



# Knowledge Networks: London and the Ox-Cam Arc

This research paper explores the growth in knowledge-intensive industries across London, Oxford and Cambridge, known as the ‘Golden Triangle’, and examines how the knowledge economy can be strengthened across this region.

The project showcase presents over 90 exemplary projects and schemes having a transformational impact on the education, healthcare, technology and innovation sectors in the UK.

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This research paper was published by New London Architecture (NLA) in June 2020. It forms part of NLA's year-round Education & Healthcare programme.

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## Foreword

*By Peter Murray,  
Curator-in-chief, New London Architecture*

As we come out of the COVID-19 crisis, and out of the EU, the UK economy needs an industrial strategy that is firing on all cylinders. The knowledge economy, a key growth area in recent years, will face many of the challenges of the rest of the economy, not least the impact of the pandemic on our universities, but it will remain a key driver of future growth. Vaccine development and epidemiological modelling, which are in the headlines every day, are vital to create a safer world in the future. At the same time, tech has become even more critical, not just in terms of keeping the economy moving during lockdown but providing the means to control future viral outbreaks.

The Golden Triangle includes the strongest biosciences cluster in Europe studying genomics, digital health, artificial intelligence in healthcare, and neuroscience; it contains the greatest concentration of top universities in the world as well as clusters of global tech companies.

This dynamic, world-class innovation ecosystem is key to harnessing transformative technologies to support the UK economy. To maximise its potential it needs to be planned and promoted regionally to ensure the development of appropriate buildings, affordable housing and efficient infrastructure.

This will become even more important as the Government adjusts the north-south balance. Boris Johnson can only achieve his election promises if the south-east economy remains strong. He should thus speed up coordinated development in the region and promote the growth of this world-beating supercluster in the Golden Triangle to deliver jobs and successful businesses as well as game-changing innovation. ●

# Executive Summary

- London, Oxford and Cambridge — ‘the Golden Triangle’ — have demonstrated global leadership in the response to the COVID-19 crisis. The region’s strengths in life sciences have been at the forefront in developing testing, treatments and, ultimately, a vaccine.
- This unique knowledge cluster has produced some of the most high-profile innovations through the research excellence, collaborations and cutting-edge applications developed by world-leading universities, researchers and companies located in the region.
- This region will play a significant role in the post-COVID economic recovery of the UK as a global exporter of innovation and employment creator. The £1.25 billion support package announced by the Chancellor of the Exchequer in April 2020 confirms the central role of the tech, life sciences and related sectors.
- The current lack of a regional plan and coordination across the Golden Triangle poses significant challenges for the future of the region. This report urges government to streamline planning to speed up development and unlock housing, transport and workspaces to help future-proof the UK economy.
- Over the last two years, we’ve seen significant investment in spaces for knowledge intensive industries in this area. Over 90 projects are showcased in this report.
- The impact of COVID-19 will result in new challenges for the knowledge sector, as universities adapt to remote learning and flexibility of spaces will become even more important.

## Economic contribution

£74 bn

Annual contribution from the UK life sciences sector, mainly driven by the Golden Triangle region

£111 bn

Annual contribution to the UK economy from the Oxford and Cambridge Arc alone

£80 bn

Estimated growth per year until 2050 by the Arc

25%

Increase in life sciences employment in London in the decade running up to 2018, the largest of any UK region or country

£1.25 bn

Support package for tech, life sciences and related sectors to boost COVID-19 recovery

## The need for space

50%

Additional commercial floor space needed to support 950,000 new jobs in the Arc by 2050

1.1 mil

Sqm of office and lab space being sought in Oxfordshire, but only half that amount available

12%

Increase in prime rents in Cambridge in the year previous to February 2020



## A fast changing context — responding to COVID-19





*‘The public health crisis demonstrates clearly the need to have significant scientific, social science, mathematical and engineering capabilities. The speed with which the scientific community has come together to seek urgent solutions, together with the swift repurposing of equipment and personnel to the healthcare frontline, shows the benefit of this capacity to the community and economy at large in times of crisis.’*

Dr Phil Clare, Deputy Director, Research Services  
(Knowledge Exchange and Engagement),  
University of Oxford

The value of the knowledge economy, in every sense, has been powerfully demonstrated in the past weeks and months, as the UK, along with the rest of the world, grapples with the response to the rapid spread of the COVID-19 disease.

Some of the most high-profile innovations generated at remarkable speed have emerged through the research excellence, collaborations and cutting-edge applications developed by world-leading universities, researchers and companies in South-East England, especially in and around London, Oxford and Cambridge. The region’s strengths in life sciences, in particular, have been at the forefront of the overriding need to develop effective testing, treatments and, ultimately, a vaccine.

In 2018, NLA’s Knowledge Capital report highlighted the transformation of the higher education and health sector estate in London and across the South East. Since then there has been considerable growth in demand for life science, laboratory and high-tech office space as the knowledge economy has expanded across the region. While COVID-19 has presented an urgent and unexpected set of challenges, this was already an expanding sector and is now seen as one of the most resilient. Maintaining this momentum, supporting networks and providing the right types of spaces will be vital for the region’s future, and the UK economy as a whole given the shockwave created by

the impact of the disease worldwide. As well as immediate social and economic impacts, London, Oxford and Cambridge and other towns and cities across the region will still face underlying structural challenges in ensuring sustainable, inclusive growth in a future beyond COVID-19.

The response to COVID-19 has — beyond the fundamental concerns about public health — generated potential opportunities alongside the challenges, often arising from existing trends brought into sharp focus by the pandemic. To date, these can be summarised to date around the following key questions:

*How will the demand for space for knowledge-intensive industries change?*

The life sciences sector, leading the response to COVID-19, is seen as one of the most resilient, and growth of demand for space continues. But there are major concerns about falls in funding and investment among start-ups, with a consequent negative impact not just on space requirements but also on research capability and potential to attract talent.

*How can we harness the success of accelerated solutions and collaborations?*

The temporary Nightingale Hospitals — which saw convention centres and other buildings transformed

into critical care facilities within days — and rapid switching of high-value manufacturing capabilities to development and production of ventilators have highlighted how crises are the engines of innovation. To build these lessons into long-term thinking, we need to invest in more modern methods of construction and look at speeding up the decision-making process.

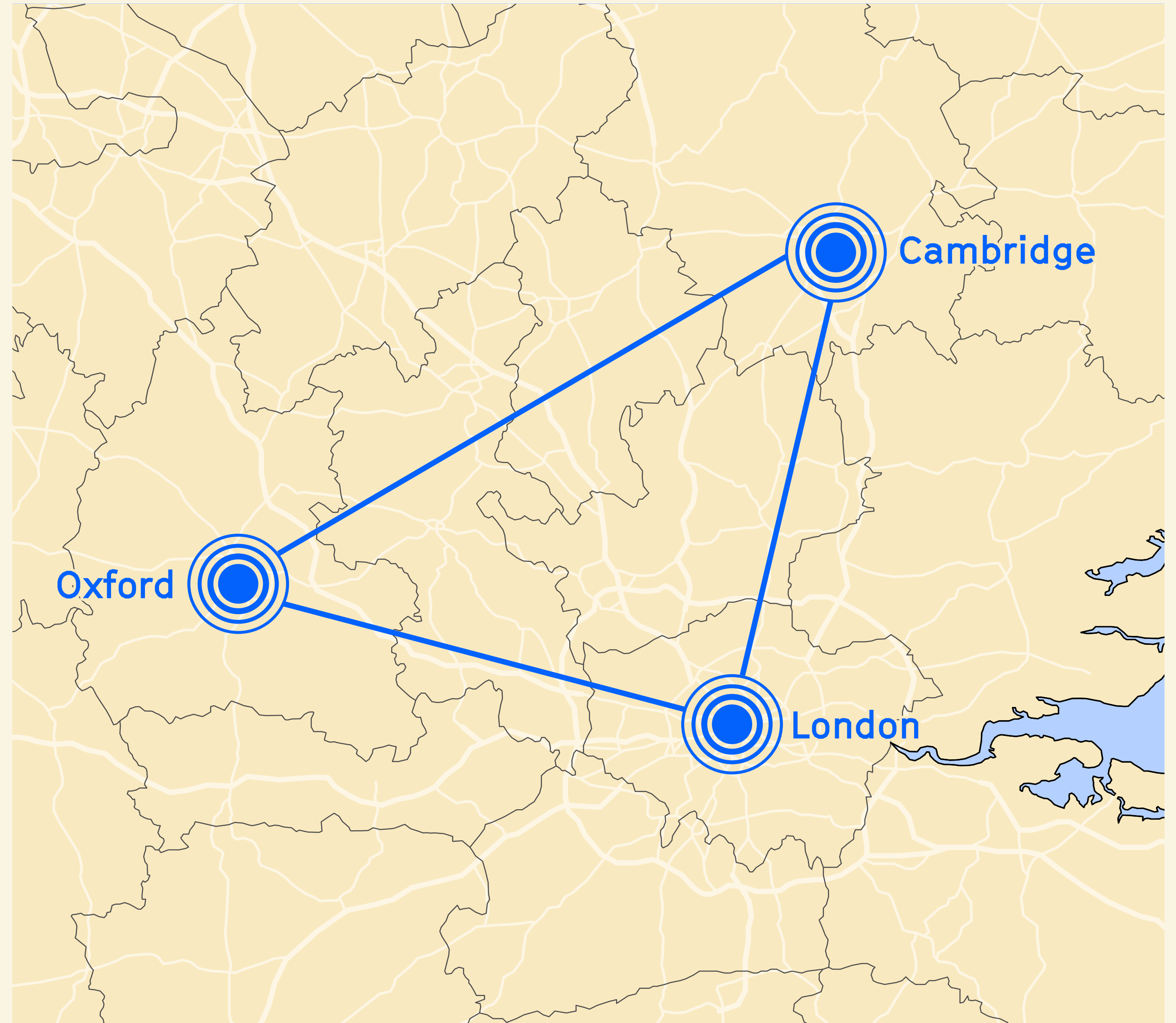
*How can existing physical assets be made more flexible and adaptable?*

Universities and anchor institutions are now starting to look at how they plan for reduced income and demand for accommodation, particularly if there are dramatic falls in the number of applications from international students. Many universities and research institutes are putting capital programmes on a short-term hold, and there will be greater consolidation of the existing estate. Repurposing and adapting existing assets will become critical for sustaining these institutions, and business models will need to be reworked while social distancing is in place.

*How can we ensure that the knowledge economy is inclusive and meets local need?*

Much attention has been focused on how innovation supports economic growth, but COVID-19 has highlighted how inequality still exists side by side with prosperity. This time presents unique opportunities to

rethink the role of anchor institutions and innovation districts and how they can engage more effectively with their local areas, and to address such issues as digital poverty alongside public health. ●

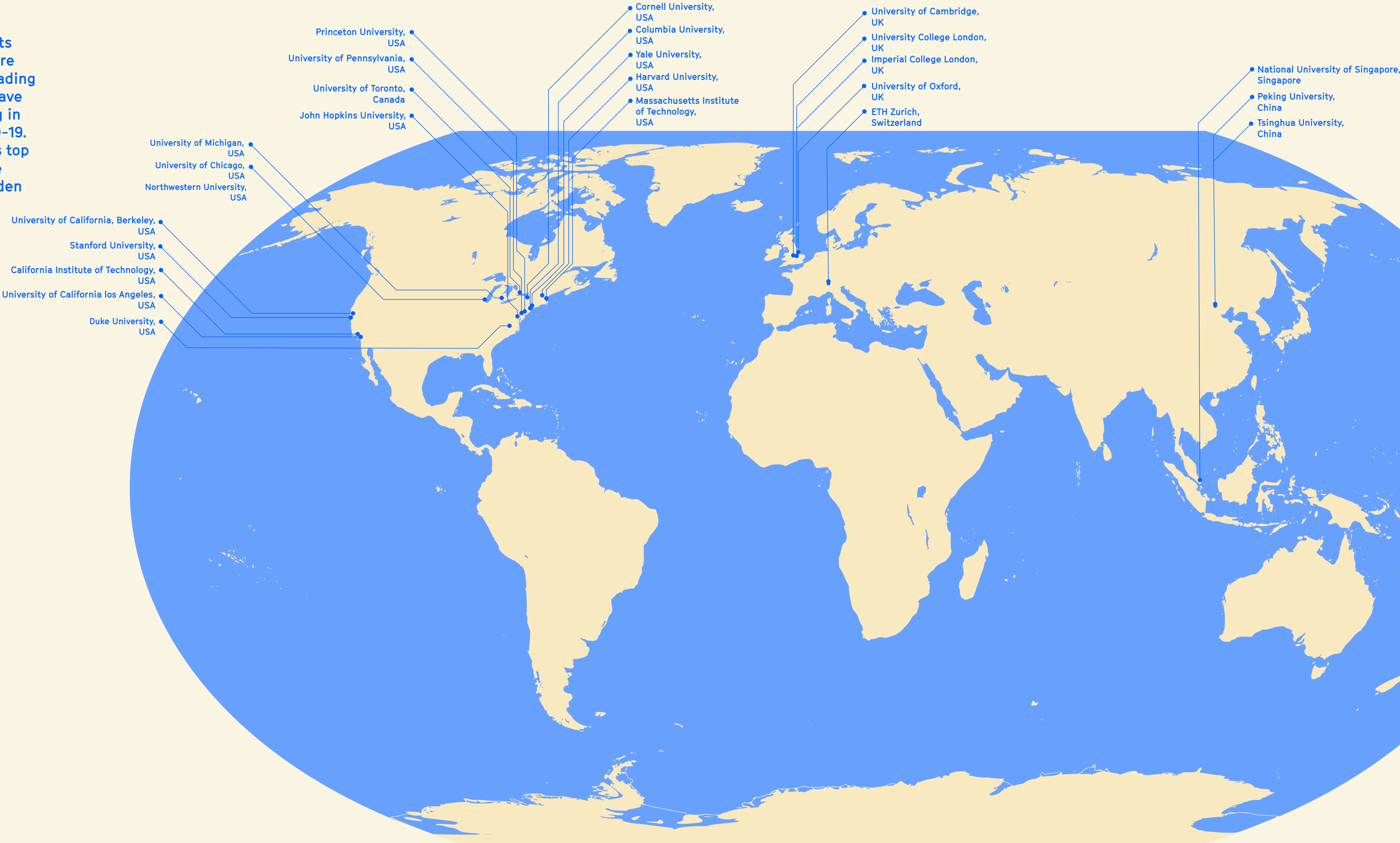


The Golden Triangle, UK



# World's Top 25 Universities

Knowledge districts across the globe are centred around leading universities and have been collaborating in response to COVID-19. Four of the world's top 25 universities are located in the Golden Triangle cluster.



# UK Innovation Districts

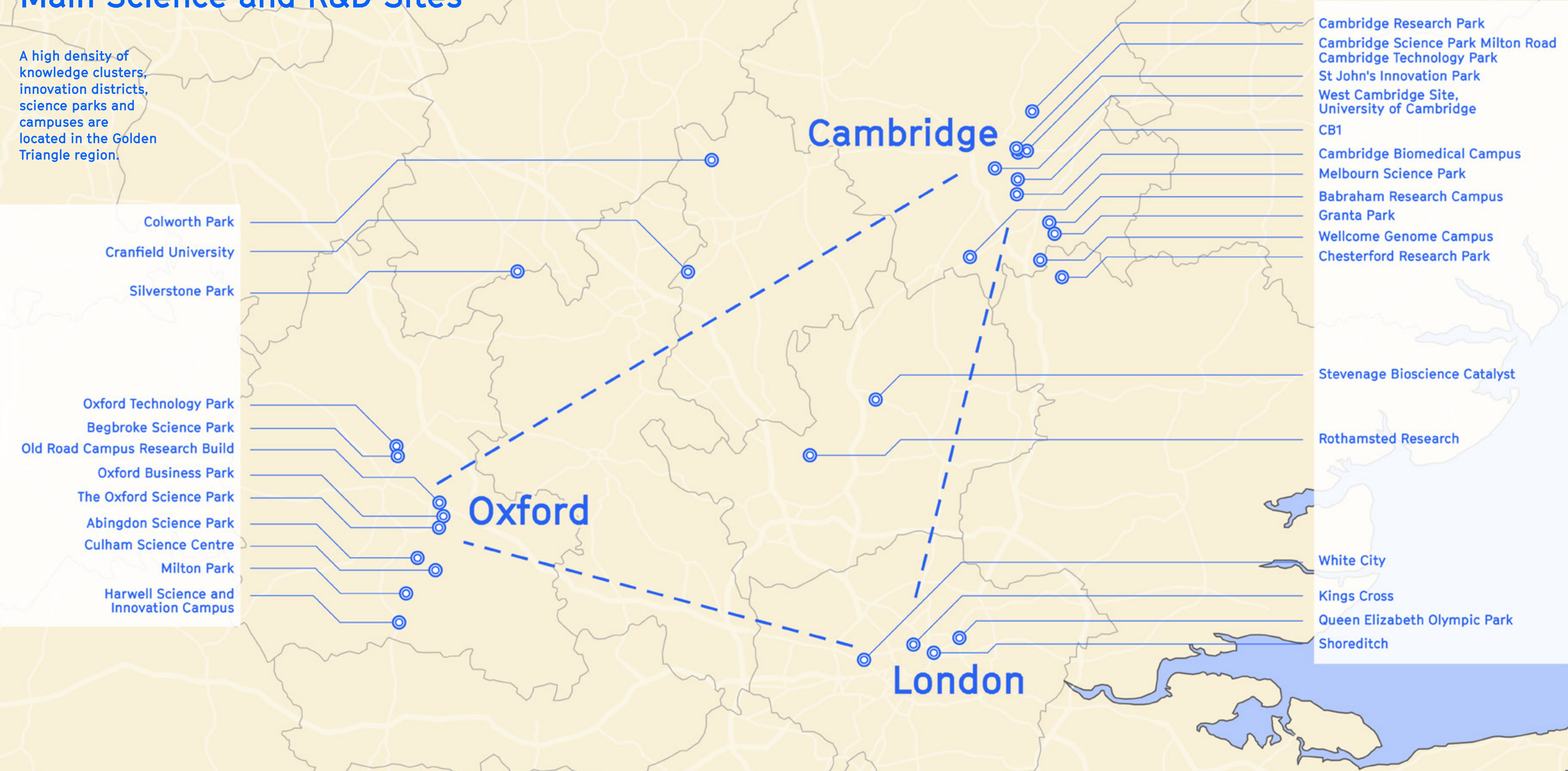
Two of the six UK Innovation Districts, part of the Innovations District Group, are located in London.





# Main Science and R&D Sites

A high density of knowledge clusters, innovation districts, science parks and campuses are located in the Golden Triangle region.



- Cambridge Research Park
- Cambridge Science Park Milton Road
- Cambridge Technology Park
- St John's Innovation Park
- West Cambridge Site, University of Cambridge
- CB1
- Cambridge Biomedical Campus
- Melbourn Science Park
- Babraham Research Campus
- Granta Park
- Wellcome Genome Campus
- Chesterford Research Park

Stevenage Bioscience Catalyst

Rothamsted Research

White City

Kings Cross

Queen Elizabeth Olympic Park

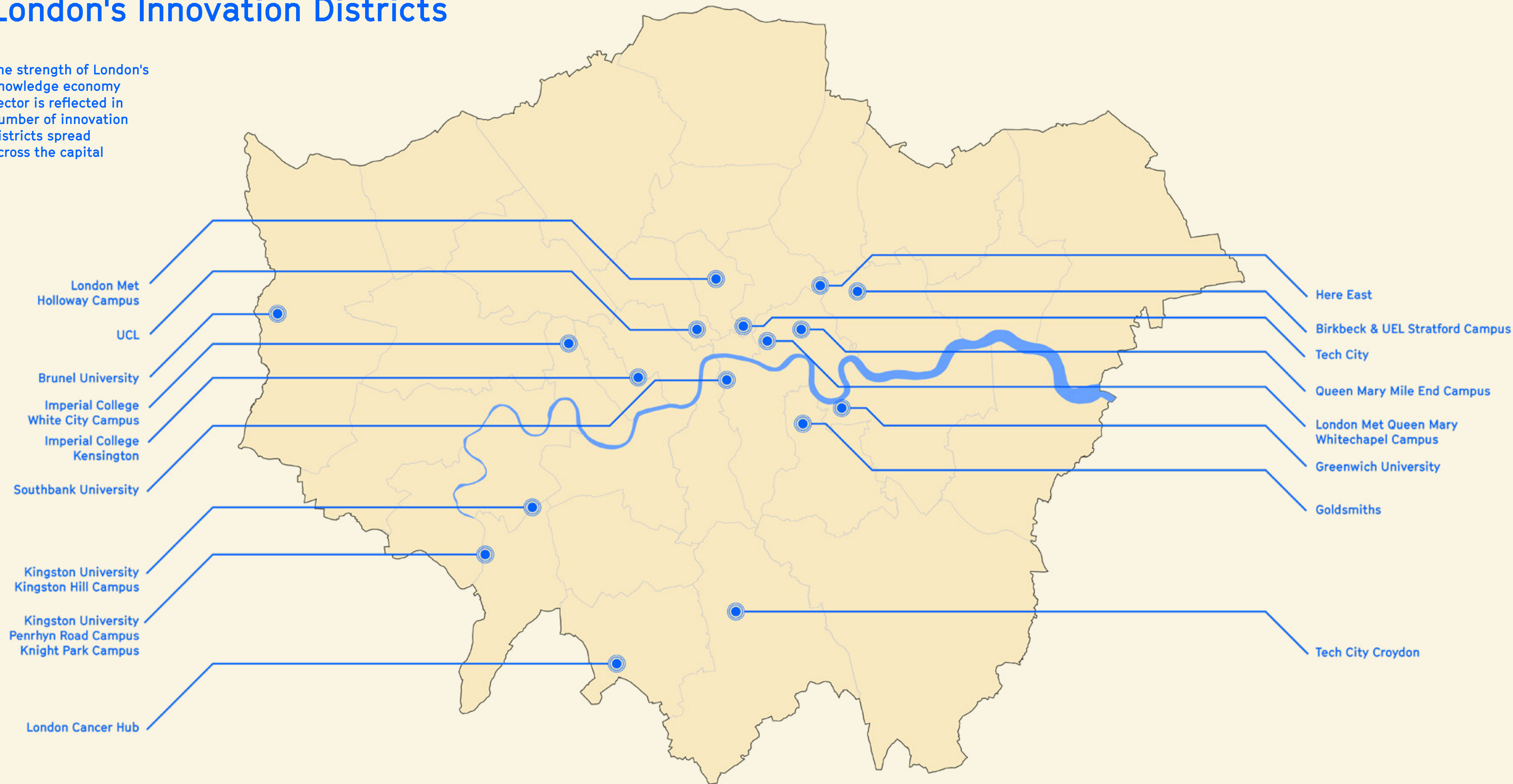
Shoreditch

- Colworth Park
- Cranfield University
- Silverstone Park
- Oxford Technology Park
- Begbroke Science Park
- Old Road Campus Research Build
- Oxford Business Park
- The Oxford Science Park
- Abingdon Science Park
- Culham Science Centre
- Milton Park
- Harwell Science and Innovation Campus



# London's Innovation Districts

The strength of London's knowledge economy sector is reflected in number of innovation districts spread across the capital





# London, Oxford and Cambridge: a knowledge ecosystem



## The ‘golden triangle’

London, Oxford and Cambridge form three points of an area of southern England — sometimes called the ‘golden triangle’ — that has become one of the world’s foremost knowledge-intensive areas, generated through the combination of research and innovation by world-leading universities with companies in the technology, medicine and life sciences sectors. Within this area lie five of the world’s top-ranked universities for life sciences and medicine: the University of Oxford, University of Cambridge, University College London (UCL), Imperial College and King’s College London (KCL).<sup>1</sup> As of March 2020, the UK life sciences sector, mainly driven by the activity in and around these three cities, contributed £74 billion to the UK economy.<sup>2</sup>

Graduates and researchers at these prestigious institutions have been responsible for establishing pioneering digital, tech and other companies producing applications that have ‘spun out’ of research initiatives; in turn, these have attracted hundreds of other businesses seeking direct access to innovation, talent and commercial advantage in a highly competitive global market. The need to benefit from advances in knowledge and to create business synergies mean that in practical terms firms want to be co-located together with research, leading to the formation of knowledge and innovation clusters, especially around higher education institutions. The

region’s individual innovation districts are also able to draw on wider special interest networks at national and global levels: for example, two of London’s key innovation districts — the Queen Elizabeth Olympic Park and the Knowledge Quarter — are part of the UK Innovation Districts Group.

### Policy context

Increasingly the golden triangle is framed explicitly in terms of its research and innovation excellence specifically in life sciences, being described by the GLA as ‘the strongest biosciences cluster in Europe’.<sup>3</sup> It encompasses more than 3,700 companies with specialist expertise in areas including genomics, advanced therapies, digital health, artificial intelligence (AI) in healthcare, and neuroscience. This dynamic, world-class innovation ecosystem has become a cornerstone of the government’s Industrial Strategy, which has sought to harness the power of these knowledge assets and commercialisation of transformative technologies to support wider growth across the UK as a whole, and to sustain the UK’s global economic competitiveness.

With this has come an increased focus on the east–west axis of the ‘Oxford–Cambridge Arc’, linking the two cities and encompassing Milton Keynes. The Arc has

# 74 bn

Is contributed to the UK economy annually by the life sciences sector, mainly driven by the activity in and around these three cities

# 3,700

Companies with specialist expertise in areas including genomics, advanced therapies, digital health, artificial intelligence (AI) in healthcare, and neuroscience are located in the Golden Triangle

been identified as contributing £111 billion annually to the UK economy, with the potential to generate an additional £80 billion annually by 2050, owing to its strengths in science, technology and high-value manufacturing.<sup>4</sup> It was identified and supported in the government's Planning for the Future paper of March 2020 as having 'the potential to be a world-leading green growth corridor, with high-productivity jobs and environmentally-friendly developments'.<sup>5</sup>

### Supporting recovery and long-term growth

Oxfordshire and Cambridgeshire–Peterborough were in the first cohort of Local Enterprise Partnerships and Mayoral Combined Authorities to produce Local Industrial Strategies, outlining measures to harness the strengths of the Oxford–Cambridge Arc research base to sustain wider growth. In particular a new spatial framework is intended to indicate where, in the Arc, new homes and jobs will be created, and the right infrastructure needed to support these. London has not yet produced its Local Industrial Strategy, but the preparatory Evidence Base by the GLA now explicitly acknowledges, perhaps for the first time, London's role as a key part of the golden triangle; and for the decade up to 2018 the capital had the largest net increase 25 per cent in life sciences employment of any UK region or country.<sup>6</sup>

The latest update of the UK Life Sciences Strategy in January 2020 reported strong growth in emerging

sectors such as digital health and a 17 per cent increase since 2019 in inward investment in the AI sector, and that 42% of UK life sciences companies have been spun-out from academic institutions — ten times the rate across all business sectors.<sup>7</sup> Taking place against the emergence of COVID-19 in the UK, the Budget (11 March 2020) pledged to boost research and development (R&D) spending by doubling the current total to £22 billion by 2024–25. The £1.25 billion support package announced by the Chancellor of the Exchequer on 20 April 2020, specifically for businesses in areas of high-growth innovation and applications, also recognises that the tech, life sciences and related sectors will play a vital role in driving post-COVID economic recovery.

### Sustaining the knowledge ecosystem

*'King's has taken a very active role with Guy's and St Thomas' and King's Hospital — we are seeing better collaboration with the NHS like never before.'*

Nick O'Donnell, Director of Estates and Facilities,  
King's College London

Sustaining and expanding the region's scientific expertise and outstanding technological capabilities — Imperial College's work in epidemiological modelling has come to national attention, and UCL and Oxford University are among the leading institutions seeking to develop a vaccine — will be a key priority for some time to come

# 111

Billion contributed to the  
Uk economy annually  
by the Ox–Cam Arc

# 25%

Increase in life sciences  
employment in London — the  
largest net increase in the UK

# 42%

Of UK life sciences companies  
have been spun-out from  
academic institutions — ten  
times the rate across all  
business sectors.



as the potential long-term impact of the pandemic on the knowledge economy becomes clearer. In broad terms, cities in the South East are likely to retain their economic advantage over the rest of the UK.<sup>8</sup>

***‘The pandemic has catalysed collaboration across disciplines, public and private sectors, institutions, and the wider region, highlighting the interconnections already established.’***

The pandemic has catalysed collaboration across disciplines, public and private sectors, institutions, and the wider region, highlighting the interconnections already established. Precision engineering company 3DNC has switched from working on high-speed vehicles to producing ventilators. Leading AI company DeepMind, with offices in King’s Cross, has released data predictions to support the scientific community’s investigations into how the coronavirus functions.<sup>9</sup>

The British Library has collaborated with The Francis Crick Institute and University College London Hospitals (UCLH) to provide a temporary facility for COVID-19 testing in the staff car park. At the end of April 2020 pharmaceutical giant AstraZeneca

and Oxford University announced an agreement for the global development, manufacturing and distribution of the university’s potential vaccine aimed at preventing COVID-19 infection. These are just a few of many examples.

