

PILLAR 8

Research & Innovation Strategy

2025-2030



Strategic Context

This document illustrates our strategy supporting Pillar 8:

Research & Innovation

GREEN PLAN

Evolving care

Places

Circular economy

Journeys

Climate adaption



ANCHOR INSTITUTION

Employment and skills

Procurement Environmental

impact

General social. economic and

Health promoting hospital civic impact

44

HEALTH

INEQUALITIES

System partner

Provider of services

Anchor Institution

•••)

DIGITAL

Operational

reliable



PARTNERSHIPS

Patient outcomes Academic and experience Providers Staff experience ICB/P Interoperability Voluntary Commercial

transparency Efficient and

compassionate and Inclusive Empowering and supporting our

PEOPLE &

CULTURE

Being a great

place to work

people

Being

Looking after the wellbeing of our Deliver best value Environmental impact Commercial

FINANCE

Long-term

Financial Model

(LTFM)

Financial support people to learn and develop

\$



ESTATES

Growth

Waste

RESEARCH & INNOVATION

Leadership and culture of research Buildings Workforce, Maintenance infrastructure and governance Contracts Sustainable

growth Collaboration and partnerships



Contents

Introduction	
In the words of patients, carers and staff	2
Vision and Values	3
Trust Strategic Objectives	4
Context (National and System Context and Drivers)	
Why we need to change	9
Best practice and evidence base	
Strategic Priorities	1
Pillar 1 - Develop our strategic leadership and culture of research1	2
Pillar 2 – Workforce, infrastructure and governance1	3
Pillar 3 – Sustainable growth	4
Pillar 4 – Collaboration and partnerships1	5
Interdependencies	6

INTRODUCTION

"Patients benefit enormously from research and innovation, with breakthroughs enabling prevention of ill-health, earlier diagnosis, more effective treatments, better outcomes and faster recovery" – The NHS Long-Term Plan."

As reinforced by the NHS Chief Executive in the 75th Anniversary year, world-leading innovation and research are and always have been integral to the NHS and healthcare in the United Kingdom. Nationally, amongst countless examples we have seen this in the development and roll-out of antibiotics, MRI scanners and the COVID-19 vaccine. At QVH we have evolved from such innovation.

Continuous improvement is core to daily progress in delivery of care but will not deliver paradigm step change in care. Research and innovation is required to meet this gap identifying new means to prevent, diagnose and treat disease and injury.

The development of emergent technologies is key to tackling the most pressing population health burdens and delivering the best patient care. It positively impacts all components of the Institute of Health Improvement's Quadruple Aim of healthcare (improving the health of populations, enhancing the quality of care for individuals, delivering best value from resources and optimising staff experience). Its benefits run even wider by helping to attract and retain high quality staff and increasing staff digital literacy. For success, clinical research and innovation must be driven from the heart of patient care across our identified services. Participation must be made is as easy as possible with the right logistical support in place to ensure that staff feel empowered to perform and contribute to research. We must capitalise on our strengths so that QVH can be leading edge in the services we provide. We must take advantage of the recent advances in data and analytics, technology, treatments and artificial intelligence.

In developing this research and innovation strategy, QVH undertook a three-phase approach with external support from a specialist, global research company (IQVIA):

- 1. An investigation into the current state of research at QVH (with comparisons to peer Trusts).
- 2. The design of our future capability, capacity, and ways of working.
- 3. A roadmap and milestones to deliver the change we need.

QVH cannot and should not progress its research ambition in isolation. Partnership and collaboration is essential to ensure that what we deliver meets the needs of our population and brings new opportunity to services under pressure.

As we start our development journey we encompass research and innovation within this strategy. Moving forward however, as we start to deploy and embed our continuous improvement methodology, we will refresh our thinking to align innovation with our improvement ambition.







IN THE WORDS OF PATIENTS, CARERS AND STAFF

QVH consulted with staff, patients and senior research leads within IQVIA, our expert partner, to develop this strategy in order to identify potential areas of research and innovation focus, key stakeholders and any barriers.

Staff have experienced some challenges in pursuing research initiatives and have a strong desire to build 'home-grown' research and create a culture of support and organic growth for the future. There is also enthusiasm to build on the extensive, innovative therapy services at QVH to support nurse and AHP-led research. Finally, a common theme was that there are several strengths that can be built on, including the excellence of our research nurses.

