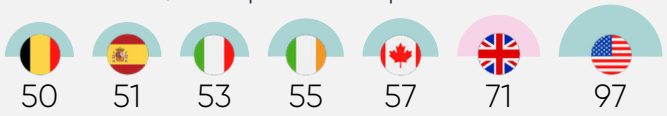
Year 3 uptake of NICE-approved medicines, relative to peer countries (%)[8]



New medicines made available in the UK also see far lower levels of uptake than comparable markets. Among the G7 nations, the UK has the second-lowest level of uptake three years after a medicine is approved.[8] Moreover, levels of uptake in the UK vary dramatically from region to region, which contributes to health inequalities.[9]

These persistent, structural barriers to patient access and uptake of new medicines undermine the UK's attractiveness to global investors. Specifically, pharmaceutical companies see these barriers as signs that the UK market prioritises cost containment and undervalues innovation.

UK treatable mortality (deaths per 100,000 inhabitants) compared to peer countries[13]



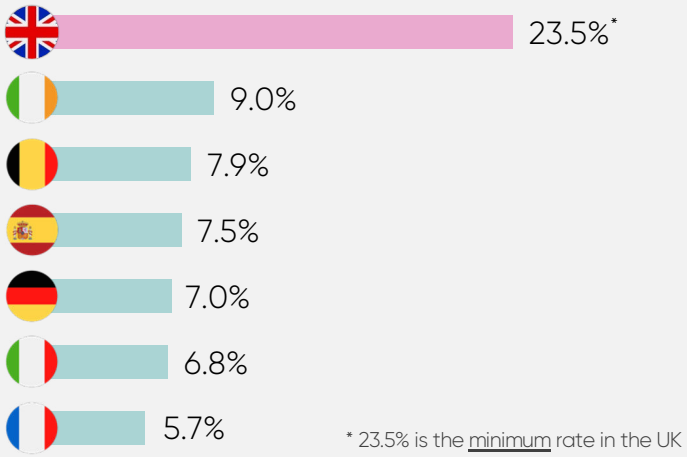
More importantly, this approach to innovative medicines has major implications for the health of the UK's population. The UK has much higher levels of treatable mortality (that is, deaths from causes that can be treated) than those seen in similarly developed countries that invest more in medicines and have higher levels of uptake.[13]

As such, addressing the UK's underinvestment in innovative medicines would not only bolster the UK's global competitiveness – it would also contribute to improved health outcomes.

Clawback rates

High clawback rates on pharmaceutical companies' revenues have exacerbated the dampening of investor confidence caused by underinvestment in innovative medicines. As seen below, the UK is a global outlier:

Average pharmaceutical clawback rates[10]



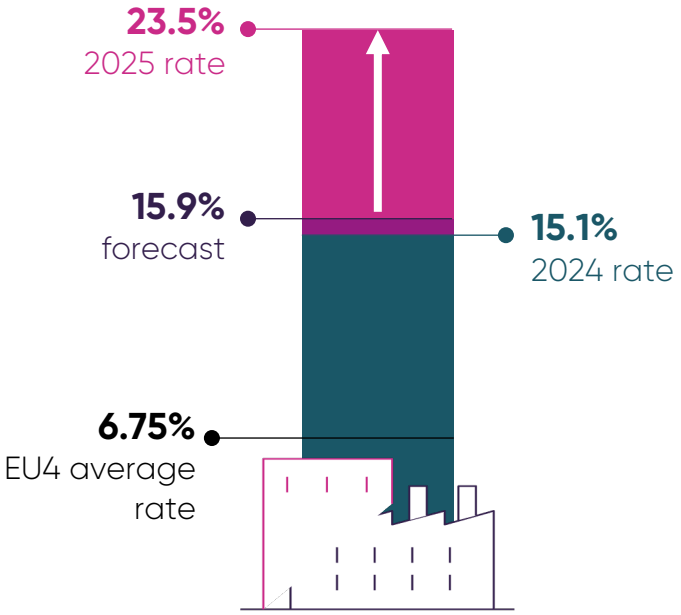
While this barrier to investment is not new, it has now reached a critical point.

In December 2024, the government announced the 2025 rate on branded newer medicines would increase to 23.5%, far above the predicted rate of 15.9%.

Crucially, this rate just sets the minimum payment that companies can pay on eligible revenue under the voluntary scheme. Companies with older medicines can face rates of up to 35%. Coupled with the statutory scheme's rate doubling from 15.5% to 31.3% (which companies pay if they are not on the voluntary scheme), the 2025 rate announcement has severely degraded investor confidence in the UK.