However, as Jodie Eastwood, CEO of the Knowledge Quarter, points out, ‘how each physical area is organised has had a major impact in its response. Where you find the convener, you tend to find a more cohesive response. Innovation districts are serving a critical matchmaking function.’ But districts must be cross-disciplinary in their collaborations — including the arts — to ensure the vitality of places. ●





The Francis Crick Institute, King's Cross, London. By HOK with PLP Architecture for The Francis Crick Institute



# Development activity and the demand for space





## Development activity

Many prime developments providing offices, advanced research facilities and laboratory spaces have also been completed, are underway or have been approved in the region since 2018, evidencing growth. In London key major projects include the development and expansion of campuses around anchor institutions in education and health, including the British Library campus, Sutton Cancer Centre in Merton, the Royal Street scheme opposite St Thomas' Hospital, and Imperial College's White City campus.

In Oxfordshire there are important new developments at Milton Park, Oxford Science Park and the Life and Mind Building at the University. Oxford University's BioEscalator — an innovation centre and hub for early-stage medical science and medtech companies co-located alongside world-class medical research in Headington — opened in June 2019, while the renowned Harwell Campus is being expanded to incorporate four new research institutes and an additional 500,000 sq ft life science/healthtech cluster, as well as labs, office space and leisure facilities. In May 2020 the government announced that the opening of the Vaccine Manufacturing and Innovation Centre — the UK's first bespoke strategic vaccine development and manufacturing capability, a critical facility in the COVID-19 outbreak — on the Harwell Campus was to be brought forward by a year to 2021.

Perhaps the most significant development in Cambridge is the Cambridge Biomedical Campus, the leading hospital-based research and development cluster in Europe, where development of phase two, covering 14 acres of research/R&D space, is underway. Despite the growth of the sector, as Charles Walford, Property Director, Stanhope, observes, the 'transactional evidence shows that it is not yet a mature market', suggesting that there are many opportunities across the region still to be explored.

## Demand for space

Until the onset of COVID-19, demand for office and lab space has been fast outstripping supply. A scenario produced for the National Infrastructure Commission indicated that nearly 950,000 new jobs could be created in the Oxford-Cambridge Arc by 2050, but that an additional 50 per cent of commercial floor space across the region would be needed.<sup>10</sup> In 2018 NLA's Knowledge Capital reported that rents in Oxford for prime office and laboratory space were less than half that in parts of London; since then demand has been so high that, as Dr Phil Clare of the University of Oxford observes, rents in Oxford were 'vertical', as the university is 'creating a new tech business every two weeks', the fruit of world-leading deep academic research.

# 50%

Additional commercial floor space would be needed to support the 950,000 new jobs that could be created in the Oxford-Cambridge Arc by 2050

Property consultancy Bidwells reported in February 2020 that office rents rose by 24.3 per cent in a year in Oxfordshire's world-class research cluster; more than 1.1 million sq ft of office and laboratory space was being sought, with just about half that amount available.<sup>11</sup> A similar picture was found in Cambridge, where prime rents rose 12 per cent in the same period, with, again, availability of business space around half that required to meet demand.

*‘Places like Cambridge and Oxford which are quite heavily life-science focused are seeing growth in demand and trying to lease additional space. How do we respond to this? ... Who is creating the lab space to continue the research into the future?’*

Peter Baird, Senior Associate, Perkins + Will

Even with the unprecedented economic shockwave created by COVID-19, there is optimism that life science businesses are likely to be much more resilient during and after the pandemic than those in many other sectors, and that shortage in supply

of laboratories, which is most acute in London, will likely resurface as an issue. An NLA roundtable in May 2020 reported that, in marked contrast to other real estate sectors, demand for space within the life science sector continues to grow and sites are receiving high levels of interest from developers and investors.

In March 2020 it was reported that the UK had a tiny percentage of available lab and R&D space compared to that of other global cities: about 90,000 sq ft in London, in stark contrast to 14.6 million sq ft in Boston and 1.36 million sq ft in New York.<sup>12</sup> The extraordinarily rapid transformation of the ExCeL convention centre in east London into the first NHS Nightingale Hospital was a widely acclaimed demonstration of just what is possible when accelerated building solutions are needed in a crisis, and has led to calls for speeding up adoption of modern methods of construction (MMC) and decision-making processes.

Conversely, however, funding streams have been heavily disrupted, especially for start-up and early-stage businesses, and demand for space among this sector has reduced. A survey of innovation-based/ R&D companies in Oxfordshire since the lockdown showed that while 87 per cent of the companies responding stated that they were expecting to grow, prior to the COVID-19 crisis, only 37 per cent companies now expect to see growth in the next year;

# 24.3%

Is the percentage office rents rose by in a year in Oxfordshire's world class research cluster

# 90,000

Sq ft of available lab and R&D space was on offer in London, compared to 14.6 million sq ft available in Boston and 1.36 million sq ft available in New York



80 per cent are experiencing delays or are stalling their research and development activity.<sup>13</sup> This has a ‘domino effect’ as funding is often contingent of staged completion on research or trials, and also the employment of new researchers. Anecdotally, many emerging businesses are seeking flexible terms from landlords, and new approaches to business models for start-up space may therefore be needed if demand remains low among this group. ●



© NBBJ

Life and Mind Building, Oxford. By NBBJ for University of Oxford.





Milton Park, Abingdon, Oxfordshire. By Perkins and Will for MEPC Ltd





Cambridge Science Park, Units 1-21. By Scott Brownrigg for Trinity College, University of Cambridge



# The need for greater regional coordination



## Promotion, planning and leadership

There is no question about the world-class reputations of Oxford, Cambridge and London — the first two cities recognised as ‘the most productive life sciences clusters in Europe ... already competing with global leaders in San Francisco and Boston, Massachusetts’,<sup>14</sup> while London being a global centre for innovation and a world city.

However, the region’s strength is stronger than the sum of its part and the current lack of emphasis on presenting the offer as a coordinated brand is not taking advantage of the competitiveness of the Golden Triangle as a globally significant knowledge cluster. As Jonathan Burroughs, CEO, Creative Places, explains ‘if London, Oxford and Cambridge promote themselves individually, then we fall short in recognising that the Golden Triangle is stronger and globally more competitive if presented as a whole.’

*‘if London, Oxford and Cambridge promote themselves individually, then we fall short in recognising that the Golden Triangle is stronger and globally more competitive if presented as a whole.’*

The MedCity organisation provides a single point of contact for industries and investors and facilitates collaboration across the South East. Yet strategic planning, to provide the physical infrastructure to accommodate and grow such networks, remains the responsibility of ‘so many disaggregated authorities’, contends Alistair Cory, Director, Oxford University Science & Innovation Campus UK. The demand for space for knowledge-intensive industries cannot be delivered in a holistic way across the region, he says, ‘unless there is significant leadership recognition across spatial geography and positive government intervention’. Encouragingly, perhaps, the final report of the UK2070 Commission, an independent national inquiry into city and regional inequalities, recommended in February 2020 that the National Infrastructure Commission be tasked with creating a national spatial plan to guide investment and support local and regional spatial plans.<sup>15</sup>

## Resilience and regional balance

In their ‘Radical Regeneration Manifesto’, Bidwells, real estate consultants Blackstock Consulting and architects Perkins and Will, similarly argue the case for setting up a single authority, as was done in east London for the Olympic Park, to fast-track key developments across the Oxford–Cambridge Arc. Above all, says John

Anderson, Financial Strategist at Imperial College London, the lack of a clearly identifiable and visible ‘knowledge economy champion’ at national government level hampers a coordinated response by the built environment industries across the London and South East region. In light of the disruption caused by the pandemic, resilience has become the new watchword, and there are calls for more integrated city–regional planning, especially around economic activity, manufacturing and production, and transport networks, to provide more protection in future crises.<sup>16</sup>

***‘The lack of a clearly identifiable and visible ‘knowledge economy champion’ at national government level hampers a coordinated response by the built environment industries across the London and South East region.’***

The ‘UK Innovation Corridor’ is a network of advanced technology and bioscience clusters linking London and Cambridge, championed by the London Stansted Cambridge Consortium, a partnership of public and private organisations formed in 2013; it represents an example of this integrated approach, yet there are

still few, if any, other corridors linking London with the wider South East region being promoted to date.

The urgent need for joint working highlights the continuing importance of viewing London and the Arc ‘in system terms’, explains Alistair Cory: as an ecosystem of clusters around London, Oxford and Cambridge, where people move around as they progress through their careers. In spatial terms this means providing the right balance and mix of start-up, grow-on, industrial and corporate space across the region as a whole, so that researchers and entrepreneurs can easily identify their next opportunity. As the capital and best-connected city in the region, London has a distinctive role to play as a key hub offering a distinctive type of ‘soft infrastructure’ and a place for wider business functions — business development, legal support, recruitment, investment, and so on.

‘Businesses leaving London to scale elsewhere in the region should not necessarily be seen as a loss for London, but a demonstration of the success of the capital and the wider region as a location to start nurture, and grow a business,’ says Kat Hanna, Masterplan Strategist, Lendlease. ●







## Housing as infrastructure

Providing the right infrastructure, in the widest sense, will be essential in sustaining the region's knowledge economy over the long term. Above all is the need for housing: the National Infrastructure Commission identified the need for at least one million new homes across the Arc up to 2050, while the Mayor's Draft London Plan gives a target of 65,000 new homes per year to 2030. 'Housing is a key infrastructure asset. We simply can't be thinking without that as an important part of the mix,' argues Emma Frost, Director of Innovation, Sustainability and Community, London Legacy Development Corporation (LLDC). In a trend that was apparent even before the pandemic, 'people don't want to commute and are actively choosing not to', she says, while the affordability question is a 'real struggle'.

***'Housing is a key infrastructure asset. We simply can't be thinking without that as an important part of the mix'***

Particularly important will be the need for housing in a range of tenures for a broad demographic — from early career researchers, to (in the words of John Anderson) 'entrepreneurial academics' — those at the forefront

of innovation, perhaps people with young families, who are seeking a settled location, at least for a few years while developing their business — younger professionals, and support and administration staff on a wide range of incomes. One solution may be in the form of more developments along the lines of the historic 'industrial/workers' village' model, created by the universities themselves; among these is the new Eddington neighbourhood, created by the University of Cambridge north-west of the city, designed to contain 3,000 homes, associated facilities and 2,000 postgraduate student rooms, the first of which have been leased by Girton College.

### Making the case for mixed-use

Enforced homeworking for many during the lockdown period since March 2020 has also underscored the importance of designing 'generously, with good amenity space, with flexible layouts, with good environmental performance so that when situations — as we currently experience due to COVID-19 — arise we can live in dignity', says architect Alex Ely, Founding Director of Mae, who is working with the GLA to update housing design guidance and quality standards.<sup>17</sup>

Nevertheless, easy access from home to scientific research space in particular will still be vital, as the

# 1 mil

New homes will be needed across the Arc up to 2050



hands-on scientific research and testing undertaken in labs cannot be done via homeworking. This will further reinforce the case for more imaginative and integrated mixed-use developments.

In addition, universities across the UK are seeing a drastic fall in the number of applications from international students, and hence there is much concern about loss of vital funding. In terms of student housing, especially for undergraduates, a significant reduction in demand is expected with an anticipated massive drop-off in numbers, and if social distancing measures need to be maintained over a longer period. This also brings to the fore the question of how student accommodation might be repurposed or opened up to new uses or occupiers. ●



©Jack Hobhouse

Eddington Housing, Cambridge. By Stanton Williams for University of Cambridge and North West Cambridge Development



# Transport Infrastructure





## Rail connections

Local and regional transport connections have been another critical challenge. While there is established road and rail infrastructure between London and Oxford and London and Cambridge, the weakest part of the ‘triangle’ has always been the east–west axis between the two latter cities. The East West Rail project to re-establish a railway linking Oxford and Cambridge via Bicester, Milton Keynes and Bedford, using much of the trackbed of the former Varsity Line, is in progress, with the preferred route for the central section, between Bedford and Cambridge, announced in January 2020 and approval for major construction of the western section — Oxford to Bedford, and Milton Keynes to Aylesbury — granted in February 2020.

## Road infrastructure

The Oxford to Cambridge Expressway road project, however, was ‘paused’ in March 2020 by the government, in favour of reducing congestion in the Arc’s major centres. While innovation districts in London, in particular the Knowledge Quarter around King’s Cross, benefit from extensive public transport connections, many research centres and science parks in other parts of the region are dependent on the car: ‘congestion in Oxford has become exponential in the last couple of years’, says Alistair Cory. As Sue Foxley, Research Director, Bidwells, explains, extending the growth area

to increase available land and space is a possibility, ‘whether concentrically or with satellites, or more likely some combination of the both, but this requires significant transport infrastructure investment’. Lockdown conditions seeking to prevent the further spread of the virus have also seen a renewed focus on walking and cycling — and hence active travel may return to the forefront of transport planning. ●



# The 'Research Estate'

© Allies and Morrison

IMPERIAL COLLEGE  
LONDON

CASSINI

SATURN



## ‘Collision density’

‘Collision density’ — the design and layout of office, lab, research and public space that allows serendipitous meetings between researchers, entrepreneurs and others, leading to fruitful collaborations — is now widely recognised as a factor for creating successful innovation districts and clusters. However, with innovation districts often located in urban settings and science parks more commonly found in suburban campuses, it can be more difficult for people to meet or bump into each other across the different clusters in the golden triangle. Higher-density, mid-rise developments, including repurposing of existing structures, such as those found in London at King’s Cross and the Queen Elizabeth Olympic Park, could be a solution for the Arc as well.

But the current rules on ‘social distancing’ and continuing concerns about public health might alter this, certainly in the short term as the health emergency continues: local centres in outer areas, with easier access to open space, may become more popular as more people decide they can continue to work remotely and avoid built-up areas. As Dr Kathryn Chapman, Deputy Director of the Milner Therapeutics Institute, University of Cambridge, explains, while social distancing is in place, ‘we can only have 25–30 per cent occupancy — as an incubator space where people come to mix with each other we have to rethink the business model completely’.

## Adaptability, flexibility and repurposing

Attendees at the NLA roundtable in May 2020 reported that while there was cause for optimism in the life sciences sector, this was balanced by high levels of concern about the serious impact of COVID-19 and the consequent lockdown on anchor institutions and universities. Universities are now having to plan for reduced income, especially with fewer international students, who pay higher tuition fees. Many institutions are putting capital programmes on hold, and there is likely to be greater consolidation of the existing university estate.

*‘Universities are looking to new joint ventures with investors such as pension funds to invest in their estates’ in academic buildings as well as in student accommodation; this may also affect how the university estate evolves over time.’*



The overnight switch to online learning under lockdown conditions means that higher education institutions may in the future evolve to focus almost entirely on research, with at least a large part of teaching delivered remotely. In May 2020 the University of Cambridge announced that all lectures would be online in the 2020–21 academic term. With an anticipated drop in student numbers, the university estate may in effect shrink in physical terms, with the possibility of much more land and existing buildings being turned over to other uses, including housing, offices and manufacturing. New buildings will need to be designed with even greater flexibility and adaptability so that they can be repurposed, perhaps continually and at short notice. As David Lewis, Partner at NBBJ, also observes, ‘universities are looking to new joint ventures with investors such as pension funds to invest in their estates’ in academic buildings as well as in student accommodation; this may also affect how the university estate evolves over time. ●



©Soren Kristensen

Imperial College London Molecular Sciences Research Hub. By Sheppard Robson and Aukett Swanke for Imperial College London



Equitable growth

© LLDC



The imperative to develop reliable testing, treatments and a vaccine for COVID-19 means that the skills and research capabilities of the world-leading institutions and companies within the region are currently fully directed towards that goal. But an underlying challenge still remains: that of social inclusion and the need to share more equitably the economic growth generated by innovation districts, especially in urban areas. Many commentators have remarked how the pandemic has highlighted and exaggerated existing differences and inequality, especially in London — ‘digital poverty’ and the lack of access to computers and reliable broadband connections have come to the fore as most communication has switched to predominantly online channels.<sup>18</sup>

***‘Greater permeability and access, more diverse street-level uses, shared workspaces and facilities, and spaces for upskilling will be vital for inclusive growth’***

The Science and Innovation Audit prepared by the Knowledge Quarter (KQ) in 2019 highlighted how ‘many of the jobs generated in the KQ in recent years are ‘low pay’ in character and the risk is one of increasing polarisation in income’, to which in

response it recommended that an overall spatial plan ‘covering the next thirty years ... would help to create a long-term vision for sustainable growth to which all interested parties [including local authorities] can subscribe’.<sup>19</sup> Greater permeability and access, more diverse street-level uses, shared workspaces and facilities, and spaces for upskilling will be vital for inclusive growth; as Kat Hanna argues. A successful development is about more than securing high-profile occupiers with top class commercial space that tends focus on wellness and user experience within the four walls of a building. We need to look in more detail at what’s happening on the ground floor and beyond — not just in terms of active frontages and open lobbies, but in how these offices and their occupiers relate to the communities around them. Engagement with the local area and rethinking the roles of anchor institutions in innovation districts is only going to become even more important — not just for existing communities, but for potential occupiers to. ●





Project Oriel, King's Cross, London. The ground floor of the building contains public-facing functions to create an active public realm. By Penoyre & Prasad for Moorfields Eye Hospital, UCL Institute of Ophthalmology, Moorfields Eye Charity



# The future of public health

© BDP



## Knowledge transfer

The tech and life sciences industries have perhaps drawn the most attention as participants within the Golden Triangle's knowledge economy, but the strength of the partnerships between universities and NHS hospitals in London, Oxford and Cambridge — and their co-location — may become one of the most important factors for the future of public health. Nick O'Donnell, Director of Estates and Facilities, King's College London, explains that 'if you invent a product in a hospital it transfers from bench to bedside that day — direct to the patient. It is a huge accelerator.' Ensuring that medical and research campuses can maintain this rapid knowledge transfer will continue to be a vital consideration for future design and masterplanning, as healthcare will continue to be a primary concern.

## Healthcare in the community

The post-COVID world may see a rebalancing of the view of innovation as primarily a service to the community rather than the economy. Perhaps significant here is the 'living lab', broadly defined as a research process within a live setting which centres on the idea of open innovation, continuous data collection and feedback loops, a concept that originated at the Massachusetts Institute of Technology in the early 2000s. Establishing a network of living labs for developing and trialling new technologies has been identified as a key aim of the

strategy for the Oxford–Cambridge Arc, especially those that respond to the so-called 'Grand Challenges' set out in the UK Industrial Strategy: an ageing society; artificial intelligence and data; clean growth; and the future of mobility.

To date most living labs in the UK have focused on smart mobility and autonomous vehicles — for example those set up by Oxfordshire software company Oxbotica and at the University of Greenwich. But the vulnerabilities of older people to COVID-19 may renew the focus towards prioritising the challenge of the ageing society. The current challenge is isolation, in order to prevent the spread of infection, but a longer-term perspective may see more active research and testing facilities embedded within neighbourhoods, beyond the hospital environment, so that research is more 'actively engaged with the community it serves. ... Embracing society beyond the science park', as Alistair Cory suggests. Ultimately, design, planning and infrastructure will need to accommodate these continuous feedback loops, as well as a much wider anticipated use of digital health as seen in the pandemic response — from remote consultations to medical track-and-tracing apps. ●





Zayed Centre for Research into Rare Disease in Children, London. By Stanton William for Zayed Centre for Research into Rare Disease in Children.



# Viewpoints



# Viewpoints



The strengths of the Golden Triangle as a cohesive knowledge cluster  
by Jonathan Burroughs,  
CEO, Creative Places



Creating the right ecosystem: what the sector needs  
by Charles Walford,  
Property Director, Stanhope



Oxford fast growing start-ups and spin-offs market  
by David Williams,  
Head of Science and Technology, Bidwells

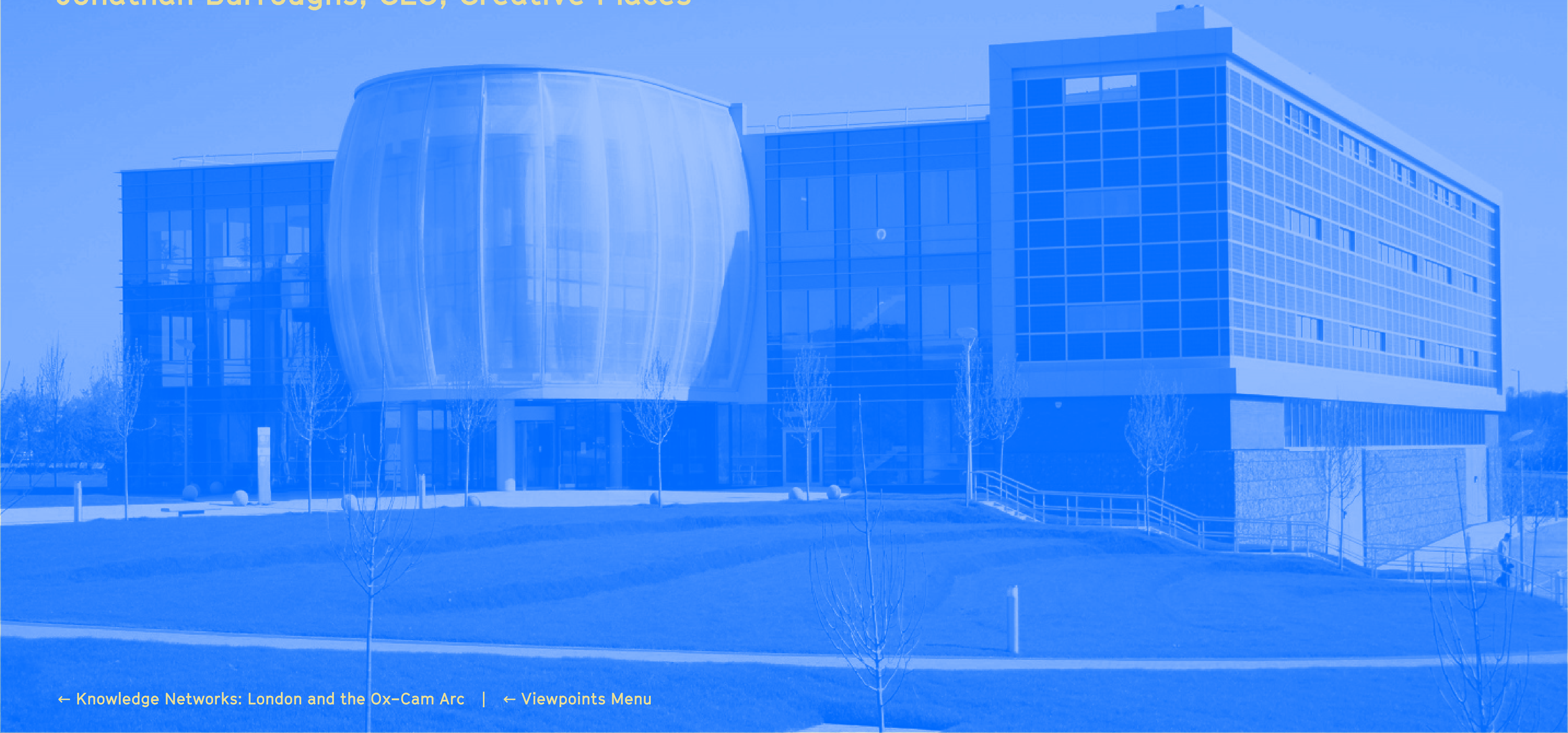


The Queen Elizabeth Olympic Park inclusive innovation district  
by Emma Frost,  
Director of Innovation, Sustainability and Community, LLDC  
and  
Michelle May,  
Director of Socio-Economic Regeneration, LLDC



# *The strengths of the Golden Triangle as a cohesive knowledge cluster*

Jonathan Burroughs, CEO, Creative Places







Cambridge Biomedical Campus, Cambridge. By Prologis And Countryside



The international profile of the UK's Golden Triangle for research and R&D has certainly come to the fore as its universities and businesses work to tackle threats associated with the Covid-19 pandemic. Mathematical modelling work from London's Imperial College has been used by more than just the UK government to guide on public health planning, while Cambridge's AstraZeneca is working with the University of Oxford on one of the world's first potential vaccines to enter clinical trials, attracting global interest for access. The advantages of clusters of academic excellence and entrepreneurial businesses to rapidly solve challenges has been a major demonstration of the capabilities that this region of the UK enjoys.

*‘Into the future we passionately believe that London should be seen as part of the UK's Golden Triangle innovation cluster.’*

Into the future we passionately believe that London should be seen as part of the UK's Golden Triangle innovation cluster. As a country our culture is about innovation and enterprise, stacked on top of a research platform. As a city London has phenomenal fire power in terms of its academic and financial resource and a huge magnetism for people seeking 'city' life with cutting edge business and cultural engagement. But

its under-sold if the innovation intensity of London, Cambridge and Oxford isn't positioned as part of a key international cluster and actively promoted on the global stage as a connected asset base.

The challenge for all of us is to help the Golden Triangle grapple with infrastructure and cost of living issues that could potentially hold this area back. This is why the NLA's work that encompasses policy and planning is so vital. Sub-sectoral areas of excitement like cell and gene therapy, cleantech development and advancing food production whilst being kinder to the environment are fundamental areas of growth with huge potential. And for these, it isn't just the key cities, it's the key assets that need to be understood and built upon. In Stevenage we have the Cell and Gene Therapy Manufacturing Centre, Cambridge Cleantech staff are now working more extensively around the region and at Jealott's Hill near Reading, Syngenta is planning a science park focussed on tomorrow's farming.

Finding ways to facilitate success requires team effort — from Innovation District development that we see at King's Cross to international pandemic response across academia and business. ●



## *Creating the right ecosystem: what the sector needs*

Charles Walford, Property Director, Stanhope





White City Place, London. By Allies & Morrison for Stanhope and Mitsui Fudosan (UK) Ltd



How can we design spaces that meet current needs but that can also adapt to future trends? This is a question that many developers will be wrestling with. The demand for space for the Knowledge sector, especially for life sciences and health related organisations, is currently strong in urban areas within and close to knowledge clusters. The sector has been growing year on year and because of a lack of suitable accommodation, premium rentals for the right product in the right location have been discussed in the UK (based upon evidence of premiums in Boston USA), however delivering a new building that meets the sector's requirements is still a significant risk, when compared to other mature markets where pricing, specification and depth of market are well known.

***‘But what it is that make knowledge clusters successful? From our research, it appears that the starting point is an anchor institution having a reputation for undertaking high quality research and discovery.’***

The market is still nascent — will demand be sustained? How deep is the demand? What is the specification and where is the transactional evidence? Our research

indicates that the requirements for life science occupiers cannot be met through the specification of a traditional office building, neither these can be easily retrofitted. More generous floor to ceiling heights, additional riser space and ventilation, incorporating drainage together with plant and structural enhancements — these upgrades eat up net area, require additional capital expenditure and disrupt other occupiers.

The decision to build the right product ‘ground up’ is therefore challenging. The good news is that the sector is also adapting its requirement to reflect urban locations, often characterised by additional planning constraints compared to remote research campuses. But scientists are people too! They also want the space, amenity and urban lifestyle that most office occupiers now take for granted. So it seems there is a convergence between contemporary offices and the accommodation demanded by the sector, albeit with a few major (and expensive) tweaks to projects that developers and investors will have to expend up front.

But what it is that make knowledge clusters successful? From our research, it appears that the starting point is an anchor institution having a reputation for undertaking high quality research and discovery. These are universities, research institutes or teaching hospitals with high quality staff, resources and equipment. Attracting clever undergraduates and talented postgrads and scientists also mean creating



a cultural and lifestyle offer that is found increasingly in major cities. For example, a strong public transport offer is increasingly important as driving becomes a less appealing option. Businesses in turn can benefit from clustering around these institutions as it may help them to attract new employees or enable greater collaboration with researchers. As a result, the building or buildings need to accommodate a wider community, with spaces that reflect the variety of needs. Support for start-up companies for example often require an incubator operator who can support fledgling companies who will grow rapidly from a bench space to a large lab/office within months, to more private spaces. To foster the community and encourage the collaboration that the occupiers want, spaces for people to meet and exchange ideas are required. These need to be carefully designed and programmed.

The COVID-19 pandemic underwrites the continued growth of this sector. There is an even more pressing need for research and development of effective treatments, cures and vaccines for disease. Governments will be acutely focused upon this and were already encouraging and supporting investment into this sector. The UK has some of the world's leading universities and research establishments and there is an urgent need to provide appropriate real estate solutions to accommodate the whole ecosystem. Some of our centres of excellence do not have adequate supply accommodation, especially

London– for start-ups coming out of UCL, Imperial and King's College, for maturer corporates as well as for supporting organisations. ●



## *Oxford fast growing start-ups and spin-offs market*

David Williams, Head of Science and Technology, Bidwells





Zeus building, Harwell Campus, Didcot, Oxfordshire. By Allies and Morrison for Harwell Campus



Billions of pounds of public and private investment is pouring into Oxford. International research facilities at Harwell and Callum, fast growing technology companies and real estate investment acquisitions are all attracting significant funds. It is no surprise Oxford is now a top performing market.

Prime office rents in the city rose by 24.3 per cent in 2019 — that's now 89 per cent over the last five years (Bidwells, 2020), driven by cumulative recorded demand for offices and labs rising from circa 500,000 to 2,000,000 sq ft over the same period.