"[We] need to encourage everybody – growth is organic."

"The way I see it, is there are going to be a couple of layers of research activity that we need to be building - one is that sort of big ticket multi-centre official, big clinical trial type but the other thing is the day to day small projects that people have that make a big, big difference, you know, for example looking at the value of anti-microbial prophylaxis for certain procedures."

"You need to help people more. And people need to know what to do, how to do it."

"We have a lot of stuff that we can do that has just been sitting in abeyance through lack of support."

Our engagement in the development of this strategy also identified that our patients are also keen to take part. Some reflections of our patients including a research participant were as follows:

"It is good to feel like I am giving something back, having had such brilliant treatment by the NHS."

"Feeling I'm contributing to progress - supported by nice people."

"Friendly staff, felt included and that my participation was worthy.

The lady I have spoken to was lovely! She explained everything so well, was considerate of what I was going through and seemed so caring and happy."

Taking this feedback into account reveals an untapped enthusiasm and potential to develop our research and innovation opportunities to build on the QVH reputation, draw research funding, attract and develop staff, improve practice and ultimately improve patient experience and outcomes.

VISION AND VALUES

Our vision has been co-produced with patients and staff and aligns to the Trust ambition to be a provider of specialist and regional services and to deliver an innovative offer for the local population.

We want all of our staff to feel valued and supported in their personal wellbeing and their professional ambition, to be proud of the work they do for our patients and each other, and to embody the Trust vision. Our vision is underpinned by our values, which have been refreshed alongside the development of our five year strategy.

Living our values requires us to:

- Regularly and purposefully review what our values and strategy mean for QVH, as individuals, as teams and as an organisation.
- Recognise the prejudice in all of us, even when we cannot see it for ourselves.

Our vision is:

To be a centre of excellence that rebuilds lives and supports communities for a healthier future

To achieve that, our values are:





TRUST STRATEGIC OBJECTIVES

Our new key strategic objectives guide our priorities and focus. They frame everything from significant service level decisions through to individual objectives with a view to delivering improved outcomes for our patients and populations and improving our staff experience. Our research and innovation strategy is central to our future ambition and this commitment is reflected in our key strategic objectives.

Our objectives are:



CONTEXT (NATIONAL AND SYSTEM CONTEXT AND DRIVERS)

The UK's national policy on research and innovation in the NHS and healthcare is shaped by several key government strategies and policies. The UK Government and NHS England emphasise the importance of research and innovation as critical components for improving patient outcomes, healthcare efficiency, and economic growth.

National

Key policy documents, such as the NHS Long Term Plan (2019) and the UK Life Sciences Vision (2021), outline commitments to foster a research-friendly environment throughout the NHS, promote digital innovation, and support the translation of research into practice.

The UK Research and Development Roadmap (2020) further highlights the ambition to cement the UK's position as a global leader in life sciences and health research by increasing investment, improving data infrastructure, and ensuring that research is embedded in healthcare delivery. This broad commitment was reiterated in the Darzi review (2024).

Likewise the O'Shaughnessy Review (2023) set ~out 27 recommendations on how to resolve key challenges in conducting commercial clinical trials in the UK and transform the UK commercial clinical trial environment. The government committed to all 27 recommendations and associated funding. Finally, the Department of Health and Social Care's paper "Saving and Improving lives: The Future of UK Clinical Research Delivery", outlines the way forward to build back research better following the pandemic. It demonstrates that the response to COVID-19 showcased the clear link between research and better outcomes for individuals and the NHS.

Together, these policies emphasise the central importance of research and innovation to the NHS and patient care, they advocate for collaboration across academia, industry, and the NHS and aim to accelerate the adoption of new technologies and treatments to benefit patients and the wider healthcare system.

Seizing this momentum, this strategy looks to the future of clinical research as a crucial element by which we improve healthcare (both in its widest sense and for our own patients), by identifying the best means to prevent, diagnose and treat conditions. In the national context of research and innovation, the aim is to bolster delivery of innovative research across all phases and all conditions, across the UK.

Organisations are responding to the O'Shaughnessy Review





QVH

Local

There are several key government funded research organisations active within the local area that support, develop and coordinate research. NHS Sussex 'Improving Lives Together' strategy actively supports research and innovation as key drivers for improving healthcare services and patient outcomes within the region. It aligns with the broader national strategy by fostering a culture of continuous improvement and encouraging collaboration between healthcare professionals, patients, academic institutions, and industry partners.

