BUILDING BRITISH INDUSTRY · PAPER 04

Paper IV: Life Sciences and Biomanufacturing

Trials, health data, a single route into the NHS and a pipeline for medicines manufacturing.

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Medicine is one of the largest and fastest-growing markets in the world. Global spending on medicines is expected to exceed $2.6 trillion by 2030 and to keep rising as populations age, new classes of treatment reach patients and biology becomes a technology that can be engineered. Few industries combine that scale with such high value per worker, such dependence on intellectual property and such strong links to the health of the people who host it.

Britain should be one of the great winners. It produces around a tenth of the world's most cited medical research, it has a single national health service that can serve as a platform for trials and adoption on a scale few countries can match, and it holds some of the richest health datasets in the world, from UK Biobank and Genomics England to Our Future Health. Yet it is eleventh among the world's pharmaceutical exporters, it ran a trade deficit in medicines in 2024 and in 2025 major companies paused or cancelled planned investments in Britain, citing the commercial environment.

The problem is not discovery. It is conversion. Trials have been slow to open and slow to recruit, data has been hard to reach, the NHS has been slow to adopt new treatments, prices have been unpredictable, factories for new kinds of medicine have struggled to find capital and growing companies have too often been sold or moved abroad before they reached scale. Each of these failures is known, and each has been the subject of a review or a programme. What has been missing is a single mission that treats them as one system and holds someone accountable for the whole.

This paper sets out that mission. It concentrates on four areas in which Britain can lead, sets a goal for Britain's share of the global market within twenty years and proposes eight measures to remove the barriers between British science and British production.

1 Where Britain stands

MEASURE	FIGURE
Share of the world's medical sciences citations, 2024	10.8%
Turnover of UK life sciences businesses, 2023-24	£146.9 billion
People employed in UK life sciences	359,600

MEASURE	FIGURE
UK rank among pharmaceutical exporters	11th
Average time to set up a commercial trial, six months to March 2026	122 days, down from 169 a year earlier

Recent progress is real. The average time to set up a commercial trial has fallen below the government's target of 150 days, the agreement with the United States in December 2025 raised the threshold at which the NHS treats a medicine as cost-effective and capped the rebate companies pay on newer medicines for three years, and the government's sector plan has committed funding to manufacturing, data and genomics. The present government aims to make Britain Europe's leading life sciences economy by 2030 and the third largest in the world by 2035.

But the gains are partial and fragile. Patient recruitment into industry trials remains too low, and set-up time is only one of the reasons companies choose to run trials elsewhere. The pricing settlement runs only to 2028, and companies decide where to invest over decades. Manufacturing support is heavily oversubscribed, growth capital for companies beyond their early funding rounds remains thin and the NHS still adopts proven innovations slowly and unevenly. The present programmes point in the right direction, but they do not yet add up to a production system with one owner, hard sequencing and rules for closing what fails.

2 Principles

Win in chosen areas. Britain should concentrate on the areas where its science, its health service and its manufacturing base give it a lasting advantage, rather than trying to lead in every kind of medicine.

The NHS is a platform, not only a customer. A single national health service can run trials, generate evidence and adopt innovations at a scale no other European country can offer, and the mission should make that its central advantage.

Predictability is worth as much as generosity. Companies invest in research and factories over decades, and a stable, predictable price for innovation matters as much as the level of that price.

Public data, public value. Health data is held in trust for patients, and its use for research and industry must earn and keep public trust, with visible public returns.

Make it here. Medicines discovered and tested in Britain should be manufactured in Britain wherever the economics allow, both for growth and for resilience in a future pandemic or supply crisis.

3 What Britain will own

The mission concentrates on four areas, chosen because Britain combines scientific strength, clinical access and manufacturing know-how in each.

AREA	WHY BRITAIN CAN LEAD
Advanced therapies and viral vectors	One of the strongest cell and gene therapy ecosystems outside the United States, built around the Cell and Gene Therapy Catapult and specialist manufacturers
Precision medicine and data-enabled trials	Genomic medicine in routine NHS care, UK Biobank, Genomics England and Our Future Health, which has passed 2.5 million volunteers

AREA	WHY BRITAIN CAN LEAD
RNA, oligonucleotides and next-generation biologics	Process engineering capability at CPI, including its RNA Centre of Excellence and UK RNA Biofoundry in Darlington
High-compliance manufacturing for complex medicines	Contract manufacturing at Billingham, Grangemouth, Stevenage and Braintree for products where quality and speed matter more than cost

The mission does not seek to compete in generic medicines or bulk chemical production, where low-cost producers have a lasting advantage. Medical technology and diagnostics share many of the same barriers and will benefit from the measures on trials, data and adoption.

