

# Paddington Life Sciences: *strategic delivery plan 2025–2027*

Connecting communities to a future of better health





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Paddington Life Sciences **improves health** and **reduces inequalities** by connecting communities, researchers, clinicians and industry, centred around St Mary's Hospital, to bring health innovation to life.

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# Foreword

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The UK is at the forefront of life sciences innovation, with outstanding research capabilities driving novel drug discovery and healthcare technology. St Mary's Hospital in Paddington, one of ***Imperial College Healthcare NHS Trust's*** major research and teaching hospitals, has been treating patients and making healthcare breakthroughs since 1845.



Today, St Mary's sits at the heart of a growing innovation community in Paddington, ideally positioned to contribute to the shared vision of establishing the UK as a life sciences powerhouse. The life sciences sector is not just about generating profit—it's central to the government's mission for economic growth and building an NHS fit for the future.

In June 2023, we launched Paddington Life Sciences – a life sciences cluster bringing together communities, researchers, clinicians, and industry. Together, we have a huge amount of experience and expertise to innovate at scale. By joining forces, it allows us to generate health, economic and social value for local, national and global impact.

We are proud to be the only NHS-led life sciences cluster in London founded with industry partners, alongside our academic partner Imperial College London. We started with 15 founding partners and have since grown to 20.

As we reflect on the first two years of Paddington Life Sciences, we're already seeing meaningful impact from the partnership. For example, we are supporting local life sciences employers with addressing their skills and hiring needs and have attracted new companies to join the partnership.

Over the next three years, we'll focus on four priorities: social value, diversity in clinical trials, digital and data, and place and space. This strategic plan outlines our path forward.

As director of strategic partnerships, I am looking forward to building on this strong foundation to develop and deliver the Paddington Life Sciences vision and support wider commercial and innovation activities for the Trust that will accelerate research translation to improve the health of our population.

We will celebrate our achievements, made possible by the commitment and talent of our people across our partnership – and we will be open and realistic about our challenges, and plans to improve.

Together, Paddington Life Sciences is writing the next chapter, creating a London life sciences powerhouse forging connections to change lives.

**Dr Suki Balendra**

*Director of strategic partnerships, Paddington Life Sciences*

March 2025

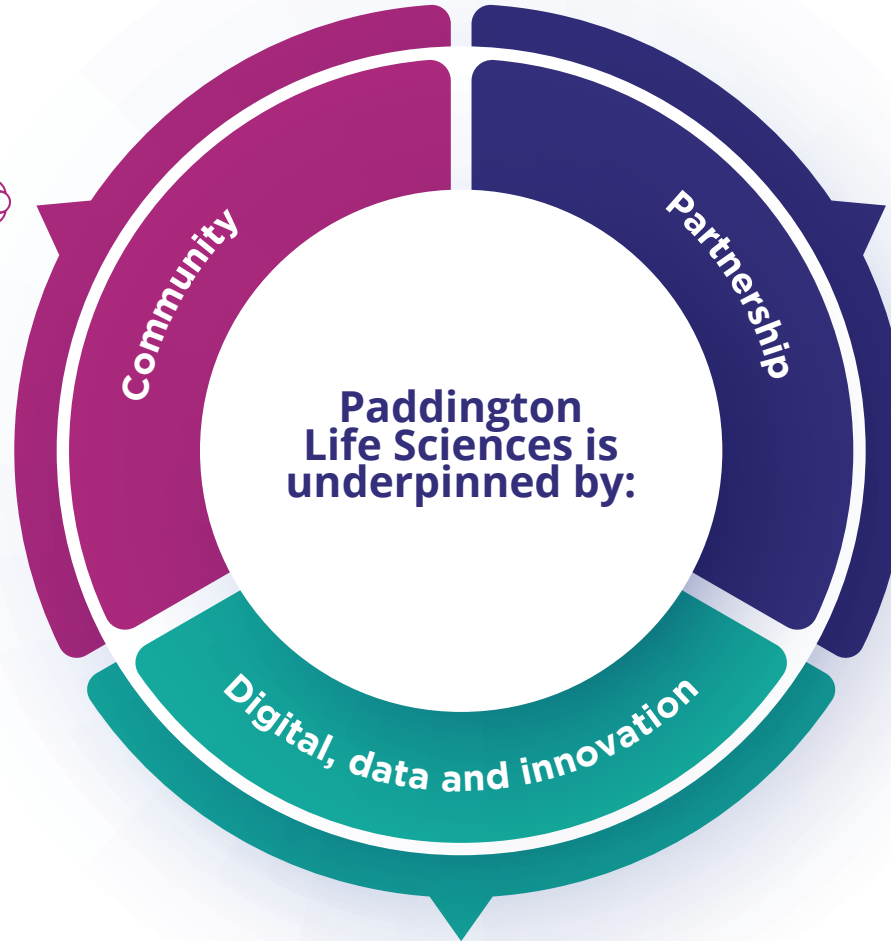


# Our ambition

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Paddington Life Sciences aims to improve health and reduce inequalities by connecting communities, researchers, clinicians and industry, centred around St Mary's Hospital, to bring health innovation to life.

We will continue to develop collaborative relationships with local organisations to focus on specific community-based work that looks to tackle health inequalities.



We will continue to evolve our partnership to develop a deeper understanding of the needs of the community and co-design innovative solutions.