As per national policy, NHS Sussex places a strong emphasis on building research capacity within its workforce, integrating research into everyday clinical practice, engaging with local communities to ensure that research is inclusive and reflective of the diverse population it serves and ensuring that the latest evidence-based innovations are rapidly adopted to enhance care quality.

The organisation also prioritises the use of digital health technologies and data-driven approaches to support personalised medicine and more efficient healthcare delivery.

At QVH, research is carried out in accordance with standards and guidelines laid out in the UK Policy Framework for Health & Social Care Research & the Medicines for Human Use Regulations (2004). Quarterly submissions are made to the National Institute of Health Research (NIHR) and to the Clinical Research Network (CRN). The local CRN is based in Brighton. The CRN are responsible for determining the level of funding based on performance metrics, including number of patients recruited, time to approval and time to first recruit. This activity-based funding formula is a key driver for how research work is prioritised at QVH. However, historically this focus on CRN approved studies has limited our ability to pursue home-grown research as only studies registered on the national "portfolio" are allowed to be undertaken by CRN funded personnel (including all our current research nurses).

However the CRN's mandate is much broader, being to "support researchers and the life sciences industry in developing, setting up and delivering high quality research to time and target". Together with the NIHR's Research Design Service (RDS), it provides support in areas such as grant applications, Patient and Public Involvement (PPI), methodology and budgeting. We have strong links through the portfolio studies to the CRN, while the RDS is an important resource.

The NIHR Applied Research Collaboration - Kent Surrey and Sussex (ARC KSS) is one of 15 ARCs across England and part of a £135 million investment by the NIHR to improve the health and care of patients and the public, Sussex Partnership NHS Foundation Trust is the host trust for the ARC KSS working collaboratively with the Universities of Kent, Surrey and Sussex and local NHS organisations. Its role is to facilitate local collaborations to conduct generalisable applied research that addresses the specific health or care issues in their region. There are 13 Health Innovation Networks across England established in 2013 to drive innovation at pace and scale by NHSE – improving health and generating economic growth. The Health Innovation Networks are the experts in innovation adoption in the area of health and care. They tackle national problems with local understanding and local problems with national expertise. Each Health Innovation Network is fully embedded in their local health and research ecosystem. This drives economic prosperity and growth ensuring that everybody benefits from innovation. Locally we are supported by the Kent, Surrey and Sussex Health Innovation Network.

Established in 2022, the Brighton and Sussex Health Research Partnership emerged from a collaboration between Brighton and Sussex Medical School, University Hospitals Sussex NHS Foundation Trust, and Sussex Partnership NHS Foundation Trust. Since its inception, the Partnership has rapidly broadened its scope, incorporating representatives from primary, community, and secondary care NHS providers, as well as public health authorities, local councils, the University of Chichester, and regional NIHR infrastructure partners, including the Clinical Research Network, Applied Research Collaboration, and the Health Innovation Network.

All of these organisations will be key future partners as we seek to develop our own, home-grown research.

QVH Current Position

QVH has a successful history of innovation and an existing foundation of delivering portfolio research however there is a desire and potential opportunity to do more should the right resources be in place. We are currently research active in a number of services including burns, facial palsy and corneoplastics and work in collaboration with other centres (such as Brighton and Sussex Medical School) in the provision of portfolio trials coordinated through the local CRN. Research is carried out in accordance with standards and guidelines laid out in the UK Policy Framework for Health and Social Care Research and the Medicines for Human Use Regulations (2004). Quarterly submissions are made to the National Institute of Health Research and to the Clinical Research Network (CRN). No concerns were raised by study monitors in 2023/24.

In 2023/24, 743 participants were recruited to 17 studies (similar to pre-pandemic levels), 16 of which were portfolio studies, of which 5 were set up in 2023/24. There was no recruitment in 2023/24 to the non-portfolio study. For one of the portfolio studies, the QVH principal investigator was also chief investigator for the study. A patient satisfaction survey was performed to evaluate experience of research at QVH and 84 returns were received (34% response rate). Satisfaction was 93-97% with 94% saying they would consider participating in research again. Oversight of research is through the Research and Innovation Governance Group which includes patient representation.

