

Our Vision for Cambridge Biomedical Campus



Cambridge
Biomedical Campus

Foreword

Cambridge Biomedical Campus is one of the world’s leading centres of life sciences research, medical innovation, and healthcare provision. CBC is a globally important life sciences engine, and we have come together to demonstrate our commitment to Cambridge through a new Vision for our campus, renewing our role in the city and beyond.

Twenty-one years ago, we campus occupiers published the 2020 Vision, our plan to achieve excellence in healthcare, research, and industry. Since then, we have built the new Royal Papworth Hospital, two multinational corporate headquarters, the new Medical Research Council Laboratory of Molecular Biology, and the Cancer Research UK Cambridge Institute. Our scientific and healthcare achievements have been driven by a highly effective and lasting partnership between education, research, and practice. It is a model which has enabled organisations at CBC to lead the response to COVID-19.

We are now renewing and expanding our partnership for the next three decades, working together to shape the future of the campus so that we can continue to lead the world in life sciences. Together, campus institutions, occupiers and investors will transform CBC into an integrated quarter of the city, strengthening inclusion, innovation, and commercial opportunities in order to create one of the world’s most attractive and welcoming places.

Life sciences have grown at an unprecedented rate over the last two decades around the world. Our last vision brought us to where we are today. Our *Vision for CBC* sets out our plan to lead the next phase of growth for life sciences in Cambridge



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Contents

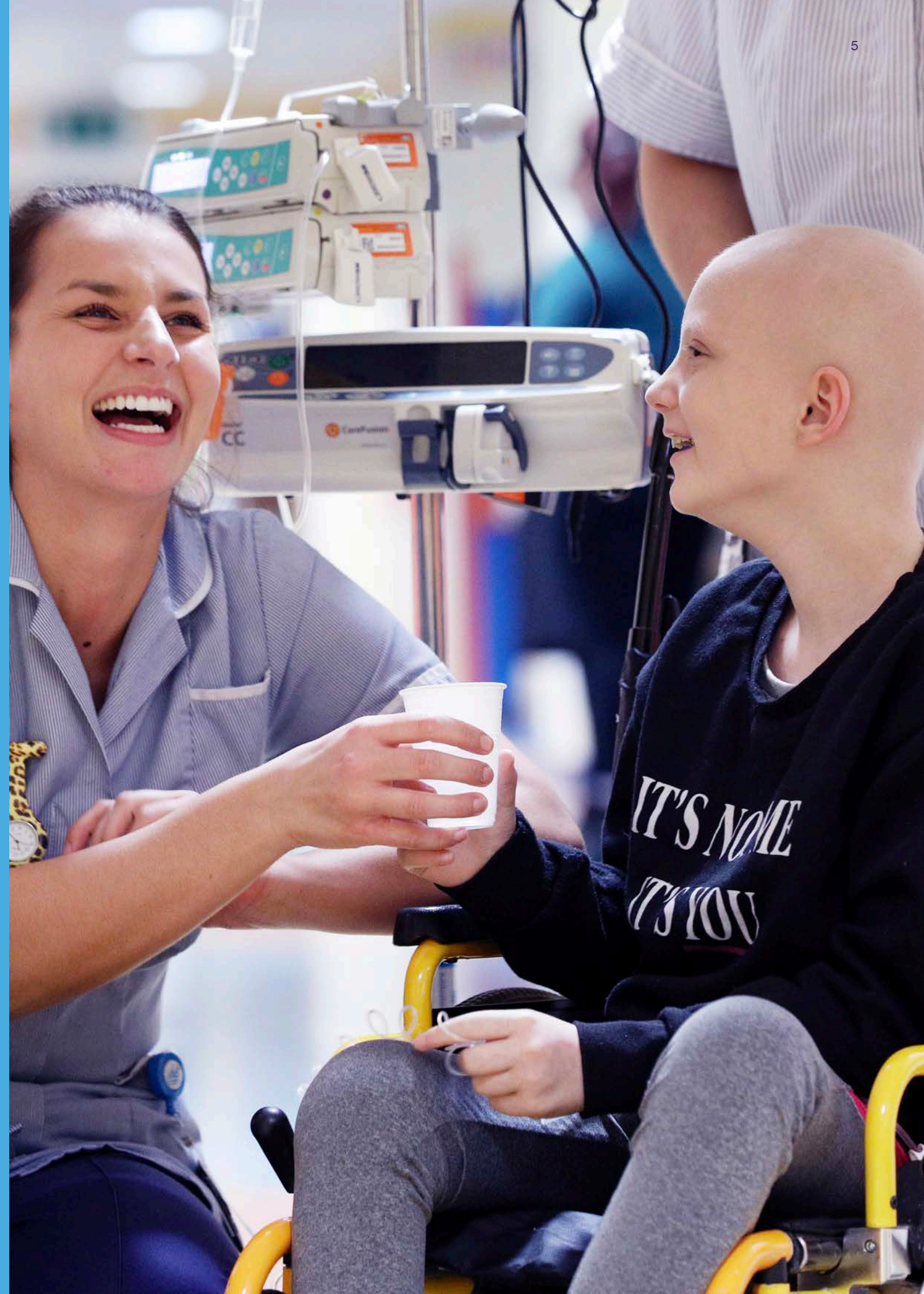
Foreword	2
Our Vision for CBC	4
Global trends	6
Our strength in life sciences	8
Cambridge context	10
Campus timeline	12
The case for our vision	14
Where we’re going	17
Implementing our vision	18
Realising the vision of a better CBC neighbourhood	20
Our commitment to engage with our stakeholders	22