Consequently, many global investors now view the UK as a contagion risk, with market practices that would render the global operating model for the industry unviable if adopted elsewhere. This renders new investment in the UK unviable across large parts of the industry and puts investment retention at risk also. Decisive action on this issue is essential, as analysis shows that high clawback rates risk both the retention and attraction of industry investment in the UK.[37]

2025 VPAG newer medicines clawback rate increases[38]



£11 billion loss

projected in R&D investment by 2033 if clawbacks remain above 20%[37]

Clinical trial delivery

Clinical research has historically been a key UK strength, attracting inward industry investment. In 2017, the UK ranked 3rd, 2nd, and 4th in the world for phase I, II, and III industry trials.[11]

Value of industry clinical trials:

£7.4bn
GVA generated, supporting a total of 65,000 jobs[40]

£1.2bn
NHS revenue, supporting 13,000 jobs in the NHS[40]

Since then, the UK's competitiveness in industry clinical trials has steeply declined. Between 2017 and 2023, the UK's global ranking for phase III industry trials fell from 4th to 8th[11], while its share of global recruitment has fallen to 2.6% in 2022 from a peak of 4.2% in 2015.[4]

Constraints in the UK's research capacity are a key cause of its diminished competitiveness. The UK now lags major competitors like Spain and Germany in many clinical trial capacity metrics.

7th on the **clinical trial infrastructure** index[39]

8th for **clinical trial sites** per million population[12]

Limited capacity is a critical reason why the UK is slower at setting up clinical trials slower than its competitors, with a median time of 273 days.[4] These delays reduce the time available to enrol patients, undermining the UK's competitiveness.

Median clinical trial set-up time (regulatory application to first patient, first dose) (days)[4]

Low uptake and restricted patient access also lowers investor confidence, as the UK's standard of care risks diverging from the global standards used as comparator arms for industry trials.

The Prime Minister's commitment to reduce trial set-up times to an average of 150 days is a positive step towards rebuilding investor confidence. Coupled with industry investment in clinical trial capacity,[38] there is an opportunity to capitalise on recent signs of recovery[11] if the government and industry work together to tackle structural barriers to investment.

If UK industry clinical trial activity returns to 2017 levels, it would result in:[40]

- **£3.0 billion additional GVA generated**
- **£485 million additional NHS revenue**
- **25,000 new jobs**

Competitor countries at a glance

Spain

Spain delivers more industry clinical trials than any other European economy[11] because of a consistently pro-innovation policy agenda that included:

- Accelerating clinical trial set-up speeds by becoming the first country to adopt the EU Clinical Trial Regulation into domestic regulation in 2016, setting a 60-day target for regulatory approvals, and streamlining costing and contracting.[41]
- Increasing the government's annual R&D budget by 59% in 2021[42] and by 32% in 2024.[43]
- Improving transparency for clinical trial performance by co-developing a dashboard of key performance indicators with the national trade association, Farmaindustria.[41]

By becoming the fastest country in Europe to set up a clinical trial,[4] Spain has increased industry investment in pharmaceutical R&D by 26.5% to €1.5 billion between 2019 and 2024.[41] This growth has driven progress towards the government's objective of increasing R&D investment, which rose from 1.18% of GDP in 2016 to 1.49% in 2023.[44]

Singapore

Singapore has positioned itself as a top-tier destination for global pharmaceutical companies seeking to establish a regional hub in Asia. Its success can be attributed to a strategic policy agenda that includes:

- A globally renowned framework for IP rights[45] and low visa costs,[19] which help to that attract and retain world-class scientific talent and industry investment in pre-clinical research.
- The Research, Innovation and Enterprise 2025 Plan, which allocated USD $18.5 billion over five years to develop and sustain the infrastructure required to be a global leader in research.[46]
- A well-resourced and capable medicines regulator, the Health Sciences Authority, which became one of the first regulators in the world to be recognised as a WHO-listed Authority.[47]

As a result, Singapore became one of the world's top 50 science and technology clusters,[24] with life sciences employment increasing by 50%, to around 9,000 jobs between 2015 and 2025.[46]

WHO: World Health Organization

Chapter 3

What are the areas of unrealised potential?

Despite these challenges, the UK has several areas of potential that have not yet been fully realised and could enhance its competitiveness. Its leadership in advanced therapies offers a strong foundation to anchor high-value R&D and manufacturing. Continued investment in health data and AI, areas of growing importance for investors, can further enhance the UK's appeal. Targeted reform of the MHRA also presents a clear opportunity to position the UK as a more agile and reliable regulatory environment for global launches.

While none of these shifts will happen overnight and must be coupled with clear action to address the fundamental barriers to investment identified in this framework, they represent focused, high-impact areas where the UK can regain a competitive edge.

Areas of unrealised potential

Despite current challenges, the UK has clear areas of strength that, with targeted reform, could become competitive differentiators.

These opportunities lie in domains where the UK already has demonstrated technical, scientific or policy leadership, including health data, advanced therapies, and regulatory science.

With effective and sustained support, they offer the potential to reposition the UK as a more attractive destination for investment.

Health data and AI

The UK's health data assets and expertise in AI are core assets that could attract further life sciences investment. The UK ranks among Europe's top performers for secondary use of health data[48] and is supplemented by world-class resources such as the UK Biobank.