With at least 60 per cent of all take up in 2019 being knowledge industry occupiers, the generation and growth of these 'breakthrough' spin-out companies over the last five years has led to this unprecedented activity. Inevitably real estate supply has struggled to keep up. So much so that standard office and industrial stock is being repurposed successfully for R&D use soaking up vacancies and driving up rents.

There is a healthy development pipeline now underway with more planned for 2021 but the real game changer for Oxford will be the development of its own world-class innovation district in the city centre. Only then will the small city's economy begin standing shoulder-to-shoulder with other leading global locations. This type of new district is now taking shape in the city's West End area at a scale of development not seen for many centuries.

With a total of circa 50,000 sq ft available in the city centre today, spread across multiple small dated buildings, the Oxford market currently has a glass ceiling for growing companies. Occupiers requiring more than 30,000 sq ft plus cannot currently be accommodated.

COVID-19 has clearly had an impact on the market, certainly in the short-term, but the activity seen in the science and technology sectors during this period of crisis — across life sciences, space, AI, energy and engineering — has seen the majority of our deals continuing and a flood of fresh inbound enquires into lab space at the science and technology campuses we act for, such as Harwell, Oxford Technology Park and Wescott.

The delivery of the CB1 development in Cambridge, which went on to attract the likes of Amazon and Apple to its city centre, was a step change of approach to the city centre's real estate. Bidwells has advised on Brookgate's CB1 development for much of the past decade and is at the sharp end in Oxford too, directly assisting University spin out companies coming out of Oxford Sciences Innovation's start-up portfolio as well as with new developments within the Oxford West End Regeneration, and it is clear Oxford is ready for the next stage of its evolution.

It has been a remarkable achievement to maintain its global status in such a highly competitive and

# 24.3%

Prime office rents in the city rose by 24.3 per cent in 2019 — that's now 89 per cent over the last five years

# 60%

Of all take up in 2019 being knowledge industry occupiers



fast-moving industry, underpinned by the excellence in academic research. The city's real estate is now imperative to Oxford's growth trajectory. It's now perhaps of national importance, given our country's renewed economic focus on science and technology and the city's ongoing response to the COVID-19 pandemic. ●



CB1, Cambridge. By Rogers Stirk Harbour, Grimshaw, TP Bennett, Chetwoods, Perkins+Will, Proctor and Matthews, Pollard Thomas Edwards, Robert Myers Associates, Formation Architects for Brookgate



## *The Queen Elizabeth Olympic Park inclusive innovation district*

Emma Frost, Director of Innovation, Sustainability and Community, LLDC and  
Michelle May, Director of Director of Inclusive Growth, Education and Skills, LLDC

© Tim Crocker





Queen Elizabeth Olympic Park, London



Four years before London hosted the 2012 Olympic and Paralympic Games the UK was hit by the financial crisis of 2008, followed by a decade of austerity. Today we are faced with the fallout from COVID-19 global pandemic which has exposed and exacerbated the fragility and disparity in our national economy.

Yes, we need to bounce back — but we need to bounce back better. We need to reconnect growth and living standards. We need to develop economic strategies that are concerned with both the pace and pattern of growth. The inclusive growth agenda needs to be stronger than ever before. It is that same commitment to inclusive growth that has underpinned the legacy of the London 2012 Games.

Eight years on from the success of the 2012 Games, Queen Elizabeth Olympic Park is a thriving cluster of global names in business (BT Sport, Ford Mobility, FCA...) education (UCL, UAL, Loughborough University...) leisure (Greenwich Leisure Limited, London Stadium, Westfield), culture (Studio Wayne McGregor, V&A, Village Vanguard, Sadler's Wells, BBC), technology (Sports Interactive, Hobs Studio, MatchesFashion...) combined in an ecosystem of crucial start-ups and creative industries.

The Park is a fast establishing as a real-world testbed and hothouse for innovation — from autonomous vehicle trials to group apprenticeship training schemes

to providing a home for creative start-ups and a world leading innovation campus with Plexal at Here East.

All of this is shaped by an overarching commitment to inclusive growth under a guiding star of 'purposeful collaboration', resulting in a new model of an Inclusive Innovation District. Key to this has been working with the right sort of partners from across all sectors, new and old, big and small — who share our ambition. We have targeted sectors that deliver growth in good quality, sustainable careers. We have jointly designed and delivered a demand-led employment and skills programme, 'East Works', which responds to employers' current and future skills opportunities and challenges. We have worked hard to drive up wages and improve employment practices in sectors that are characterised by low pay, unpaid internships, and recruitment through closed networks. We have championed civic voice and participation for example with our Park Panel residents steering group and hundreds of Park Champion volunteers. We have emphasized Youth engagement via our Youth Board and outreach programmes. We have developed an educational programme focused on Experimentation Arts Science and Technology. We support community activation and empowerment through projects that put the community as client such as Hub 67 and East Village Trust. We invest in diverse network building with initiatives like Echo. We protect natural assets with our environmental sustainability commitment and



seek growth with net environmental benefit. Above all, we unashamedly celebrate the abundance of diverse talent, often untapped, that resides in east London.

East London is home to one of the most diverse, young populations in the world, and with that comes a multiplicity of experience and thought that hold real value to the sorts of knowledge-based businesses making Queen Elizabeth Olympic Park their home. Nurturing this diverse talent pipeline, and opening access to it is a business imperative for knowledge-intensive originations, but also, a key to how these knowledge clusters can connect with local communities, building a mutual sense of belonging and prosperity.

There is still further to go in achieving the generational uplift for this part of London that formed such a core part of the 2012 legacy commitments. Much has been achieved already, but perhaps one of the strongest successes has come from understanding and harnessing the power of what we call ‘purposeful collaboration’. With partners across various sectors and sizes coming together to design and deliver a range of activities focused on social, economic and environmental benefits, the result can be more than an agglomeration effect; moving towards co-production and co-creation of new ideas, products and processes. It is with this intent, grounded by an inclusive growth mission that we start to create the inclusive economics of tomorrow that are so needed in the current global crisis of today. ●



Echo: diversifying knowledge and entrepreneurial networks at Queen Elizabeth Olympic Park



# Project Showcase

This project showcase includes a selection of submitted projects and case studies including higher education buildings, hospitals and clinics, laboratories, incubators and start-ups spaces from across the Golden Triangle region and the wider UK.



London – Central

- [Belgrove House](#)
- [The British Library](#)
- [Ion/DRI](#)
- [Lincoln's Inn Great Hall and Library](#)
- [Project Oriel](#)
- [Zayed Centre](#)
- [Royal College of Pathologists](#)
- [Royal Street](#)
- [King’s Health Partners Masterplan](#)
- [10–18 Union Street](#)
- [UCL Faculty of Laws](#)
- [The Kantor Centre of Excellence](#)
- [Imperial College, South Kensington](#)
- [Guys Cancer Treatment Centre](#)
- [London College of Communication](#)
- [The North Block](#)
- [Science Gallery London](#)
- [Harley Street Proton Beam](#)

London – East

- [UCL PEARL](#)
- [Flipside](#)
- [Hobs 3D academy](#)
- [HERE EAST](#)
- [Tiger Way](#)
- [Industrial Transformation](#)
- [London College of Fashion](#)
- [Stratford Waterfront](#)

- [UCL East](#)
- [UCL East, Pool Street West](#)
- [Gillender Street](#)
- [Whitechapel Life Sciences Masterplan](#)

London – South

- [Oak Cancer Centre](#)

London – West

- [White City Place](#)
- [Imperial College London, Molecular Sciences](#)
- [Research Hub](#)
- [Imperial College London, White City Campus](#)
- [The London Institute of Medical Sciences Building](#)
- [Sir Michael Uren Hub](#)
- [Stadium House](#)

London – North

- [College of North West London, Wembley Campus](#)
- [First Way UCFB College & Campus](#)

Oxford

- [Northgate, Jesus College Oxford](#)
- [The H B Allen Centre](#)
- [Milton Park](#)
- [Oxford North](#)
- [University of Oxford, Acer Nethercott Sports Centre](#)
- [Beecroft Building, University of Oxford](#)

- [Biochemistry Completion](#)
- [Himley Village EcoTown Masterplan](#)
- [Kennedy Institute of Rheumatology extension](#)
- [Rosalind Franklin Institute](#)
- [The Oxford Science Park Plot 16](#)
- [Old Road Campus, Oxford](#)
- [Life and Mind Building, University of Oxford](#)
- [Johnson Matthey](#)
- [Masters Field, Balliol College, Oxford](#)
- [Oxford Technology Park](#)
- [Quad One, Harwell Campus](#)
- [University of Oxford Radiopharmacy](#)
- [Zeus building, Harwell Campus](#)
- [National Satellite Test Facility](#)
- [The Schrodinger Building](#)

Cambridge

- [Abcam](#)
- [Cambridge Biomedical Campus](#)
- [The Cambridge Norwich Tech Corridor](#)
- [Cambridge Science Park Phase 1](#)
- [New Museums Site, Cambridge](#)
- [Cambridge Assessment](#)
- [Cambridge Consultants Limited High Tech Labs](#)
- [CB1 Masterplan](#)
- [Peterhouse Technology Park Western Expansion](#)
- [Project Birchwood, Melbourn Science Park](#)
- [Key Worker Housing, Eddington](#)
- [Ray Dolby Centre, Cavendish Laboratory](#)
- [Simon Sainsbury Centre, Cambridge Judge School](#)

- [University of Cambridge Shared Facilities Hub](#)
- [The Works, Unity Campus](#)

Rest of UK

- [Plus X](#)
- [Stevenage Life Sciences Cluster](#)
- [Bio–therapeutics Hub for Innovation](#)
- [STEAMHouse 2](#)
- [Mid Tech](#)
- [New Science Building](#)
- [Teaching, Trauma and Tertiary Care Centre, Brighton](#)
- [First Light Pavilion Visitor's Centre](#)
- [Square Kilometre Array Headquarters, Jodrell Bank](#)
- [School of Engineering, University of Edinburgh](#)
- [University of Glasgow Adam Smith Business School](#)
- [Global Centre of Healthcare Excellence](#)
- [Clatterbridge Cancer Centre, Liverpool](#)
- [Science and Engineering Building, Manchester](#)
- [Metropolitan University](#)
- [The Christie NHS Foundation Trust](#)
- [Bright Building, Manchester Science Park](#)
- [Santander Unity Place](#)
- [John Innes Centre, Norwich](#)
- [Havant & South Downs College](#)



# Central London



# Belgrove House

17–21 Euston Road, London, NW1 2RY | Status: Proposed | Completion: 2024

Client: PreciS Advisory/ Access Self Storage | Architect: Allford Hall Monaghan Morris Architects

At the centre of the Knowledge Quarter on Euston Road opposite King’s Cross and St. Pancras stations in Camden, Belgrove House is proposed as a new specialised office and laboratory building for the life–sciences sector. Subject to planning permission, it has been designed for occupiers that undertake globally significant research and wish to collaborate within one of the largest clusters of knowledge–based businesses in the world. Access Storage (part of the PreciS Group) has traded successfully from the building for over 15 years.

The proposed scheme respects the nationally significant historic station buildings and responds to the engineering achievements of these in an area of strong character and striking contrasts. Its configuration emerges from a clear, legible arrangement of uses on the site. Life–sciences research laboratories can be located on the largest floorplates at floors 1–3, providing animation to the facades and a public window. HQ style offices can be located on floors 5–9. The 4th floor can serve as a dedicated ‘collaboration hub’.

A generous ground floor provides occupant and public access via the main entrance on Euston Road into a reception and exhibition space. A new step–free entrance to the Underground is proposed linking the building into King’s Cross/ St. Pancras via a new connection at lower–ground floor to the pedestrian tunnel beneath Euston Road. From Argyle Square a publicly–accessible entrance into a café and event, meeting and education space is proposed, animating the square and giving access into a lower–ground floor auditorium.

The design and engineering processes have been informed by the requirements of life–sciences building tenants including increased floor to floor heights to accommodate greater MEP zones, increased vibration resistance within the structure and larger column grids.

It is designed to be highly sustainable and an example of how carbon emissions may be reduced in construction, operation, and future refurbishment.

- Innovative ventilation strategies and highly efficient systems lead to a substantial reduction in anticipated carbon emissions.
- Externally expressed risers provide air distribution and solar-shading to facades, reducing heat gains and a ‘biophilic’ double-skin facade can provide views through planting
- The scheme is targeting BREEAM ‘Outstanding’ and LEED ‘Gold’, as well as benchmarking the LETI targets and the WELL standard.

The public realm strategy proposes improvements such as new planting and trees within an urban greening design methodology. External terraces at levels four and five can create outdoor amenity space for occupants and a distinct identity when viewed from surrounding areas.

*‘This is to be a building at the heart of Camden, the Knowledge Quarter, and London. It is an exciting opportunity to add to the historic importance of the area, which has always been dynamic and is now London’s centre of industry and innovation We hope that our proposal starts an industry conversation about the future direction of the design, flexibility and sustainability of life science building programmes; offers new spatial opportunities for research, collaboration and innovation amongst science and technology organisations; and, importantly, inspires local people in Camden, and especially young people, by giving them access to this incubator of ideas and exemplar of design.’*

Faaiza Lalji, Director, Planning and Development, PreciS Advisory/ Access Self Storage

Simon Allford, Director, Allford Hall Monaghan Morris Architects





# The British Library

St Pancras International, Kings Cross, London WC1H 8ND | Status: Proposed | Completion: 2029

Developer: Stanhope Plc | Developer Partner: Mitsui Fudosan (UK) Ltd | Client: The British Library

Stanhope and Mitsui Fudosan UK are working with the British Library to create a transformational contribution to Camden and London’s Knowledge Quarter.

The proposals involve bringing forward the development of the British Library’s estate on a 2.8 acre site to the north of the existing Grade I Listed library and immediately south of the Francis Crick Institute, Europe’s largest biomedical research centre.

The project combines an extension to the British Library, a new home for the Alan Turing Institute (the national centre for data science research), and commercial workspace focused upon the knowledge sector, especially Life Sciences. It will provide an additional 100,000 sq ft of new space for the British Library for learning, exhibitions and public use, as well as an enhanced Business Centre and auditorium for a range of events. The new spaces will support the Library's plan for transforming into the world’s leading knowledge centre and promoting its purposes — custodianship, research, business, culture, learning and international.

The commercial spaces, above the new Library extension, will comprise adaptable office space that can accommodate different sizes of business as well as a range of uses, including both wet and dry laboratories. This space will appeal to a range of organisations from small start-ups to large mature corporates that benefit from being near each other and the universities, teaching hospitals and research institutes that make up ‘The Knowledge Quarter’, of which the British Library is the epicentre. The project provides the opportunity to create the right spaces and connectivity that are required by the knowledge sector, that are currently scarce in central London. The design will foster interaction between the different users by mixing research and commerce with the Library and the wider community.

The project can create connections: between the British Library and the commercial users; within the network of Knowledge Quarter organisations and, importantly, reaching out to the communities of Camden and Somers Town, generating a range of educational and skills opportunities.

The project is at a similar stage to Royal Street, but with a longer delivery profile due to enabling works regarding the British Library’s continued operation and infrastructure that needs to be provided for Crossrail 2.

*‘It is rare that developers are able to build genuinely public buildings. Not only will the new extension be where the Library’s ‘Living Knowledge’ vision comes literally and visibly to life, we want to create a seamless continuity between the Library spaces below and the commercial above, fostering a community between the buildings occupants, Knowledge Quarter partners and the local community of Camden and Somers Town. The entire footprint of the site, both within the building and externally, will be publicly accessible, open and welcoming from street level, creating a facility which can be used for a wide range of activities including those that are community focused and led. The ambition is that the local community will regard this development as a local asset and we will develop a programme of activity and initiatives to enable this to happen.*

*The project is an innovative public private partnership providing a new civic and public space, expansion to a National Institution, much needed knowledge based commercial space in central London, and a range of community benefits and opportunities; it will also provide vital infrastructure for a new urban railway.’*

Charles Walford, Director, Stanhope





# Ion/DRI

Grays Inn Rd, London WC1X 8LD | Status: Planning Granted | Completion: 2023

*Client:* UCL Estates | *Architect:* Hawkins\Brown | *Project Manager:* Arcadis | *Planning Consultant:* WSP/Indigo | *Structural Engineer:* Ramboll | *Landscape Architect:* Plinke. | *Heritage Consultant:* Alan Baxter | *M&E / Sustainability Engineer:* Hoare Lea | *Fire Engineer:* Burohappold Engineering | *Transport Consultant:* Momentum | *Sustainability Consultant:* Expedition | *Building Control:* Bureau Veritas | *Clinical Consultant:* BMJ Architects

University College London’s redevelopment of the Eastman Dental Hospital site will become home to a new centre for neurology offering a world-class research and hospital environment. The centre will provide a ‘bench-to-bed-and-back-again’ approach to tackling debilitating neurodegenerative diseases.

Hawkins\Brown devised a masterplan for the site which encompasses three plots, each with a building designed around principles of collaboration, adaptability and reconfigurability. New publicly accessible spaces and routes through the site will be created, enhancing the building’s contribution to the historic character of Bloomsbury and contributing to the expansion of London’s Knowledge Quarter in equal measure. The scheme was granted planning consent in 2019, with the first plot due for completion in 2023.

Collaborative partnerships are at the heart of UCL’s mission to tackling neurological diseases. Plot 1 comprises of a comprehensive redevelopment of the former Royal Free Hospital to deliver a world-leading medical research facility for UCL’s Queen Square Institute of Neurology, the UK Dementia Research Institute (UKDRI) and UCLH’s National Hospital for Neurology and Neurosurgery (NHNN) Outpatient Clinic. The site’s central location within Bloomsbury enables the centre to build on its close relationship with the long-established medical faculties on Queen’s Square, including the NHNN, whilst fostering new partnerships within the UK’s wider knowledge cluster. As the UKDRI’s hub, this facility will work closely with the UKDRI’s six other centres across the UK while forging new links within London’s Knowledge Quarter and MedCity’s London, Oxford and Cambridge networks.

The facility aspires to be the most comprehensive and coordinated neuroscience research centre in the world by providing a working environment that promotes collaboration and interdisciplinary translational research. This empowers the project’s partners to work together under one roof and find quicker and better ways to diagnose and treat devastating neurological diseases. The building’s design facilitates knowledge-sharing

through use of open plan laboratories, write-up spaces, technologies and common laboratory processes, shared across all research groups. It is also designed with longevity in mind, meeting the needs of the current researchers and clinicians while maintaining the ability to reconfigure the arrangement of research spaces to fulfill future requirements. Conceptually, the building is designed as a ‘home away from home’, providing pockets of domestic-scale spaces for visitors and their carers to recuperate and re-energise in. The building encourages wellbeing of patients and staff through providing dementia-friendly public spaces, connections to nature, visual links to the restorative courtyard and nearby parks and gardens.

The newly masterplanned site will become an accessible, well-connected and welcoming public destination. New pedestrian paths and cycle routes will increase activity and permeability through the site and beyond, creating new key links between Gray’s Inn Road and King’s Cross Road. These routes will enhance the character of the public realm for both the building users and members of the public by connecting a variety of bright, open spaces that are richly planted to. This redevelopment seeks to foster new interactions between UCL, UCLH, the local community and the wider knowledge quarter and their partners.

*‘UCL’s current neuroscience research is very impressive. In fact, it is currently ranked second in the world. Before I joined the fledgling UCL Dementia Research Institute in 2017 I spent 15 years at Harvard, the top ranked university for neuroscience. They have large purpose-built research buildings designed for communities of collaborating scientists who move back and forth between basic science, translational science and patient care centres. The proposed new building on Gray’s Inn Road provides UCL with the opportunity to do the same. If we get this right — we will be positioned to make really significant progress to defeating dementia.’*

Dr. Adrian J. Ivinson, Chief Operating Officer, UK DRI





# Lincoln's Inn Great Hall and Library

New Square, Holborn, London WC2A | Status: Built | Completion: December 2019

Architect: MICA Architects | Quantity Surveyor: Gardiner and Theobald | Structural Engineer: Eckersley O'Callaghan

Lincoln's Inn, as one of the four Inns of Court, plays a central role in the rule of law for the UK and beyond. The estate to support this important legal work is located across eleven acres of quiet historic buildings. One of the most important functions of Lincoln's Inn is the ongoing education of student members and barristers.

The refurbishment of the Great Hall and the creation of new education and library facilities provide the Inn with much improved accommodation that preserves and enhances the Inn's ability to meet the needs of its legal community through the qualification, training and development of its members.

Taking an holistic approach to the complex of buildings, the removal of insensitive 20th century additions while conserving the existing fabric allowed to remodel the spaces to reveal the character of the Grade II\* Listed Great Hall and Library. The design adds new elements that integrate seamlessly with the historic fabric and offer previously unseen views of the existing building.

The works reinstate the key access routes and clarity of movement within and around the building for all users. Re-opening the southern entrance stair returns ceremony to the ascent into the Hall, re-establishing the sense of arrival that was subdued by previous works. A new timber floor with underfloor heating in the Great Hall provides more effective thermal comfort for users and the reinstatement of the timber wainscoting that lines the room restores the grandeur of the hall. Comprehensive drainage and waterproofing works in the basement safeguard the long-term future of the building.

The Inn's existing education facilities were off site, were too small, had poor ventilation and no natural daylight. This was problematic, as the Inn was keen to re-assert its education programme through expansion, as part of its focus on inclusivity and reach out to individuals from different backgrounds. The Ashworth Centre now places education at the heart of the Inn, reinforcing it as one of the Inn's core functions and provides students and

members with high quality teaching facilities that are linked to the other core functions within the Great Hall.

Along with the library extension, the new buildings are designed to be discreet and sympathetic to the historic context of the Inn. Large rooflights and double height spaces bring natural light into the heart of the buildings whilst providing important visual connections to the surrounding buildings. The design provides new education, library and administration facilities with minimum visual impact on the historic setting of the Great Hall and Library building and on the wider setting of the Inn.

The project marries together exceptional environmental and sustainable performance with a sensitive understanding of the significant historical setting of the Inn. A holistic energy strategy helped to significantly reduce the running costs of the Inn's existing historic building stock. Existing building systems have been upgraded to be more efficient and sustainable; utilising renewable energy from a new ground source heat pump within the new education development. Rainwater harvesting and a sustainable urban drainage system (SUDs) have also been incorporated into the new buildings and despite the age of the buildings and heritage restrictions, the project achieves a BREEAM 'Very Good' rating.

*'Gaining planning permission for such a major intervention adjacent to the iconic Grade II\* listed building required a thoroughly engineered approach, and numerous junctions with the existing buildings which were carefully detailed. In re-connecting the new library space to the historic turret, the existing spiral stone stairs had to be rotated by 180 degrees. This operation was carried out with surgical precision and was achieved without the need to replace any of the original treads. The final result is testament to the team that they maintained such a keenly focused attention to detail throughout.'*

Duncan Walters, Associate Director, Eckersley O'Callaghan



© Andy Stagg



# Project Oriel

St Pancras Way, Kings Cross, London NW1 0PB | Status: Proposed | Completion: 2025

Client: Moorfields Eye Hospital, UCL Institute of Ophthalmology, Moorfields Eye Charity | Architect: Penoyre & Prasad | Project Lead: AECOM | Interior Designer and Landscape Architect: White Arkitekter

Oriel is a new home for the Moorfields Eye Hospital, UCL Institute of Ophthalmology and Moorfields Eye Charity. The project takes a radical approach to the integration of sight related care, research and education in order to drive innovation and speed up the translation of research findings into treatment. Enabling a seamless collaboration between clinicians, patients and researchers, the building will provide a flexible and adaptable armature to facilitate future evolution in clinical care and research practice and strengthen both Moorfields’ position as a world-leading eye hospital and reinforce the Institute’s capacity to deliver globally-networked cutting-edge research.

In response to the aims and ambitions for the Oriel project, the design for Oriel has at its heart three key principles:

A magnetic place —to a new and welcoming civic place in the heart of St Pancras. The building responds to its context and site topography through creating two entrances—a lower one to the southwest drawing people oriented towards Bloomsbury and central London, the upper one to the northeast drawing people in from Kings Cross to the east. Both entrances lead to a generous and public atrium which forms the main front door into the building’s various departments. Through an active public engagement programme, Oriel will demonstrate to its patients, visitors and the wider community the innovative scientific research and medical trials that are carried out within the building. The ground plane of the building contains public-facing functions to create an active public realm.

Maximising collaboration —the building is designed to maximise integration and collaboration across the different departments and disciplines within the building. A structure, dubbed ‘the oriel’, occupies the centre of the atrium and contains the main vertical and lateral circulation to all parts of the building. A stack of multi-functional platforms and semi-enclosed spaces, the oriel is a spatial embodiment of the concept

of translational medicine and research. It is a space to encourage ‘collaboration between patients, clinicians and researchers’ and to ‘harness the collective power of staff, students and patients’.

An adaptive building —the building accommodates a wide range of different functions— clinical services (A&E, outpatients and diagnostics, surgery), fundamental research, translational research, education— within a series of generic floor plates. Through a carefully calibrated structural grid, a servicing strategy that separates shell-and-core from departmental plant, and interiors that are easy to change, the building will also respond to technological and service delivery changes, even total changes of use in the future. The design also embraces circular economy strategies in a number of ways— designing out waste through the use of off-site construction and Design for Manufacture and Assembly (DfMA), designing for adaptability and change, designing in layers and designing the interior for disassembly.

*‘The design team stood out in their highly developed awareness of the importance of the evolving nature of medical science and technology, how this might inform the form and function of the new building and how this might affect the people who will use it.’*

Report of Competition Jury



© Penoyre & Prasad



# Zayed Centre for Research into Rare Disease in Children

20 Guilford St, Holborn, London WC1N 1DZ | Status: Built | Completion: October 2019

Architect: Stanton Williams | Contractor: Skanska | Structural Engineer: Pell Frichmann | M&E/Sustainability Engineer: Hoare Lea

At the Zayed Centre for Research into Rare Disease in Children, Stanton Williams has reimagined the healthcare environment as an engaging civic experience in the heart of London.

Designed for Great Ormond Street Hospital and University College London, the building combines pioneering research with clinical care, promoting a bench-to-bedside model of translational research. The 13,000sqm project is the first purpose-built centre of its kind in the world.

Inspired by the prominent location opposite Coram's Fields — a site dedicated for over 250 years to the wellbeing of children — Stanton Williams created a public-facing building that invites views into the 600sqm lower ground floor laboratories from the street. Inside, the design combines robust laboratory and research facilities with welcoming outpatient accommodation. Throughout, specially commissioned artwork by Great Ormond Street Hospital's Arts programme, enhances the environment for researchers, clinical staff, patients and families alike.

Responding to its sensitive context within the Bloomsbury Conservation Area, Stanton Williams designed a calm and dignified building with vertical fins of sandblasted terracotta arranged across the highly glazed, north-facing main elevation. These rhythmic elements give the building a solid appearance when viewed obliquely, while those inside reap the benefit of the generous natural light. Everyone — both patients and staff — enters across a bridge over the laboratories, where scientists are visible working on new treatments and cures. A prominent artwork by Mark Titchner above the laboratories, and a DNA-inspired lighting installation by Stanton Williams in the reception, further engage with those passing by outside.

By utilising the lower ground floor for the laboratories, Stanton Williams was able to make optimum use of the site. The main plant is located beneath the laboratories, while additional plant at roof level serves a clean room facility on the top floor for developing genetic treatments.

The eight-level building is organised around two atria 'hearts'. The largest is in the research zone and connects the laboratories at lower ground level to three levels of desk-based research space on upper floors. Interaction and chance encounters are encouraged by views across the spaces and via staircases leading up through the atrium to the staff café, and beyond into the workspace. The atrium is animated by a kinetic sculpture by Random International, which responds to its surrounding and engages with visitors in real time.

The second, more domestic-scaled atrium forms the heart of the outpatient zone. Here, children can engage with science and health issues through interactive play installations while they wait for their appointments. Further waiting areas on the first floor overlook Coram's Fields, reinforcing the connection with the surrounding cityscape.

Stanton Williams created a non-clinical aesthetic throughout the building through generous access to views and natural light and the use of warm and tactile materials such as terrazzo, oak, and exposed concrete, which nonetheless meet stringent infection control requirements.

*'Too often healthcare and science are seen as specialisms disconnected from everyday life and the culture and society they serve. Re-establishing these connections, and celebrating the often-invisible work of researchers and clinicians, is now more important than ever. The Zayed Centre for Research seeks to make these connections visible, engaging health and care as part of our shared urban experience. It places human experience and wellbeing at the heart of the scientific and clinical environment, and fosters collaboration and the exchange of ideas and information in the delivery of ground-breaking treatment and translational research.'*

Gavin Henderson, Principal Director, Stanton Williams



© Hufton + Crow



# Royal College of Pathologists

Aldgate, London EC3A | Status: Built | Completion: 2019

Architect: Bennetts Associates | Client: The Royal College of Pathologists | Project Manager: CBRE | Cost Consultant: Equals Consulting | Structural Engineer: Waterman Group

The new headquarters for the Royal College of Pathologists in Alie Street features a stimulating sequence of ceremonial and conference spaces capable of accommodating over 400 people, flexible work space for the College’s 80 permanent staff, as well as a sublet floor for expansion. Terraces overlook the City, and residential accommodation for the College’s use completes the building at roof level.