Our Vision for CBC

Cambridge Biomedical Campus will be globally leading and locally rooted, the preferred destination for life sciences, where research, commercialisation and real-world application come together to create life-saving innovation in a vibrant local community.

The campus will be:

- Defined by co-location – Where research, business and clinical excellence come together, benefiting uniquely from proximity, to improve lives
- A vibrant community – An inclusive, sustainable, genuinely affordable neighbourhood that is the best of Cambridge
- The smartest place in Europe – Unrivalled in its capacity to accelerate the cycle of discovery, scaling, and commercialisation, supported by a smart environment that drives knowledge transfer
- People centred – Designed at a human scale to promote innovation, talent, collaboration, health and wellbeing
- Globally connected – Dynamic relationships with and connections to innovative places throughout Cambridge, the UK, Europe and the world



Global trends

Life sciences have grown at an unprecedented rate over the last two decades around the world, as scientists, businesses, and healthcare professionals have grappled with disease.

The COVID-19 pandemic has emphasised the existential threat to lives and livelihoods posed by modern diseases. Global economic and health trends are likely to pose similar threats:



The emergence of highly resistant strains of virus and novel forms of disease.

Advances that have supported human health for generations no longer offer the defence they once did, with major risks from novel viruses and antibiotic resistance.



The forces of climate change, urbanisation and globalisation.

Accelerating the rate at which new diseases come into contact with humans, but also the speed with which they can spread through populations.



Socioeconomic inequality and ageing populations.

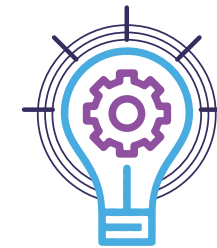
Pressure on public services and funding is increasing. By 2050, one in six people in the world will be over age 65 (16%), up from one in 11 in 2019 (9%).

Overcoming new and persistent diseases will be one of the main challenges of this century, galvanising ever-increasing investment in life sciences. Global R&D spending on life sciences hit a record \$179 billion in 2018, a 23% rise on four years earlier: by 2024, it is forecast to reach \$213 billion.

Life Sciences: A Global Opportunity



Global healthcare spending rising **4% a year**



\$179 billion in global R&D spending



Employment growth of **10%** in UK Life Sciences since 2010



Our strength in life sciences

Life sciences is the fastest growing sector in our city, which is already one of the world’s most advanced hubs of biomedical activity. It supports more than 33,600 local jobs ranging from entry level opportunities for new starters through to the most senior positions directing the work of our member institutions.

To continue to lead, life sciences research in Cambridge must be more innovative and adaptable than ever before, with effective and efficient pathways from lab and mass testing to commercialisation and distribution. Life sciences districts and research centres must create the best environment for innovation, while also ensuring that they offer a high quality of life that can attract and retain talent and support staff.