QVH received c.£200k CRN funding for portfolio studies in 2023-24 and closed the year slightly short of a break even financial position. The clinical trial support team includes 5 whole time equivalent (WTE) staff with a manager working alongside a clinical director for research with 1PA activity allocated to this role. Clinical fellows and other staff do some research work within directorates which is funded internally and not linked to the core research team. It is known that QVH staff are participating in research at other institutions but there is no log of this. In 2023/24 there were 93 publications in peer-reviewed journals attributed to QVH staff. There is no register of innovation initiatives.

Research potential

The Trust has considerable strength in specialist depth, performing among the highest volumes nationally of a range of procedures such as breast reconstruction, oculoplastics and polysomnography. This affords opportunity with both device and MedTech companies and is analogous to other specialist surgical Trusts that we have benchmarked against who have well developed research programmes. As in our peer equivalent centres, there is considerable opportunity for multidisciplinary based research, particularly in allied therapies. Currently our Facial Therapy service produces world leading research. Expertise in this and other services could thrive if supported.

The QVH strategy includes development of novel pathways of care through new clinical diagnostic centres, pathology networking, digitisation, continuous improvement, development of day surgery and outpatient facilities and expansion our community support programme. All of this could support the aspiration of NHS Sussex to 'Improve Lives Together' supported by research in health and care which is accessible to every patient as a component of their normal care. QVH staff and our community take pride in our innovative history and are enthusiastic to re-energise this.



QVH

Assessment compared to Peer Centres

QVH's current research capability was assessed by IQVIA using their standard criteria (used to assess over 150,000 research sites worldwide). QVH was assessed in three categories, infrastructure, staff, partnership and processes. This baseline assessment has informed the proposed developments in this strategy including:

Infrastructure

- To develop dedicated clinic space, including 4-6 dedicated clinic rooms, where studies can be discussed with patients and carried out.
- To develop a limited, **basic** lab infrastructure to support studies (involving, for example, sample preparation and antibiotic assay).
- To implement the REDCAP database and R-studio statistics software.

Staff

- To expand the research and innovation team with new leadership and resource.
- To create deputy clinical director for research and innovation roles in each directorate including 1PA each.
- To attract individuals from the UK and overseas into grant-funded clinical fellowship roles.
- To ensure principal investigators, subinvestigators and the clinical team have sufficient job planned time to participate in research.

Partnership and process

- To collaborate with our system partners in research and innovation building on our operational processes to ensure barriers to research activity are addressed.
- To seek out relationships with academia, private business, voluntary sector and community care organisations which enable collaborative research.
- To work with patients on co-creation of a patient-focussed approach which will grow and sustain involvement in research and innovation.



WHY WE NEED TO CHANGE

Research delivers better patient care and should be central to everything a specialist trust does. Research is fundamental to QVH's strategic ambition and will support the collaborative ambition of QVH for the future through connecting health, social and academic communities. It is a key enabler for the workforce to present through publications to the global community. A research active organisation enhances recruitment and retention, it also attracts investment that enables both the delivery of research and the development of educational potential.

Building on our history, our future research will be multidisciplinary and patient focussed. In line with our system's ambition to 'Improve Lives Together', we will focus on research that improves quality of lives, makes services more sustainable, enables staff to develop their talents, and contributes to the development of new models of care, especially the development of nursing and therapy practice.

In the area of research and innovation, our vision is that a highly effective research unit will help enable QVH to be a world-leading centre in teaching, training, research, operational delivery and clinical outcomes.

Above all, we will make it as easy as possible for our staff to undertake research. This principle must be the binding thread that guides both the strategy and how it is delivered. There are several areas of focus required to deliver our vision:

- Setting the expectation for research and innovation as core to the QVH culture
- Changing the way we are organised including a new governance and operating model
- Investment in space, digital and technological infrastructure
- Build of research capability and capacity within core research and clinical teams
- Internal and external engagement with current and potential partners including patients
- A determination to identify, reduce and remove barriers wherever possible.

These areas of development will require a resourced program of work. Our ambition is to fund the work required by increasing revenue investment, using charitable donations, growing sponsorship and grant revenues and aligning research with other core trust developments. Further investment will be in-line with receipt of funding, thereby building a sustainable financial model.