4 Trials, data and adoption

L1 Make the NHS the best place in the world to run a trial

Build on the reduction in set-up times by turning the focus to recruitment and delivery. Every NHS trust will publish its performance in opening trials and recruiting patients, and research funding and leadership incentives will follow performance. Trusts that persistently fail will see commercial trials consolidated into the networks of Commercial Research Delivery Centres that deliver. Participation in research will be offered routinely to patients through the NHS App, and Our Future Health will be used to find eligible volunteers quickly. The goal is to double the number of patients taking part in commercial trials by year six.

L2 Make health data a national research platform

Complete the Health Data Research Service as a single front door to NHS, genomic and cohort data, with trusted research environments, common standards and a published service level for the time taken to grant access. Data will not leave secure environments, patients will be able to see how it is used and commercial users will pay for access on published terms, with the proceeds reinvested in the NHS and in the data platforms themselves.

L3 Give proven innovations a single route into the NHS

The NHS already has a legal duty to fund treatments recommended through NICE technology appraisals, normally within three months. The barrier is less often money than capacity: the staff, facilities, diagnostic tests and commissioning arrangements needed to give patients the treatment in practice. Extend the Innovative Licensing and Access Pathway into a single route from regulatory approval to routine NHS use for products in the mission's priority areas, with an implementation plan agreed before approval that identifies the capacity needed and the body responsible for providing it. Each integrated care board will have a named lead accountable for implementing positive recommendations, and an adoption fund will pay for the capacity needed ahead of the savings it generates. Multi-year adoption compacts with volume commitments will be agreed for selected diagnostics and therapies, such as genomic testing and cell and gene therapy delivery networks.

5 Price and investment

L4 Set a stable price for innovation for a decade

Replace the short-term pricing settlement that ends in 2028 with a ten-year agreement on the pricing of branded medicines that begins as the current settlement ends. The agreement with the United States in 2025 has already raised the NICE threshold to between £25,000 and £35,000 for each year of good-quality life gained, capped the rebate on newer medicines at 15% for 2026 to 2028 and committed Britain to spend more on innovative medicines. This mission adds two commitments to that baseline: a ten-year agreement rather than a three-year one and the linking of the threshold to inflation so that it does not erode again. Prices will reward the value of a medicine, not where it is made. Support for companies that build research and manufacturing capacity in Britain is provided through the capital programmes in L5 to L7.

The agreement will share the risk of higher spending in a predictable way. It will set an allowed rate of growth in spending on branded medicines for the decade. Within that corridor, the rebate stays at its agreed level. Where uptake drives spending above the corridor, the excess will be shared between industry and the NHS through a higher rebate on a published formula, so that faster adoption does not create an uncontrolled cost and companies know in advance what they will pay. The additional cost of the inflation-linked threshold is a pressure on the NHS budget that the spending review must accommodate explicitly. It will be estimated before the agreement is concluded and set out alongside the NHS settlement rather than assumed to fit within existing plans.

L5 Build a standing pipeline for medicines manufacturing

Turn the Life Sciences Innovative Manufacturing Fund from a series of competitions into a standing programme, with capital grants for manufacturing investments in the priority areas, concessional loans and guarantees through the National Wealth Fund for first-of-a-kind plants, and export finance for British-made products and services through UK Export Finance. The government will also pay to keep surge capacity available for vaccines and critical medicines, so that Britain does not have to build it from scratch in the next emergency.

L6 Share the platforms that every company needs

Fund shared process platforms that reduce the fixed costs every company faces, including viral vector manufacture at the Cell and Gene Therapy Catapult, lipid nanoparticle formulation and RNA manufacture at CPI, oligonucleotide scale-up, digital models of bioprocesses and standard quality-control assays agreed with the Medicines and Healthcare products Regulatory Agency. Access will be open to British firms on published terms, and each platform will be judged on how many products it moves into clinical supply and production.

L7 Close the growth capital gap

Expand later-stage equity for life sciences companies through British Patient Capital, investing alongside specialist funds and the pension funds encouraged to invest in British growth, with a focus on companies beyond their second funding round, where the shortage is most acute. Investments will carry conditions to keep research and manufacturing in Britain while public capital is invested.

6 Skills

L8 Train the bioprocessing workforce

The sector skills bodies established under S14 of the second skills paper will give priority to bioprocessing, quality assurance, laboratory and data occupations, and British Master qualifications under S15 will be developed in bioprocess manufacturing and quality control. Universities of Technology in the life sciences regions will be linked to the Cell and Gene Therapy Catapult, CPI and manufacturers, building on the training academies they already run. Specialist recruitment from abroad will remain open for scarce senior roles through the fast-track route in C7 of the sixth paper, which is limited to demonstrated expertise against defined shortages so that it complements the domestic pipeline rather than replacing it.