Reimagining Cambridge Biomedical Campus is a unique opportunity to not only support Cambridge’s productivity and economic growth, but also to grow the UK economy and the global life sciences sector. The places with the institutions, expertise, and environment to lead the development of new medicines, treatments and healthcare technologies will be at the forefront of overcoming our health challenges.

Local Strength in Life Sciences

£2.3 billion in Gross Value Added

20% of the Cambridge economy

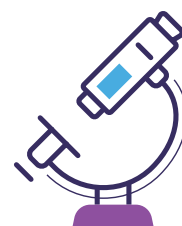
21% turnover growth and 11% employment growth



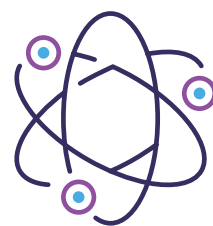
12,400 private employees, 5% of UK total



330 businesses



21,200 public sector jobs



High productivity of £187,000 per head



Cambridge context

Cambridge today is at the forefront of life sciences research in the world, and one of its most innovative economies. Over the years, Cambridge has supported entrepreneurship and cutting-edge advances in a broad set of high-tech sectors. Today, it is Europe's largest biotechnology cluster, comprised of over 30 science and technology parks.

Groundbreaking advances in the treatment of human health, both in research and application, have happened here; notably Watson and Crick's discovery of how DNA carries genetic information, the "secret of life". Today, Cambridge is leading R&D in genome sequencing, surgical robotics, and therapeutics.

For life sciences in Cambridge, the heart of this excellence is the research community: the University of Cambridge, the MRC Laboratory of Molecular Biology (LMB), and Cancer Research UK Cambridge Institute; a nexus of world leading hospitals; and the links between foundational academic research and private sector commercialisation.

The experts in these institutions use research to shape practice, and vice versa. Combined with the networks

of private investors prepared to back new ventures, this has led to Cambridge's emergence as a hub of the global life sciences industry.

Since our partners first came together in 1999, this research community has found its home at CBC. Today, CBC drives an integrated care system of 1m people locally and 5m regionally. Our partners are leading the fight against COVID-19, working across disciplines to support the pandemic response.

Cambridge presents the ideal model for how to support talent and enable collaboration between different organisations. The city offers the quality of life, institutions, and finance for workers and businesses; the accessible social spaces where chance encounters can take place; and the network of mentors to guide fledgling entrepreneurs and researchers.

CBC has the foundations in place to act as a standout global centre of healthcare delivery, life sciences research and commercialisation, and must become an improved, integrated, and attractive quarter of Cambridge to do so.





Campus timeline

1962

Addenbrooke's Hospital moves to its new site in South Cambridge, joined by the LMB in the same year.

1976

A complete medical course is re-established in Cambridge with the opening of the University of Cambridge School of Clinical Medicine.

1983

The dedicated Rosie maternity hospital is built, ahead of schedule thanks to a donation from local philanthropist Sir David Robinson.

1999

Addenbrooke's partnership-based 2020 Vision announced, setting out long-term expansion strategy to advance healthcare, research and industry.

2002

Opening of the Hutchison / MRC Research Centre for cancer research, its mission to advance understanding and improve early detection of cancer.

2007

Opening of the Cancer Research UK Cambridge Institute, combining basic / clinical cancer research with innovative technology.

2009

Phase 1 Expansion of CBC, with 70 acres for new buildings, leading to the 2010 master planning exercise.

2009

CUHP is set up to bring together the NHS, industry and academia, ensuring patients benefit from work done at CBC and beyond.

2011

Cambridgeshire Guided Busway becomes operational, connecting CBC to the city centre, and subsequently to other local science parks.

2013

The Queen opens the new LMB, a building designed to support world-leading scientists to do medical research, translation, and collaboration.

2015

Construction on the new Royal Papworth Hospital begins; planning consent given to new AstraZeneca HQ on the CBC site.

2017

Outline planning consent obtained for Phase 2 of CBC expansion, indicating new potential for growth and development on campus.