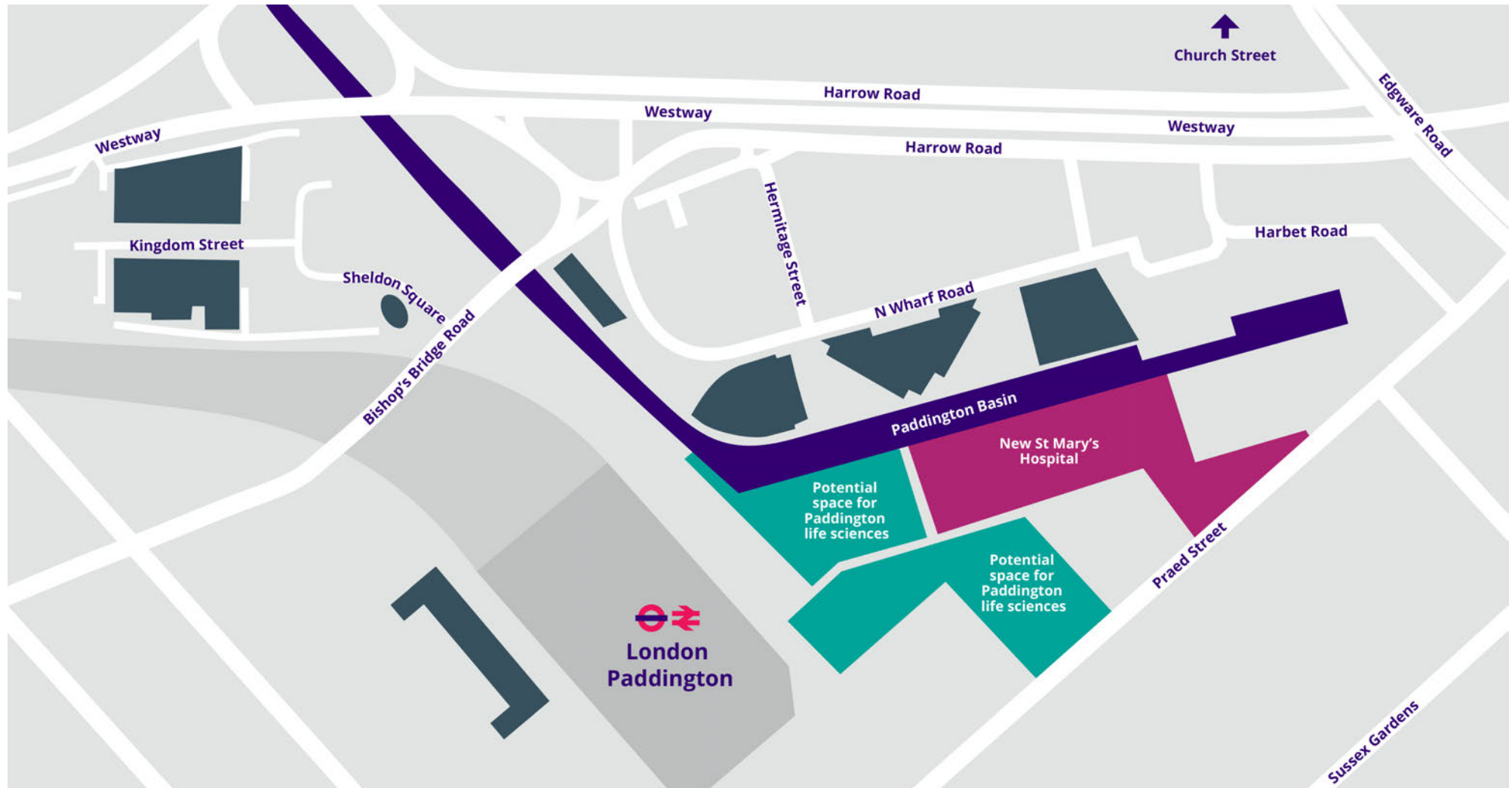


We will leverage data to understand population needs and power innovation.

## Our long-term ambition – a new St Mary's

**Redevelopment of the St Mary's estate** – central London's most important remaining regeneration site with nine acres of prime real estate – is crucial to realising our vision. We are continuing to explore, with the support of the New Hospital Programme and wider government, a range of practical funding and design options to ensure a full rebuild of St Mary's Hospital.

One significant opportunity is for some of our surplus land to be used to support the expansion of our life sciences cluster. So, as well as a new research-led hospital, we would be able to deliver mixed-use commercial and lab space for life sciences businesses to start, develop and grow, alongside thousands of high-quality new jobs.



# Our difference

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Paddington Life Sciences is brilliantly positioned to **make connections** and **grow the partnership** between life sciences and the NHS.

**Here's what sets us apart:**

**1**

## **A diverse population**

One of our greatest strengths is the vibrant and diverse local community surrounding St Mary's Hospital. The area is home to a rich mix of cultures, with thriving community businesses and residents drawn from a wide range of backgrounds.

St Mary's is local to communities which are amongst the 20% most deprived areas in the country, where more than half the population come from Black, Asian or minority ethnic backgrounds. These communities face significant health inequalities, and the City of Westminster, where St Mary's is located, has the largest disparity in life expectancy in the UK.

Paddington Life Sciences plays a vital role in addressing these disparities. As part of a cross-sector, place-based strategy, we are committed to working with local businesses, Westminster City Council, and healthcare partners to improve health outcomes and reduce inequality.