The design is based around a defining objective — sustaining the ethos of a highly regarded medical science institution in a wholly new setting that enables it to fully express its heritage credentials whilst at the same time demonstrating its enduring relevance and commitment to scientific advance. Site selection and the key decisions about structural and environmental systems, right through to choices about controls and finishes have all been aligned with this objective.

The College relocated from a Grade I listed, Nash Terrace on the Crown Estate to the City’s edgy eastern fringe, a diverse, regenerative and people-centred environment. Despite the radical contrast, the new building replicates the spirit of the original in spatial sequence, proportions and the choice of key materials.

This is Bennetts Associates’ third major project for the College in 30 years. We understand its mission to support the science and practice of Pathology, and to help demystify it. This time working in collaboration with CBRE, the project represents a step change for the College, securing its long-term future for the next 100 years.

Replacing a poor quality 1980s building, the design made clever use of the site, delivering clear span, open floorplates, a side core and contrasting north and south facades. Generous voids carved from the volume provide spaces for the public to engage with the College, and for it to come together as one.

The new building is a BREEAM Excellent, sustainable, long-term investment: highly flexible, low carbon, good quality, it uses well-considered materials. Retaining the existing raft foundation, it features coffered soffits

to minimise concrete volumes whilst maximising the surface area of the thermal mass, all built beautifully to allow many secondary components to be omitted. This yielded more than 50% saving in embodied carbon and reduces operational energy thanks to the benefits of the inherent thermal mass.

It is a creative workplace with good daylight and views, fashioned with a rich visual palette of enduring and timeless materials and textures, beautifully crafted into a stimulating composition of processional spaces. Feature stairs and kitchenettes are positioned strategically to encourage interaction and physical activity.

It reflects the grandeur of the College’s previous accommodation but in a modern setting, providing space for work, meetings, members, conferences and events.

The College contributes to society through its support of medical excellence and its advocacy for its unique branch of science. It has embraced a new community and is working with local schools on a programme of events and activities. The project encourages a sense of community and exemplifies inclusive design, exceeding the requirements of Part M.

*‘We began the project of the construction of 6 Alie Street back in January 2017 and with the support of project managers CBRE and architects Bennett Associates we felt as a client that we were very well supported. The design team worked against a tough brief that was fully met. As an end client not in the property or construction industry, they walked us through every stage of the design process so as to ensure that the building was fit for purpose, accessible, sustainable and future proofed for the College’s growth and for everyone to enjoy for many years to come.’*

Daniel Ross, Chief Executive & Michelle Casey, Head of Facilities & Events, The Royal College of Pathologists



© Gareth Gardner



# Royal Street

Royal St, South Bank, London SE1 7LW | Status: Proposed | Completion: 2024

Developer: Stanhope Plc | Partner: Guy's and St Thomas' Charity, Guy's and St Thomas' Trust | Architect: AHMM

St Thomas’ Hospital — part of King’s Health Partners (KHP) — is one of the major academic research centres and education providers in England. KHP is one of the five UK Academic Health Sciences Centres alongside Imperial, UCL, Oxford and Cambridge.

Stanhope has been selected development partner for Guy’s and St Thomas’ Charity to bring forward a development on a 5.5 acre site opposite St Thomas’ Hospital and close to Waterloo Station.

Royal Street offers the potential to provide an innovation cluster of companies, academic researchers and clinicians creating a new commercial neighbourhood in central London, which will become an integral and hugely beneficial part of the existing local community.

The scheme will accommodate the Waterloo Health and Innovation Hub that will provide outpatient facilities, clinical support spaces, teaching and research spaces where collaboration with industry partners is imbedded into the facility.

Three further commercial buildings are planned that will provide space for larger businesses, SME’s and start up space for businesses who wish to collaborate with Kings Health Partners.

Royal Street’s USP is its location next to St Thomas’ Hospital, with its world leading medical and research

facilities, supported by King’s College. King’s leading Faculty of Life Sciences & Medicine comprises more than 2,000 staff and 5,000 students across four London campuses. This co-location of medical and academia, reinforced by excellent transport connectivity, make it an ideal location for a MedTech cluster.

A planning application is currently being prepared for submission to the London Borough of Lambeth. Delivery of the first phase is anticipated in 2024/5.

*‘We know from our research into knowledge clusters, that a strong academic anchor is required for other knowledge economy business to cluster around for collaboration, access to talent, resource and insight. We have successfully accommodated four life science companies at White City Place, three spin out organisations and one mature corporate. This experience has helped us to learn more about accommodating knowledge cluster organisations, especially life science occupiers and the unique workspaces and working environments they require. This knowledge will help shape the delivery of pipeline knowledge cluster projects at the British Library and Royal Street.’*

Charles Walford, Director, Stanhope





# King’s Health Partners Masterplan and Adaptable Estate Standard

St Thomas St, London SE1 | Status: Proposed | Completion: 2050

*Client's:* Guy’s and St Thomas’ NHS Foundation Trust, King’s College London, King’s College Hospital NHS Foundation Trust, South London and Maudsley NHS Foundation Trust

King’s Health Partners — one of the UK’s six Academic Health Science Centres, and a partnership between Guy’s and St Thomas’ NHS Foundation Trust, King’s College London, King’s College Hospital NHS Foundation Trust, and South London and Maudsley NHS Foundation Trust — are creating a long-term estate masterplan vision with collaboration at its heart.

It will build on world-class existing assets, such as the London Institute for Healthcare Engineering, the Advanced Therapies Centre, the Cell and Gene Therapy Catapult, the Institute of Psychiatry, Psychology and Neuroscience, and the Centre for Translational Informatics, and bring together London’s existing international community of life science industries and academic institutions. Three specialised healthcare, research and teaching hubs will be created focusing on MedTech, biomedicine and translational medicine. The plan will treble the amount of space across the existing estate to 1.1 million sqm by 2050.

Attracting the best talent and investment from around the world, the transformed estate will be home to a community where like-minded professionals from healthcare, science and business work together to advance medicine. The estate will progress the study and practice of healthcare, delivering better care for patients in an exceptional environment for staff.

By bringing clinical, research and educational institutions together with the life science industry in a collaborative space an ecosystem will be created where the best academic and commercial researchers work closely with clinicians and entrepreneurs to unlock the discovery of the next generation of medicines, devices, software and diagnostic tests.

The masterplan vision will be underpinned by the creation of a new Adaptable Estate Standard to act as a blueprint for designing the highest quality, flexible healthcare assets.

Healthcare is rapidly changing. Traditional healthcare and life science buildings soon become obsolete due to the unpredictability of future technology and demand. Flexibility and future-proofed estates are required to respond to changing needs, new technologies and best practises.

The Adaptable Estate Standard will see the creation of healthcare-standard ‘shell and core’ buildings which house a mix of clinical, research, academic and commercial uses. These carefully designed buildings are likely to be refitted every 10–15 years, depending on changing requirements, treatments, technologies and demand.

These unique spaces will facilitate close collaboration as different sectors from med-tech start-ups to world-leading academic institutions, life science industries to clinical researchers are brought into contact. They will bring together experts who too often work in isolated silos into a single, unique space where researchers, clinicians and academics work together, advancing collaboration, understanding and research.

As the buildings are periodically updated, staff, patients, students and the local community will be given the opportunity to continually provide input to ensure the space works to the benefit of everyone. Patients will gain early access to new treatments and technologies and improvements to care pathways will offer faster diagnosis and treatment, improving patient and staff satisfaction.

All new facilities will be designed with the highest levels of environmental sustainability, promoting low-carbon transport and energy efficiency.





# 10–18 Union Street

Union St, London SE1 1SZ | Status: Built | Completion: February 2020

Architect: Bennetts Associates | Client: Royal College of Obstetricians and Gynaecologists (RCOG) | Project Manager: Burke Hunter Adams | Contractor: 8Build | Property Advisor: CBRE

The CBRE development team has worked closely with the Royal College of Obstetricians and Gynaecologists (RCOG) over the past five years to secure a new HQ building at 10–18 Union Street, London, SE1.

Following Bennetts Associates Architects appointment in 2017, CBRE and Bennetts Associates worked collaboratively to explore RCOG’s occupational needs and to help identify a suitable building in central London that would be aligned with the future aspirations of the organisation—to create a 'global hub for women’s health'. The team investigated how RCOG wanted to function as an organisation, the type and size of space they would need and considered different locations in London that might meet the brief.

RCOG, advised by CBRE, secured 10–18 Union Street, SE1 in 2017. Located a short walk from Union Street is King's College London Guy’s campus; Guy's Hospital; the Gordon Museum of Pathology; the University College of Osteopathy, and the Royal College of Occupational Therapists—making this area of London Bridge and Borough a growing ‘medical knowledge quarter’.

RCOG’s 10–18 Union Street comprises two existing adjoining buildings set around an open courtyard, the South building is a modern 1980’s concrete-framed office building which adjoins a converted 19th century Victorian hop timber-framed warehouse to the north. The mix of workplace, events and education space required by RCOG meant the buildings needed to be able to bring people together to share ideas, experience, and knowledge.

Bennetts Associates designed a helical staircase as the key architectural feature to connect both buildings located within a new central space: a semi-glazed covered atrium. This architectural intervention has created a knowledge staircase where people move between the buildings and meet more frequently, and an atrium space where both public visitors and RCOG staff can stop and interact.

The new RCOG also comprises of a large 300–person capacity events space; a member’s lounge; a public café; a library, as well as open plan workspace for RCOG’s staff—all of which flow seamlessly across the existing buildings.

The building was opened in February 2020.

*‘It is rare in architecture to be involved with a project from the competition-winning stage to practical completion. Fortunately, I could achieve this with RCOG. Getting to build a close working relationship with a medical Royal College is rewarding in itself, but to work with exceptionally talented colleagues to refurbish historic buildings and design a new architectural intervention in the heart of the project has been incredible. We are delighted to see our covered atrium and feature helical stair become reality—befitting an end-user client who put their trust in us to deliver something memorable and visually stimulating.’*

Jade Chau, Associate, Bennetts Associates







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## UCL Faculty of Laws

Endsleigh Gardens, Kings Cross, London WC1H 0EH | Status: Built | Completion: March 2018

Since 1965, UCL's Faculty of Laws has been housed at Grade II listed Bentham House and the adjacent mid-20th Century Gideon Schreier Wing. These two disparate buildings have been unified to create a state-of-the-art environment for learning. Significant refurbishment, an extension of 1,000 sqm and a new five-storey atrium between the two address long standing building and space deficiencies and provide step-free access at all levels. Throughout, different styles of working are accommodated through a range of spaces, from secluded window seats to open plan hotdesks. Internally, heritage elements have been exposed, whereas outside, walls have been upgraded. It was rated BREEAM 'Excellent'.

*Architect:* Levitt Bernstein  
*Client:* University College London  
*Structural Engineer:* Curtins Consulting  
*Services Engineer:* Buro Happold  
*Energy Consultant:* Parsons Brinckerhoff  
*Planning Consultant:* Deloitte  
*Cost Consultant:* AECOM  
*Acoustic Consultant:* Sandy Brown



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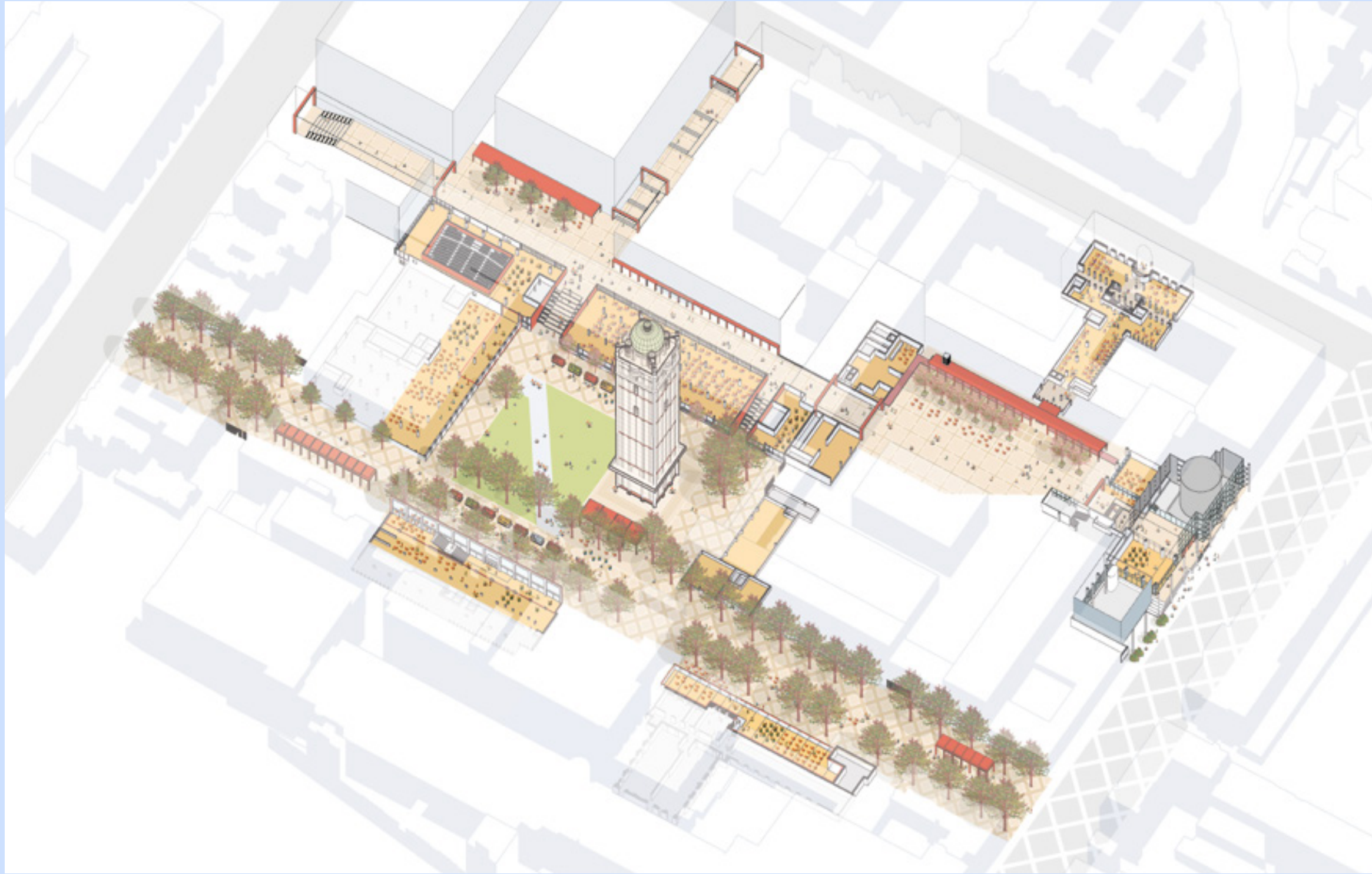
## The Kantor Centre of Excellence

Rodney St, Islington, London N1 9JH | Status: Built | Completion: March 2019

The Kantor Centre of Excellence is a pioneering part new, part refurbishment project located on a restricted site near London's King's Cross. The first centre of excellence for children and young people's mental health in England, it represents an exciting new era for the Anna Freud Centre and the Pears Family School and brings together the best in clinical practice, research with international reach and policy under one roof. Key partnerships and collaborations include Yale School of Medicine — Child Study Centre and University College London postgraduate degree programmes focusing on child development, psychopathology and the treatment of mental health problems.

*Architect:* Penoyre & Prasad  
*Client:* The Anna Freud Centre  
*Interior Designer:* Studioilse





© Allies and Morrison

# Imperial College, South Kensington, London

Exhibition Rd, Knightsbridge, London SW7 | Status: Proposed

Imperial College was founded at South Kensington in 1888 and has since seen successive waves of redevelopment and growth. Following an extensive consultation, Allies and Morrison developed a masterplan that is not a single solution but rather, is a framework, delivered by a series of discrete projects. It seeks to transform the common spaces on the campus and enable future growth and change to come forward in a more coherent way. The masterplan sets out the obligations that current and future buildings have to the public realm and makes propositions for the location and nature of future internal common spaces.

*Client:* Imperial College London  
*Architect:* Allies and Morrison



# Guy's Cancer Treatment Centre

Great Maze Pond, London SE1 9RT | Status: Completed | Completion: 2017

Housed within the top four floors of the new Cancer Centre at Guy's Hospital, there is a private patient's unit committed to offering the latest innovations and treatments. It includes Europe's first integrated robotics theatre that facilitates minimally invasive procedures. The patient focused interior design is reassuringly calm; creating a therapeutic environment to assist recovery. Opportunities afforded by the base building allowed such benefits as panoramic views, an outside space for the chemotherapy suite and natural light into operating theatres and may be considered a model for other such urban healthcare schemes.

*Architect:* Sonnemann Toon Architects LLP  
*Client:* HCA Healthcare UK  
*Contractor:* Collins Construction Ltd





# London College of Communication

Elephant and Castle, London SE1 6TG | Status: Planning granted | Completion: 2024

UAL’s London College of Communication is a pioneering world leader in creative communications education. Having been based at the heart of Elephant and Castle for over 50 years, the College has a long history of working with and supporting local communities, schools, and businesses. Allies and Morrison’s design the new cutting-edge building includes predominantly education space with some ground retail space facing Station Route. This new purpose-built site for the College would aim to build capacity around the creative industries across design, media and screen and create a new creative hub for the area.

*Client:* London College of Communication  
*Architect:* Allies and Morrison  
*Structural Engineer:* WSP  
*Services Engineer:* Hoare Lea  
*Cost Consultant and Project Manager:* Gardiner & Theobald  
*Townscape Consultant:* Travernor Consultancy  
*Landscape Architect:* Gillespies Landscape Architects  
*Planning Consultant:* DP9



# The North Block

62–64 Eton Ave, Belsize Park, London NW3 3HY | Status: Built | Completion: 2019

The School’s new North Block houses five large, double-height studios; sound studio with facilities to work at the highest standards in broadcast, film and new media; movement studio with sprung floors; two fully equipped rehearsal studios and state-of-the-art digital infrastructure, enabling students to engage with the fast-developing worlds of integrated show-control and both video and audio networking. The new facilities provide an outstanding environment for students, ensuring they have access to cutting edge, modern amenities that will further enhance their training.

*Architect:* Tim Ronalds Architects  
*Client:* The Royal Central School of Speech and Drama  
*Project Manager:* Bidwells  
*Planning Consultant:* Deloitte  
*Main contractor:* Grahams  
*Structural Engineer:* Price & Myers





© LTS

## Science Gallery London

St Thomas St, London SE1 | Status: Built | Completion: September 2018

The Science Gallery London, completed in September 2018, brings together scientific researchers, academics, artists and the local community to inspire and engage the public with cutting-edge research through collaboration. The project was developed with the aim of showcasing King's College London's world-leading research within one of the wings of the 18th century Guy's Hospital building. The design includes a glazed facade 'shop front' for the flexible exhibition space, in addition to a café and a 150-seat auditorium. Eighty-five per cent of the existing building was maintained whilst making it more accessible and open to all, and restoring the Georgian Courtyard.

*Client:* King's College London  
*Architect:* LTS Architects  
*Structural Engineer:* WSP  
*Landscape Architect:* LDA Design  
*Heritage Consultant:* Alan Baxter Associates  
*Planning Consultant:* Deloitte



## Harley Street Proton Beam

141 Harley St, Marylebone, London W1G 6BQ | Status: Completed | Completion: 2019

Located on a constrained site in Central London, this project creates a new facility for a new type of proton beam therapy using a compact linear design developed with scientists from the CERN centre in Switzerland. Despite the challenges of working on a Grade II site, the boundaries of what could be achieved were pushed to their limits. The facility, planned across two townhouses, a 15m deep basement and extending underneath the mews road, will retain the scale and charm of the original streetscape. The patient journey will beautifully encompass restored reception rooms, views across a field of lavender and a modern interior housing the latest treatment equipment.

*Architect:* Sonnemann Toon Architects LLP  
*Client:* The Howard de Walden Estate  
*Proton Beam Therapy Specialist:* Advanced Oncotherapy







# UCL PEARL

Dagenham, London RM10 7TL | Status: Planning Granted | Completion: March 2021

Client: UCL – University College London | Architect: Penoyre & Prasad | Project Manager: AECOM | M&E / Sustainability Engineer: Stantec | *Structural Engineer and Landscape Architect*: Atkins | Planning Consultant: Be First | Contractor: VolkerFitzpatrick

PEARL (Person–Environment–Activity Research Laboratory) —UCL's first net-zero carbon in-use building— will be a unique, urban prototype laboratory for the creation of full-size environments to test how people use infrastructure and cities.

The UK Collaboratorium for Research on Infrastructure and Cities (UKCRIC) is the basis for the UK Government's investment in PEARL. UKCRIC is a set of new laboratories currently spread amongst 14 universities in the UK, designed to enable innovative research to drive the investment of £600bn in infrastructure in the UK over the next 50 years.

PEARL will be the UCL element of the UKCRIC facility. UKCRIC represents the Government's— and Research Councils'— support for research in infrastructure in and between cities. PEARL will be the only UKCRIC facility that involves multiscalar analysis of people and their interactions with infrastructure and city environments. It thus lies at the heart of the UKCRIC philosophy and implementation.

Opening in 2021, this unique facility will explore the ways in which people interact with their environment. It will allow researchers to engage with the public to discover what activities people want or need to do, and the ways in which the environment helps or hinders them. From this knowledge researchers will then be able to apply and test the ways in which the environment can be designed to enable people to live with a greater quality of life.

At approximately 4,000sqm, and 10m high, this unique, reconfigurable lab has been designed for multi-scale research into access and mobility in its broadest sense, from navigating kerbs in wheelchairs to observing train people flow in, off and within transport to improve train design and maximise space inside aircraft. The facility will encourage the local community to engage with the research as participants.

PEARL will study interactions at a micro-scale, such as brain activity, skin response, mass-distribution in the foot, or emotional responses. The physical displacements of people in response to environmental design (what they see, touch, hear, smell or feel) or to dynamic conditions (such as explosions, instructions or exogenous movements) will also be studied.

In turn, the effects of design on people will be studied— capacity, flow, behavioural responses— or the effectiveness of therapies (e.g. remediation of locomotory, eye or hearing conditions) in the course of a person's daily lived activities, and to research in detail the impacts of the environment on stress, contentment, fear, safety, and other perceptions, (e.g. fairness, culture, inclusion, or navigation).

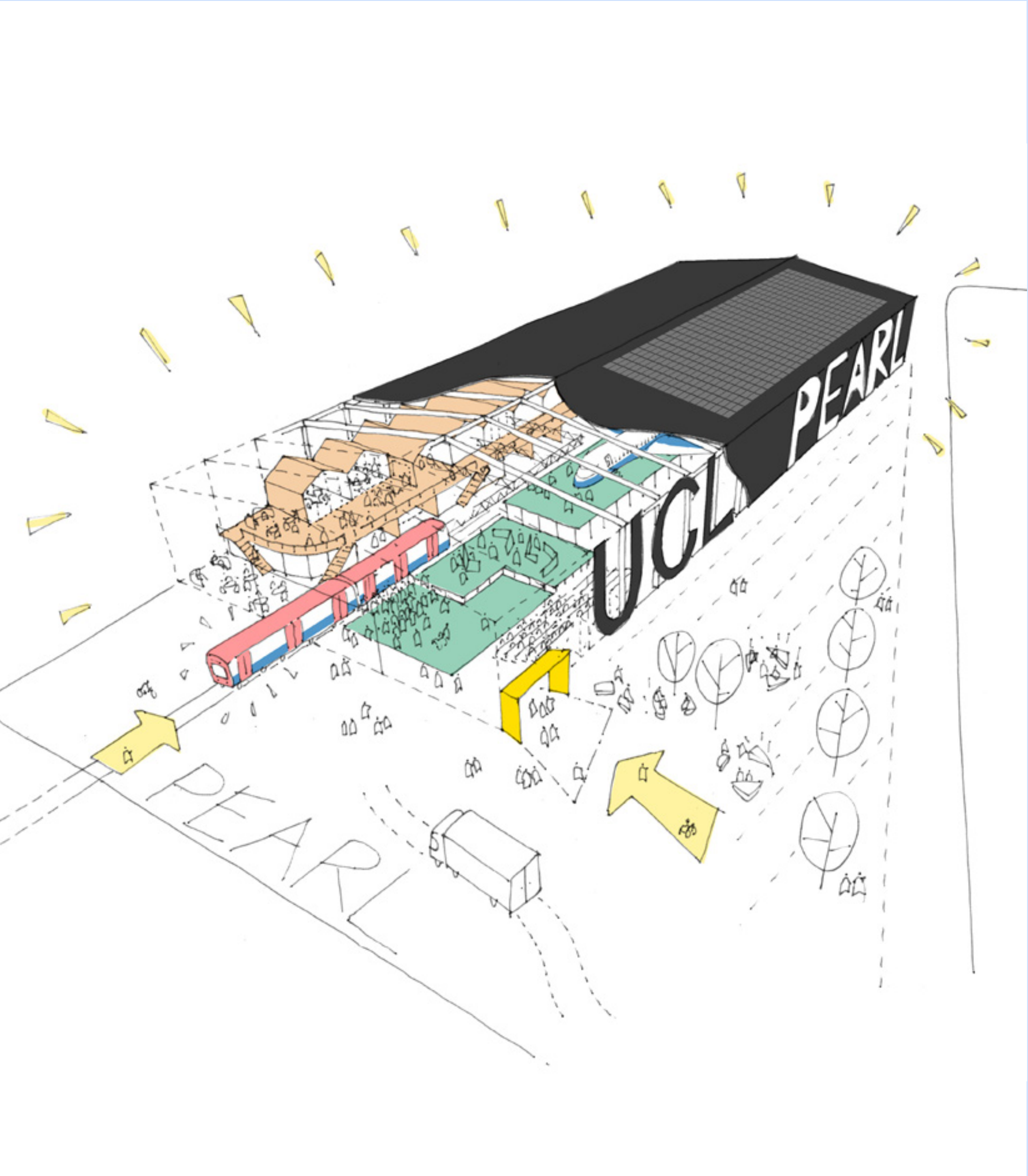
PEARL will allow the public, researchers in many disciplines, regulators, implementers and others to see what operation and design ideas would look, feel and work like, thereby cutting the cost of trying out new ideas by testing them in the laboratory before trialling them for real on-street.

*'PEARL goes to the heart of what makes UCL distinctive, by demonstrating in integrative form the power of engineering to deliver the full panoply of UCL's capabilities in education and research for society. It is a once-in-a-generation opportunity for UCL to lead on a global stage.'*

Professor Nigel Titchener-Hooker, Dean, UCL Faculty of Engineering Sciences

*'A building that will be able to house the world.'*

Nick Tyler, Chadwick Professor of Engineering and Director, UCL Centre for Transport Studies





# Flipside

## Queen Elizabeth Olympic Park | Status: In delivery

Flipside is funded and developed by the LLDC, in partnership with founding partners Beyond, Create Jobs (A New Direction) Made by Many, Reading Room, Sennep, The SkillsLab, ustwo, and delivered by Create Jobs at A New Direction and The Skills Lab.

Flipside is an industry-led talent development programme in digital product design for young people aged 18–25 from Newham, Tower Hamlets, Hackney and Waltham Forest. Over three months, participants take part in training delivered by top digital agencies in the sector, designed to be experiential, practical, collaborative and broad. Flipside aims to provide a new means for agencies to address digital skills gaps and access and grow new talent, while developing an alternative career pathway into the sector for local people and under-represented groups. It was founded by the LLDC, digital agencies: Beyond, Made by Many, Reading Room, Sennep and ustwo, with support from Ada National College for Digital Skills, A New Direction and The Skills Lab.

The LLDC’s East Works programme co-facilitated the creation of Flipside in response to industry-led research which concluded that a bespoke approach was needed to connect digital agencies with local diverse talent pools.

The fast-paced nature of the creative and tech sectors means it is not always easy to know what entry-level jobs exist or what skills are needed to access them. In response to this research, Flipside was born, an immersive 3-month digital product design training programme co-designed and co-delivered by some of London’s top digital agencies allowing training to be agile and responsive to industry need. The Flipside approach is ‘learning-by-doing’ to ensure Flipsiders develop flexible mindsets that can adapt to industry shifts. Flipsiders not only develop the skills needed to access opportunities in the sector,

but are connected to a network of peers and industry professionals, an essential requirement in a sector built on who you know not just what you know. The programme provides Flipsiders with a training bursary of £200 per week for the duration of the programme to remove the financial barrier many under-represented groups face accessing opportunities to work and train in the sector. To date 22 young people have accessed opportunities through the programme with 17 moving into roles in the sector at renowned digital agencies such as Made by Many, Pixeled Eggs, DesignIt, Beyond, ustwo, Red Badger, BIO agency and many more. Flipside’s unique approach to talent development has attracted digital agencies across London who often have limited time and capacity to develop and resource in-house training programmes independently. Flipside’s carousel training model allows candidates to receive training from a number of agencies across different skillsets, allowing a collaborative and supported approach to talent development.