2018

Southern section of the Green and the Gardens opened – public realm designed to provide relaxing green space and a meeting space for campus users.

2019

Opening of Abcam's new headquarters and Royal Papworth Hospital.

2021

AstraZeneca begin moving into their new corporate HQ. Our *Vision for CBC* sets the tone for coming decades of campus improvement.

The case for our vision

Since the 1960s, Cambridge entrepreneurs and academics have pioneered an open and collaborative approach to research and business which has led to the rapid development of science and technology. The establishment of Cambridge Science Park by Trinity College in 1970 was the first part of a network of specialised innovation campuses in the city. These highly-developed specialist clusters are concentrations of large and small businesses, university departments, public institutions, and investors.

The power of this collaboration has become ever more apparent during the COVID-19 pandemic. By capitalising on the world-class biomedical research facilities and collaborative opportunities provided at CBC, researchers here have led new initiatives in testing, ventilator engineering, genomic sequencing, hospital and healthcare system management, and patient data analysis.

CBC is the anchor of the South Cambridge life sciences cluster, and world-leading research and patient care is done here every day. Alongside us, the Babraham Research Campus, the Wellcome Genome Campus and many others contribute to innovation excellence here. But we know that we have work to do to improve our environment, connect with our neighbours in the city and address some of the challenges that have followed our success. We want to do more to bring our neighbours into the campus, where they can use amenities, mix with the people who work here, and enjoy our green spaces.

The design of successful places has evolved rapidly in the 21st century. Today, they are designed at a human scale, focusing on the needs of all communities, and built to be walkable, integrated, safe, and welcoming. Innovative organisations and workers require the proximity that allows the quick and seamless exchange of knowledge, ideas, intellectual property, and projects. This remains true in a post COVID-19 world, where flexible and remote working may become more common. Science and technology organisations will always require the exchange of ideas between people from different backgrounds and with different expertise.

CBC has the opportunity to integrate its current form into a more balanced quarter, blending the wide boulevards and individual buildings set back from the pavements and creating places for cafés, restaurants and civic spaces. We want to provide a richer experience for campus employees and visitors, while at the same time offering new opportunities for neighbours to use the campus and become a stronger part of its community.





Image credit: Abcam

Where we're going

Our *Vision for CBC* sets out our clear goal to realise the campus's potential as one of the foremost centres of life sciences innovation in the world and as a vibrant quarter in Cambridge.

Thriving, successful places have a mix of cultural, academic, environmental, communal, and educational strengths that have evolved and been nurtured over many years. Cambridge has grown through the combination of academia with a dynamic, entrepreneurial business culture. Its internationally renowned specialisation in life sciences research and its quality of life places it in a select group of globally significant life sciences centres.

An integrated, inclusive part of the city

What happens at CBC is essential to the health, success, and wellbeing of people in the city, region, and beyond. But there is also a need and opportunity to strengthen the links between CBC and its immediate communities. Life and work, businesses, and homes are physically separated, without the connections and amenities that our communities rightly expect.

The most successful places are knitted together, physically integrated and part of the same conversation: understanding, adapting, and accommodating in a virtuous cycle. With a deep, long lasting commitment to listening, engaging, and acting, CBC will build a new set of relationships with its neighbours.

Rooted in place

Businesses want to move to and stay in Cambridge, a beautiful city with a small-town feel. CBC will reflect that essential character, as a recognisable piece of Cambridge, designed with an intimacy of spaces that reflects the layout of the city's historic core. Designed at a human scale, welcoming and connected, CBC will be a local community.

A place to thrive

World-leading science is done by talented, motivated people at all levels and in all roles. The health and wellbeing of those people and their experiences of the places where they live and work are fundamentally intertwined. Our mission is to continue to create a user-focused offer in a place that is embraced by and supportive of its local community. CBC can provide the ideal environment to attract, retain, and support talent in a highly competitive and agile business sector.

Nurturing diversity

Diversity of skills, attitude and approach is vital for new ideas. Today, CBC is a life sciences cluster of large institutions and major companies. Together they form an engine for innovation and commercialisation that is unrivalled in the rest of the UK. Taking full advantage of that potential requires a wider range of occupiers, who together can create a new series of interactions that will in turn drive even better outcomes and opportunities.