The size and diversity of our population is a powerful asset, presenting unparalleled opportunities to extend the reach and impact of our research. With a population of 2.4 million people in north west London, representing over 200 ethnic groups, we are uniquely positioned to offer a diverse and representative patient pool for clinical research.

We also host, within our iCARE Secure Data Environment, to one of the most comprehensive integrated health data sets in the UK, the Whole System Integrated Care (WSIC) database, which captures over 1.3 million patient contacts per year. By harnessing these insights, along with the expertise of our clinical and research teams, we are dedicated to driving positive change and advancing more equitable healthcare outcomes for all.



## 2

### Powerful partnerships

St Mary's Hospital is a world-renowned NHS teaching and research institution, deeply embedded within its local community. Paddington Life Sciences leverages this strong foundation to act as a connector, bridging thousands of patients and millions of local residents to the broader life sciences ecosystem.

We are proud to be London's only NHS-led life sciences cluster, that is founded with both industry partners and our academic collaborator, **Imperial**. Our location in Paddington allows us to work alongside leading life sciences companies, tapping into the power of co-location with a major research hospital. There is widespread understanding in industry and academia that life sciences opportunities are best delivered when co-located with major research hospitals.

Our partners – new and established – have a shared commitment to the local community in Paddington, allowing us to build collaborative and meaningful partnerships that start with people and focus on what really matters to our communities.

## 3

### Prime location

Paddington is an ideal location for a thriving life sciences cluster. The area's ongoing regeneration, combined with excellent transport links, has already attracted leading pharmaceutical, biotech, data, and technology businesses.

The planned redevelopment of St Mary's Hospital offers additional opportunities: to create a vibrant new neighbourhood, centred around our research and life science partnerships, bringing economic and health benefits locally and nationally.

Unlocking the UK's life sciences potential requires a collaborative approach. Paddington Life Sciences forms part of the **Imperial WestTech Corridor**, a strategic initiative uniting west London's key innovation assets to create a vibrant ecosystem of globally competitive scale that is a powerful engine for investment, inclusive economic growth and job creation.

We are working to strengthen our connections with other life sciences clusters to help create a seamless innovation ecosystem that extends well beyond Paddington, including out east towards the Knowledge Quarter, Barts Life Sciences and up to Cambridge, and out west down the WestTech Corridor and into Oxford.



## 4

### A legacy of research and innovation

St Mary's Hospital has a rich research legacy that stretches back almost 180 years. From the Nobel Prize-winning discovery of penicillin and the chemical structure of antibodies to the invention of the electrocardiogram, pioneering robotic surgery, and world-leading HIV care, research and innovation have been at the heart of our hospital's excellence.

Paddington Life Sciences reflects the ongoing evolution of our role as the research-led, acute provider for our sector, integrating our research, data and innovation capabilities across all our activities and helping to generate greater and more inclusive health, wellbeing and economic value locally and nationally.

We are proud to be supported by our academic partner, Imperial – ranked 1st in Europe and 2nd in the world (QS World University Rankings 2025) – and together we host the largest **NIHR biomedical research centre** in the country. Our combined research and clinical expertise allows us to drive innovation and tackle some of the world's most pressing healthcare challenges, such as antimicrobial resistance.

A key part of this research agenda is the forthcoming Fleming Centre, due to open in 2028 on the St Mary's campus to mark the centenary of Sir Alexander Fleming's discovery of penicillin. The Centre will be at the heart of the global **Fleming Initiative**, an innovative and collaborative approach led by the Trust and the university, dedicated to advancing research, shaping policy, and engaging the public on antimicrobial resistance.

Together with our partners, we are committed to continuing our legacy of world-class research, creating solutions that not only advance healthcare but also improve lives on a global scale.





# Our Partners

At Takeda, serving patients is our key priority and we believe that being headquartered in Paddington provides us with an unparalleled opportunity to work hand in hand with our local health community – whether that be with Imperial College Healthcare NHS Trust or the other partners within Paddington Life Sciences – and support the needs of the incredibly diverse population that live and work here.

Takeda UK

In 2015 we moved to offices at 2 Kingdom Street, Paddington which is today the base for our IHQ Headquarters. Paddington was an attractive option from the beginning due to its proximity to Paddington station, offering excellent commuting options for our London based employees, easy access to Heathrow via the Heathrow Express to support international travel between London and country offices and its fast train link to our UK research site in Milton Park, Oxford.

Vertex Pharmaceuticals

We are driven by an **influential partnership group**, Paddington Life Sciences Partners, made up of NHS, industry, community and academic organisations.

Our Partners have a shared commitment to generating healthcare innovation, alongside health, economic and social value in Paddington.

As of March 2025, the Paddington Life Sciences Partners are: British Land, Brockton Everlast, Convatec, Derwent London, Imperial College Healthcare NHS Trust, Imperial College London, Ipsen, IQVIA, Microsoft, Optum, Oracle Health, Snowflake, Takeda, The Paddington Partnership, Vertex and Vodafone.

The Associate Partners are: Imperial College Health Partners, Imperial Health Charity, Healthcare Central London (GP Federation in Westminster) and North West London Pathology.