*‘This has been a life changing experience for me. Flipside has given me life-long skills and different ways of looking at the world of design. My eyes have been open to the design industry and I’m more aware of myself. I learned so much and I’m grateful.’*

Abeke Popoola, Flipside Trainee





# Hobs 3D academy

Queen Elizabeth Olympic Park | Status: In delivery

Partners: LLDC, Hobs, Ravensbourne University

As Queen Elizabeth Olympic Park continues its transformation into a thriving innovation district with inclusive growth at its heart, the London Legacy Development Corporation (LLDC) is delivering an exciting collaboration with Hobs Group, a market leader in the provision and creation of innovative 3D solutions for architects, engineers and construction and product designers, and Ravensbourne University.

As part of our commitment to the regeneration of east London, the Hobs 3D/VR/AR Academy is a high-profile industry-education partnership that delivers an ambitious and employer-led curriculum providing young east Londoners and those from under-represented groups an unrivalled opportunity to gain industry-approved technical skills.

The course is a unique and cutting-edge bespoke programme that, in consultation with industry partners and experts in the tech sector, has been designed and delivered by Ravensbourne University's Learning Technology Research Centre, focusing on:

- Skills for drivers of growth in key digital technologies in UK growth sectors
- Dedicated design-led technological innovation, skills-focused teaching, and applied research e.g.:
  - Immersive technologies (VR/MR/XR)
  - 3D scanning and digital fabrication
  - AR for education
  - Smart cities (e.g. using AccuCities data sets with the latest developments in geometry and material optimisations)

In this way, the Academy's graduates will help plug skills gaps and meet current and future workforce demand for the range of exciting employment opportunities that, in their journeys towards digitisation and emergence from the current Covid-19 crisis, key growth sectors in the UK economy will offer and need.

To expose learners to “live” working environments, the Academy is based in Hobs' studio at Here East, a 7200 sq ft training space with a suite of state-of-the-art 3D printing equipment and technical staff that can support the development and delivery of training and provide mentorship on how to gain access to a work environment.

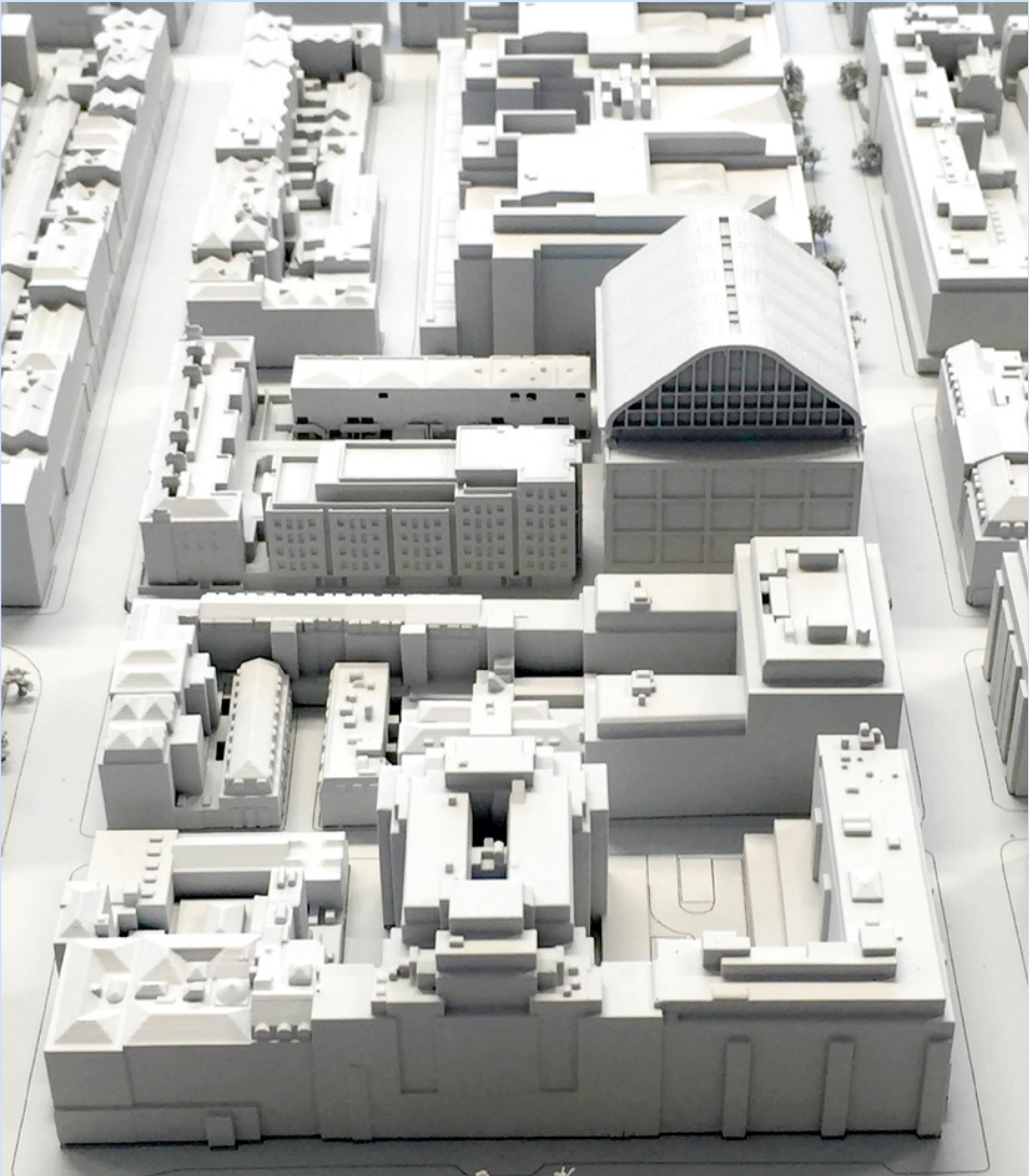
The Academy opened in early 2020 and will give at least 60 people per year (in 2020 and 2021), from diverse backgrounds and who live within the boroughs of Hackney, Newham, Waltham Forest and Tower Hamlets, the skills and experience they need to access employment opportunities in the fields of industrial 3D printing, 3D visualisation and Virtual Reality, Augmented Reality and modern model-making and prototyping.

Crucially, the course includes the development of students' mindsets and capabilities to make it more experiential and empowering including organisation, following protocols, collaborative working and the importance of being agile. Upon completing the course, participants receive a Level 4 qualification (Higher Education certificate equivalent) in 3D Skills.

Finally, as well as its core training and learning activities, the Academy runs an ‘inspire’ programme that aims to use the facility and its resources to inspire people who live around the Park to consider a career in tech, hosting school visits, taster skills sessions and inspirational talks.

*‘L&G are very passionate about the work we are doing with Hobs & LLDC on the 3D Academy. The industry is changing at a pace and the changes are creating new and exciting career opportunities. The 3D Academy enables us to innovate in collaboration with industry peers to identify the skills we need for the workforce of the future. The outreach and engagement that the 3D Academy is doing to ensure local people benefit from these opportunities is aligned with our objectives of having a more diverse and inclusive workforce.’*

Damon Brown, Portfolio Construction Manager, L&G Capital



© LLDC



# HERE EAST

30 E Bay Ln, Hackney Wick, London E20 3BS | Status: Built | Completion: July 2016

Client: Here East | Developer: Delancey | Architect: Hawkins\Brown | Project Manager: Colliers International | Structural Engineer: Buro Happold | Services Engineer: Cundall | Landscape Architect: LDA Design | Cost Consultant: Gardiner & Theobald | Planning Consultant: Deloitte

Here East is London’s campus for technology and innovation. We are home to a thriving community of start-ups, global corporates, creative businesses, and academic institutions. At the heart of Here East is Plexal, an innovation centre and co-working space for startups to grow and collaborate with the full spectrum of the UK tech ecosystem. Every company based within Plexal, and every programme they run, is designed to ensure technology has a positive impact on society.

Here East is a catalyst for growth and London’s fastest growing innovation campus. Located at the heart of Queen Elizabeth Olympic Park in London, it is a launchpad for innovation and is recognised as the most successful post-Olympic transformation of an International Press and Broadcast Centre in the world. The campus provides over 1.2 million square feet of versatile space which encourages cross-sector collaboration and helps foster a tight community.

Here East is home to three of the fastest growing clusters in the capital: esports, mobility and the creative sectors. Tenants include: BT Studios, Plexal, Fiit.tv, Sports Interactive, Ford Smart Mobility, Studio Wayne McGregor, MATCHESFASHION and The Trampery on the Gantry who provide 21 studios for local artists and designers. The campus is home to over 4,500 academics and innovators, and is designed to foster collaboration, allowing tenants to scale and grow at pace.

In addition to this, Here East recently launched East London Innovators — an initiative to form and foster an impactful community network across East London and shine a light on the innovative people and companies across the area. The initiative now has 100 members and is growing.

At the centre of Here East lies Plexal — an innovation centre and co-working space which is home to some of London’s most innovative companies. Collaboration runs through Plexal’s approach to innovation, which is defined by the connections it forges between industry, academia, investors and start-ups to tackle some of the biggest challenges facing society.

Plexal also delivers the London Office for Rapid Cybersecurity Advancement (LORCA) — an innovation programme, backed by DCMS, which aims to scale the UK’s most prominent cybersecurity companies and make the internet safer for everyone. In addition to its work in the cybersecurity sector, Plexal also specialises in supporting innovation in mobility and social inclusion. As part of its social inclusion arm, Plexal delivered OpenDoor, an accelerator focused on scaling technology solutions that make society and our economy more inclusive, with specific emphasis on addressing the challenges of under-represented groups.

Here East and Plexal work hand in hand to foster collaboration and innovation across and within the companies that are based there.

*‘If we, as a global community, are going to make definitive progress against the challenges we currently face, from climate change to cybersecurity, we must embrace cross-sector collaboration. The approach must be universally embraced & take place across every level of our industries; between businesses big and small, central government and local authorities, academic researchers and scientists. This collaborative approach is not always straightforward; after all, each sector will have competing considerations. From my experiences at Here East, I find that where we convene these diverse groups, all are eager to collaborate and strive together to find real-world solutions.’*

Gavin Poole, CEO, Here East



© GG Archard





© Jack Hobhouse

# Tiger Way

Tiger Way, Clapton, London E5 | Status: Built | Completion: July 2019

Tiger Way is an education-led mixed-use scheme delivering a high-quality school co-located with residential apartments. The project was delivered via a cross-funding model, with private sale apartments helping to fund the school. The challenge was to provide an excellent learning environment, maximising playspace whilst balancing the need of the residential units. The hybrid building provides school and residential uses at different roof levels. The combined footprint made more efficient use of the site without compromising. The project achieved BREEAM Outstanding at design and construction stage, it won a BREEAM Award in 2018 and was shortlisted again this year.

Architect: Hawkins\Brown  
 Contractor: McLaren  
 M&E / Sustainability Engineer: Max Fordham  
 Landscape Architect: BD Landscape  
 Structural Engineer: Kier Structures  
 Planning Consultant: CBRE



© Aukett Swanke

# Industrial Transformation

Olympic Park Avenue, Chobham Manor, London | Status: Proposed

The design transforms the locked-in inner volumes of an air and lightless multi-level industrial building into a three dimensional masterplan of blocks and passages for industrial, workplace, R+D, education and leisure uses. An urban street grid with two avenues and three cross streets was created to bring daylight and air deep into the space. This established twelve independent but connected plots, with two new CLT mezzanine levels between existing concrete and steel floors. A community Village Green enables social gatherings and knowledge exchange between the innovative and entrepreneurial tenants.

Architect: Aukett Swanke  
 Project Manager: Savills





## London College of Fashion

Olympic Park Avenue, Chobham Manor, London | Status: Under Construction | Completion: 2020

The largest building of the Stratford Waterfront cultural and education buildings, the new home for the London College of Fashion is conceived as a 21st century workshop, its design inspired by the 19th century mill buildings common to many industrial cities, and indeed, this particular site. Bringing together an institution currently operating in six sites across London, the new London College of Fashion will be first time that all its departments will co-locate together under one roof. When completed, the building will be one of the largest dedicated to the study and research of fashion in the world.

*Architect:* Allies and Morrison  
*Client:* University of the Arts London  
*Structural Engineer:* Buro Happold  
*Landscape Architect:* LDA Design  
*Project Manager and Cost Consultant:* Gardiner & Theobald



## Stratford Waterfront

Olympic Park Avenue, Chobham Manor, London | Status: Under Construction | Completion: 2023

This project brings together the new home for UAL's London College of Fashion, uniting its six disparate locations into one for the first time; Sadler's Wells, which will present dance work in a new theatre and establish a choreographic centre and a hip hop theatre academy, expanding its learning and engagement programmes; the BBC will build a new home for its Symphony Orchestra, Symphony Chorus, singers and rock and pop recording facilities; and the V&A, with the Smithsonian Institution, will create a new museum to explore the V&A's renowned collection, a co-curated space with the Smithsonian, pioneering exhibitions, gallery displays and spaces for community-led projects.

*Architect:* Allies and Morrison  
*Client:* London Legacy Development Corporation  
*Landscape Architect:* LDA Design  
*Engineer:* Buro Happold  
*Planning Consultant:* AECOM  
*Cost Consultant:* Gardiner & Theobald  
*Project Manager:* Mace





## UCL East

Montfichet Rd, London E20 | Status: Under Construction | Completion: September 2022

LDA Design's masterplan moves the needle on design for higher education. Developed in partnership with LLDC, it will create a sociable and highly permeable campus that will inspire students and help secure better education and employment outcomes for local people. It distils a clear and simple idea about connecting people and place through landscape: the sunny river banks which provide an ideal setting for a university are also the key to its integration, provided the local community has easy and inviting access.

*Architect:* Nicholas Hare Architects and Studio Weave  
*Engineer:* Buro Happold and Arcadis  
*Transport Consultant:* Momentum Transport Planning  
*Other:* Soundings  
*Landscape Architect:* LDA Design

© LDA Design



© Forbes Massie

## UCL East, Pool Street West

5 Montfichet Rd, London E15 1AZ | Status: Under Construction | Completion: May 2020

UCL East, Pool Street West, lies on the southern edge of the Queen Elizabeth Olympic Park. The project, currently under construction, is comprised of two residential towers, containing over 500 student rooms, raised above 4,600 sqm of flexible multi-functional space that will house the Future Living Institute with teaching and experimental laboratories, including UCL's Centre for Robotics & Autonomous Systems, the Global Disability Innovation Hub, the Culture Lab, Nature-Smart Cities Labs and the Urban Room. The building's flexible lower levels can be configured to suit a wide range of activities and public events including performances, exhibitions, workshops and lectures.

*Architect:* Lifschutz Davidson Sandilands  
*Client:* University College London  
*Structural Engineer:* AKT II  
*M&E / Sustainability Engineer:* Hilson Moran  
*Cost Consultant:* AECOM  
*Contractor:* Vinci  
*Landscape Architect:* Bradley Hole Schoenaich  
*Landscape Architects*  
*Acoustic Consultant:* Cole Jarman  
*Lighting Designer:* EQ2





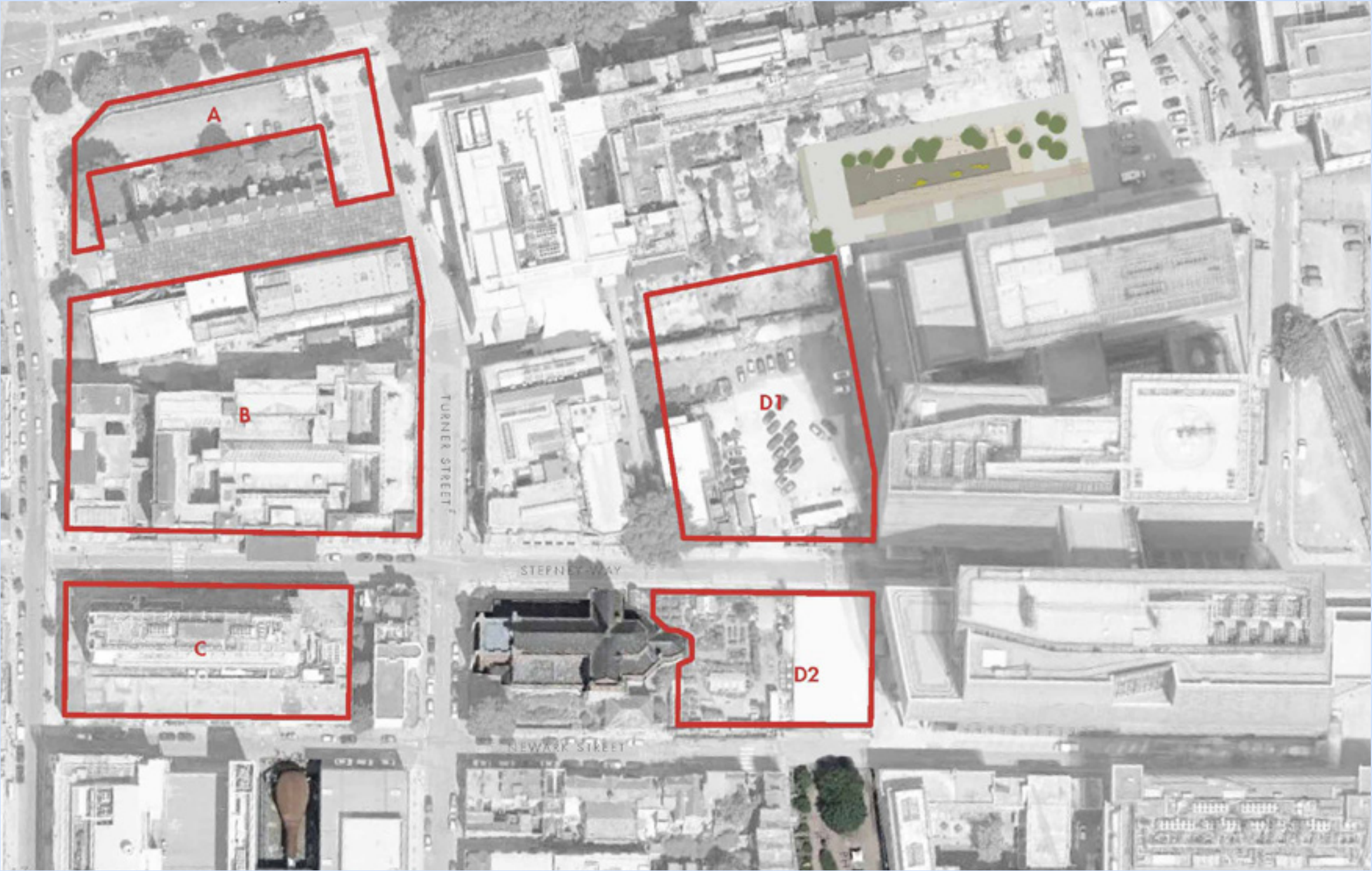
© Aukett Swanke

## Gillender Street

Gillender St, Aberfeldy Village, London, E3 | Status: Proposed

This project uses its East London location to explore how the redevelopment and intensification of urban sites can draw on a historic mix of uses in imagining how we might hybridise work and living space in the future. The site's current use is industrial but has canals, residential use and workplace in immediate proximity to it. The scheme opens up the existing floor plates with a carved out light well and enables a full range of light industrial to workplace uses, an ideal mix for knowledge and skills exchange, as well as creating new residential units.

Architect: Aukett Swanke  
Planning Consultant: CBRE



## Whitechapel Road Development

251 Whitechapel Rd, Shadwell, London E1 1DB | Status: Proposed | Completion: 2025

Now more so than ever, Whitechapel Life Science Masterplan represents the most significant opportunity in the UK life science ecosystem. The ambitious plan is to create a world-leading, integrated innovation district powered by data and diversity. With its depth of scientific, clinical and commercial talent, Whitechapel is the ideal location for a world-class life science-orientated commercial scheme. This hub will solidify Whitechapel's position as a global centre for diversity, data and innovation. Whitechapel Med City campus will play an active role in the development of the community and provide opportunities for education, skills development and employment for Tower Hamlets residents.

Architect: Allies & Morrison  
Development Manager: M3 Consulting  
Planning Consultant: DP9  
Consultant: Publica



# London – South





© BDP

# OAK CANCER CENTRE

Downs Rd, Sutton SM2, London | Status: Planning Granted | Completion: November 2022

The new ‘Oak Cancer Centre’ (OCC) for the Royal Marsden NHS Foundation Trust (RMH) is being funded entirely from charitable donations. It is an 11,700sqm building located within the existing RMH campus in Sutton, immediately adjacent to the headquarters of the Institute of Cancer Research (ICR) and sits in the heart of a planned wider ‘London Cancer Hub’. The masterplan aims at becoming a global centre for cancer innovation which expands upon the world leading clinical care and research that currently takes place; augmenting it with complementary organisations to create a thriving community of scientists, clinicians and innovative companies.

Architect, Interior Designer, M&E / Sustainability Engineer,  
Landscape Architect, Acoustic Consultant: BDP



# London – West



# White City Place

Wood Ln, Shepherd's Bush, London W12 | Status: Built | Completion: 2017

Developer: Stanhope | Client: Mitsui Fudosan (UK) Ltd | Client: AIMCo | Architect: Allies & Morrison | Construction Manager: Lendlease

In 2015, Stanhope, Mitsui Fudosan and AIMCo acquired Media Village in White City from the BBC, close to Television Centre, adding to their long-term commitment and investment in the area. Establishing strategic connections between these two developments, Stanhope worked closely with several major landowners including Imperial College London, Westfield London and Berkeley St James, to implement a shared vision for White City including up to 5,000 high quality homes, over 2m sq ft of offices, new public spaces, an enhanced world-class shopping offer and a hub for academia, innovation and start-ups.

Following Imperial College's expansion in White City, including the Molecular Sciences Research Hub and The Sir Michael Uren Biomedical Engineering Research Hub, a concentration of life sciences innovators has formed. Being next to Imperial meant that White City Place was ideally situated to provide accommodation for life science businesses who were drawn to this emerging knowledge cluster.

White City Place comprises six workspace buildings of c.1m sq ft united by new public realm and street level retail. The development included the refurbishment and repositioning of three existing buildings to transform them into modern working environments: WestWorks, MediaWorks and the Garden House. Having inherited former BBC buildings with greater ceiling heights than standard offices, Stanhope were able to provide both office and wet and dry laboratories as required by life science occupiers. Large floor plates and communications infrastructure certified by Wired as best-in-class ensure the buildings will remain resilient and adaptable to future technologies. As well as meeting infrastructure needs, a high quality events and enlivenment programme has been critical in attracting commercial tenants and helped to establish White City as a destination in its own right.

The rapidly growing life science companies housed at White City Place include Autolus, a biopharmaceutical company developing next-generation therapies for cancer

treatment, spun out of UCL. Comprised of a handful of employees when it started in 2016, it now occupies c. 33,000 sq ft, in MediaWorks (with expansion room if required), has c. 400 staff and has raised over \$400m in funding for research and testing. White City Place is also home to spin-out companies Gamma Delta and Synthace. Pharmaceutical giant Novartis have taken 53,000 sq ft. Its UK Country President, Haseeb Ahmad noted that *'White City is quickly becoming one of the UK's life sciences and technology districts, and the ethos of The WestWorks campus complements how we work to deliver on our strategy to reimagine medicine.'*

In addition to health and life science occupiers, the campus is home to over 3,000 staff from the BBC, research and teaching facilities for the Royal College of Art, fashion occupiers YOOX Net a Porter and Li & Fung, creative co-working Huckletree, Jellycat London, Arts Alliance Media and ITV Studios.

Stanhope have secured planning permission for an additional three new buildings comprising c.1m sq ft of business accommodation at the gateway to the site, part of which has been pre-let to L'Oréal UK and Ireland.

*'What we noted about global knowledge networks is how common the physical characteristics are that underpin their success: urban locale with good transport and social infrastructure; the anchoring of a cluster of sites around leading research institutions; buildings and infrastructure that enable businesses across the full spectrum from startups through to large scale enterprises, to co-locate, evolve, and interact. White City is a paradigm of this model, growing at a rapid pace, and at a time when the cross-fertilisation of health, the sciences, engineering and tech are working together to face global issues.'*

David Height, Director of Planning and Engineering,  
Mitsui Fudosan UK Ltd







© Soren Kristensen

## Imperial College London, Molecular Sciences Research Hub

Wood Ln, Shepherd's Bush, London W12 0BZ | Status: Built | Completion: 2019

The challenge was to convert an office building into a state-of-the-art research facility. The project forms a flagship building for Imperial College London's chemistry research activities and acts as a catalyst for a new molecular sciences neighbourhood in White City. The ethos of the new campus is co-location — bringing together researchers, entrepreneurs and industry in one place to create a critical mass of activities across science, innovation and commercialisation. Prioritising openness and flexibility, facilitating interaction and links between diverse and specialised research activities, the modular design creates a fluid research environment.

*Architect:* Sheppard Robson  
*Architect (base-build):* Aukett Swanke  
*Contractor:* ISG / Laing O'Rourke  
*M&E / Sustainability Engineer:* Hoare Lea  
*Engineer:* Curtins  
*Cost Consultant:* Arcadis  
*Project Manager:* Turner and Townsend



© Allies and Morrison

## Imperial College London White City Campus

Wood Ln, Shepherd's Bush, London W12 | Status: Planning Granted | Completion: 2043

Imperial College London, a world-class university, renowned for its excellence in the fields of science, engineering, medicine and business, has been developing an innovation district on a new campus at White City, West London. Allies and Morrison's design proposes a mixed-use piece of city, forming new connections between diverse neighbourhoods. The campus is designed to provide multi-disciplinary research spaces for Imperial's academic community, partner institutions and business and responds to Imperial College's desire to stimulate serendipitous interaction between the various groups on site as a way of driving innovation.

*Architect:* Allies and Morrison  
*Client:* Imperial College London  
*Utilities, Sustainability, & Digital Strategies:* Arup  
*Environmental, and Civil Engineering:* WSP  
*Planning Consultant:* JLL  
*Transport Consultant:* Curtins  
*Landscape Architect:* Gross Max  
*Accessibility:* Buro Happold  
*Cost Consultant:* Arcadis





© Hawkins\Brown

## The London Institute of Medical Sciences Building

Du Cane Rd, Shepherd's Bush, London W12 0NN | Status: Under Construction | Completion: September 2021

The London Institute of Medical Sciences Building is a new-build biomedical research facility set within the Imperial College's Hammersmith Hospital Campus, West London. The project co-funded by the Medical Research Council and Imperial College London aims to bring together the LMS researchers in a single, world leading, scientific research facility. The design principles of the building promote a clear division between clean, clinical laboratory spaces and more relaxed office spaces. A central atrium extends vertically throughout the building with breakout spaces at every level, encouraging social interaction between the different research groups.

*Architect:* Hawkins\Brown  
*Project Manager:* Turner & Townsend  
*M&E / Sustainability Engineer:* Buro Happold  
*Client:* Medical Research Council and Imperial College London  
*Cost Consultant:* Turner & Townsend



© James Newton

## Sir Michael Uren Hub

Wood Ln, White City, London W12 | Status: Built | Completion: 2020

The Sir Michael Uren Hub is a new facility for Imperial College London on its new White City campus. The building provides flexible accommodation for translational research initiatives at the interface of biomedical sciences and engineering, including research laboratories, a potential outpatient clinic, a 160-seat seminar room and a series of social spaces to encourage the informal exchange of ideas between researchers. Its prominent location on the Westway is emphasised by a memorable exterior of 1,300 precast concrete fins.

*Architect:* Allies and Morrison  
*Client:* Imperial College London  
*Contractor:* ISG  
*Project Manager:* Turner & Townsend  
*Services Engineer:* Buro Happold  
*Structural Engineer:* Curtins  
*Laboratory Advisor:* Abell Nepp





# Stadium House

Wood Lane Station, Shepherd's Bush, London W12 7FX | Status: Completed | Completion: 2017

Imperial College's ambitious £2 billion 23-acre brownfield investment programme to develop its White City Campus is driven by its desire to turn medical and scientific discovery into benefit for society. IBI Group's flexible design for conversion and refurbishment of a 2,400 sqm single-storey vacant office block in 2017 — Stadium House — now provides specialist space for dementia research and for clinical trials management. Since then, the White City campus has grown to include multiple spaces for multi-disciplinary research, start-up and small business co-location facilities, postgraduate student residential accommodation and the Invention Rooms, integrating the local community into scientific education and discovery.

Architect: IBI Group  
Client: Imperial College London  
Contractor: 8build



# London – North





## College of North West London, Wembley Campus

Olympic Way, Wembley Park, Brent | Status: Proposed | Completion: 2023

A 19,000 sq m world class teaching and learning facility at Wembley Park, designed to promote lively, vibrant and flexible social learning spaces. It will be a minimum of BREEAM Excellent. This project aligns with Brent's vision to create an educational quarter within Wembley. In 2017, the City of Westminster College (CWC) merged with College of North West London (CNWL) to form the United Colleges Group (UCG). The CNWL currently deliver their educational services across two sites: Willesden and Wembley. Both campuses are no longer fit for purpose and consequently, a decision has been taken to consolidate the College's educational facilities into one new-build campus on a prestigious site at Olympic Way.