BEST PRACTICE AND EVIDENCE BASE

Research and innovation are central to the NHS' mission, to improve patient outcomes and driving economic growth. Several challenges need to be addressed to realise these benefits fully.

For example, the NHS Confederation emphasises the transformative impact of innovative medicines and technologies, which not only improve individual patient lives but also significantly contribute to the UK economy. However, the uptake of these medicines varies geographically and amongst different populations, leading to missed opportunities for better health outcomes, action on health inequalities and economic gains.

The Getting It Right First Time (GIRFT) further faster programme has clearly illustrated unwarranted variation in clinical patient services setting out and practically enabling a shared vision for progress. Addressing variation in research practice implementation and understanding barriers to adoption could help systems achieve their goals of reducing health inequalities and supporting broader social and economic development.

Innovation efforts in the NHS have faced systemic obstacles such as operational pressures, risk aversion, and a lack of coordinated support, as highlighted by the King's Fund. Innovation is often driven by individual efforts rather than systemic support, necessitating stronger leadership to create inclusive environments where diverse groups can collaborate effectively. The Accelerated Access Collaborative (AAC) emphasises the importance of clinical leadership and tailored local strategies in the successful adoption of new treatments and technologies. AAC cautions that, although programmes have shown that central funding has been more effective at driving change, it is often not sustained once removed.

Learning from the business sector suggests that the NHS needs to shift its focus from short-term commercial gains toward building long-term innovation capabilities within its workforce. Embedding a culture of research, whereby research is viewed as core trust business and not the peripheral interest of a few, is essential. Also key is ensuring an inclusive and collaborative approach to research where service users are meaningfully involved at all stages. By fostering a supportive environment and integrating innovative practices into everyday care, the NHS, and QVH, can better position itself as a research engine that not only improves health outcomes but also contributes to the UK's and our local area's economic vitality.



STRATEGIC PRIORITIES

QVH has a rich heritage of research and is ambitious to achieve a reputation for innovation in the specialist services we provide, with high calibre staff working in a supported and sustainable way to enhance the development of practice.

Our expert teams will work together to drive better quality of life for our patients, supported by a clear strategy. We understand what is needed to set up for success outlined by a clear roadmap for closing the gaps between where we are and where need to be. The delivery of this strategy will mean the achievement of our strategic objectives to expand and improve the range and quality of our research.

RESEARCH OBJECTIVES

The following measurable objectives for this strategy are set out as follows:

- Maintain and grow current levels of NIHR activity to demonstrate growth of the unit from a strong base and protection of existing funding streams.
- Development in **the range and scale of research** (annual milestones to be determined on an annual basis by the research and innovation steering group) including multi-centre, industry, nursing and allied professional led projects.

- **Demonstrate sustainability** by creating a reconstituted Research Unit which is appropriately staffed, that enthuses and supports staff and is successful in supporting internal research and attracting external funding.
- Investment in the digital infrastructure and skills needed to support research. This is fundamental to the strategy and additionally supports the Trust's drive for digital literacy.

Our key performance indicators will include the following:

- Every patient under our care will know that we are a research active organisation and will be encouraged to enquire about opportunities open to them
- Every business unit will have an active research portfolio, including locally developed, noncommercial and commercial, with a one and five year plan for development and delivery
- Job plans for research active staff will reflect commitment to trial work with time available to ensure good clinical practice

- Trials consistently recruit to time and target working within budget
- Monitoring for high standards in practice and documentation.

HOW WE WILL DELIVER THE STRATEGY

We will deliver our strategy objectives through 4 priority areas:

Pillar 1: Strategic Leadership and Culture

Pillar 2: Workforce, Infrastructure and Governance

Pillar 3: Sustainable growth

Pillar 4: Collaboration and Partnerships.

Pillar 1 - Develop our strategic leadership and culture of research

In order to drive forward the organisational cultural change regarding research and innovation it is critical to ensure board and senior leadership engagement within the organisation. The Chief Medical Officer will be responsible for executive sponsorship of research and innovation with strengthened governance. An executive led Research and Innovation Steering Group will be established as a vehicle to drive the ambitions of this strategy. It will be critical to ensure that research is integrated across the key areas within the organisation with effective ambassadors to drive the future ambition.