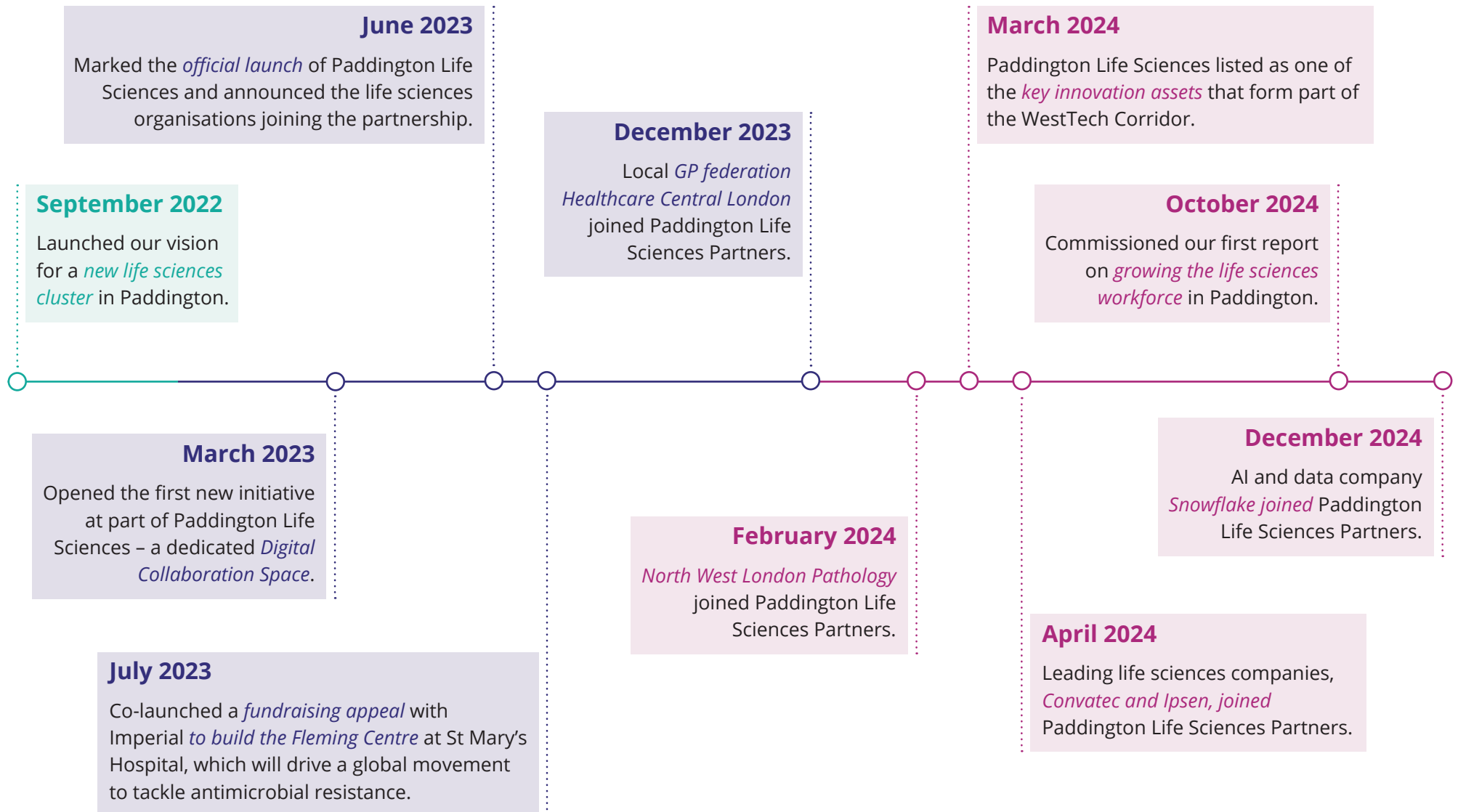
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# Our progress so far

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**Driven by our partners.** As we grow our partnership, we are building on a great foundation that has already generated key milestones.





# Our areas of focus

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Our partners are working specifically on initiatives to increase access to healthcare and clinical research, skills and job creation, digital inclusion, improving care through data analytics and creating new space for life sciences businesses in Paddington.

To maximize the impact of our resources and efforts, we have identified four key focus areas:

## 1 Social value

Supporting local communities and tackling inequalities through community engagement, with a focus on increasing access to education and employment and improving digital inclusion.



## 2 Diversity and inclusion in clinical trials

Working with local communities to co-produce approaches to increasing diversity in clinical trials and to influence clinical research practice, such as by training and supporting community champions.



## 3 Data and digital

Improving the health and wellbeing of the north west London population by translating data-driven insights and digital interventions into safe, effective, equitable, and person-centred care.



## 4 Place and space

Promoting Paddington as a highly desirable location for life sciences businesses to start, develop and grow.





# Social value

St Mary's is local to communities in north Westminster, north Kensington and south Brent which have significant disparities in health outcomes.

Evidence shows us that health is primarily driven by the circumstances in which people live. Working with our Partners, we are committed to addressing the wider determinants of health as a part of our social value work. Given that these determinants are far-reaching, complex and interdependent, we have chosen to focus on three areas initially, which communities have told us are critical gaps and align with our areas of expertise and resources:

- 1 Skills, training and employment**
- 2 Digital Inclusion**
- 3 Community engagement**

While there are many existing efforts in this space, this is an exciting opportunity to systematically bring together initiatives and resources that have historically been fragmented.





