

Innovation



Districts:

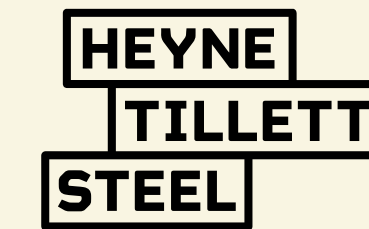
Designing Inclusive

Places

This research paper provides an update on a sector that is driving the evolution of innovation district models across London, the Golden Triangle and the wider UK towards inclusive places for innovation.

Drawing from over 50 exemplary projects and case studies across the UK, the report examines the role of design, placemaking and public realm in the planning, delivery and management of innovation districts.

In partnership with



Perkins&Will

STANHOPE

This research paper was published by New London Architecture (NLA) in October 2022. It forms part of NLA's year-round Education & Healthcare programme.

nla.london | [#NLA](https://twitter.com/NLA)

© New London Architecture (NLA)

Contents

04	Foreword
05	Executive Summary
08	Introduction
16	A New Model for Inclusive Innovation Districts
	Vision and Strategic Direction →
	Design →
	Stewardship and Management →
41	Viewpoints
55	Project Showcase
92	Acknowledgements
93	Endnotes and Further Reading
94	Company Profiles

Foreword

By Peter Murray OBE, Co-founder, New London Architecture

Universities were once ivory towers, unaffected by the hurly-burly of commercial life. Today they are at the forefront of economic growth, the heroes of the fight against COVID, and at the centre of the burgeoning knowledge economy.

Since 1970, when Trinity College opened Cambridge Science Park, the first of its kind in the country, universities across the land have realised the potential of their R&D to create new businesses and drive innovation.

Today such innovation districts are integrated into the urban context, boosted by the benefits of agglomeration. Universities are frequently at the centre of these districts which also include research bodies, teaching hospitals and cultural institutions as well as knowledge-based and tech businesses. The most mature of these districts in London is the Knowledge Quarter at King's Cross which includes centuries-old institutions such as the British Library and University College London as well as relatively recent arrivals like the Francis Crick Institute and Google. The Knowledge Quarter aims to be inclusive and looks to work with the local community to increase participation and expand engagement with local schools, colleges and young people to increase awareness of learning and career opportunities.

More recently established, SHIFT at Queen Elizabeth Olympic Park boasts of being the world's most inclusive innovation district. A living testbed for creating better urban futures, it will drive inclusive innovation in climate adaptation and resilience, health and well-being and advanced mobility solutions, working closely with local community organisations and local authority partners.

Trinity College is now consulting on Cambridge Science Park North extension of the existing Park and makes it clear that the College “will promote social inclusion by facilitating the creation of skilled well-paid jobs in local companies where people from all backgrounds will work together”.

As businesses everywhere embrace ESG frameworks, innovation districts must focus not only on economic growth but on sustainable growth that benefits the local communities in which they sit. Two years after the launch of “Knowledge Networks”, we revisit the efforts of the knowledge, creative and tech industries in creating inclusive innovation districts. NLA is pleased to support that ambition with the publication of this report as we continue our work on the New London Agenda to champion London's role as a global innovation powerhouse.

Executive Summary

The landscape where innovation districts are taking place is rapidly changing, no longer solely connected to anchor education and research institutions alone, innovation hubs are emerging in urban contexts, with proximity to businesses, diversity, culture and innovation.

A series of new models are emerging nationally and across the Golden Triangle that are setting a new precedence for growth around knowledge-intensive industries that are bringing new opportunities for inclusive economic development.

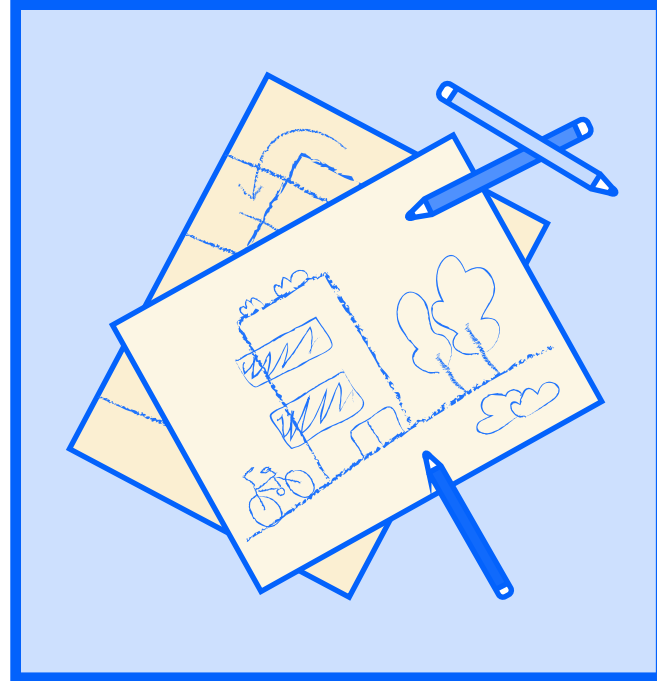
Some of the key considerations around placemaking connected to the innovation districts of the future need to support local businesses, engage with communities and be based on a collective strategy between landowners, developers, stakeholders and residents.