The UK also has strong potential in AI. It ranked 3rd in Europe for AI preparedness in 2023[63] and attracted £4.5 billion in private AI investment in 2024, behind only China and the US.[49] This potential is already being translated into commercial opportunities, with 116 AI firms newly funded in the UK in 2025 – ranking global 2nd.[49]

In April 2025, the UK government and the Wellcome Trust announced a joint investment of up to £600 million to establish a **Health Data Research Service** to streamline researchers' access to health data.[50]

However, access to data for research purposes remains hindered by siloed data assets and fragmented infrastructure across the health and care system.[51] Several attempts to address this over the past decade have fallen short in streamlining the UK's health data ecosystem, during which other nations have increased their capabilities.

With continued investment and improvements to data accessibility, quality and linkage, the UK could significantly enhance its appeal as a destination for data-driven innovation.

Advanced therapies

While the UK runs fewer industry trials than some peers, it leads in advanced therapy trials.

For example, UK-based cell and gene therapy (CGT) companies raised around £200 million of venture capital in 2023,[52] which enabled the UK to initiate 47 CGT clinical trials in 2024.[12]

55% of **European CGT venture capital funding** raised by UK firms[52]

3rd UK's global rank for number of **CGT clinical trials** initiated[12]

Furthermore, 9.5% of the world's advanced therapy trials are recruiting patients in the UK,[53] far exceeding the UK's 2.6% share of global recruitment to industry trials more broadly.[4]

This leadership in innovation presents a clear opportunity to scale manufacturing capacity, capture more of the global supply chain, and attract long-term investment to the UK.

Capacity to manufacture advanced therapies in the UK has grown rapidly from 31,800 square metres in 2021[64] to 51,800 in 2024.[65] This includes cleanrooms, which grew even more rapidly from 10,200 square metres in 2020 to 15,700 in 2024.[66] Additionally, the advanced therapy workforce has doubled in size since 2020, standing at over 6,000 employees.[65] These investments give the UK a credible platform for future growth.

Despite this, the UK is still missing out on big-ticket advanced therapy investments. Many companies do not want to run CGT trials in the UK due to concerns that the current access environment will prevent them from launching new innovative therapies in the UK's market.

To build on its strong foundations and become a global hub for advanced therapies, the UK must enable a viable pathway to market, with appropriate reimbursement for advanced therapies. The UK must also ensure its fiscal incentives (including tax and capital grants) are at the levels needed to compete for large-scale capital investments in R&D and manufacturing.

Regulation

Speed, predictability and reliability in regulatory processes are key determiners for where companies locate R&D activity, manufacture medicines and vaccines, and launch products.

The UK has suffered from significant challenges in meeting statutory regulatory processing timelines in the wake of COVID-19, EU exit, and agency restructuring. Average marketing authorisation timelines reached 450 days[54] in 2023, placing the UK near the back of the comparator group.

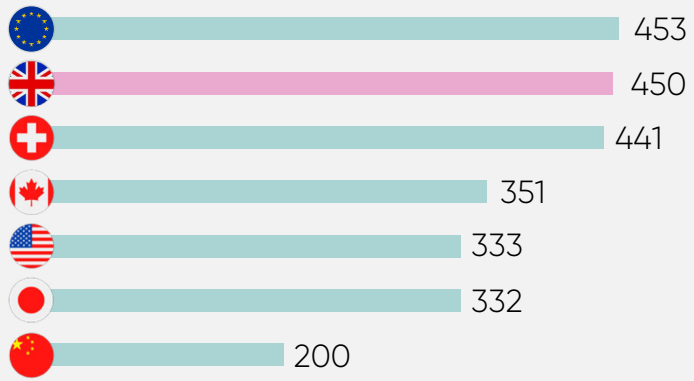
However, there are signs of recovery, as steps are being taken to improve processing speeds, innovative regulatory pathways are being redeveloped, and the International Recognition Procedure is achieving efficiency gains.

There is a clear opportunity to improve the UK's attractiveness to investors by building on these positive first steps, particularly with the integration of digital and AI tools to reduce friction further.

The global influence and relevance of a regulator can also be a major determiner of where companies set up affiliate bases and recruit expert regulatory staff. This can be achieved by establishing the UK as a launchpad regulator for other major global markets.[55]

For example, the UK's membership of the Access Consortium (a global consortium of national regulatory agencies) could be capitalised on by expanding other markets' recognition of regulatory decisions made in the UK.