## Supportive points

The partnership has a close relationship with the local authority Westminster City Council, and particularly their [North Paddington Programme](#), their [Westminster Anchors Alliance](#) and the work of their Communities Department. We are closely linking our agenda with the broader work of the Council to address social and health inequalities, via the #2035 programme.

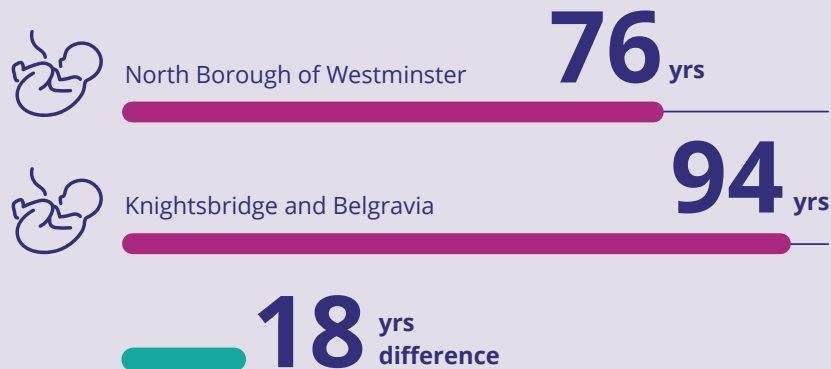
Our first phase has included upskilling local community health and wellbeing workers who will target around 2500 households around Westminster.

Paddington Life Sciences Partners is also part of the Inclusive Life Sciences group with MedCity which focuses on improving health and social inequalities throughout London, including developing a pan-London Life Sciences apprenticeship, incubation, mentoring and social innovation.

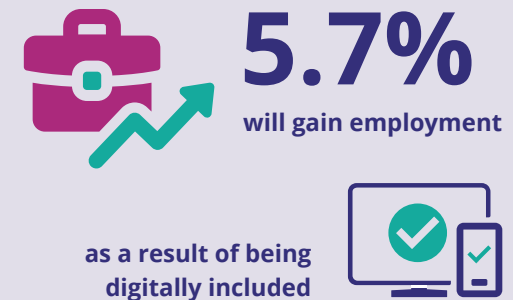
We have already started to engage local communities in our focus areas with increased partner presence at local schools and co-delivery of the Digital Dash North Paddington which is an educational program to engage 18-25 year olds in the north Paddington area in career paths in the technology industry.

Working with Bloomberg Associates we have undertaken skills mapping of Paddington-based life sciences Employers. This has led us to several key findings, including identifying where the demand for talent is concentrated, the impact of AI on the sector and the focus of employee satisfaction on well-being, inclusivity and sustainability in daily turnover. This has enabled us to develop recommendations to expand talent and increase opportunities among targeted communities.

A baby born in the north borough of Westminster has an average life expectancy of 76 years whilst a baby born in Knightsbridge and Belgravia has a life expectancy of 94. **That is a life expectancy difference of 18 years, one the highest life expectancy gap for males in the country.**



The North Paddington area has digital exclusion rates of between 8.8-18.4%, compared to 0.5% on average. **We estimate that 5.7% of residents in the CHWW area will gain employment as a result of being digitally included.**



## Strategic objectives

### Our objectives are:

- **To increase access to careers in life sciences for Paddington residents in the next three years, by:**
  - Strengthening the presence of Partners in local schools and colleges, increasing awareness and interest in Life Sciences Careers and showcasing the breadth of positions and opportunities.
  - Increasing employment and apprenticeship opportunities targeted at underserved communities.
  - Increasing informal development opportunities (e.g. coaching, mentoring)
  - Collaborating with pan London organisations and initiatives which share the same objectives.
- **To improve digital inclusion for Paddington residents in the next three years with a focus on groups vulnerable to digital exclusion, by:**
  - Increasing access to digital skills support for priority groups.
  - Increasing access to affordable, robust, broadband services and internet-enabled devices.
- **To generate insights on the needs of our local communities so we better understand what we as partners could do to support our local communities:**
  - Working with partners to deliver CSR work which directly addresses the needs of our communities and supports existing community organisations and their work.
  - Develop strong communication pathways between communities and partner organisations so we understand need and areas of opportunity for collaborative working.







# *Diversity and inclusion in clinical trials*

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Lack of diversity in clinical trials is an obstacle to understanding the safety and efficacy of novel therapies across different populations.

Failure to increase diversity and inclusion in clinical trials, risks incorporating novel therapies into clinical practice that do not treat the population at hand. This has devastating consequences on the health of underrepresented groups. Removing this obstacle is vital to advancing equity.

Barriers to clinical trial diversity – such as trial availability, access, eligibility and mistrust – present real challenges. These challenges are multifactorial and complex, and there will not be one overarching solution, but many, requiring sustained effort over several years.

Ensuring research is inclusive and representative of the population it serves is more important than ever. For instance, in north west London, approximately 10% of residents have diabetes, compared to a national average of 6%. Additionally, London is home to one of the largest populations affected by sickle cell disease. These statistics highlight the importance of ensuring that clinical trials reflect the communities they aim to serve.

By tackling these barriers, we can pave the way for more equitable healthcare outcomes and a future where medical advances truly benefit all.



## Supportive points

Through Paddington Life Sciences, we will leverage our partnership between the NHS, community, and industry to cultivate and sustain diversity and inclusion in clinical trials.