Here we present a summary of key recommendations that different stakeholders should consider when creating an inclusive innovation district:



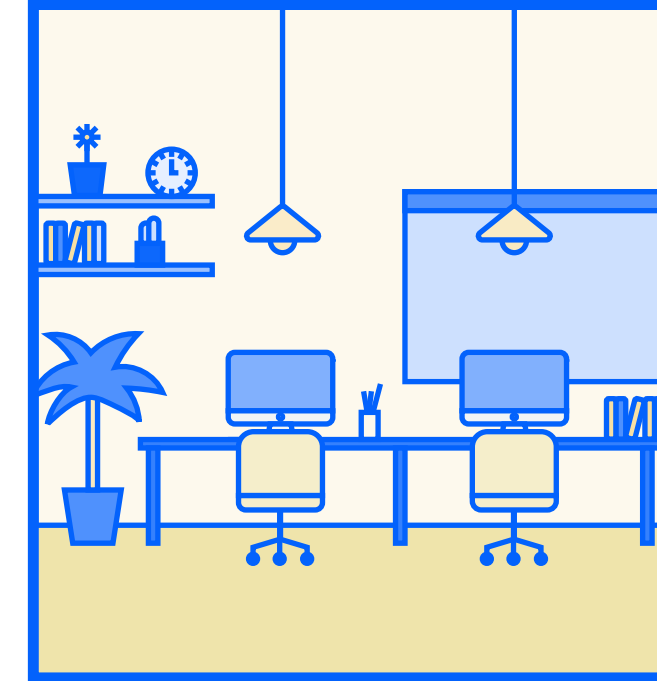
SC1 London's life science innovation district - LIHE (London Institute for Healthcare Engineering) by HLM Architects

Vision



- Masterplans need to come out of a shared vision between local authorities, innovation communities and built environment professionals to create a **long-term place-based framework** that is adaptable and resilient
- A long-term horizon is one of the fundamental principles underpinning good placemaking

Inclusivity



- School-to-work programmes, internships and apprenticeships for local residents provide access to **training and upskilling opportunities** to address skills gaps, establish career pathways and unlock access to job opportunities within innovation districts
- Providing access to **affordable workplaces** for local businesses, SMEs and start-ups creates a more inclusive innovation district, brings a buzz and vitality to the area and creates opportunities for cross-pollination and collaboration
- Innovation Districts generates thriving districts where businesses and people feel invested. Local pride and care for the neighbourhood encourage residents to become enthusiastic stewards of place

Design



- Welcoming buildings with **flexible ground levels and a vibrant mix of uses** can create a meaningful interface between local residents and innovation district occupants
- A public realm that increases **connectivity, permeability and walkability** can help stitch innovation districts back into their surroundings and grant them a purpose beyond the innovation community, as integral parts of the wider city
- Increased **biodiversity and nature-based solutions** across the newly created buildings and public realm facilitates access to nature for occupiers, residents and visitors, and creates a climate-resilient innovation district

Location and Connectivity



→ The geographical connectivity between Innovation Districts and their proximity to other parts of the city should diversify into more locations and across more sectors.

Retrofit, Sustainability and Designing for Longevity



- Increasing urban density can amplify urban greening to create harmonious and liveable places
- Reuse projects are a lot shorter than new development and reduce vehicle movement and congestion
- Retrofitting historic buildings provide access to education and new opportunity for residents, contributing to the continued regeneration of the area
- The need for retrofitted labs spaces and healthcare facilities in cities is increasing

Stewardship, Management and Investment



- The use of metrics and index systems can be used to measure and manage planning processes and financial returns across large scale mixed-use developments
- Business Improvement Districts are another vehicle for local actors to collectively bring about positive change and growth.