Implementing our vision

Creating a well-rounded place requires investment and clear plans to address the long-term needs of occupiers and the community.



Transport and accessibility

CBC already benefits from access to the Cambridge Guided Bus network and will soon be able to enjoy increased connectivity as that network is extended south and a new railway station opens on campus. The Cambridge South station will provide connections to the city centre, to London and to the East West Railway line (the Varsity Line) to Oxford. These will knit CBC into the rest of the city with a variety of sustainable transport services.



Further research centres

The LMB at CBC is one of the world's most important research centres and is testament to the research strengths of CBC. The University of Cambridge School of Clinical Medicine brings a range of research institutes and academic departments to campus. The new Heart & Lung Research Institute, built from a partnership between University of Cambridge and Royal Papworth Hospital, will expand our research capacity further. As magnets for the brightest minds, such research centres are what distinguish places like CBC. To stay competitive in this fast-growing global sector, CBC must advocate for advanced research centres, or Cambridge will pass on the opportunity to make further leaps forward in life sciences to competitors overseas.



New hospitals

Three NHS Trusts are active on CBC: Cambridge University Hospitals, Royal Papworth Hospital and Cambridgeshire and Peterborough NHS Foundation Trust. Soon, building will commence on a new cancer hospital and a new children's hospital on site, increasing the range of specialisms at CBC and providing further opportunities for teaching, research, and innovation.



Diversity of offer

The most effective innovation districts host a range of businesses that can share ideas and collaborate on projects in a dynamic and agile way. By broadening its offer and welcoming a wider variety of businesses in their early stages, CBC will encourage that diversity.



Supporting commercial uses

We want to enliven our campus with coffee shops, cafés, gyms, and crèches. There must be common spaces for people to meet and to build friendships, neutral venues to relax in, and places in which to share ideas. CBC needs spaces that will support those working on campus, and to continue to promote the outstanding work of those based here.



Realising our vision of a better CBC neighbourhood

We, the partners of Cambridge Biomedical Campus want to become globally leading and locally rooted, the preferred destination for life sciences, where research, commercialisation and real-world application come together to create lifesaving innovation in a vibrant community.



For our community

Providing a liveable, inclusive neighbourhood

- Improving local residents' access to healthcare and opportunity, ensuring that community members are included in the benefits of discoveries and activity happening here

For the campus

Balancing present and future needs

- Providing appealing, well-designed spaces for collaboration and recreation – accessible to anyone who works here or visits
- Connecting campus occupiers with Cambridge city centre, national transport networks and the world – optimising Cambridge South Station and other infrastructure investments



For Cambridge

Facilitating an inclusive innovation ecosystem

- Powering Cambridge's **economic and employment growth** by expanding the globally competitive life sciences sector at scale
- Boosting Cambridge's **attractiveness** to global talent, Government spending, and investment while creating local opportunity and addressing congestion concerns



For the life sciences sector

Accelerating the cycle of discovering, proving and scaling healthcare innovations

- Securing the future of the life sciences sector by promoting open innovation, collaboration, and knowledge exchange
- Operating as the core of Cambridge's life sciences ecosystem, enhancing life sciences activity at other local campuses in a virtuous cycle that encourages innovation



For the world

Delivering against global commitments to health, inclusion and sustainability

- Improving lives by producing the discoveries, treatments, and medicines which tackle our most urgent healthcare challenges while promoting healthy living
- Creating a sustainable place through active travel solutions, biodiversity protections, and carbon neutral operations, while improving access to green space

Our commitment to engage with our stakeholders

As part of implementing our *Vision for CBC*, we are engaging the community in a discussion that helps us understand their needs and concerns. We will continue to work with campus occupiers, local authorities, and experts in placemaking to ensure that the improvements we make to CBC are sustainable and responsible. This will involve working together as a campus and with the surrounding areas to ensure our efforts are joined up to improve South Cambridge.

The first stage in this is a programme of engagement with our neighbours and communities to discuss our *Vision for CBC* and gather thoughts about how we improve and enhance our campus.