In 2023 we published a report in collaboration with MedCity and the Faculty of Pharmaceutical Medicine on why diversity in clinical trials is essential to the future of life sciences. The report highlighted three main reasons for this:

- 1 Leads to improved health for all communities**
- 2 Produces more robust data**
- 3 Creates jobs and boosts local economies**

This work has positioned us as a thought leader in this field, and the report was prominently cited in Lord O'Shaughnessy's *Review of Commercial Clinical Trials*. Its recommendations form the cornerstone of our ongoing efforts at Paddington Life Sciences.

We are part of a wider collaborative network across north west London which has a strong history of working in partnership with Industry. For example, the North West London Clinical Trials Alliance is part of Roche's Advancing Inclusive Research® Site Alliance which aims to advance the diversity and inclusion of underserved patients. This is one of two UK sites to be selected for this programme.



## Clopidogrel – a case study

- Clopidogrel is a medication commonly used for the secondary prevention of heart attacks and strokes, aimed at preventing further cardiovascular events. To work, it must be metabolised by the enzyme CYP2C19 to form its active metabolite.
- In 2023, the National Institute for Health and Care Research (NIHR) reported that clopidogrel may not be effective for British South Asians. Of more than 44,000 participants of Bangladeshi and Pakistani descent, 57% were identified as intermediate or poor CYP2C19 metabolisers.
- Poor metabolisers of clopidogrel are unlikely to experience its therapeutic benefits, increasing their risk of recurrent heart attacks or strokes after an initial cardiovascular event. This highlights a significant gap in treatment efficacy for certain populations.
- British South Asians were underrepresented in the original clinical trials required for clopidogrel. Had these trials been more inclusive, many recurrent heart attacks in this population could potentially have been prevented.
- This case study illustrates the devastating consequences that occur when trial populations are not representative of the population, highlighting the need for proactive action to prevent this happening again.



# Strategic objectives

Our objectives are to increase to diversity in clinical trials, through:

## Policy:

- To inform local and national guidance and regulation, by:
  - Collaborating with the HRA and MHRA on the development and roll out of their Inclusion and Diversity Plan.
  - Gathering and analysing the north west London data on local demographics versus the demographics of clinical trial participants to further our understanding and form a baseline by which to measure our interventions.

## Industry:

- To share best practice through industry networks, by:
  - Holding a second roundtable to produce and publish a second iteration of the recommendations report with the Faculty of Pharmaceutical Medicine.

## Public Engagement:

- To build trust with the public at a local and national level, by:
  - Running a focus group from an in-process study 'The Research Heroes Study' to build on our understanding of the barriers to research.

## Media:

- To raise awareness of the importance of research through media, by:
  - Developing and publishing a media strategy with our partners to improve the awareness and participation of research from underserved communities.

North west London has a richly diverse population of



over **2.4mn** people



across **8** London boroughs



supported by  
**12 hospitals** and **over 360 GP practices**  
in **46 Primary Care Networks**

In 2023/24 Imperial College Healthcare hosted **over 1,000 clinical research studies** and **recruited more than 16,000 patients to trials.**