In order to drive a culture of research it is necessary that we address the identified barriers which have been considered as part of this strategy development. Addressing these barriers includes:

- The process for developing internal research and innovation will be supportive, streamlined and user-friendly.
- We will strive to integrate research and innovation as a core element of our Trust clinical services delivery to ensure it is at the heart of the future QVH.
- 3. We will build upon the existing areas of research with locally developed initiatives and collaboration with external partners.
- 4. We will rethink our risk appetite to manage and mitigate barriers to research activities and innovation. All projects will continue, in line with national guidance, to be subject to full independent ethical approval processes in accordance with practice throughout the NHS.



Pillar 2 – Workforce, infrastructure and governance

Delivery of our research and innovation strategy will require a research team staffing model that is able to support and drive the ambition of this strategy. This will be phased to reflect the activities undertaken. The model will ensure creative and innovative planning that can best integrate research and innovation capacity and expertise within our day-to-day delivery.

We will create a new governance structure and operating model for research which addresses our case for change. Key features will include:

- Board level accountability and leadership through the Chief Medical Officer portfolio stimulating clinical engagement.
- Improving our processes, including risk management, so that we can support staff to develop research and implement a new and positive, growth mindset.
- Developing pathways to support all staff and "make it easy" to develop concepts, for example with protocol templates and guides to statistical testing.
- Supporting the roll-out of the new digital infrastructure (REDCAP and R-Studio).
- Innovation forum to facilitate innovation supported by digital technology and expertise.

In addition to workforce, physical and digital infrastructure will also be required to support the ambition. This includes the identification of clinic space and laboratory provision or refurbishment.





Pillar 3 – Sustainable growth

Sustainable growth as a priority ensures we are exploring how we can be creative in making research continue to happen in the long-term and become selffinancing through the diversification of funding sources. To grow a research and innovation function sustainably, we will foster a culture of home-grown research that leverages the unique strengths and expertise of our organisation and is developed within a governance framework that keeps us outward facing.

This approach not only builds internal capability but also empowers staff to contribute to and lead research initiatives that are directly aligned with the Trust's strategic priorities. By nurturing in-house talent and encouraging clinicians and staff to engage in research, the Trust can create a sustainable pipeline of innovative projects that address the specific needs of our patient population. We will implement strong financial governance to ensure that research activities are sustainable and deliver value for money. This involves clear financial oversight, including budgeting, tracking of research funds, and ensuring compliance with funding requirements. Diversifying funding sources through grants, philanthropic contributions, and commercial collaborations will also help sustain research efforts.

By integrating financial planning with research strategy, the Trust can ensure that its research and innovation functions are not only impactful but also financially viable contributing to the Trust's bottom line in the long term.



Queen Victoria Hospital NHS Foundation Trust

Pillar 4 - Collaboration and partnerships

QVH has a strong foundation of clinical expertise which can be leveraged to deliver research excellence. To enhance our research capability, we will continue to work with our patients, community and partners to understand future ambitions and opportunities. We will establish sustainable partnerships with academic institutions, industry, and other NHS organisations. These partnerships will support sustainable growth through flexibility in shared access to resources, expertise, and funding opportunities, thereby bolstering the sustainability of growth. QVH will improve engagement between staff, partners and sponsors so that there is enthusiasm for our new strategy and clarity on how this will work. We will focus on developing partnerships with peers, industry, and academia, other local hospitals and community to share resources where possible. We will continue to collaborate with the local CRN, NIHR, Research Delivery Network and wider partnerships developing opportunities for mutual benefit. We will establish an innovation approach with guidance and support from the Health Innovation Network and other partners.





INTERDEPENDENCIES

The research and innovation strategy promotes strategic leadership, sustainable growth, and collaboration through workforce development, infrastructure, and governance. It is closely linked to the clinical strategy, as research informs evidence-based practice, leading to better patient care and outcomes.

We anticipate that the anchor institution strategy will be enhanced by QVH's role in driving local innovation and development, fostering a culture of learning and collaboration. The digital and research and innovation strategies will be interdependent, relying on research and innovation to develop new technologies and digital tools that improve patient care and operational efficiency.

Partnerships are also vital in advancing research, requiring collaboration with academic institutions, healthcare providers, and commercial entities to drive development and also innovation. The people and culture strategy supports a culture of innovation by empowering staff to engage in research and continuous learning. The estates plan will need to support the delivery of research by providing the necessary facilities and infrastructure, such as laboratories and research hubs, to foster a vibrant research environment.