7 Ambition

The mission carries a goal for Britain's share of the global market, consistent with the first paper of this series, together with milestones that show whether it is on track.

GOAL	MEASURE	BY
Share of the global market	15% of world production in the mission's four priority areas, measured as revenue from production located in Britain. The wider medicines market is forecast to exceed $2.6 trillion by 2030 (IQVIA) and is shown for context	Year 20
Exports	Britain among the world's five largest pharmaceutical exporters	Year 11
Trials	Patients taking part in commercial trials doubled	Year 6
Adoption	Positive NICE recommendations available to patients across the NHS within published deadlines	Year 4
Manufacturing	Each priority area has at least one commercial-scale British manufacturing site	Year 6

The four priority areas will be sized and Britain's starting share fixed in the mission's first year, on the same definition. The goal builds on the present government's ambition for 2035 and extends it to a share of production, measured each year.

8 Regions

REGION	ROLE IN THE MISSION	EXISTING FOUNDATIONS
Oxford, Cambridge and London	Advanced therapies, genomics, data-enabled trials and early development	Cell and Gene Therapy Catapult at Stevenage and Braintree, Genomics England, UK Biobank, research hospitals
North East England	Biologics, RNA and process scale-up	FUJIFILM at Billingham, CPI's RNA Centre of Excellence and Biofoundry at Darlington
West of Scotland	Process manufacturing, oligonucleotides and antibody-drug conjugates	CPI's Medicines Manufacturing Innovation Centre at Paisley, Piramal at Grangemouth

9 Cost

The mission is costed as a single estimate of about £7.5 billion of public money over ten years, covering the full cost of its measures. Existing commitments in the government's sector plan, such as the Life Sciences Innovative Manufacturing Fund, will be absorbed into it and are counted as sources in the funding note rather than as additional money. The estimate is built from the cost of each measure, with a contingency of a quarter added.

MEASURE	TEN-YEAR COST	BASIS
L1 Trials	About £500m	Recruitment funding, performance reporting and consolidation of commercial trial delivery, alongside the industry-funded trial centres
L2 Health data	About £500m	Continuing the Health Data Research Service beyond its funding to 2029-30 and meeting access service levels
L3 Adoption	About £300m	An adoption fund paying for staff, facilities and diagnostic capacity ahead of the savings that new treatments generate
L5 Manufacturing	About £3bn	A standing manufacturing programme of £150m a year in grants, £1bn of loans and guarantees through the National Wealth Fund and £50m a year for surge capacity
L6 Shared platforms	About £400m	Vector, RNA, oligonucleotide and quality-control platforms at the Catapult and CPI
L7 Growth capital	About £1bn	Later-stage co-investment through British Patient Capital
L8 Skills and programme delivery	About £200m	Workforce academies, the mission team and evaluation
Contingency	About £1.5bn	A quarter of the total above
Total	About £7.5bn	Of which around £2bn is expected to be equity and loans rather than spending

The cost of the pricing agreement in L4 falls on the NHS medicines budget rather than on this mission. The part already committed under the 2025 agreement with the United States is part of the existing NHS plans. The additional commitments in L4 will be estimated and accommodated explicitly in the NHS settlement, as set out above. The mission forms part of the combined budget set out in the funding note, which draws first on existing business support and on the public investment banks.

10 Territorial application

Health is devolved, while trade, intellectual property, medicines regulation and the public investment banks operate across the United Kingdom. The measures on trials, data and NHS adoption apply in England, and the devolved administrations will be invited to join them so that the whole United Kingdom can be offered as a single platform for research. The manufacturing, platform and capital measures apply across the United Kingdom, and one of the mission's three regions lies in Scotland.

FIELD	APPLICATION
Trials, health data and NHS adoption	England, with the devolved administrations invited to participate
Medicines pricing agreement	United Kingdom, as now
Manufacturing, shared platforms and growth capital	United Kingdom
Skills measures	England, and by agreement in Scotland, Wales and Northern Ireland

11 Legislation and delivery

INSTRUMENT	MEASURES	CONTENT
Industrial Strategy Bill	L2 and L3	A statutory basis for the Health Data Research Service and a duty on NHS bodies to plan and provide the capacity needed to make recommended treatments available within published deadlines
Medicines pricing agreement	L4	A ten-year agreement with industry on branded medicines pricing, following the current settlement
Funding and NHS policy	L1 and L5 to L7	Trial performance and consolidation, the manufacturing programme, shared platforms and growth capital
Skills and Higher Education Bill	L8	Master qualifications and Universities of Technology serving the life sciences regions

Britain has the science, the patients, the data and a health service that could make it the best place in the world to develop and make a medicine. Turning those advantages into factories and companies has proved far harder than discovery, as this paper shows. The task now is to make that conversion the purpose of national policy rather than a hope.