*Architect:* Wilkinson Eyre  
*Client:* United Colleges Group  
*Project Manager:* Bidwells  
*Planning Consultant:* Bidwells  
*Structural Engineer:* Eckersley O'Callaghan  
*M&E:* Max Fordham



## First Way UCFB College & Campus

First Way, Wembley HA9 | Status: Under Construction | Completion: 2020

First Way is a new campus for the University College of Football Business (UCFB) to deliver state of the art teaching facilities and a 678-student bedroom accommodation next to Wembley Stadium. The teaching block offers seminar spaces, including a flexible auditorium hall, an IT and separate study area, a library and a café. Teachers' office space is located over several floors above the campus entrance hall and an 'incubator' space is provided to encourage the future development of start-up businesses specifically aimed at campus graduates. The building is designed with a central spine which links four wings with amenity spaces located at roof level above three of the wings.

*Architect:* CZWG  
*Client:* Colewaterhouse Real Estate  
*Planning Consultant:* Lichfields  
*Structural Engineer:* Fluid Structural Engineers & Technical Designers  
*Cost Consultant:* Henry Riley  
*M&E / Sustainability Engineer:* ESP  
*Ecology Consultant:* Liz Lake Associates  
*Landscape Architect:* Exterior Architects  
*Transport Consultant:* AECOM  
*Acoustic Consultant:* Cole Jarman  
*Fire Consultant:* Omega Fire Engineering Ltd  
*Light Consultant:* Lumina London Ltd  
*Heritage Consultant:* MOLA  
*Other:* Stroma Technology Ltd, WYG







# Northgate, Jesus College Oxford

Market St, Oxford OX1 | Status: Under Construction | Completion: 2022

Architect: MICA | Contractor: Bam Construction | M&E / Sustainability Engineer: Elementa | Structural Engineer: Smith and Wallwork

Jesus College forms part of the University of Oxford. The existing Grade I listed College site is located centrally and sits on the edge between Town and Gown. The development site, previously used for retail, now extends the College uses towards the Highstreet and provides a vast array of new facilities for the College in this constrained central locale. The College is an education body that enables living and working in one house, with academia taking part in daily rhythms that help to shape the life and academic career of many.

Designing in this precious environment involved detailed analysis of the architecture, the Conservation Area, the Grade I and II listed buildings and in-depth studies of the behavior and patterns of college life. We extensively undertook user group sessions, interactive consultation and simulations to assess how the space and the environment of the academic future of the college could be shaped. Leading minds advised and worked through case studies to test and question the brief, assess design assumptions and carefully consider the functionality of all spaces.

This resulted in a reimagination of the college rhythms within the design, creating a more inclusive space for staff, students and fellows. The new dynamic teaching spaces will provide opportunities for new research and encourage enhanced engagement across a variety of disciplines enabling them to share research and explore the most pressing challenges of our times.

The development includes retail, student accommodation, a café, teaching and learning spaces and a Digital Hub that aims to reimagine learning in the 21st century. The mixed use offers an ideal platform for the collegiate life and for creating improved and exciting new ways of living. The scheme also is a response to a changing setting, with postgraduates living directly on the main college site allowing full integration for the first time.

The Northgate project is currently under construction but is already considered a new landmark building for Jesus College. It is a detailed, intricate and characterful response bringing an enhanced presence and creating a new openness between the city and the College. Surrounding public spaces and the University are connected via additional public realm, a new street entrance and paths into the main college which lead to a unique elevated Quad at second floor level. The rhythmic façade responds to the existing buildings and connects the phases of the historic setting.

Sustainability and Environmental performance were key to the success of the project with consideration taken at each stage and scale to ensure the design reflected the ethos of the College. Using bespoke methods the team developed a well performing building where sustainable measures are fully integrated into the design and respond sensitively to the historic setting.

The design is fully developed in BIM and modern methods of construction are utilised in the form of a cross laminated timber structural frame and off-site manufactured bathroom pods. The design and construction teams have also embraced education and training throughout the process with this scheme allowing students from Oxford Brookes and other universities to study the project and develop in their chosen career.





# The H B Allen Centre

Keble College Annex, 25 Banbury Rd, Oxford OX2 6NN | Status: Built |  
Completion: September 2019

Architect: MICA | Project Manager and Contract Administrator: Bidwells | Structural Engineer: Eckersley O'Callaghan | Client: Keble College

A new innovation building and student community at the heart of the central Oxford campus

The H B Allen Centre is a multi-faceted amenity for Keble College in Oxford. The primary function of the building is to deliver 250 graduate student bedrooms, much needed in the centre of the university city. The brief expanded to encompass a research hotel for visiting academics, a tech start-up incubator, teaching and research spaces, conference facilities, a café, common room and leisure amenities for the residents, and extensive external landscape, all within a 1.7 hectare site in the North Oxford Victorian Suburb Conservation Area, built around the Grade II listed Acland House by TG Jackson.

## Community of Technology and Academia

The generous ground and lower ground floor of public spaces (common rooms, teaching spaces, café) are clustered around a contemporary reinvention of the classic Oxford Quad. However, in this case skylights and sunken gardens visible at ground level give a clue that this green lawn conceals a 2500 sqm light-filled basement, housing a generous technology incubator housing Oxford Sciences Innovation a fund that provides incubator and accelerator space for Oxford University graduate enterprises, and research space for the Oxford Robotics Institute, part of Oxford University Engineering Sciences.

An efficient layout of graduate student rooms sit atop this public ground level and each corner is marked by a sculptural staircase with diagonal views across the quad providing light and orientation, leading to glazed entries to flat clusters at the upper levels. Clusters of six rooms share generous kitchens located near stairwells to encourage social interaction. A portion of the rooms are dedicated to the Executive MBA students who spend intensive six-week intervals in Oxford.

The site offers a new pedestrian connection between Woodstock and Banbury Roads, providing crucial legible and accessible east-west connectivity across the Engineering

Sciences and the still-developing Radcliffe Observatory Quarter. This improvement to the public realm encourages healthy movement between sites that is safe, welcoming, and encourages interaction between users by creating an outdoor social interface.

The large project was delivered in a constrained urban environment, and was delivered in two major phases, allowing students to occupy the accommodation areas for the academic year of 2018/19, while the fitout works to the Woodstock Road Building and the tech incubator spaces continued simultaneously.

## Social Value

The H B Allen Centre has enormous social contribution, and the community was engaged and involved throughout the design and construction process. The design period included an engaging period of consultation with the Keble College staff and students as well as local and statutory stakeholders including the Oxford City Council and English Heritage, with two public exhibitions and workshops for receiving feedback. There was intensive scrutiny of the Grade II listed Acland House at the centre of the site: ultimately it was decided that it should be retained to acknowledge the former life of the Acland Hospital, cementing this piece of social history at the heart of the H B Allen Centre.

*‘Significant issues with conservation of the grade two listed building monitoring of the structure for movement and continued and ongoing dialogue with the Oxford City Council (OCC) conservation officer, including a change to the planned method of conservation by OCC once the project had commenced which the team reacted to and reprogrammed the works to incorporate, this change could only have been achieved in a collaborative and trusting environment with the full support of the client.’*

Derek Farrow, Partner Project Manager Surveyor, Bidwells





# Milton Park

Park Dr, Milton, Abingdon OX14 4RZ | Status: Proposed | Completion: 2040

Client: MEPC Ltd. | Architect: Perkins and Will | Cost Consultant: Exigere

Welcome to Milton Park.

Milton Park anchors the western end of The Oxford to Cambridge Arc and has an impressive occupier line up, home to 250 companies and 9,000 talents.

Accommodating university and research institution spinouts for decades, its scientific community has some of the most exciting businesses in the world working on life-enhancing and life-changing discoveries.

During MEPC’s 35 years’ stewardship, Milton Park has trebled in size and transformed from a rural industrial trading estate into a leading science and technology business community of collaborative, like-minded companies and higher education institutions. Extensive parts of Milton Park also benefit from Enterprise Zone status.

There is huge pressure for office and laboratory space in Oxfordshire. Milton Park can deliver growth and in Summer 2019 launched its 2040 Vision, a guide to managing and planning for a sustainable, resilient future.

The approach carried out with Perkins and Will was driven through data, capturing over 50 relevant datasets and engaging with over 1,000 community members, employees, stakeholders, partners and business leaders.

The 2040 Vision outlines the emergence of the estate as vibrant urban innovation district, offering a work/life balance with restaurants, sports and health facilities, post office and green spaces to relax, walk and run.

Over the next 20–25 years, Milton Park will see floorspace increase to more than four million sq ft within existing boundaries, accommodating up to 20,000 talented people.

## 4 STEPS TO FACILITATE CHANGE

### 1. LEVERAGE ON PHYSICAL ATTRIBUTES AND AMENITIES

With 70% of community members valuing the Park’s green areas, new sport facilities will be introduced to provide activity beyond 9–5 working hours.

### 2. DIVERSIFY MOBILITY OPTIONS

A mobility HUB will reduce parking demand long term, freeing up land for future development. AVs will provide alternative transportation mode to private cars. New bike lanes and walking routes will link Milton Park with other knowledge hubs and innovation centres.

### 3. MAKE POLICIES AND MANAGEMENT MORE EFFECTIVE

The Milton Park Local Development Order (LDO) was introduced in 2012 to allow a range of development types, including affordable accommodations and labs to be delivered quickly. Its unique simplified planning arrangement allows planning in just 10 days, which also helps the Garden Town objectives.

### 4. INTRODUCE FLEXIBLE AND ADAPTABLE BUILDINGS

The dynamic convergence of sectors in Milton Park has the potential to build on the existing commercial ecosystem, leading to innovative ways of working and thinking. 80+ business leaders from over 60 companies, including Immunocore, Vertex and Tokamak Energy, openly discussed future challenges and priorities. Half the companies have ongoing academic collaboration projects with universities and will benefit from new flexible workspaces for innovative companies to start and grow.

*‘Ipsen located its UK R&D facility in Milton Park in 2016 to be integrated into the entrepreneurial and science culture. It was a pleasure to contribute to the 2040 Vision and see how the Park is embarking on a pioneering vision to transform as a place where individuals and businesses can work collaboratively. The Park has many amenities to support flexible working and our staff actively engage in activities and events. Sustainability and effective transportation are key areas of focus. Our company thoroughly appreciate being located on such a vibrant, enriching Science Park and we look forward to further transformation.’*

John Chaddock, VP Head of Neuroscience TA & Site Head, Ipsen



© Perkins and Will



# Oxford North

A44, Oxford OX2 | Status: Proposed | Completion: 2030

Architect: Fletcher Priest Architects | Developer: Thomas White Oxford | Project Manager: Gardiner & Theobald | Planning Consultant: Savills | Landscape Architect: Townshend | Transport Consultant: Stantec | Engineer: AKT II | Cost Consultant: Gardiner & Theobald | M&E / Sustainability Engineer: Hoare Lea | Ecology Consultant: BSG Ecology

Oxford North will be a new place for Oxford.

Masterplanned by Fletcher Priest for Thomas White Oxford, it will be a globally significant, sustainable innovation district which will enable the UK knowledge economy to thrive.

The project will provide 1 million sq ft of workspace and research facilities for up to 4,500 people from start-ups such as science and high-tech university spinouts to large organisations.

Significant cycle, footpath, bus and road improvements, an energy loop and thousands of new trees will enhance the area, along with 480 new homes for circa 1,500 people, hotels, shops, and cultural and green spaces.

*‘Oxford North will be a vibrant new community including homes, day and nightlife, culture, entrepreneurs, scientists, venture capitalists, finance and big corporations, all needing to create business growth through collaboration and staff and residents’ well-being.*

*It is designed by a world-class team to provide a place that has urban energy and is sustainable.*

*We remain in positive discussions with Oxford City Council to agree the necessary legal agreement and planning conditions that will allow the formal grant of planning permission.*

*Oxford North will be a sustainable new place for Oxford for future generations.’*

William Donger, Director, Thomas White Oxford





# University of Oxford, Acer Nethercott Sports Centre

Iffley Rd, Cowley, Oxford OX4 1EQ | Status: Built | Completion: April 2018

Architect: FaulknerBrowns Architects | Client: University of Oxford | Project Manager: Bidwells | Planning Consultant: Savills | Main contractor: Beard | Structural Engineer: AKS Ward

The University of Oxford commissioned the first phase of its masterplan redevelopment: a new state-of-the-art four court sports hall, set to transform the experience of sport at Oxford for the staff and students, and to be enjoyed by the public and local community.

Set in the grounds of the iconic Iffley Road running track, made famous by Sir Roger Bannister’s sub-four-minute mile, the pioneering new building was designed in collaboration with Sport England who praised the scheme for its innovation and for embracing modern technology.

At the heart of the new hall is a glass ‘smart floor’ — the first of its kind used in UK sport — which offers a unique opportunity to practice and compete in 84 different sports, changing marking lines via a touch screen, and without the distraction of multiple floor markings. An LED array beneath the glass floor has been developed in collaboration with the University for over five years before being implemented.

The wall linings of the sports hall are a specialist acoustic timber panel, which provides a warm and rich feel to the hall with built-in acoustic absorption, reinforced to respond to the impact of sports, and the building embraces low and zero carbon technologies, for example driving sustainable performance by capitalising on the heat rejection from the neighbouring pool.

Key features for this first phase of development also include new dry changing rooms, refurbishment of the existing wet changing rooms, a reception, and creation of a new café. The entire southern elevation is technically aligned with the future redevelopment phase in mind.

On face value, this development offers the students of Oxford University somewhere to practice and perform at the highest of levels. Culturally, this scheme offers a unique and transformational experience for Oxford and the local community to benefit from the investment. The hall’s glazed entrance screen provides onlookers with a visual connection to the activity within, encouraging participation.

*‘The principle is ‘sport for all’*

Sir Roger Bannister

The building has been named after the late Dr Acer Nethercott, the Beijing Olympics silver medallist and Oxford graduate who coxed the University in the Boat Race three times and led them to victory twice.







© Jack Hobhouse

# Beecroft Building, University of Oxford

20 Parks Rd, Oxford OX1 3PB | Status: Built | Completion: June 2018

University of Oxford's Beecroft Building provides world-class research facilities for experimental and theoretical physicists consolidating their varying requirements into a single centre of excellence. The building is designed to facilitate sensitive experiments that will advance the University's research into areas such as quantum science and technology and the fundamental laws of nature. The environmental and anti-vibration performance of the high specification laboratories is amongst the best globally. The design transforms the way the department works, encouraging two separate disciplines to share an environment far more akin to a modern workplace than an institutional research facility.

*Architect:* Hawkins\Brown  
*Client:* The University of Oxford  
*Contractor:* Laing O'Rourke  
*Project Manager:* WSP Parsons Brinckerhoff  
*Cost Consultant:* Turner & Townsend  
*M&E, Sustainability and Acoustic Engineer:* Hoare Lea  
*Structural Engineer:* Peter Brett Associates  
*Landscape Architect:* BD Landscape  
*CDM Consultant:* Scott White & Hookins  
*External artwork:* © Bridget Smith, courtesy the artist and Frith Street Gallery, London



© Hawkins\Brown

# Biochemistry Completion

3 S Parks Rd, Oxford OX1 3RB | Status: Under Construction | Completion: December 2020

Biochemistry Completion was conceived as a 'research hotel' — a building designed to accommodate the various disciplines needed to advance the boundaries of biomedical research in the 21st century. The wet labs for instance, are based around a generic, repeated module that can house various specialist scientific fields, but that can also easily adapt as new experimental technologies and techniques emerge. There are also a number of computational 'dry' labs to reflect the trend that scientists are increasingly using digitalisation and automation as an alternative to traditional wet lab environments.

*Architect:* Hawkins\Brown  
*Project Manager:* CPC  
*M&E, Sustainability and Fire Engineer:* Hoare Lea  
*Structural Engineer:* Pell Frischmann  
*Acoustic Engineer:* Sandy Brown





## Himley Village EcoTown Masterplan

North St, Bicester OX26 6NF, UK | Status: Proposed | Completion: 2022

With excellent transport links to Oxford, Himley Village will provide much needed housing in the area to support the growth of the Knowledge Network. The existing farmland has been the starting point for this new village and the design has been informed by studying local houses, villages and notable examples of recent eco-developments. Penoyre & Prasad have developed a series of interchangeable modules allowing for a large range of house types made up from a high-quality kit of parts. A sense of community will thrive, helped by the spatial arrangement of the houses in clusters and streets.

*Client:* P3Eco  
*Architect:* Penoyre & Prasad  
*Landscape Architect:* Farrer Huxley Associates



## Kennedy Institute of Rheumatology extension

Old Rd, Wheatley, Oxford, UK | Status: Planning Granted

A 400sqm addition to the Kennedy Institute of Rheumatology at The University of Oxford to facilitate an expansion of translational medicine and data-science based research. The scheme provides additional dry lab space, meeting rooms, a collaboration area and an open-plan workspace for 64 more researchers. The project aims to deliver ambitious Passivhaus EnerPHit standards, including improved natural light distribution, minimised glare to the new workspaces and reduced need for artificial lighting improving the health and wellbeing of the occupants. Planning approval was granted in August 2019 and Beard Contracting was appointed in autumn 2019.

*Architect:* Fathom Architects  
*M&E / Sustainability Engineer:* Qoda  
*Project Manager:* CPC  
*Other:* Novus Space





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## Rosalind Franklin Institute

Diamond Light Source, Didcot OX11 0SG | Status: Under Construction | Completion: May 2021

A new addition to major science facilities at Harwell Innovation Campus, the Rosalind Franklin Institute focuses on core life science research collaboration across ten universities forming the RFI's joint venture. In the process of completion, a 5300 sqm hub contains four storeys dedicated to world-class research facilities, laboratories and specialist equipment. IBI Group as lead architects working with principal contractor Mace located the Institute building within a new campus plaza, whilst design of the building envelope draws upon inspirational motifs of Rosalind Franklin's x-ray diffracted DNA images based on her famous 'photo 51'.

*Architect:* IBI Group  
*Contractor:* Mace  
*Client:* UK Research and Innovation



© Perkins and Will

## The Oxford Science Park Plot 16

The Oxford Science Park, Littlemore, Oxford OX4 4GA | Status: Planning Granted | Completion: 2023

The Park is a leading science and technology centre whose employees benefit from a working environment that plays to the rhythm of Oxford's spirit of discovery, innovation and research. The design responds to the site's prestigious reputation with a scheme that awakens a previously undeveloped plot on the North-East fringe. Two new laboratory and office buildings are arranged around a sequence of public spaces to create a sense of enclosure and arrival. The addition of an adjacent train station is taken into consideration to turn the site into an important node for the community, positively impacting its social potential.

*Client:* The Oxford Science Park  
*Architect:* Perkins and Will  
*Landscape Architect:* DBM Studio





## Old Road Campus, Oxford

Roosevelt Dr, Headington, Oxford OX3 | Status: Under Construction | Completion: 2022

Pioneering research thrives within quality, collaborative environments. Old Road Campus in Headington provides exactly this for the University of Oxford. Bought because of its proximity to key hospitals and clinical facilities, the site is now internationally recognised and is one of the UK's leading biomedical research centres. It features the award-winning Big Data Institute. LDA Design's masterplan sets out an assertive landscape-led framework which allows the Campus to grow in a cohesive way. Beautiful shared spaces build a sense of belonging and encourage interaction across disciplines. The public realm has a clear identity, connecting existing buildings around a car-free landscape.

*Landscape Architect:* LDA Design  
*Architect:* Make



## Life and Mind Building, University of Oxford

George Street, Oxford OX1 2BT | Status: Proposed | Completion: 2024

The Life and Mind Building is the University of Oxford's largest building project in its history. It will create a world-class centre for life and mind sciences and a new home for the Departments of Experimental Psychology and Biology. Situated between Oxford's listed University Parks, the Science Area and its historic town centre, the building will transform the relationships between the psychological and biological sciences by enabling co-location and promoting collaboration in emergent fields. It further aims to enable the positive transformation of the Science Area through widening engagement with the public, policy makers, and other end users of research.

*Architect:* NBBJ  
*Client:* University of Oxford  
*Structural Engineer:* Ramboll  
*M&E / Sustainability Engineer:* Hoare Lea  
*Heritage Architecture:* Purcell  
*Project Manager:* Arup  
*Project Manager:* Bidwells  
*Cost Consultant:* Arcadis  
*Landscape Architect:* Fira





## Johnson Matthey

Milton Park, Oxford OX14 | Status: Under construction | Completion: August 2020

Johnson Matthey (JM), a global leader in sustainable technologies, is to open a new battery application centre at the business and science community of Milton Park. The facility will be at the leading edge of energy innovation, which will see them develop their next generation battery technology. JM will use their science and problem-solving abilities in this new state-of-the-art facility to work with leading automotive companies to produce unique sustainable energy solutions which underpin their mission to make the world cleaner and healthier. The project brief demanded the creation of a sustainable development that accommodated world class research with an attention to creating an open plan and agile office and break out space.

*Architect and Structural Engineer:* Bryden Wood  
*Client:* Johnson Matthey  
*Project Manager and Planning Consultant:* Bidwells  
*Main contractor:* TSL



## Masters Field, Balliol College

Jowett Walk, Oxford OX1 | Status: Under construction | Completion: 2021

Masters Field addresses a student housing shortage within Balliol College, who are currently only able to provide accommodation for two thirds of its undergraduate population. This project is being undertaken to meet the need for student housing, whilst modernising and increasing Graduate and Fellows' accommodation close to the Holywell Manor Graduate Centre, along with substantial upgrades to the College Sports Facilities. The building features CLT frames, 20% renewable energy, a highly bespoke UK manufactured pre-cast concrete facade, and green roof systems. The scheme creates a dynamic new public realm and Oxford Design Review Panel commented the scheme will 'make the largest positive impact on urban Oxford in over a century.'

*Architect:* Niall McLaughlin Architects  
*Client:* University of Oxford  
*Project Manager:* Bidwells  
*Planning Consultant:* Turnberry  
*Main contractor:* BAM  
*Structural Engineer:* Smith and Woolwork





## Oxford Technology Park

Kidlington, OX5 1RY | Status: Under construction | Completion: Phase 1 2020

Oxford Technology Park is a major new science and technology park poised to provide much needed flexible R&D space in the heart of Oxfordshire. The 8.2 ha campus has capacity for more than 400,000 sq ft of Grade A offices and hybrid buildings designed specifically for science and technology businesses. The flagship frontage building offers both grade A office and laboratory space, while the hybrid buildings can provide larger volume laboratory, R&D and production space. 80,000 sq. ft. of space will be available from early 2021. The Park will nurture and grow local businesses, as well as continue existing local engagement activities. There is already a hotel and restaurant with coffee shop onsite.

*Architect:* Garrett McKee Architects  
*Developer:* Hill Street Holdings Ltd  
*Project Manager:* Emerald Project Management Ltd  
*Planning Consultant:* Bloombridge, Savills  
*Structural Engineer:* Simpson Associates Consulting Engineers  
*Joint marketing agent:* Bidwells, Benedicts  
*Civil Engineer:* Baynham Mickle Partnership



## Quad One, Harwell Campus

Harwell Campus, Didcot, OX11 | Status: Built | Completion: January 2018

A new-build three storey office and laboratory building; the first of four buildings set around a new quadrangle at Harwell Campus, Oxfordshire. The project included the construction of a neighbouring single storey gym and café pavilion building, which provides a centrepiece for the quad. The unique façade 'fin' design and tinted, textured glazing sets Quad One as a focal point to the campus's heart. Quad One builds on the ongoing success of Harwell's science, innovation and technology campus, as part of the exemplary phase of a 25-acre master plan development of the wider campus.

*Architect:* Hawkins/Brown  
*Client:* Harwell Campus  
*Project Manager:* Bidwells  
*Planning Consultant:* Carter Jonas  
*Main contractor:* SDC  
*Structural Engineer:* Baynham Meikle Partnership  
*Agent:* Bidwells, LSH  
*Services Engineer:* Hoare Lea  
*Landscape Architect:* Turkington Martin





## University of Oxford Radiopharmacy

Churchill Hospital, Oxford | Status: Built | Completion: September 2018

The PET Radiopharmacy Oxford (known as PROx) is a state-of-the-art, multi-million pound facility at Oxford's Churchill Hospital for the research and production of radiopharmaceuticals to treat cancer patients. Designed to GMP Standards to meet the MHRA Regulations. PROx is a joint venture between the University of Oxford and Oxford University Hospitals NHS Foundation Trust to improve the diagnosis and treatment of people with cancer. The radiopharmacy houses a cyclotron — a piece of equipment that is used to produce radioactive materials used in cancer diagnosis and treatment.

*Architect:* Scitech  
*Client:* University of Oxford and Oxford University Hospitals NHS Foundation Trust  
*Project Manager:* Bidwells  
*Planning Consultant:* Savills  
*Main contractor:* Scitech  
*Structural Engineer:* Price & Myers



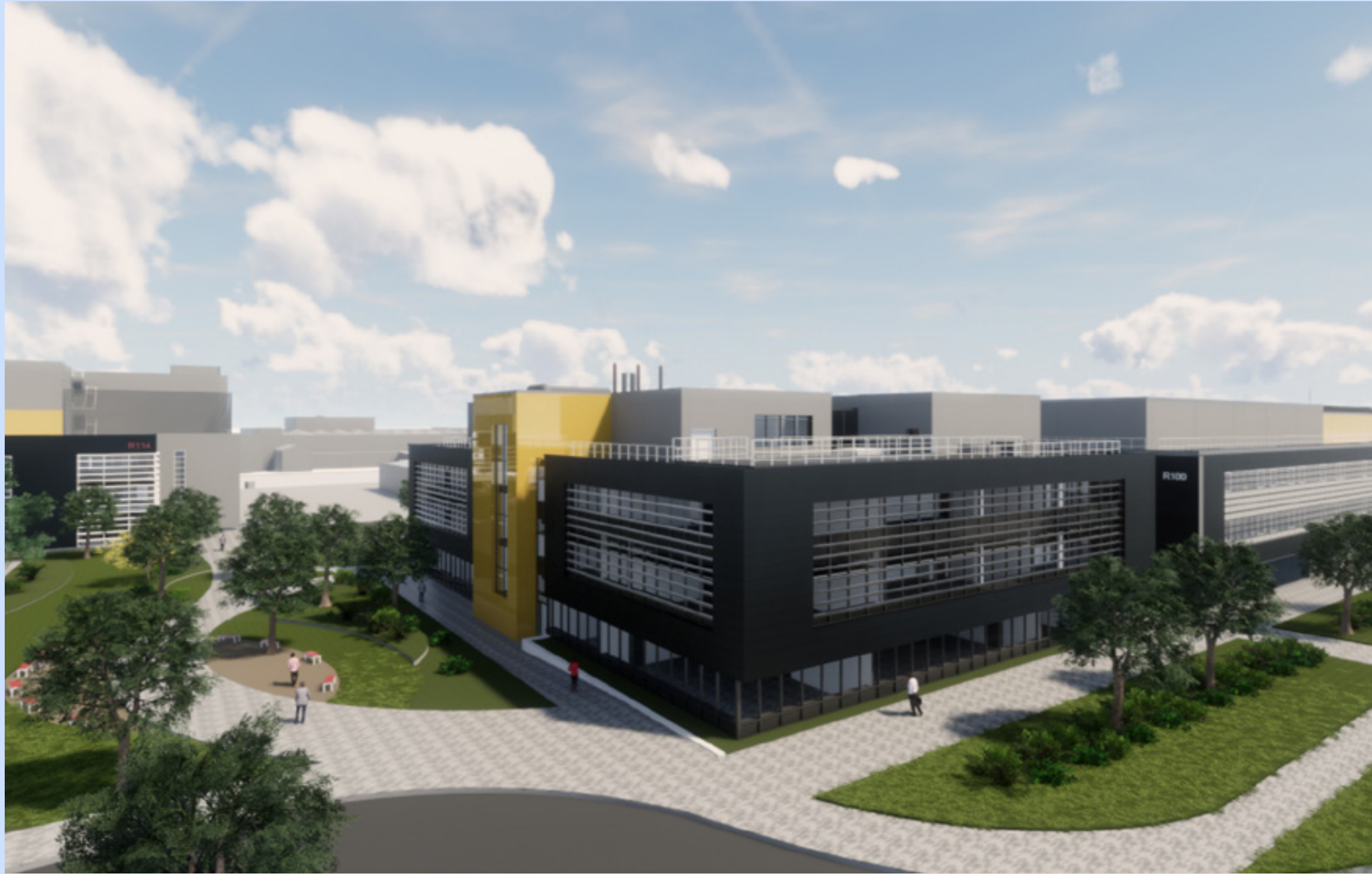
## Zeus building, Harwell Campus

Harwell Campus, Didcot, OX11 | Status: Under construction | Completion: Q4 2020

The Zeus building will be at the heart of the space, healthtec and energy clusters within Harwell Campus. It will provide flexible workspace to meet the growing demand for office, R&D and laboratory space, promoting innovation and positively contributing to an ethos of collaborative working across the campus. The design carefully considers its sensitive setting of mature trees and a nearby lagoon, informing the size, orientation, access, daylight and views. Materials are selected mindful of their character and their orientation and will change appearance with age and weathering. Zeus offers unit sizes from 278 sqm to 5,574 sqm, with 8.5m to 10m clear heights for adding upper floor levels as required.