Average **Marketing Authorisation** approval timelines[54]



Competitor countries at a glance

France

Epitomised by its Choose France initiative, the French government has adopted a targeted policy agenda to attract global investment in pharmaceutical R&D and manufacturing, including:

- Having the lowest average clawback rate (5.7%)[10] of the EU Member States analysed in the Competitiveness Framework.
- Maintaining one of the most competitive R&D tax credits in Europe, with capital expenditure included in its incentives.[56]
- Establishing a public-private partnership with the national trade association, Les entreprises du médicament, to boost France's competitiveness for medicines manufacturing investment.[57]
- Awarding nearly €50 million of capital grants, which have mobilised around €300 million of private investment in the manufacture of essential medicines.[58]

These efforts have helped France land nearly €1.9 billion of investment from ABPI member companies in 2024,[59] and France now has the 2nd highest number of affiliates in Europe, behind the UK.[20]

Ireland

With a continuity of policy towards international investment and free trade stretching over 50 years, Ireland has become a world-leading destination for investment in pharmaceutical manufacturing:

- A key success factor has been the development of a highly skilled workforce through a national network of training institutes, including the National Institute of Bioprocessing Research and Training.[60]
- Ireland benefits from a proactive, government-backed investment promotion agency, IDA Ireland, which recently received additional public funding to continue attracting and guiding foreign investors.[61]
- A world-leading tax environment, including incentives for R&D-intensive capital expenditure, further enhances Ireland's ability to compete for large, long-term investments in manufacturing.[62]

These combined strengths have delivered significant results. Between 2012 and 2022, Ireland attracted €10 billion in manufacturing investment, including two recent investments from ABPI member companies, each exceeding over €300 million.[39]

Competitiveness Framework

Data and international comparisons

Investment areas

General considerations

Country characteristics and capabilities that are applicable to all investment areas – either as a baseline requirement or a differentiator in investment decision-making – and influence global investor sentiment towards a market.

Investor considerations for specific investment areas

Pre-clinical research

Discovery science that seeks to understand biological processes and discover potential therapeutic products.

Clinical trials

Research in humans focused on testing the safety and efficacy of potential medicines and vaccines, and identification of patients who will benefit most.

Manufacturing and distribution

Process of producing medicines and vaccines for use in clinical trials and routine care, while ensuring quality, safety and regulatory compliance.

Headquarters and affiliates

Global and regional offices that support a PharmaCo's business operations, including strategy planning, marketing, and regulatory affairs.

How to use the framework

This framework provides a clear and structured approach for users to assess the UK's performance compared to other leading nations.

It is structured around two main types of investment considerations: specific considerations tailored to four distinct investment areas, and general considerations that apply broadly across all categories.

The significance of general considerations varies according to the investment area in question. For instance, government incentives play a critical role in assessing the viability of manufacturing investments but may be considered secondary or serve as differentiators in other areas. The framework explicitly outlines how each general consideration applies to different investment categories.

Given that country performance can differ considerably from one metric to another, rankings alone may not fully capture comparative performance. To provide clarity and depth of understanding, the framework includes detailed raw performance data alongside rankings and offers a concise performance summary using a red-amber-green rating system.

Countries not included in the analysis have been omitted due to insufficient data availability; this absence should not be interpreted as indicating superior or inferior performance.

General considerations

General considerations identified are factors that are applicable to all investment types. For each investment category, the framework provides an assessment of the importance and relationship between these considerations and investment attractiveness, recognising that for some investment types these factors are primary considerations with direct relevance, and for others they serve as a differentiator that can tip the balance in favour of a particular location.

Talent and workforce: Access to a highly skilled workforce is crucial to all areas of investment, as business operations throughout the whole pharmaceutical value chain all rely on skills and knowledge that in many cases require years of training to develop.

Political and economic stability: Many areas of pharmaceutical industry investment operate on multi-year, and even multi-decade, timespans, so instability in a country's policy landscape or economy acts as a strong deterrent against inward investment.

Intellectual Property protection: A strong IP framework is foundational to industry investment in the high-risk, lengthy process of discovering and developing new medicines that make it to market, as it protects them from unfair competition for a limited period.

Patient access: The ability of patients to access treatments and healthcare that they are eligible to receive has a significant bearing on industry investment, as a lack of uptake makes investments in areas such as clinical trials challenging to deliver.

Reimbursement: Countries that reward and invest in innovation for the benefit of their population's health and economy are much more attractive as destinations to invest and do business because there is less risk that investments will fail to yield a sufficient return.

Regulatory environment: The speed and reliability of a regulator can markedly affect the clinical development of innovative products, the timely opening of a new manufacturing site, or the launch of a medicine, with knock-on effects for future investments if key decisions are delayed.

Financial incentives: Policies like R&D tax credits help to incentivise investment by reducing upfront costs and the perceived risk of undertaking a medicines development programme, resulting in more R&D than there would be in the absence of incentives.

Data and AI capabilities: Pharmaceutical companies are leveraging health data and artificial intelligence to conduct R&D more efficiently and plan their business strategies at an accelerating rate, meaning countries with these capabilities will become increasingly competitive.