Introduction

During much of our recent history, innovation has taken place in secluded regional districts and out-of-town campuses that ensure privacy and protect intellectual property. Developed as enclaves surrounded by nature and infrastructure corridors, they are often separated from the life of the city and nearby communities. However, the landscape where innovation takes place has been undergoing wholesale change, and new models have emerged that favour urban vibrancy, diversity and proximity.

“An inclusive growth agenda shouldn’t be a note in the back of a strategy, it should be integral to everything we do.”

Jodie Eastwood, CEO of London’s Knowledge Quarter

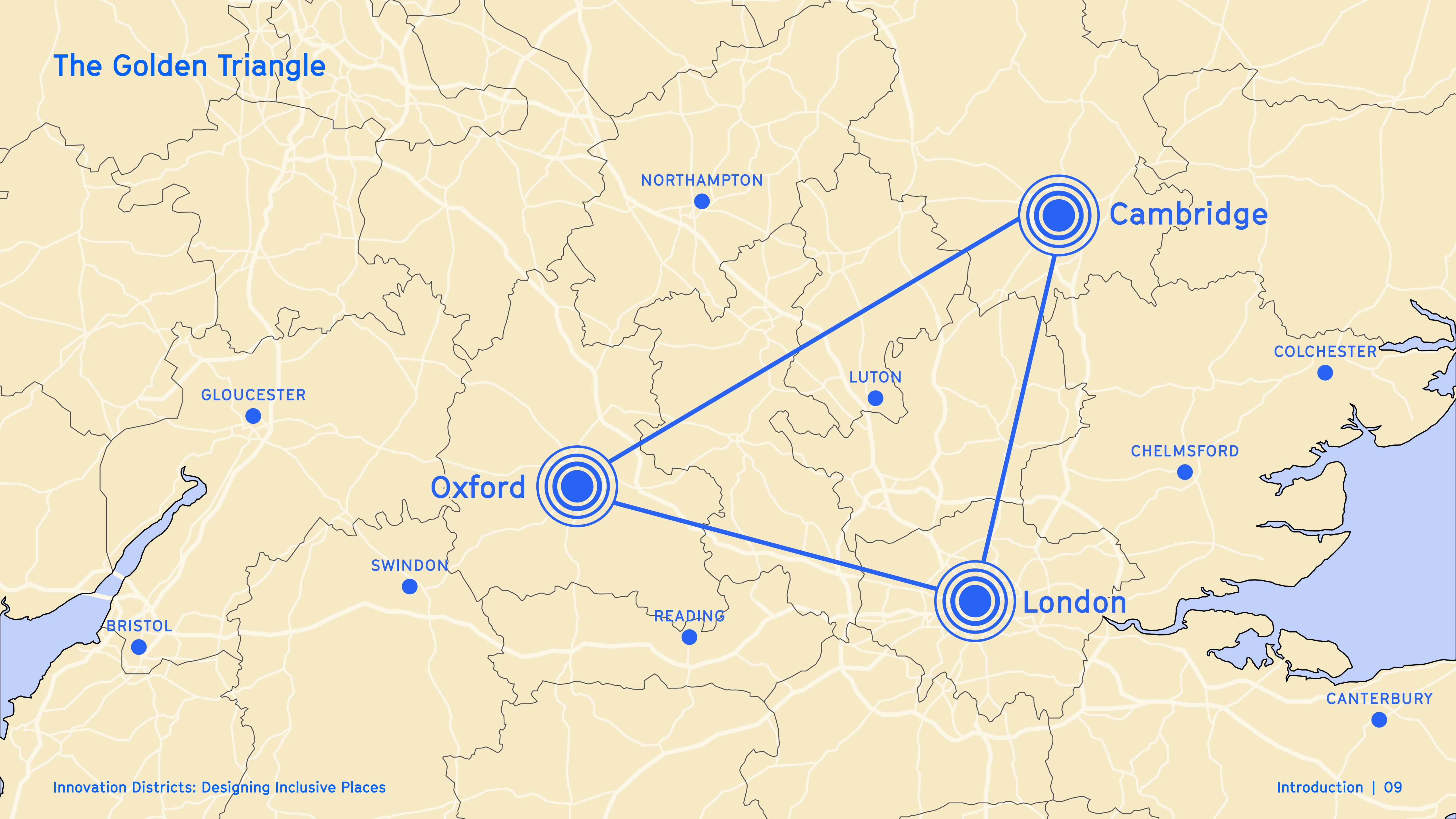
In a city context, a blend of large anchor tenants, knowledge-intensive SMEs, academic institutions, think tanks, start-ups and spin-offs can thrive in a culture of open innovation and dynamic competition that accelerates progress, diffusion of knowledge and commercialisation of new ideas. These synergistic ecosystems generate fertile ground for innovation,

allowing companies to reach new levels and excel beyond their individual capacity.