over **1,000** clinical research studies



more than **16,000** patients to trials



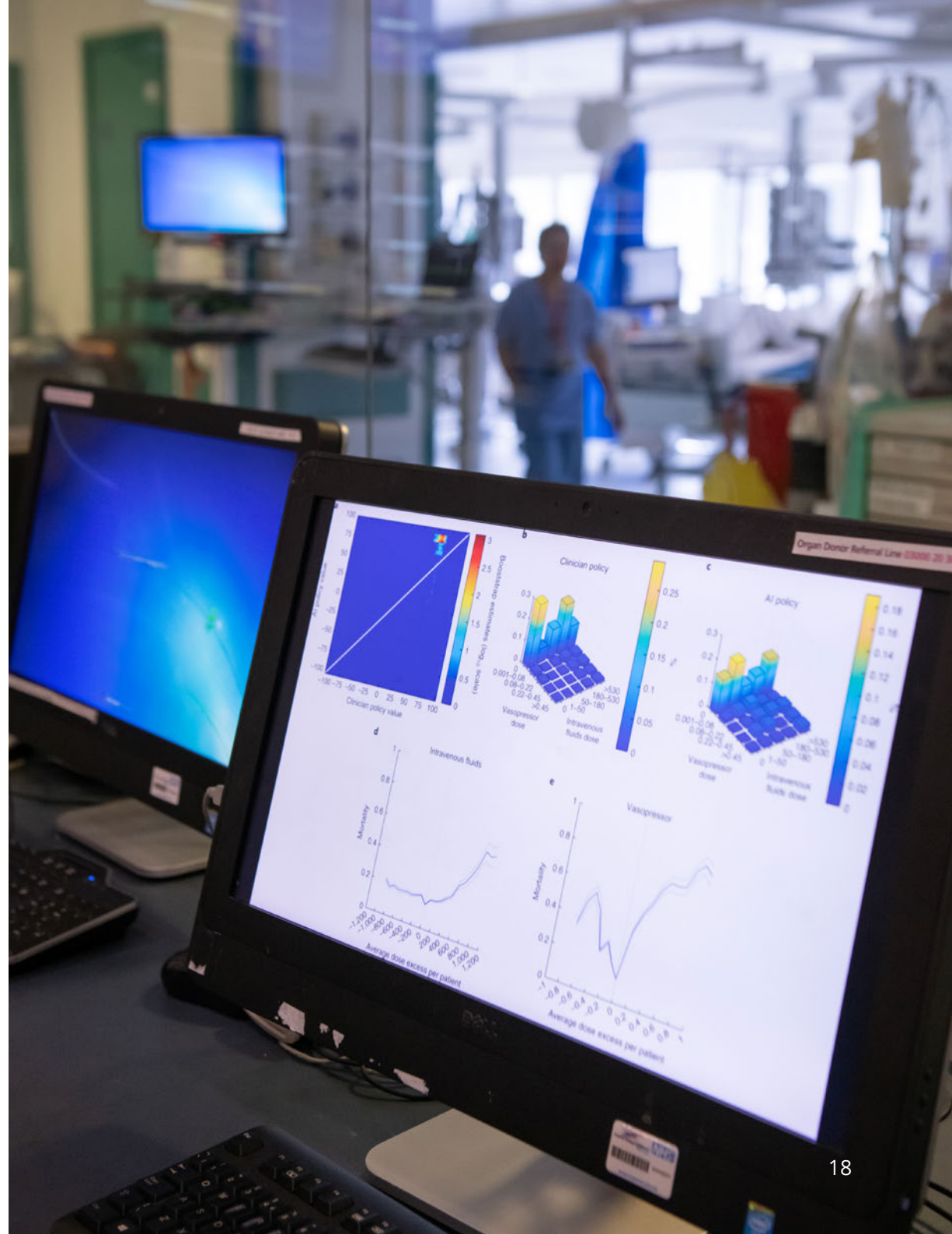


# Data and digital

Imperial College Healthcare NHS Trust hosts multiple data systems that are among the largest, most granular and integrated in the UK. Through Paddington Life Sciences, we can leverage the potential of these data assets.

Our nationally accredited Secure Data Environment (SDE) is the custodian of a unique linked longitudinal data for our 2.4 million resident citizens of north west London (NWL) integrated care system and also patients outside of NWL cared for through our acute and specialist care hospital services. It provides access to over 2.5 billion rows of structured data and 300 million unstructured (anonymised) free-text records, that is updated daily and is providing the data infrastructure for the London Sub-national SDE.

Through appropriately robust information Governance processes, that ensure patient and public benefit, our ***Imperial Clinical Analytics, Research and Evaluation (iCARE)*** SDE provides Health Research Authority approved access to anonymised routinely collected granular electronic health record data for research and innovation. Data curated by a specialist NHS multidisciplinary team including clinicians and allied healthcare professionals enables analysts and researchers, utilising our AI test bed architecture, to answer the most important questions for NHS deployment of data-driven innovation in direct care benefit, operational efficiency, translational research for clinical decision support and clinical trial deployment for real-world evidence.



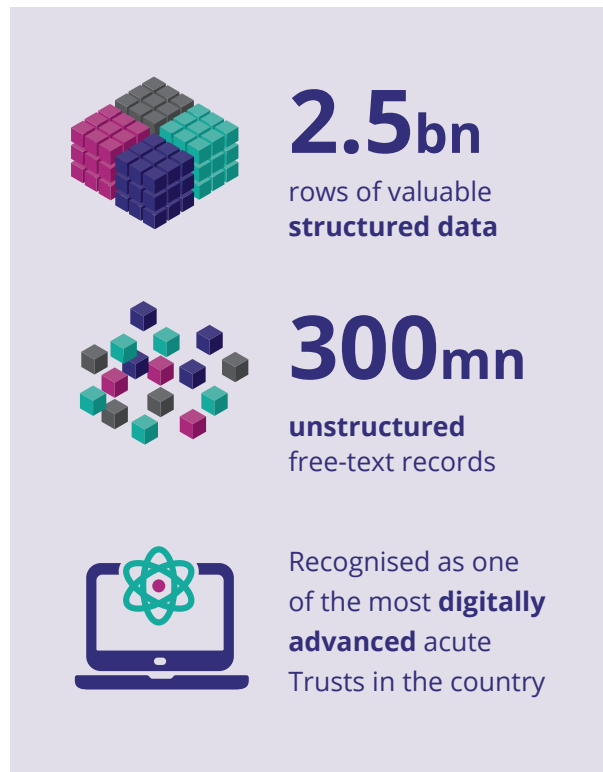


## Supportive points

The Digital Collaboration Space – one of the first initiatives within Paddington Life Sciences – provides state-of-the-art analysis of the huge volumes of health data routinely collected across our five hospitals and, through partnership with Whole Systems Integrated Care (WSIC), linked primary and secondary care data for our diverse north west London population of 2.4 million people.

Data is hosted within the Trust's iCARE Secure Data Environment, allowing clinicians, academics, and data scientists to access large-scale, highly curated databases for research, audit, and service evaluation. iCARE provides agile,

Health Data Research UK (HDRUK)-compliant and HRA Research Ethics Committee-approved access to the data, which is carefully governed and is only granted for research that has a direct public health or care benefit. The Digital Collaboration Space's panel of community partners from north west London also provides input and advice to help shape projects at all stages of the research cycle.