General considerations (1/3)

Strong UK performance | Moderate UK performance | Weak UK performance

Consideration	Sub-consideration and related metric	Source	Latest	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	11th	12th	13th
Talent & workforce	**Level of expertise** Graduates with natural science, maths or statistics (%)	UNESCO Institute for Statistics	2021	**8.7**	8.2	8.1	8.0	8.0	7.8	7.4	6.9	5.0	4.6	4.0		
	Ease of immigration Cost for skilled worker visas (£)	The Royal Society	2024	21	131	172	186	211	278	280	722[1]	798[2]	850[3]	917	8k[4]	**12k**
Political & economic stability	**Political stability** Political stability and absence of violence/terrorism index	World Bank	2023	97	89	82	79	76	66	65	**62**	58	56	55	47	25
	Economic stability Sovereign economic risk index	S&P Global	2024	AAA	AAA	AAA	AA+	AA	AA	**AA**	AA	A+	A+	A	BBB	
IP protection	**Length of additional patent-based protection** Maximum duration of additional patent-based protection (excluding extensions for paediatric research) (years)	Country patent office	2025	5	5	5	5	5	**5**	5	5	5	5	5	5	2
	Length of data-based protection (synthetics) Period of market exclusivity based on protection of regulatory data (excluding extensions for new indications) (years)	Country legislation	2025	10	10	10	10	10	**10**	10	10	8	6	5	5	3
	Length of data-based protection (biologics) Period of market exclusivity based on protection of regulatory data (excluding extensions for new indications) (years)	Country legislation	2025	12	10	10	10	10	10	**10**	10	10	8	6	5	3

Notes: (1) Cost for LMIA GTS used. Alternatively, a Post-Grad Open Work Permit costs £148, (2) Not included in original source so supplemented from UK Home Office, (3) Not included in original source so supplemented from Ireland Gov., (4) Cost for H1B Speciality Occupation Visa. Alternatively, a O-A1 Individuals with Extraordinary Ability costs £3687

General considerations (2/3)

Contagion factor | Strong UK performance | Moderate UK performance | Weak UK performance

Consideration	Sub-consideration and related metric	Source	Latest	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	11th	12th	13th
Patient access	**Launch viability** % of new medicines fully available compared with license[1]	EFPIA	2020-2023	Germany 90	Italy 75	Belgium 51	Switzerland 47	**UK 37**	Spain 34	France 32	Ireland 25					
	Level of uptake Year 3 uptake of NICE-approved new medicines relative to peers[1]	Analysis of OLS LSCI	2022	Canada 97	Germany 51	Japan 43	US 29	France 22	**UK 16**	France 6						
Reimbursement	**Medicine spend** Pharmaceutical spending as % of healthcare spend	IQVIA	2022	Japan 20	Spain 17	Italy 17	US 15	Belgium 14	Germany 14	France 13	Canada 11	Ireland 11	**UK 9**			
	Clawbacks payments Average clawback rates, as % of revenues	Neil Grubert Consulting	2023	Canada 0	Japan 0	US 0	France 5.7	Italy 6.8	Germany 7	Spain 7.5	Belgium 7.9	Ireland 9	**UK 23.5**			
Regulatory environment	**Marketing authorisation approval time** Median days to obtain marketing authorisation approval	CIRS	2023	Singapore 190[2]	China 200[3]	Japan 332	US 333	Canada 351	Switzerland 441	**UK 450**	Spain 453	France 453	Ireland 453	Belgium 453	Italy 453	Germany 453
Financial incentives	**Research incentives** Implied tax subsidy rates on R&D expenditure for profitable large companies[4]	OECD	2024	France 0.36	Spain 0.33	China 0.32	Ireland 0.27	Germany 0.22	**UK 0.18**	Japan 0.17	Belgium 0.16	Canada 0.13	Italy 0.09	US 0.03	Switzerland -0.01	
	Commercialisation incentives Patent box, lowest possible effective tax rates[5]	Tax Foundation	2024	Switzerland 0	Belgium 3.75	Ireland 6.25	France 10	**UK 10**	Spain 10							

Notes: (1) These metrics have been included despite not meeting all inclusion criteria as they are very high value for understanding investor sentiment towards the UK, (2) Not in original source, supplemented from Singapore HAS. Range of 120-160 days were quoted and additional 50 days for screening, so an average was taken, (3) Not included in original source so supplemented from China NPMA, (4) Firm size is large, profitable companies, (5) The different patent box systems have varying scopes and eligibility requirements hence minimum rates are illustrative.

General considerations (3/3)

Strong UK performance | Moderate UK performance | Weak UK performance

Consideration	Sub-consideration and related metric		Source	Latest	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	11th	12th	13th
Data & AI capabilities	**Data accessibility** Secondary use of health data score (%)[1]		ODI	2020	82	65	63	61	59	55	49	43					
	AI infrastructure AI Preparedness Index[2]		IMF	2025	0.8	0.77	0.76	0.75	0.73	0.73	0.71	0.7	0.69	0.67	0.65	0.64	0.62
	AI commercialisation Number of newly funded AI companies		Stanford University	2025	1073	116	98	67	59	51	42	39	22	18			
	AI research ecosystem Global share of AI clinical research publications (%)		Nat Commun.	2024	0.26	0.21	0.05	0.04	0.03	0.03	0.03	0.02	0.01	0.02	0.01	0.01	

Notes: (1) Metric does not include non-European countries, and the methodology gives a score to a range of different factors but does not provide a weighting which may skew the UK's position, (2) The AIPI value is the sum of four key dimensions: digital infrastructure, human capital, tech innovation and legal frameworks. Each dimension is computed by normalizing and averaging a set of sub-indicators, including STEM expertise, sustained human capital investment, labour & capital mobility, vibrant R&D ecosystem & adaptability of legal frameworks.