These are undoubtedly exciting and progressive places with a clear focus on prosperity and growth. In their essay ‘The Rise of Innovation Districts’, Bruce Katz and Julie Wagner described them as “the ultimate mash up of entrepreneurs and educational institutions, start-ups and schools, mixed-use development and medical innovations, bike-sharing and bankable investments — all connected by transit, powered by clean energy, wired for digital technology, and fueled by caffeine”¹.

Contemporary innovation districts can take many shapes and forms — from a single building or campus to an entire district, sub-region or corridor. NLA’s publication *‘Knowledge Networks: London and the Ox-Cam Arc’* explored the growth in knowledge-intensive industries across the ‘Golden Triangle’, a globally renowned regional research and development cluster based around world-class universities and global tech companies, with a focus on life sciences, genomics, digital health, AI in healthcare and neuroscience, as well as a range of other sectoral activities. The Golden Triangle represents a dynamic and innovative ecosystem of complementary locations across a larger region that collectively are playing a critical role in the post-Covid recovery of the UK economy

The Golden Triangle



as an employment creator and global exporter of innovation. A series of new innovation clusters are emerging in the Golden Triangle, more recently the Oxford West End project, which is a city centre innovation district and mixed-use area around the station hub, building on academic anchor institutions such as City of Oxford College, University of Oxford and Said Business School.

More locally, urban clusters are springing up across London. The London Knowledge Quarter, centred on King's Cross, is a focal point for life science education, research and development, spearheaded by world renowned institutions such as Francis Crick Institute, UCLH, Alan Turing Institute and the Wellcome Trust. Further west, BBC's departure from White City has opened up the potential to curate a highly dynamic blend of uses, anchored by the Imperial College Department for Chemistry and the I-Hub — an incubator for life sciences, start-ups and SMEs. In Stratford, a cluster of start-ups, education, tech and creative industries have established a hothouse for innovation in Here East, the former 2012 Olympics International Press and Broadcasting Centre.

Locations such as the Golden Triangle, King's Cross, White City and Stratford celebrate the UK's rich history of innovation and creativity, our world leading universities and thriving start-up ecosystem. These and other innovation districts across the UK have

become critical for the long-term health of the UK economy and the nation's global standing.

However, at a time of rising inequality, these locations are also faced with one of London's greatest challenges: inclusive economic growth. The move from out-of-town locations to urban cores has seen many innovation districts rise up to cast a shadow over the diverse urban communities set in and around them, many of which are sometimes isolated and under-resourced.

The aforementioned report 'The Rise of Innovation Districts'² suggests that innovation districts have the potential to develop better and more accessible jobs. But too often, the benefits of economic growth don't always lead to a reduction in inequality or an increase in living standards for the wider population. Research by Nesta argues that compared to the mass production economy, the knowledge economy will employ fewer people, which could contribute to inequality, stagnation and political alienation.³

The innovation sector is firmly on the rise. A report by McKinsley in early 2020 forecasts that biological science will become the globe's next trillion-dollar industry. The sector could create \$2tn–\$4tn of direct annual economic impact within the next two decades.⁴ More locally, the UK Bio-Industry has reported that in 2021, biotech firms in the UK raised £4.5bn, up £1.7bn on 2020.⁵

£2tn –
£4tn

Is the amount the sector could create of direct annual economic impact within the next two decades

£4.5bn

Is the reported amount raised by the UK Bio-Industry in 2021

UK Innovation Districts

Here we present some of the UK-based Innovation Districts identified by the UK Innovation District Group.