## Strategic objectives

In collaboration with NHS, communities, industry partners, and academia, we want to meaningfully improve the health and wellbeing of north west London by:

- **Further enhancing our secure data environment** to enable advanced analysis to integrate directly into clinical and patient digital workflows utilising highly granular patient level linked longitudinal records.
- **Applying analytic and machine learning tools** to large, interlinked, secure datasets across acute and community settings to deliver improved care at person and population scale.
- **Evaluating and monitoring** the impact of our digital interventions with clinicians, patients, and our local communities.
- **Actively contributing to a collaborative network** of Secure Data Environments to generate data-driven insights for emerging public health issues.
- **Capitalising on partnerships** between the NHS, industry, academia, and communities to meaningfully address the wider social determinants of health.







# Place and space

Paddington offers significant qualities that make it an ideal location for a thriving innovation cluster.

Its vibrant canal-side setting, combined with outstanding transport links, has already attracted leading global companies who have chosen Paddington as a place where both people and businesses can flourish.

Successful life sciences clusters flourish with a diverse yet complementary mix of tenants. Paddington's evolving ecosystem exemplifies this, home to a range of tenants – from leading pharmaceutical and technology companies to health data SMEs. In the past year, Paddington has welcomed several new tenants, such as global biopharmaceutical company Ipsen.

Paddington stands out as one of the few locations in London that caters to businesses seeking the unique combination of an urban innovation district, direct access to a hospital, as well as having the ability to leverage the connections with Imperial's world-leading research.

In collaboration with our real estate partners, British Land, Brockton Everlast and Derwent London, we aim to harness Paddington's unique strengths to position it as a prime destination for life sciences enterprises to launch, grow, and succeed. Our goal is to enhance and diversify the existing cluster, creating a comprehensive ecosystem that brings together innovation, development, and commercialisation.



## Supportive points

The planned redevelopment of St Mary's Hospital presents a significant opportunity to transform the area into one of the leading life sciences hubs. It has huge potential to drive growth, innovation, and job creation, benefiting both the local community and the broader economy. Early work suggests that regeneration of the wider site and expansion of Paddington Life Sciences could also deliver 12,000-15,000 high-quality jobs on site and £1-1.5bn in annual local economic activity.

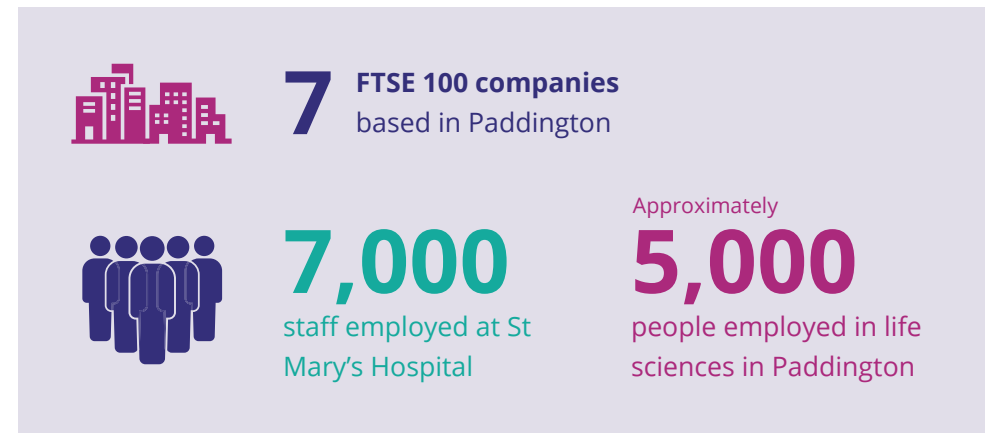
In the interim, several key developments are already shaping the future of Paddington Life Sciences. A cornerstone of this transformation is the **Fleming Centre**, set to open in 2028. This dedicated facility will serve as a hub for research, policy development, and public engagement in the fight against antimicrobial resistance.

Complementing this vision is the planned redevelopment of Brockton Everlast's **Waterside House** in Paddington Basin.

The proposal includes a state-of-the-art life sciences hub and community spaces, further enhancing the cluster's appeal.

Aligned with the broader vision for UK life sciences innovation, we are actively collaborating with other clusters across London and beyond to drive and support this ambition. As a key partner in the WestTech corridor, we aim to drive investment, economic growth, and employment across west London.

Our commitment extends beyond innovation –we strive to improve the health and well-being of the local community. In partnership with the local non-profit organisation, the **Paddington Partnership**, we focus on creating spaces that allow the community to thrive and enjoy all that Paddington has to offer. Sustainability is a core priority for Paddington Life Sciences and our partners, with all companies committed to sustainability goals and many pursuing net-zero emissions in the near future.





## Strategic objectives

Over the next three years, in collaboration with our partners, we aim to:

- **Map commercial opportunities** across the area to further attract commercial partnership opportunities to the Trust.
- **Expand the diversity and number of companies** from across the life sciences value chain to enhance the ecosystem.
- **Support the development of the WestTech Corridor** and position Paddington Life Sciences as the health tech node of the corridor.
- **Foster innovation and attract investment** by developing an accelerator programme for start-ups to network, grow, and benefit from being part of a dynamic and diverse life sciences cluster.
- **Strengthen connections with other life sciences clusters** to facilitate valuable knowledge exchange and collaboration.
- **Develop a Paddington Life Sciences Sustainability Charter**, embedding sustainability as a core value for all new partners.
- **Continue working closely with local government** to support the Place and Space workstream and drive shared goals.





# Get involved

If you would like to get involved with Paddington Life Sciences, or simply hear more, please contact:

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