Pre-clinical research

General considerations for pre-clinical research

High Influence | Significant Influence | Essential Baseline | Differentiator

Specific considerations for pre-clinical research

Science base:
Top universities and research institutions provide pharmaceutical companies with access to cutting-edge research, a supply of well-trained graduates, and opportunities to collaborate with globally-renowned research talent.

Research infrastructure:
State-of-the-art facilities and non-physical infrastructure are crucial for researching and developing new medicines and vaccines. Their presence helps to crowd-in investment and foster innovation ecosystems.

Research funding:
Government and non-government organisation funding for research is a crucial ingredient in sustaining a pipeline of new talent and, like infrastructure, helps to crowd-in industry investment.

Pre-clinical research

Strong UK performance | Moderate UK performance | Weak UK performance

Consideration	Sub-consideration and related metric		Source	Latest	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	11th	12th	13th
Science base	**Reputation** Number of top 100 universities for life sciences and medicine degrees		QS World Rankings	2025	31	**16**	5	5	4	3	2	2	2	2	1	1	1
	Quality of research output Share of most highly cited (top 1%) of medical publications globally		OLS LSCI (SciVal)	2023	**1.8**	1.8	1.7	1.7	1.6	1.6	1.1	0.8					
	Quality of research output Nature index for high-quality research outputs in selected journals for health sciences[1]		Nature	2024	7493	**2386**	2326	1662	1414	1231	1060	886	684	722	518	283	180
	Research commercialisation Number of biotechnology companies (therapeutics, services, other)		Biotechgate	2024	8796	2261	**1579**	1275	1076	965	775	578	504	441	337	197	140
Research infrastructure	**No metric shortlisted:** This consideration includes publicly-funded infrastructure, like the UK Biobank, the Francis Crick Institute, Our Future Health which help anchor local R&D ecosystems or crowd-in more mobile forms of investment. Research infrastructure is difficult to compare quantitatively due to their specialisms varying.																
Research funding	**Government funding availability** Government budget allocations for health R&D as a share of GDP (%)		OLS LSCI (OECD)	2022	0.18	**0.13**	0.08	0.08	0.08	0.08	0.07	0.07	0.01				
	Charitable funding availability Private non-profit sector R&D expenditure as a share of GDP (%)		OLS LSCI (OECD)	2021	0.13	0.05	**0.04**	0.04	0.03	0..01	<0.01						

Notes: (1) The nature index includes the absolute count of article publications at a national level. The journals included in the Nature index were selected by researchers that publish in the natural sciences, who were asked to list the journals in which they would most like to publish their best work. This list is intended to be a reasonably consensual upper echelon of journals in natural sciences and health sciences.

Clinical trials

General considerations for clinical trials

High Influence | Significant Influence | Essential Baseline | Differentiator

Specific considerations for clinical trials

Clinical trial infrastructure and capacity:
The capability of hospitals and other healthcare settings, including workforce, to support research is a key determinant of clinical trial delivery. Limited capacity reduces the likelihood that trials will recruit participants to time and target.

Standard of care:
Barriers to access and uptake of new medicines in a country increases the risk that it falls behind in providing the baseline standard of care required for the comparator arm in clinical trials, making it less attractive as a site for global industry clinical trials.

Approvals and contracting:
The speed clinical trials are approved by regulators and then opened by study sites is a key determinant of a clinical trial's delivery, as slow study set-up reduces the time available to recruit participants, reducing a country's performance.

Genomics and diagnostics:
The availability of diagnostic infrastructure is a key determinant of a clinical trial's delivery, as rapid and precise diagnoses can accelerate patient identification and enrolment. This factor is especially important for genomically-enabled clinical trials.

Patient enrolment:
A country's ability to reliably meet clinical trial recruitment targets on time significantly influences investor sentiment, as unreliable performance increases the risk that a trial fails to progress to the next stage of development.