*Architect:* Allies and Morrison  
*Client:* Harwell Campus  
*Project Manager:* Bidwells  
*Planning Consultant:* Carter Jonas  
*Main contractor:* Barnwood Construction  
*Structural Engineer:* HRW  
*Agent:* Bidwells, LSH  
*Services Engineer:* QODA Consulting  
*Landscape Architect:* Exterior Architecture  
*Quantity Surveyor:* Faithful+Gould





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## National Satellite Test Facility

Diamond Light Source, Didcot OX11 0SG | Status: Under Construction | Completion: May 2021

Housed within the world-leading Rutherford Appleton Laboratory facility, the NSTF will play a major role in providing the UK's largest space test chambers along with vibration and electromagnetic compatibility testing. UK space businesses and research organisations benefit from significantly enhanced capability in build and test of large advanced satellites. IBI Group's design involves meeting a unique set of exacting and unusual performance criteria while integrating the extensive building services required for successful commercial operation of the test facility. With an area of 4200 sqm and six four-storey test chambers planned handover by principal contractor Aecom is in spring 2021.

*Architect:* IBI Group  
*Contractor:* Aecom  
*Client:* UK Research and Innovation



© Will Pryce

## The Schrödinger Building

Robert Robinson Avenue, The Oxford Science Park, Oxford OX4 4GA | Status: Built | Completion: April 2018

Offering 60,000 sq ft (NIA) of office accommodation over four storeys, the Schrodinger Building's flexible design accommodates both workplace and laboratory space. With two dramatic wings canted away from each other in plan, the building is serviced by a single core facing an impressive triple-height 13-metre-wide atrium lobby with long views towards the park. Two satellite cores facing the atrium service the fully open plan. Greenery plays a vital role, boasting extensive landscaped areas and an abundance of natural planting, a feature lake and tree-lined avenues. The result is a peaceful, welcoming outdoor breakout space for employees and visitors.

*Architect:* Bogle Architects  
*Client:* Oxford Science Park  
*Contractor:* Barnwood Construction  
*Project Manager:* Horstonbridge  
*Cost Consultant:* Ridge & Partners  
*Structural Engineer:* Campbell Reith  
*M&E and Sustainability Engineer:* Hoare Lea  
*Landscape Architect:* DBM Studio







# Abcam

Dame Mary Archer Way, Cambridge CB2 | Status: Built | Completion: January 2019

Architect: NBBJ | Contractor: Kier | Structural Engineer: Ramboll | M&E and Sustainability Engineer: Hoare Lea | Quantity Surveyor: Aecom | Client: Liberty Property Trust (shell and core) and Abcam (fit-out)

Abcam, a global innovator in life science reagents and tools, has a new state-of-the-art global headquarters, Discovery Drive, on the Cambridge Biomedical Campus (CBC), a leading hub of healthcare, science and medical research. Designed by international architecture and design firm NBBJ, the 100,000 sq ft laboratory and office facility forms part of the second phase of CBC's new global healthcare village, which is being jointly developed by Liberty Property Trust and Countryside Properties.

The building is home to over 450 Abcam staff, from all business functions — including R&D, laboratory, logistics, corporate and commercial departments.

To support the Company's continued growth, the new building provides 75% more space, features fully flexible laboratory configurations, and has new instrumentation and technology for enhanced scientific capabilities. It has also been designed to support agile working and provide introvert and extrovert workspaces. In addition, Discovery Drive has been developed to meet global sustainability standards, enhance employee wellbeing and help protect natural resources in the environment.

Based on the interactive culture and non-hierarchical structure of Abcam, Discovery Drive's interior design creates an open, connected, and collaborative workplace. NBBJ achieved a flexible and efficient design by organising the building in two distinct volumes. This dual section can be seen from within the full-height atrium space connected by a central staircase. The feature stair links staggered floor plates of offices and laboratories, encouraging opportunities for ad-hoc social interaction between floors.

The building's striking exterior features parametrically designed extended fins and brise soleil, giving it a distinct identity and marking a new gateway to the south west entrance into the wider campus. Expansive glazing allows views out to the surrounding countryside, while 'putting science on show' by making the work within visually accessible to the public.

A variety of hard and soft landscaping helps to situate the building within the campus, and outdoor amenity spaces with integral cycle storage are provided for employees. The campus' natural biodiversity is enhanced through indigenous planting, bird boxes, and landscape rainwater management using bioswales.

*'This is a state-of-the-art laboratory and office facility that enables scientists and clinicians to spearhead research excellence within a world-class urban setting. The new facility supports the development of the life sciences community at the Cambridge Biomedical Campus, where breakthrough ideas transition from researcher's bench to patient's bedside on one site.'*

Andrew Blevins, Managing Director, Liberty Property Trust



© Gareth Gardner



# Cambridge Biomedical Campus

Francis Crick Avenue, Cambridge CB2 0SL | Status: Part completed | Completion: 2020

Agents: Creative Places, Bidwells and Savills | Developer: PROLOGIS AND COUNTRYSIDE

Cambridge Biomedical Campus is Europe’s leading hospital-based research/R&D campus — home to three hospitals, Addenbrooke’s, Royal Papworth and the Rosie Maternity Hospital, extensive research by many leading university, institute and charitable organisations and a growing business community. A pioneering new regional Children’s Hospital has been allocated £100m by Government, while the redevelopment of Addenbrooke’s was recently announced through the national Healthcare Infrastructure Plan. In addition, there are advanced plans for a new Cancer Research Hospital with an embedded research institute.

The Cambridge Biomedical Campus was initiated in 2003 when Addenbrooke’s Hospital and landowners the Pemberton Trustees formed a co-operation agreement that in turn facilitated the setting up of a long-term partnership agreement with developers Liberty Property Trust (now part of Prologis) and Countryside Properties. The developers set to work in building infrastructure, enhancing access and delivering various elements of enabling development that could ultimately help Addenbrooke’s expand alongside a range of other organisations.

On securing planning permission for the initiative, the MRC moved its Laboratory of Molecular Biology into new premises on the campus and Papworth Hospital (now the Royal Papworth since its move) worked towards relocating its leading cardiothoracic hospital to the site — ensuring it continues to be the UK’s main heart and lung transplant centre.

Deals were quickly closed with AstraZeneca to enable them to relocate their UK R&D HQ to the campus, totalling in excess of 50,000 sq m; the University of Cambridge for further research facilities; and Abcam plc, a leading global supplier of protein research tools to the Life Sciences Sector. Pascal Soriot, CEO of AZ said 'Moving to the Cambridge Biomedical Campus means our people will be able to rub shoulders with some of the world’s best scientists and clinicians carrying out some of the world’s leading research — that’s a really exciting prospect.'

Today the Biomedical Campus is a highly networked community of academics, businesses and clinicians committed to working together to bring new and improved products and services to patients; where products can be transitioned from the laboratory to the clinic on the same site; and where businesses can communicate, person-to-person, with key opinion leaders both from academia and the NHS. Cambridge University Health Partners, one of the UK Government’s Academic Health Science Centres, acts as a co-ordinating facilitator, helping navigate the needs of industry into niche solutions that can be delivered through a collaborative approach to problem solving — ultimately linked into the breadth and depth of research power across the whole of the University of Cambridge and its partner organisations.

In 2016 planning permission was granted for a phase 2, covering 14 acres of research/R&D space — based on generous open spaces, landscaped boulevards and cycle ways. A multi-occupancy building offering circa 130,000 sq ft, capable of accommodating both wet laboratory and office activities is now being designed — expected to start on site 2021.

*‘This has truly been a unique development for the life sciences sector in the UK — at the very highest level. To date it has delivered new clinical, research and commercial R&D space as well as upgrading the infrastructure to serve this district of the city. Into the future the local authority is providing for further expansion and we envisage further great things! The university of Cambridge and government have now made it part of a university enterprise zone aimed at realising this.’*

Jonathan Burroughs, CEO, Creative Places





# The Cambridge Norwich Tech Corridor

## Status: Proposed

*Client:* Cambridge Norwich Tech Corridor (New Anglia LEP) | *Architect:* Perkins & Will | *Planning Consultant:* Bidwells

The Cambridge Norwich Tech Corridor is one of Europe’s most exciting growth opportunities, home to the people and businesses tackling the grand challenges facing humanity and shaping the future of food, energy, medicine and mobility.

With world-leading universities in Cambridge and Norwich, cutting-edge research institutes and science parks such as the Wellcome Genome Campus, Babraham Research Campus, Hethel Innovation Centre and Norwich Research Park, an ecosystem of businesses including big names such as Lotus, as well as thriving networks to support innovation, commercialisation and manufacturing, the Tech Corridor boasts a knowledge economy to rival any in the world, and one which links to and complements the expertise on offer in the Golden Triangle and other growth corridors such as the UK Innovation Corridor and the Midlands Engine.

Formed in 2018, the Tech Corridor partnership brings together business and political leaders with a shared ambition to make the Tech Corridor a top-tier destination for technology businesses, talent and investors from around the world. It does this through a variety of programmes designed to promote and support business growth, as well as creating a bold vision for the future of the region.

Activities include the development of an ambassador network, through which companies can engage with counterparts across the East and beyond. This has led to several new cross-sector partnerships being formed. A hackathon in October brought together businesses from across the region with support organisations such as The Welding Institute, Cambridge Wireless and Hethel Innovation to tackle business challenges around the UN Sustainable Development Goals. Participants worked on sustainability challenges set by four local firms, all of whom went away with at least one workable solution to their problem.

Increasing investment into the region is also a key aim for the Tech Corridor partnership, which is why it launched the East of England Investment Catalyst, an accelerator programme for the area’s most exciting knowledge-intensive businesses. A cohort of nine

companies, spanning sectors including med-tech, life science and ed-tech, were put through a short programme of workshops to hone their propositions, before the top five progressed to a final pitching event in London where they presented to an audience of institutional investors. Two of the finalists secured investment on the back of the participation in the programme.

Looking to the future, the Tech Corridor partnership has been working with Perkins & Will to create a spatial vision for the region. Based on a wide variety of data sources, as well as engagement with over 50 Tech Corridor ambassador businesses across a number of workshops and events, and interviews with key stakeholder organisations, the report takes an in-depth look at the strengths of the Tech Corridor, the trends around sector and business development, the employment hotspots, and the areas which have the strongest potential for growth.

The resulting report will be used to inform the work of the Tech Corridor and its partners in the private and public sector around areas such as business support and development of the built environment. The vision will underpin the partnership’s ambition to create a world-class, resilient Tech Corridor that can be a key driver of the UK economy.

*‘East Anglia is full of ambitious, high-growth businesses which add great value to the economy. We want to enable them to work closely together and forge mutually beneficial partnerships. A public-private partnership, the Tech Corridor has been set up to drive and promote meaningful, high-value growth in the area between Cambridge and Norwich. In these in unprecedented times, the Tech Corridor Supply Chain network has been devised to help firms in the region source more products and services locally. Schemes like this, which connect existing business clusters and help develop new ones, can prepare companies for the future.’*

Linn Clabburn, Programme Director, Cambridge Norwich Tech Corridor



© Perkins and Will



# Cambridge Science Park Phase 1

Milton Road, Cambridge, CB4 0GF | Status: Under Construction | Completion: April 2021

Architect: Scott Brownrigg – Unit 22, Unit 25, Unit 26 and Units 1–21 | Client: Trinity College, University of Cambridge | Project Manager and Planning Consultant: Bidwells | Main contractor: SDC | Structural Engineer: MLM, Ramboll | M&E Engineer: Hilson Moran, Couch Perry Wilkes, Chapman BDSP | Development advisors: Bidwells | Landscape Architecture: Bidwells

The Cambridge Science Park is a world-leading Science Park and the oldest in the UK, set within a mature sylvan landscape.

With the objective to reposition the park as a leading global technology hub, the Phase 1 redevelopment forms a series of new buildings developed on the southern fringes of the Park to attract scientific and technology research clients.

The new development is the result of a collaboration between Trinity College, founder of the Cambridge Science Park, and TusPark.

Sitting at the centre of the masterplan, the exceptional quality of the Phase 1 redevelopment acts as a catalyst for future development on the Park. The buildings present an innovative understanding of high technology tenants’ increasing need for flexibility between laboratory and office space.

The Units 22, 25 and 26 have a shared landscaped podium over undercroft parking. All three buildings are three storeys high with incorporated plant at roof and undercroft levels. Unit 22 provides B1 office space of approximately 60,500 sq ft and Unit 25 of 40,000 sq ft laboratory space. Unit 25, known as the Bio Innovation Centre is a multi-occupier building, providing wet labs and offices for biotechnology and healthcare start-ups. Unit 26 provides B1 office space of approximately 60,500 sq ft designed to meet BREEAM Excellent standards. The scheme incorporates a new entrance plaza, which forms a gateway into the park for sustainable transport.

The Bradfield Centre is a 48,000 sq ft development including a café, breakout areas, meeting rooms and social spaces aimed at attracting new incubation businesses.

Units 1–21 will deliver 210,000 sq ft of speculative office space across two buildings and include a decked multi storey car park and cycle store.

*‘The design strategy behind the masterplan was to envisage a series of exceptional quality buildings to act as a catalyst for future development in the park. The group of buildings hold a common language of elegant simplicity in a beautifully landscaped public realm where vehicles are hidden for people to experience and collaborate in a relaxed setting.*

*The architectural design picks up on the sylvan landscape context by assimilating a rhythm of vertical elements across the façades in different ways. This makes each building uniquely distinctive yet with a shared identity. This is typified with the new addition of Plots 1 and 2 joined together by a sweeping colonnade bringing a key statement to the entrance of the park.*

*The buildings have been configured to maximise flexible work and research spaces. The Cambridge Bio innovation Centre with it’s Flex lab approach has multiple size and form possibilities to allow adaptability between labs and office to address developing trends of its tenants and will be inspirational for future science buildings.’*

Ross McWatt, Associate, Scott Brownrigg





# New Museums Site, Cambridge

Pembroke St, Cambridge CB2 3QY | Status: Under Construction | Completion: December 2022

Landscape Architect: LDA Design | Architect: Bennetts Associates | Architect: PBA

How do historic city centre university campuses and buildings meet the demands of today's diverse students and teaching staff? Equally as important, how do they open out to the public and contribute to city life rather than simply looking inward?

These are the questions LDA Design grappled with when developing a new masterplan for the University of Cambridge's renowned science campus, New Museums Site, situated in the heart of the city's historic core.

Before modern laboratories existed, science was taught in museums through the study of models and specimens, which is how New Museums Site came by its name. Since those early days, it has become a powerhouse of life-changing scientific breakthroughs from splitting the atom to Watson and Crick's discovery of DNA.

The masterplan challenge was to correct decades of ad hoc growth and poor-quality additions to create a new urban campus within Cambridge's Conservation Area. Encouraging greater interdisciplinary collaboration, enhancing student wellbeing, offering more flexible teaching space, improved access to museums and streamlining city-wide services were key drivers.

The overarching aim was to optimise usability and connectivity within the University and the city, but with a design quality that reflects the site's heritage, location and the University's global standing. Specific requirements included providing new student administration services; centralised facilities including libraries and amenities; and flexible research and academic learning space for departments and institutions moving into the site. The process involved working collaboratively with numerous organisations and the University Estate department to develop a masterplan that realised the ambitions of all, securing a new connection between the University and the city.

The masterplan provides a clear sense of place, combining modern facilities with historic buildings in a carefully orchestrated plan for repurposing and redevelopment. The

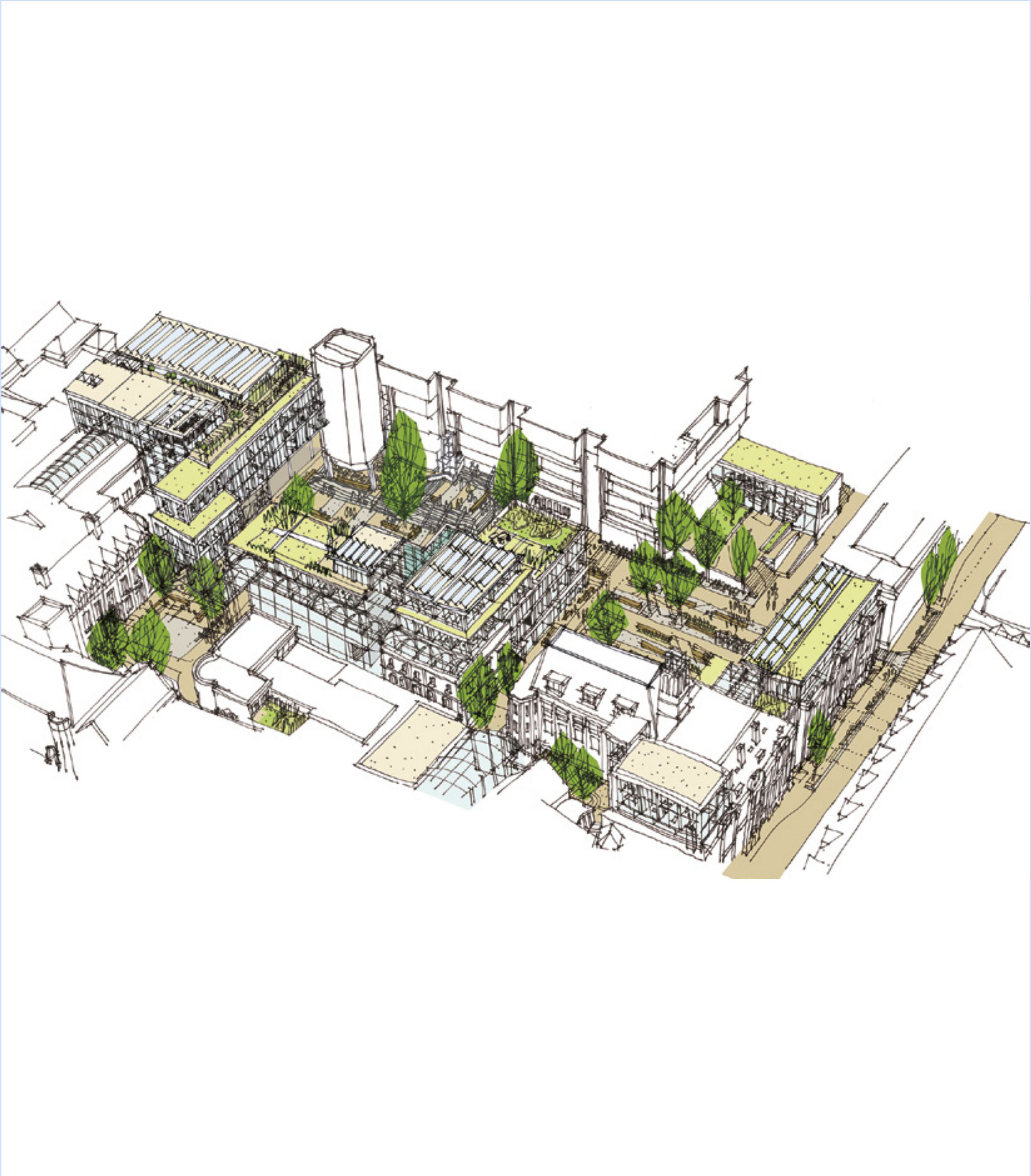
rare opportunity to create new public realm right in the heart of a historic city centre allowed for four inviting new courtyards in the New Museums Site, opening up a part of Cambridge previously closed off to the public and improving connectivity to the wider city.

LDA Design adopted a radical approach by increasing permeability across the site and proposing the removal and reconfiguration of several buildings in the core of the site. Interventions included opening up the Crick and Watson building by 'punching through' to connect to the market square, increasing public and student access. Our proposals mean that university staff, students and the public can mix comfortably.

Early phases have already been completed. The Brutalist David Attenborough Building, originally by Arup, has been reimaged by Nicholas Hare Architects. This has been joined by the stunning Student Services Centre by Bennetts Associates, which reworks an Arts and Crafts building to co-locate student support functions previously scattered across the city. The Centre features an enduring materials palette of brick, concrete and timber; its proportions relate beautifully to the neighbouring historic architecture. This phase has also delivered new public realm and the new connection through the Crick and Watson building to secure cross-city movement.

*'The design process required the reimagining of an historic city centre asset for new uses that few initially saw as a compelling opportunity. We delivered a fundamental shift in thinking and ambition supported by the university Project Board to establish a masterplan for a wonderful interdisciplinary and knowledge-based working environment fit for this globally significant university. The heritage, academic and organisational challenges were significant, requiring understanding, careful articulation of ideas and trust to be built to unlock potential. We have enabled the delivery of improved connectivity and the reorganisation of buildings and space for all to enjoy.'*

Alister Kratt, Project Director, LDA Design



© LDA Design





© Keith Heppell

## Cambridge Assessment

The Triangle Building, Shaftesbury Road, Cambridge, CB2 8EA | Status: Built | Completion: June 2018

Founded over 150 years ago, Cambridge Assessment operates and manages the University's three exam boards and is one of the largest employers in the city. EPA won the competition to create a single HQ for their growing staff (previously spread across 11 buildings). Divided into two main blocks either side of a generous green open space and linked by a bridge-like building between the entrance and a private garden beyond, access to views, daylight and greenery were central to the project. The Client's vision was to create a dynamic, attractive and healthy working environment promoting staff well-being and improving interaction and communication between different areas of the business.

*Architect:* Eric Parry Architects  
*Client:* Cambridge Assessment  
*Contractor:* Bouygues UK  
*Interior Designer:* BDP  
*Structural Engineer:* Ramboll UK  
*Quantity Surveyor:* AECOM  
*Project Manager:* Turner and Townsend  
*Services Engineer:* Max Fordham  
*Landscape Architect:* Grant Associates  
*Public Art:* Artists Vong Phaophanit & Claire Oboussier



© SDC

## Cambridge Consultants Limited High Tech Labs

29 Science Park, Milton Road, Cambridge, CB4 0DW | Status: Built | Completion: February 2020

A wide range of laboratory, electronic engineering, design, and support accommodation has been provided across a series of consecutive phases on this prominent Science Park site. This development has underpinned the expansion of a diverse science & tech business, delivering high-end project solutions to businesses around the globe. New research laboratories and offices including roof terrace and roof-top meeting rooms; reconfiguration of access; car parking; and provision of multi-storey decked car park are part of a new site-wide masterplan, with existing building enhancements and conversions. This scope has all been delivered on a 'live' site with complex operational constraints.

*Architect:* Bidwells  
*Client:* Cambridge Consultants Limited  
*Project Manager:* Bidwells  
*Planning Consultant:* Bidwells  
*Main contractor:* SDC  
*Structural Engineer:* MLM  
*M&E:* Cunnington Clark





## CB1 Masterplan

Cambridge, CB1 | Status: Under Construction | Completion: 2025

CB1 estate has established itself as a global cluster of excellence for AI. Having secured major lettings to four of the largest tech occupiers by capitalisation of Apple, Amazon, Samsung and Microsoft, all of which have scaled up their R&D hubs at this prime new mixed use and business district in the City. Providing a mix of spaces from co-working to large single occupier corporate buildings has delivered a broad mix of start-up, scale-up and corporate occupiers in these knowledge intensive industries to locate in close proximity at a well-connected hub.

*Architects:* Rogers Stirk Harbour, Grimshaw, TP Bennett, Chetwoods, Perkins+Will, Proctor and Matthews, Pollard Thomas Edwards, Robert Myers Associates, Formation Architects  
*Client:* Brookgate  
*Planning Consultant:* Bidwells  
*Main contractors:* Wates, Galliford Try, RG Carter, Hill, Downing, Weston Homes  
*Structural Engineer:* Mott MacDonald  
*Agent:* Bidwells  
*Development Funding:* Bidwells  
*Viability Assessment:* Bidwells



## Peterhouse Technology Park Western Expansion

Fulbourn Road, Cambridge, CB1 9PT | Status: Under construction | Completion: 2022

An extension to the Peterhouse Technology Park, contributing to the wider cluster of science and tech campuses in and around Cambridge. ARM occupy a significant amount of the floorspace, including the recently constructed campus extension. The buildings have attractive elevations with public art flowing through the design. Inside the buildings provide efficient floorplates to cater for single large occupiers or are capable of sub-division.

*Architect:* Scott Brownrigg  
*Client:* Peterhouse College  
*Project Manager:* Bidwells  
*Planning Consultant:* Bidwells  
*Structural Engineer:* Ramboll  
*M&E:* Hoare Lea





## Project Birchwood, Melbourn Science Park

Cambridge Rd, Melbourn, Royston SG8 6EE | Status: Planning | Completion: June 2022

TTP, a world-leading local technology and product development organisation based on Melbourn Science Park, is undergoing a period of sustained expansion. To continue to grow and deliver for their expanding client base, TTP are building new, purpose-built office and research accommodation suitable for the 21st century. The new buildings will deliver 9,200 sqm of accommodation on an enlarged site that retains the character of low-density ‘science park’ whilst enabling continued operation from a single site in Melbourn.

*Architect:* Sheppard Robson  
*Client:* The Technology Partnership  
*Project Manager:* Bidwells  
*Planning Consultant:* Savills  
*Main contractor:* SRM  
*Structural Engineer:* AKTII  
*Cost Management:* Gleeds  
*Landscape designer:* SpaceHub



## Key Worker Housing, Eddington

Eddington Ave, Cambridge CB3 | Status: Built | Completion: 2019

As part of the new North West Cambridge quarter, Stanton Williams’ housing development provides much-needed affordable housing and facilities for the University of Cambridge key workers and post-doctorate community, supporting the University’s position as a global leader in research. It creates a neighbourhood of 264 key worker homes together with university workspace, shops and amenities in a convivial setting. A network of landscaped courtyards and communal external spaces, designed to foster social interaction, underpins the concept of the project. Even the timber-clad bicycle pavilions, designed with their own integral gardens and benches, are places of social possibility.

*Architect:* Stanton Williams  
*Client:* University of Cambridge, North West Cambridge Development  
*Masterplan:* Aecom





© Secchi Smith

## Ray Dolby Centre, Cavendish Laboratory

JJ Thomson Ave, Cambridge CB3 | Status: Under Construction | Completion: 2022

The Ray Dolby Centre, Cavendish Laboratory replaces existing facilities for the Department of Physics at the University of Cambridge. The Cavendish is one of the most renowned laboratories, founded in 1874 and home to 30 Nobel Laureates. It houses over 15 research groups in both theoretical and experimental physics and provides advanced research facilities including cleanrooms, cryostat halls, microscopy suites, laser and optical labs. There will be extensive teaching and learning spaces, including a 450-seat lecture theatre, teaching labs for undergraduates, learning resource centre, outreach and exhibition spaces, tea room and other collaborative working areas for researchers and students.

*Architect:* Jestico + Whiles  
*Client:* University of Cambridge  
*Contractor:* Bouygues



© Hufton and Crow

## Simon Sainsbury Centre, Cambridge Judge School

Trumpington St, Cambridge | Status: Built | Completion: 2018

Stanton Williams' Simon Sainsbury Centre has enabled Cambridge Judge Business School to consolidate all parts of its community on one enhanced, historic site, safeguarding the future of its much-loved buildings and the contribution of the School to the vitality of Cambridge's academic core. The project enables the School to reinforce its international reputation for education and research, and its position at the heart of the Cambridge Cluster. As well as providing exemplary new facilities for both graduates and executive students, Stanton Williams' work brings a fresh clarity to the richly layered architecture of this complex site.

*Architect:* Stanton Williams  
*Client:* University of Cambridge  
*Strategic Project Manager:* Stuart A Johnson Consulting





# University of Cambridge Shared Facilities Hub

JJ Thomson Ave, Cambridge CB3, UK | Status: Under Construction | Completion: 2021

The new Shared Facilities Hub for the University of Cambridge's West Cambridge campus is a dynamic building located at the heart of the campus, providing communal spaces and resources for all of its members as well as outreach opportunities for local community members. The scheme, which is designed to connect people from different departments of the university, incorporates teaching and meeting rooms, learning resource areas, catering outlets and offices. It provides inspiring places for working, learning, dining and meeting with friends and colleagues. The project is part of the university's vision to transform West Cambridge into a lively research campus.

*Architect:* Jestico + Whiles  
*Client:* University of Cambridge  
*Quantity Surveyor:* Aecom



# The Works, Unity Campus

Brewery Rd, Pampisford, Cambridge CB22 | Status: Built | Completion: March 2020

The Works at Unity Campus for developer Howard Group is ideally positioned within the fast-paced Cambridge life science and technology cluster. The Works offers a uniquely flexible office and R&D environment ideally suited to a new generation of dynamic and innovative high growth businesses. Housed within the pre-cast concrete frame of the original warehouse building, The Works provides modern office and tech R&D accommodation, across a range of flexible one or two storey layout options, in a truly inspiring and engaging environment. High-quality internal circulation, breakout and amenity space runs through a glazed, double height central 'Street'.