Clinical trials (1/2)

Strong UK performance | Moderate UK performance | Weak UK performance

Consideration	Sub-consideration and related metric		Source	Latest	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	11th	12th	13th
Clinical trial infrastructure & capacity	**Quality of infrastructure** Clinical trials infrastructure average index		ABPI / PwC	2021	93.2	59.5	31.5	25.8	23.7	22.3	**21.9**	17.7	15.6	9	5.7	1.1	
	Site capacity and availability Number of clinical trial sites per million population (in thousands)		Analysis of Citeline Trial Trove[1]	2024	18.1	18.1	17.9	14.9	12.5	11.2	10.39	**10.1**	9.6	9	8.6	6.5	1
	Research-intensive hospitals Number of hospitals delivering over 100 industry trials per year		Analysis of Citeline Trial Trove[2]	2024	933	127	**104**	97	85	60	56	51	40	21	5	3	2
	Trials conducted Number of clinical trials conducted per year		ABPI	2023	1501	1025	469	439	**426**	409	407	375	350	215	101		
Standard of care	**Launch viability** % of new medicines fully available compared with license		EFPIA	2020-2023	90	75	51	47	**37**	34	32	25					
	Level of uptake Y3 uptake of NICE approved new medicines relative to peers		Analysis of OLS LSCI	2023	97	51	43	29	22	**16**	6						

Notes: (1) Count of sites obtained by filtering Trial Trove results to include trials initiated in 2024, tagged as ongoing / completed. Value then divided by country population. (2) Sites obtained by filtering Trial Trove results to include trials initiated in 2024, tagged as ongoing / completed. Those delivering 100+ trials were counted. (3) Count of trials obtained b filtering Trial Trove results to include trials initiated in 2024 that are ongoing / completed involved a Cellular or Gene Therapy.

Clinical trials (2/2)

Strong UK performance | Moderate UK performance | Weak UK performance

Consideration	Sub-consideration and related metric	Source	Latest	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	11th	12th	13th
Approval & contracting	**Clinical trial set-up time** Time from clinical trial application to first patient, first dose, median number of days	OLS LSCI (Clarivate)	2022	167	231	263	264	269	**273**	306	372					
Genomics & diagnostics	**Genomics infrastructure and expertise** Number of cell and gene therapy clinical trials initiated	Citeline Trial Trove[3]	2024	278	346	**47**	36	33	32	29	26	24	10	9	6	2
Patient Enrolment	**Enrolment track record** Global % share of patients recruited to a subset of commercial trials	OLS LSCI (Clarivate)	2022	43.6	3.1	3	**2.6**	1.7	1.4	2	0.1					

Notes: (1) Count of sites obtained by filtering Trial Trove results to include trials initiated in 2024, tagged as ongoing / completed. Value then divided by country population. (2) Sites obtained by filtering Trial Trove results to include trials initiated in 2024, tagged as ongoing / completed. Those delivering 100+ trials were counted. (3) Count of trials obtained b filtering Trial Trove results to include trials initiated in 2024 that are ongoing / completed involved a Cellular or Gene Therapy.

Manufacturing and distribution

General considerations for manufacturing and distribution

High Influence | Significant Influence | Essential Baseline | Differentiator

Specific considerations for manufacturing and distribution

Manufacturing infrastructure:
The availability of suitable sites for manufacturing investment, with nearby access to inputs such as energy, helps draw global investors to a country and expand its export capacity, which crowds-in further investment to tap into local ecosystems.

Planning and permits:
Simple and transparent processes to obtain approvals for new developments, supplemented with support to navigate obstacles, is essential to reduce the risk that a company invests significant time and money into a site is delayed or never opens.

Running costs:
Manufacturing facilities are long-lasting capital investments, so pharmaceutical companies incur significant and ongoing costs to operate them, including energy and employment costs. As such, cost-effective countries are more attractive to global investors.

Supply chain ease:
Availability and proximity to specialist supply chain infrastructure, including access to input materials, ingredients and distribution networks, and tariff and non-tariff barriers influence ease of import and export, which influences where companies manufacture.

Specialised infrastructure:
The availability of expertise and facilities focused on growing manufacturing ecosystems is increasingly important as novel treatments, such as cell and gene therapies, move from clinical trials to at-scale production for use in routine care.

Capital grants:
Government-funded capital grants play a crucial role in attracting large, capital-intensive investments by reducing the upfront costs incurred by the investor and, in turn, the relative risk associated with investing in a country compared with its competitors.

Manufacturing and distribution (1/2)

Strong UK performance | Moderate UK performance | Weak UK performance

Consideration	Sub-consideration and related metric		Source	Latest	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	11th	12th	13th
Manufacturing infrastructure	**Export track record** Global exports of pharmaceutical products by exporting country		UN Comtrade	2023													
					106.3	94.4	90.5	76.7	51.9	45.7	44.3	34.9	25.6	12.1	8.3		
	Export track record Share of global exports for pharmaceutical products by exporting country (%)		ITC Trade Map[1]	2024													
					13.9	11.9	11	9.7	9.1	6	4.3	3.1	2	1.5[1]	1.3	1	0.9
	Availability of renewables Share of primary energy consumption from renewable sources		Our World in Data	2023													
					87	62	48	46	41	29	28	23					
	Availability of renewables Total Renewable energy (MW, thousands)		International Renewable Energy Agency	2024													
					1827	428	179	132	88	74	72	58	24	16	11	7	1
Planning & permits	**Ease of obtaining approvals** Increase in built-up land (m2 per capita)		Resolution Foundation	2023													
					29	26	25	15	11	11	-5						
Running costs	**Energy costs** Industrial electricity prices excl. taxes (pence per kWh)		Gov.UK	2023													
					7.8	13.3	15.6	16.5	17.3	17.6	18.3	22.6	25.5				

Notes: (1) China's value is lower than expected because most APIs are included under the organic chemicals or other chemical chapters within the ITC definitions.