*Architect:* NBBJ  
*Client:* Howard Group  
*Structural Engineer:* Connisbee  
*M&E / Sustainability Engineer:* David Bedwell & Partners  
*Project Manager:* 3PM  
*Landscape Architect:* Nicholas Hare  
*Cost Consultant:* AECOM  
*Leasing Agent:* Bidwells



# Rest of the UK



# Plus X

Lewes Rd, Brighton | Status: Under Construction | Completion: 2020

Client: U+I | Architect: Studio Egret West | Contractor: Graham Construction

Plus X is a new localised national network of innovation hubs that aims to transform left behind places and support Britain’s new generation of entrepreneurs and inventors.

Backed by listed regeneration specialist U+I, Plus X has emerged from a prototype innovation hub that was launched at U+I’s The Old Vinyl Factory (TOVF) regeneration scheme in Hayes, West London. TOVF was once home to Thorn EMI’s headquarters — not just EMI Records, but also the Central Research Laboratory (CRL), an institution of British engineering innovation that spawned the development of broadcasting systems, stereo, airborne radar and the CAT scanner.

Building on that heritage and reviving the historic name, U+I re-established the Central Research Laboratory in 2015 as a proof of concept innovation hub for start-ups within the tech, digital, engineering and ‘maker’ sectors. The aim was to create a hub of economic activity that would serve as a magnet for other occupiers. And it worked. Since opening, CRL has supported more than 100 local businesses, including 25 new start-ups, with more than 60 full-time jobs created and over £5m in investment raised.

Inspired by that success, U+I launched Plus X in 2019, taking a 50% stake in the business with the aim of rolling out a network of innovation hubs around the country.

Plus X will launch its first 50,000 sq ft innovation hub at U+I’s Preston Barracks development in Brighton this summer, designed by Studio Egret West. Next will be Plus X Hayes, where next year CRL will move into a new purpose-built 29,000 sq ft hub, designed by architect Pilbrow + Partners. U+I is also exploring opportunities to develop Plus X hubs in Oxford, Greenwich, Manchester, and Birmingham, while Plus X is also talking to other possible partners to bring Plus X hubs to their projects.

Plus X goes beyond the desk space model of mainstream co-working providers to provide cutting edge workspaces with state-of-the-art media studios, prototype workshops and bio labs, as well as the mentoring,

accelerator programmes, and business support required by the entrepreneurs, inventors, innovators, start-ups and scale-ups at the leading edge of building Britain’s new economy.

Plus X buildings are unique in that they are purpose-built and will be tailored to the specifics of the local economy and the existing talent pool. For example, while CRL has a focus on start-ups in the tech, digital, manufacturing, engineering and ‘maker’ sectors, reflecting the strengths in the local area and partnerships with Brunel University and HEFCE, Plus X Brighton is building on themes around the circular economy and digital media.

Integration with the locality is also key. There is an emphasis on community outreach initiatives including sessions and programmes for schools, NEETs and aspiring entrepreneurs, as well as providing space and assistance to local communities. Occupants will benefit from close ties with academia and businesses, particularly where they have an on-site presence. Follow-on space will be available in the same hub to enable small businesses to grow, ensuring local businesses are retained and continue to benefit the local economy.

*‘By supporting local innovation, Plus X can catalyse economic activity within left behind areas, attracting further occupiers and accelerating the virtuous circle of business activity essential to the success of large-scale regeneration schemes.*

*A Real Worth study found that a Plus X creates as much as 160 times more social and economic value as that of a traditional office, and 16 times more than a mainstream co-working space.*

*That is why this model is so powerful. The aim is to not only transform once vibrant industrial areas, but support a new generation of innovators and entrepreneurs to remake the UK’s economy.’*

Richard Upton, chief development officer, U+I





# Stevenage Life Sciences Cluster

Gunnels Wood Rd, Stevenage SG1 | Status: Built | Completion: 2020

Client: Stevenage Bioscience Catalyst | Architect: Fairhursts Design Group | Developer: Kadans Science Partner | Consultant: Creative Places

The Stevenage Life Sciences research and R&D cluster is centred around the Stevenage Bioscience Catalyst, which was developed by GSK, the Wellcome Foundation and UK Government and which is located directly adjacent to GSK R&D activity.

The cluster comprises the Stevenage Bioscience Catalyst (SBC) Incubator and Accelerator buildings and the Cell and Gene Therapy Manufacturing Catapult (CGTMC) and the Spark Building. Sycamore House, which is a new addition to the campus, is currently being brought forward to help companies expand in the location and is due to open in Q2 2021. Together, these facilities will provide around 23,200 sq m (250,000 sq ft) of floorspace.

The campus provides a home for over 40 companies focusing on a multitude of therapeutic areas, and has gone from strength to strength as an open innovation ecosystem for healthcare R&D, since the project's inception in 2012. Companies located here have collectively raised in excess of £1bn since that date, with over £300m of this having been raised in 2019 alone.

The campus has a particular focus on research and R&D into Cell and Gene therapy, with a number of the worlds leading companies in this field located within SBC. Companies located here report that proximity to the CGTMC and each other helps drive forward the speed at which they can bring their products and services to market. Many are patenting new manufacturing technologies in the novel field of cell and gene therapy, and both the support on offer at SBC and the CGTMC have lead to the campus achieving an internationally recognised status for the development of this pioneering activity.

In 2020, the campus was awarded Life Sciences Opportunity Zone Status by the Office for Life Sciences.

In December 2019, the Spark building opened on the campus to meet the needs of rapidly growing companies in the short—medium term. Sycamore House is simultaneously being brought forward through a collaboration between Kadans Science Partner — a

specialist R&D sector property developer — and SBC. The development is to repurpose an existing warehouse previously owned by GSK, situated directly adjacent to existing activity to provide c.9,300 sq m (100,000 sq ft) of high quality multi-occupied office and laboratory accommodation. The level of demand for space has been high, with all suites in the building already spoken for 15 months prior to anticipated completion. Building design has been focussed on retaining the existing industrial features of the building, whilst simultaneously providing a highly collaborative environment and tying services seamlessly in with other buildings on the campus. The innovative approach of comprehensive refurbishment to deliver space rapidly for the sector and involvement of a private sector investor are testament to the strength of the location as a Knowledge Network.

*‘The open innovation ecosystem that has been nurtured in Stevenage by the parties here is making a real difference to the pace that companies can develop their products and services.*

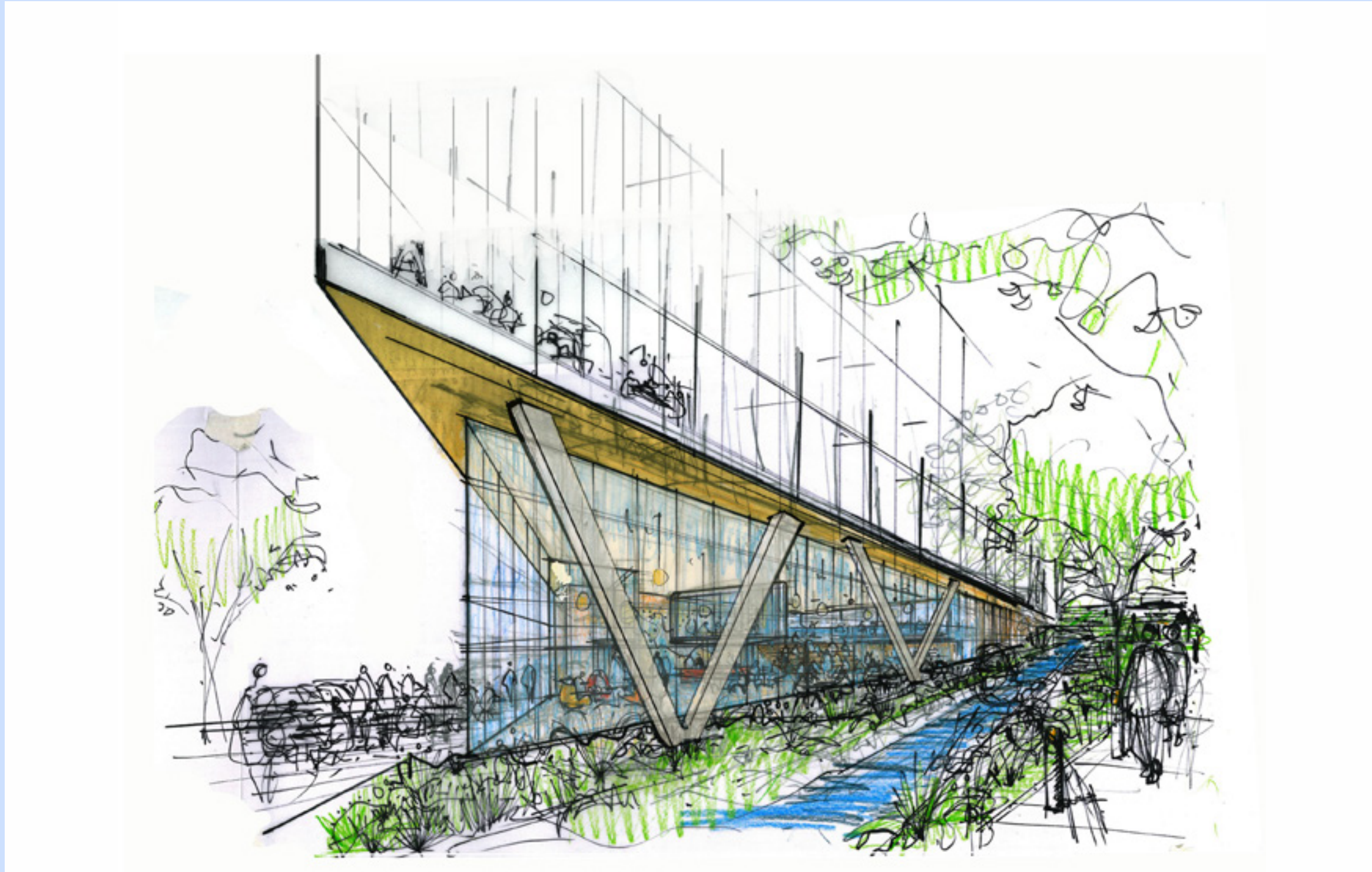
*The demand for space is unprecedented. Growth rates and funding successes of companies working in collaboration is testament to the atmosphere that we endeavour to maintain on the campus.*

*We are incredibly excited to be working with Kadans Science partner; the comprehensive refurbishment of Sycamore House will be a flagship example of the kind of innovative approach that needs to be taken to provide space for the expanding sector.’*

Dr Sally Ann Forsyth, CEO, Stevenage Bioscience Catalyst







© BDP

## Bio-Therapeutics Hub for Innovation, Aberdeen

Foresterhill Rd, Aberdeen | Status: Under Construction | Completion: December 2021

The hub is located on the Foresterhill Health Campus in Aberdeen, one of Europe's largest integrated clinical, research, teaching and commercial health sites. The new facility will include accommodation for spin-outs, start-ups and established companies along with collaboration space and shared facilities for events, small conferences and networking. Sector specific support programmes will include incubation, acceleration, mentoring, commercialisation and growth planning. The hub will also be a catalyst for international collaborations and investment into research and companies.

*Architect, Acoustic Consultant, Landscape Architect, Lighting Designer: BDP*



© Aukett Swanke

## STEAMHouse 2

Jennens Rd, Birmingham | Status: Under Construction | Completion: August 2021

The STEAMHouse 2 project in Birmingham builds on the original Eastside Projects and Birmingham City University initiative which aims to create centres for innovation and cultural production for creative industries and a wider pool of disciplines and backgrounds, including artists, scientists, engineers, mathematicians, designers, makers and the tech industry. Production workshops are provided alongside co-working, collaborative and business support infrastructure spaces. The building design integrates the locally listed Belmont Works, whose industrial heritage grounds the development of the interdisciplinary collaborations, creative workshops and hybridised working practices of the future.

*Architect: Aukett Swanke  
M&E / Sustainability Engineer: Derry Building Services  
Structural Engineer: Baynham Meikle  
Contractor: Bowmer + Kirkland*





© Aukett Swanke

## Mid Tech

Alconbury, Bishop's Stortford CM23 | Status: Planning Granted

A new master plan for a campus that will provide R+D, office and production facilities for university start-up businesses and established enterprises in the heart of one of the UK's original Silicon Hubs. It explores the notion of an agile industrial space, positioned as a 'mid-tech' unit, which is located at the interface between an industrial park and an existing residential community. The units develop a flexible and scalable industrial prototype within which use can shift between research, workplace and industrial modes of production. The master plan also considers the civic potential of proximity between residential and industrial land uses.

*Architect:* Aukett Swanke  
*Client:* Urban & Civic  
*Planning Consultant:* David Lock & Associates  
*Engineer:* Peter Brett Associates  
*Landscape Architect:* Bradley Murphy Design  
*Cost Consultant:* Exigere  
*M&E / Sustainability Engineer:* Hoare Lea  
*Structural Engineer:* David Dexter Associates  
*Approved Inspector:* MLM



© Tim Crocker

## New Science Building

42 Moore Ave, Norwich NR6 | Status: Built | Completion: September 2019

The New Science Building provides state of the art, flexible, laboratories and teaching rooms for use by multiple departments, creating an environment in which cross-fertilisation of ideas and innovation can flourish. UEA also wanted a building that was sustainable and inclusive providing accessible facilities and social spaces for all. Fraser Brown MacKenna Architects designed a building that achieves this, fulfilling Lasdun's original ambitions for the university — that each building should contribute to the wellbeing of students, how they live, work and interact — and that the buildings should respect the geology and attractive landscape of the site.

*Architect:* Fraser Brown MacKenna Architects  
*Contractor:* RG Carter  
*Client:* University of East Anglia  
*Project Manager:* Real Consulting





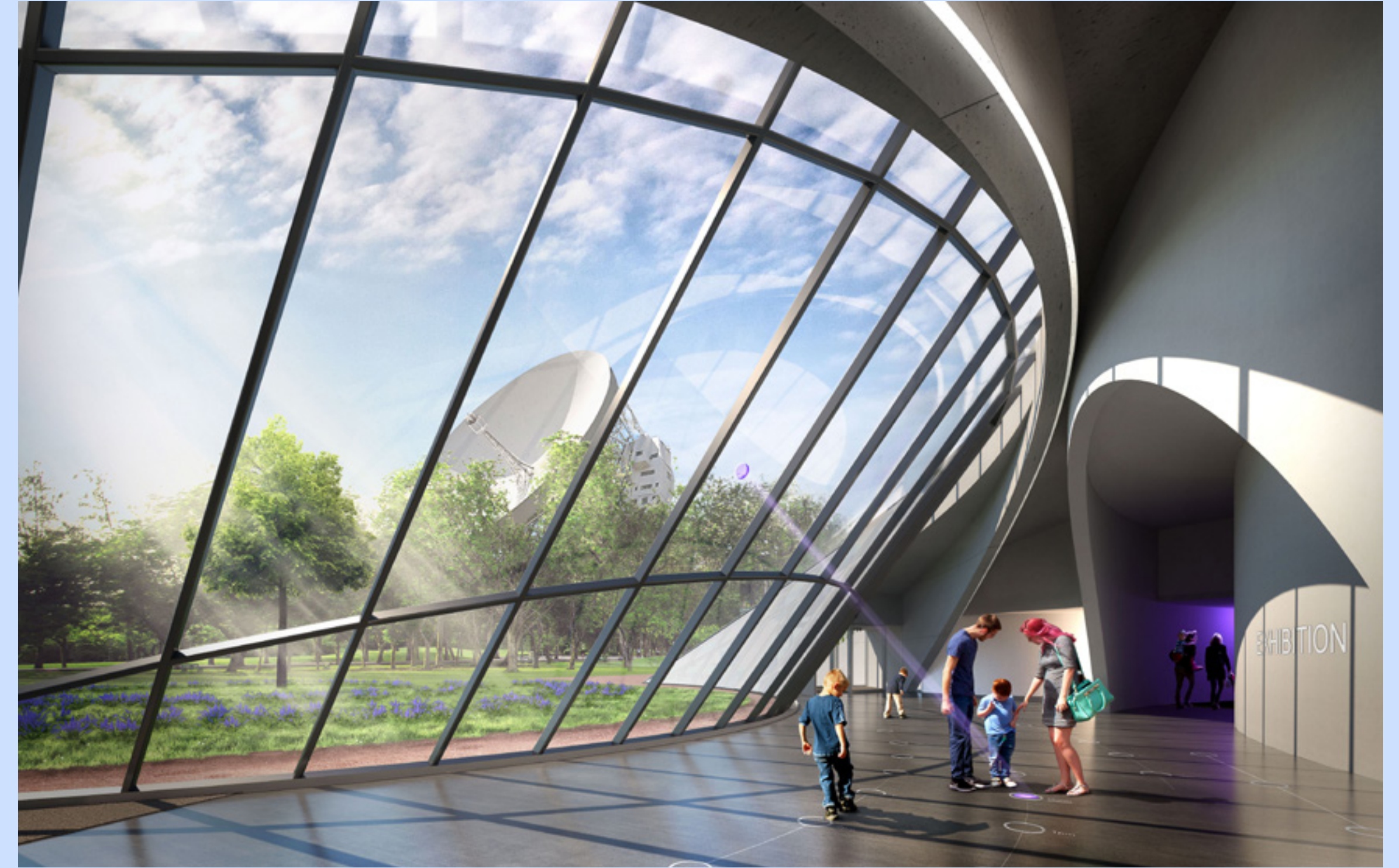
© BDP

## Teaching, Trauma and Tertiary Care Centre, Brighton

Eastern Rd, Brighton BN2 | Status: Under Construction | Completion: December 2020

The Teaching, Trauma and Tertiary Centre (3Ts) in Brighton is being developed for the Brighton and Sussex University Hospital NHS Trust, as part of a major £486m redevelopment of their main hospital campus on the south east coast. Two new state-of-the-art hospital buildings will bring elderly care, general medicine, HIV and clinical infection wards up to modern standards, and establish the hospital as the major trauma centre for the region. The new building will include 361 beds, 65% of which will be in single en-suite rooms, a helipad and additional parking spaces underground.

*Architect, M&E / Sustainability Engineer, Interior Designer, Landscape Architect, Planning Consultant: BDP*



## First Light Pavilion Visitor's Centre

Jodrell Bank, Macclesfield SK11 9FT | Status: Under Construction | Completion: July 2021

First Light Pavilion is a newly designed visitor centre at the Jodrell Bank Observatory for the University of Manchester. The Observatory has a reputation for world-leading scientific research, making ground-breaking discoveries in space. The Pavilion has been designed to celebrate both the site's heritage and the very beginnings of radio astronomy, taking the form of a grass-covered dome the size and shape of the Lovell Telescope. The Pavilion will feature a 150 seat auditorium at its heart. The entrance will be a dramatic curved concrete screen with its axis due south to reflect the arc of the sun.

*Architect: Hassell  
Interior Designer: Hassell  
Client: University of Manchester*





# Square Kilometre Array Headquarters, Jodrell Bank

Jodrell Bank, Macclesfield SK11 9FT | Status: Built | Completion: May 2018

SKA (Square Kilometre Array) Headquarters was designed to become a nexus of radio astronomy and a global hub for astrophysics in the 21st century. Already home to staff from 16 countries who are focused on delivering the final design of the two SKA telescopes, this project includes complex research and monitoring spaces, providing SKA with a base from which it can link with its international partners, host international council meetings and science conferences. Sitting in the shadow of the Grade I listed Lovell Telescope, the building takes inspiration from the radio waves that are at the heart of the SKA's work.

*Architect:* Hassell  
*Interior Designer:* Hassell  
*Client:* Square Kilometre Array / University of Manchester



# School of Engineering, University of Edinburgh

West Mains Rd, Edinburgh EH9 | Status: Under Construction | Completion: December 2022

The school, ranked number one in the UK by the Research Excellence Framework, has relocated to form part of a world class, dynamic science and technology campus. The new building advances engineering solutions to global problems by supporting emerging pedagogical styles and promoting collaborative working between specialist workshops and offices, showcasing a 'knowledge workshop' at the heart of the building. This is the first module as part of the masterplan and will initially operate as a stand-alone building until future phases are delivered, though it has been designed to account for the potential connection to future modules.

*Structural Engineer, Architect, Landscape Architect:* BDP





## University of Glasgow Adam Smith Business School

University Gardens, Glasgow G12 8QH | Status: Planning Granted | Completion: November 2022

Adam Smith Business School is a six-storey building which will provide specialised teaching and research space for the University of Glasgow's Postgraduate Taught (PGT) student community; forming part of the University's £1 billion Campus Development Programme. The building is designed to place business skills at the heart of the student experience and enhance employability; cultivating rich interactions and collaborations between students and stakeholders. The Hassell design features a precast vertical concrete facade to honour the University's long-standing civic partnership, balanced with cutting-edge architecture, a generous atrium, and extensive light wells for enhanced connectivity.

*Architect:* Hassell  
*Interior Designer:* Hassell  
*Client:* University of Glasgow



## Global Centre of Healthcare Excellence

Dansom Ln S, Hull HU8 7LN | Status: Built | Completion: January 2020

The new facility is the central worldwide hub for RB's research and development technical activities, creating a single location for expertise in formulation, analytical science and product innovation for the company's entire health category. The development comprises a new laboratory and pilot plant developmental building, site security building and an energy centre. Two existing buildings of historical value to the client have been renovated, refurbished & extended to provide a new 700 desk office, corporate meeting suite, staff restaurant and catering facilities. An atrium space called the innovation pathway provides key transition and interaction space for staff, visitors and consumers.

*Architect:* Ryder Architecture  
*Interior Designer:* Scott Brownrigg  
*Project Manager:* Groma Consulting  
*Quantity Surveyor:* AECOM  
*M&E / Sustainability Engineer:* Hurley Palmer Flatt  
*Contractor:* M+W





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## Clatterbridge Cancer Centre, Liverpool

Pembroke Pl, Liverpool | Status: Under Construction | Completion: December 2020

The centre brings together expert staff, high-quality care and excellence in research. It works collaboratively across the system, in the Liverpool Knowledge Quarter and beyond, nationally and internationally, to advance excellence in both research and care, to advance cancer research across C&M, and to translate research from 'bench to bedside'. The hospital has a stepped plan with external landscaped terraces at each level. Daylight penetrates deep into the radiotherapy waiting area at semi-basement level beside a winter-garden, over which the building cantilevers. The chemotherapy department is at the penultimate level of the building, below the pharmacy and drugs trials unit.

*Architect, Landscape Architect, Interior Designer, Graphic Designer: BDP*



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## Science and Engineering Building, Manchester Metropolitan University

Chester St, Manchester | Status: Planning Granted | Completion: September 2023

New research and teaching, together with selective refurbishment of existing science and engineering labs, workshops and computing facilities, marks a step change in the university's research capabilities, STEM education, knowledge exchange strategies and international presence. The new building will act as a 'living lab', showcasing science and engineering and connecting with tech-focussed business communities in the city region.

*Architect: BDP  
Engineer: Curtins  
Acoustic Consultant: Hoare Lea*





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## The Christie NHS Foundation Trust Biomedical Centre

Wilmslow Rd, Withington, Manchester | Status: Under Construction | Completion: December 2022

The centre will integrate researchers and clinicians in a new state-of-the-art building, who will develop new ways to conduct team science approaches to accelerate the translation and adoption of research into the clinic. In addition to housing the Cancer Research UK Manchester Institute, the new development will be a major step forward in realising Manchester Cancer Research Centre's ambition of becoming one of the world's top five centres for basic, translational and clinical cancer research. The new building will be transformative and will be a magnet for attracting international researchers and building partnerships with other academic institutions and the pharmaceutical and biotechnology industry.

*Architect, Acoustic Consultant, Lighting Designer, Interior Designer: BDP*



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## Bright Building, Manchester Science Park

Pencroft Way, Manchester M15 | Status: Built | Completion: April 2018

The Bright Building provides a tech-hub for both Greater Manchester and the Northern region and was conceived as a place where discovery and adoption of innovation and open collaboration is nurtured. It celebrates and uses technology and allows people to connect digitally and physically. The Hub is a BREEAM Excellent building providing office and laboratory accommodation over four floors set around a central atrium, together with café and restaurant facilities, a gym, meeting spaces, conferencing and networking spaces. The ground floor hub space provides zones for collaborative working alongside the home for major national projects and occupiers.

*Masterplan, Architect, Landscape Architect, Acoustic Engineer, Interior Designer, Lighting Designer: BDP*





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## Santander Unity Place

Midsummer Blvd, Milton Keynes MK9 | Status: Planning Granted | Completion: 2022

Located in one of the UK's fastest growing towns, Milton Keynes, Unity Place will be Santander's landmark new digital hub. It will bring together 6,000 Santander employees and help to attract next-generation talent. Designed to achieve WELL 'Gold', its people-centred workspaces will support wellbeing and collaboration. Integrated technology and an end-user app will enable staff to work seamlessly across devices and workspaces. The campus will be a hub for Santander UK and the community, including local businesses and the planned MK University. Its public facilities will include: coworking, auditorium, retail, dining, community hall, health and fitness spaces.

*Architect:* LOM architecture and design  
*Developer:* Osborne+Co  
*Structural Engineer:* WSP  
*Planning Consultant:* Deloitte  
*Cost Consultant:* Turner & Townsend



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## John Innes Centre, Next Generation Infrastructure, Norwich

Colney Ln, Cringleford, Norwich NR4 | Status: Proposed | Completion: December 2025

The new next generation infrastructure brings scientists together into multi-disciplinary houses creating a 'collaboratory' of wet and dry science activities across chemistry, biology, physics and ecology to better understand plant and microbial phenotypes and how they impact on the evolution of plant genetics and development. Views into laboratories, glasshouses and other working spaces present a cross-section of the activities taking place and increases industry and academic collaboration, and public outreach.

*Architect, Structural Engineer, M&E / Sustainability Engineer, Interior Designer, Lighting Designer, Acoustic Consultant:* BDP





# Havant & South Downs College

College Rd, Waterlooville PO7 | Status: Under Construction | Completion: September 2021

LTS Architects were commissioned by Havant & South Downs College to create a ‘Future Realities Centre’ to bring diverse courses, currently located across their campus, together around a shared hub supporting IT-rich, multi-modal learning. A labyrinthine plan will be cleared away to provide interconnected spaces easily adapted by their occupants. From traditional classrooms to reconfigurable breakout spaces, from fixed workstations to open social space, all provide both deliberate and spontaneous opportunities for learning. The open plan and connections to the floor above require an innovative fire strategy, whilst new services are made flexible enough to anticipate future pedagogies.

*Architect:* LTS Architects  
*Project Manager:* Peter Marsh Consulting  
*M&E / Sustainability Engineer:* Elementa  
*Structural Engineer:* Scott White and Hookins



# Endnotes

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# Acknowledgements & Profiles



# Acknowledgements

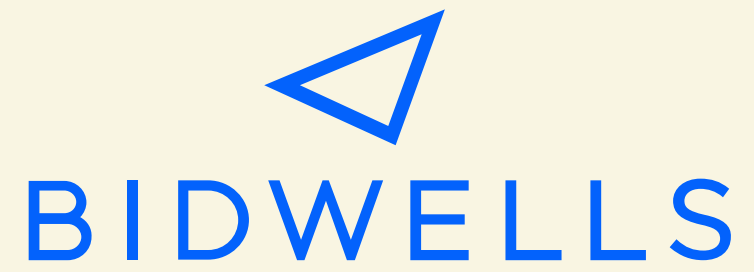
NLA would like to thank our Programme Champions: Bidwells, Creative Places, London Legacy Development Corporation, Mitsui Fudosan, Perkins and Will, Penoyre & Prasad and Stanhope and Programme Supporter: NBBJ, and contributors whose support made this study possible.

Special thanks to the following people for sharing their time, expertise and insights, and their own research through interviews, discussion and/or participation in NLA workshops.

- John Anderson, Financial Strategist, Imperial College London
- Peter Baird, Senior Associate, Perkins and Will
- Jonathan Burroughs, CEO, Creative Places
- Dr. Kathryn Chapman, Deputy Director of the Milner Therapeutics Institute, University of Cambridge
- Dr Phil Clare, Research Services, Knowledge Exchange and Engagement, University of Oxford
- Alistair Cory, Director, Oxford University Science & Innovation Campus UK
- Jodie Eastwood, Chief Executive, Knowledge Quarter
- Sue Foxley, Research Director, Bidwells
- Emma Frost, Director of Innovation, Sustainability and Community, LLDC
- Ahmed Goga, Director of Strategy and Programmes, Oxfordshire Local Enterprise Partnership (OxLEP)
- Ian Goodfellow, Principal, Penoyre and Prasad
- Daniel Gooch, Senior Policy Officer for Life Sciences, Regeneration and Economic Development, Greater London Authority
- Kat Hanna, Masterplan Strategist, Lendlease
- Sarah Haywood–Price, Executive Director, MedCity
- David Height, Director of Planning and Engineering, Mitsui Fudosan
- David Lewis, Partner, NBBJ
- Andrew Jones, Cities Programme Leader, AECOM
- Michelle May, Director of Socio–Economic Regeneration, LLDC
- Carl McKenzie, Partner, Elementa
- Nick O’Donnell, Director of Estates and Facilities, King’s College London
- John Sommerville, Managing Partner, Creative Places
- Darius Umrigar, Director of Science and Higher Education, NBBJ
- Charles Walford, Property Director, Stanhope
- David Williams, Head of Science and Technology, Bidwells

With special thanks to Sarah Yates, Researcher, New London Architecture





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