Manufacturing and distribution (2/2)

Strong UK performance | Moderate UK performance | Weak UK performance

Consideration	Sub-consideration and related metric	Source	Latest	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	11th	12th	13th
Supply chain ease	**No metric shortlisted:** This consideration includes availability and proximity to specialist supply chain infrastructure, including access to input materials and ingredients, and specialist distribution networks. Companies will also factor in tariff and non-tariff barriers in assessing ease of import and export.															
Specialised infrastructure	**No metric shortlisted:** This consideration includes access to expertise and facilities focused on growing manufacturing ecosystems, such as the UK's catapult networks, and specialist medicines manufacturing. This tangible and intangible support spurs local start-ups and inward investment but lacks comparable data.															
Capital grants	**No metric shortlisted:** Government-funded capital grants play a crucial role in attracting large, capital-intensive investments in manufacturing by reducing the upfront costs incurred by the investor. Publication of capital grant values is inconsistent around the world, which limits the accuracy of benchmarking.															

Headquarters and affiliates

General considerations for headquarters and affiliates

High Influence | Significant Influence | Essential Baseline | Differentiator

Specific considerations for headquarters and affiliates

Existing industry presence:
The presence of pharmaceutical companies' commercial operations in a country helps to draw investment from other companies because it demonstrates the market's viability and sustains an industry ecosystem that can be tapped into.

Commercial market:
The ability to launch new medicines and ensure access for eligible patients is a key determinant of commercial success in a country, so deficiencies in this regard will strongly deter companies from establishing or expanding affiliates in that market.

Headquarters and affiliates

Strong UK performance | Moderate UK performance | Weak UK performance

Consideration	Sub-consideration and related metric		Source	Latest	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	11th	12th	13th
Existing industry presence	**Number of PharmaCos and MedTechs present** Number of pharmaceutical and medical technology companies		Biotechgate	2025	3140	2048	682	**461**	458	417	354	215	197	177	133	96	68
	Number of BioTechs present Number of biotechnology companies (therapeutics, services, other)		Biotechgate	2024	8796	2261	**1579**	1275	1076	965	775	578	504	441	337	197	140
	Number of foreign subsidiaries Number of local affiliates		Global Data	2024	11228	5010	**1331**	924	501	366							
Commercial market	**Launch viability** % of new medicines fully available compared with license		EFPIA[1]	2020-2023	90	75	51	47	**37**	34	32	25					
	Level of uptake Y3 uptake of NICE approved new medicines relative to peers		Analysis of OLS LSCI	2022	97	51	43	29	22	**16**	6						

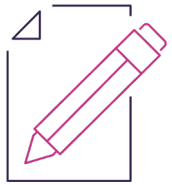
Notes: (1) Data shown to represent the UK is England only and based on National Institute for Health and Care Excellence (NICE) decisions. NICE decisions are also recognised by Wales, and Northern Ireland. Separate data for Scotland is available in the original source.

Appendix

Methodology and references

Methodology

1. A long list of **investor considerations, metrics and KPIs** was gathered from public and internal sources e.g., Life Sciences Vision, PwC, and ABPI
2. **Data were collected across the identified KPIs** by conducting desktop research on government websites (e.g., Gov.UK and similar global portals), trade associations (e.g., EFPIA), and trade bodies (e.g., WTO & UN Comtrade)
3. The UK's performance was assessed against **12 leading pharmaceutical FDI recipient countries**
4. A **survey was conducted with leading global life sciences companies**, and **workshops** held to gather insights on priority areas to refine the framework
5. The quantitative analysis in the framework was **supplemented with qualitative data points** sourced from reputable news articles and government press releases



260

press releases related to foreign investments assessed

80+

qualitative data sources were consulted

20+

Of the world's leading global PharmaCos and BioTechs engaged through surveys, interviews, and workshops

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About the Association of the British Pharmaceutical Industry

The ABPI exists to make the UK the best place in the world to research, develop and access medicines and vaccines to improve patient care.

We represent companies of all sizes which invest in making and discovering medicines and vaccines to enhance and save the lives of millions of people around the world.

In England, Scotland, Wales and Northern Ireland, we work in partnership with governments and the NHS so that patients can get new treatments faster and the NHS can plan how much it spends on medicines. Every day, our members partner with healthcare professionals, academics and patient organisations to find new solutions to unmet health needs.

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