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

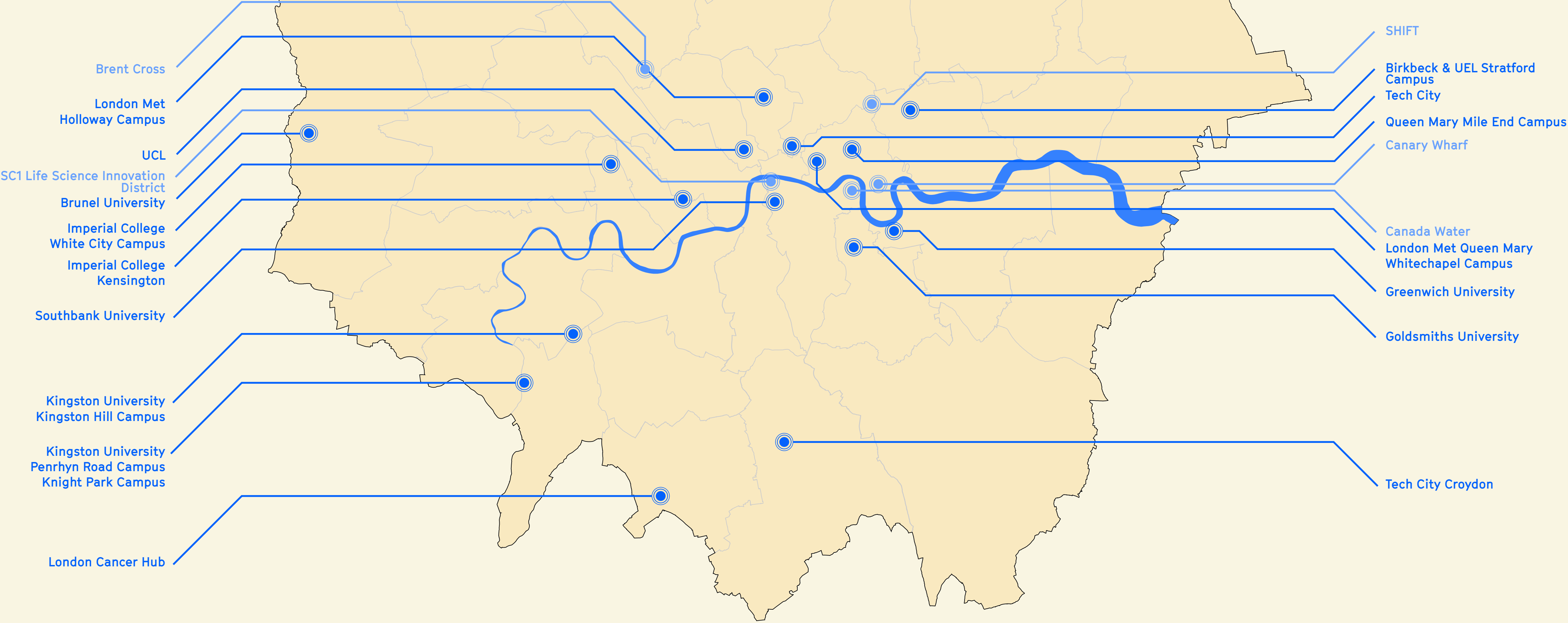
Map reference: Opening The Innovation Economy: The Case for Inclusive Innovation In the UK by UK Innovation Districts Group supported by Connected Places Catapult



London's Innovation Districts

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

- Innovation Districts shown in the 2020 Knowledge Networks report
- Emerging areas for innovation identified since 2020 Knowledge Networks report



In London, a MedCity report from 2021 forecasts a demand of over 500,000 sq ft of life science real estate, of which 270,000 sq ft will be required within two years⁶. But the greatest risk of the contemporary innovation district model is that if it follows its predecessors, this projected growth and wealth will benefit the few and not the many..

In the face of the cost-of-living crisis and economic stagnation, London and the UK needs a new model for inclusive economic growth that can maximize the potential of highly skilled industries, such as life sciences, whilst fostering a broader spectrum of innovation-related activities that together can employ and support a diverse group of people.

Innovation districts should be places where new ideas are nurtured and celebrated, and horizons opened. Where a network of synergistic activities, innovation based or not, elevates the capacity of each individual part. Places that are connected and tuned into the neighbourhoods they serve, for the benefit of people of all backgrounds and capabilities.

Science and technology districts and parks across Oxford and Cambridge underline the value businesses place on a concentration of activity empowering cross sector collaboration. Certainly, research undertaken by YouGov/Bidwells identify urbanized districts and parks as the preferred location for R&D businesses. This

density facilitates the diversity of thought so essential in the innovation process. The Oxford and Cambridge experience demonstrates businesses need and seek out inclusive models of operation both in park and in district locations.

Within this vision, the built environment has a critical role to play. This report advocates for an innovation district model that empowers local actors to implement a place-based framework for inclusive economic growth; a multi-stranded approach to placemaking that spans the macro and micro perspectives. This can provide overarching direction whilst inspiring stewardship from the ground up, strategic visioning with pragmatic solutions, and adaptable environments that evolve with needs over time. Equipped with a practical toolkit for change, we can collectively nurture a next generation of equitable, inclusive and responsive innovation districts that revolutionise the models of the past.

270,000 sq ft

of life science real estate is said to be required within the next two years with (2021)

500,000 sq ft

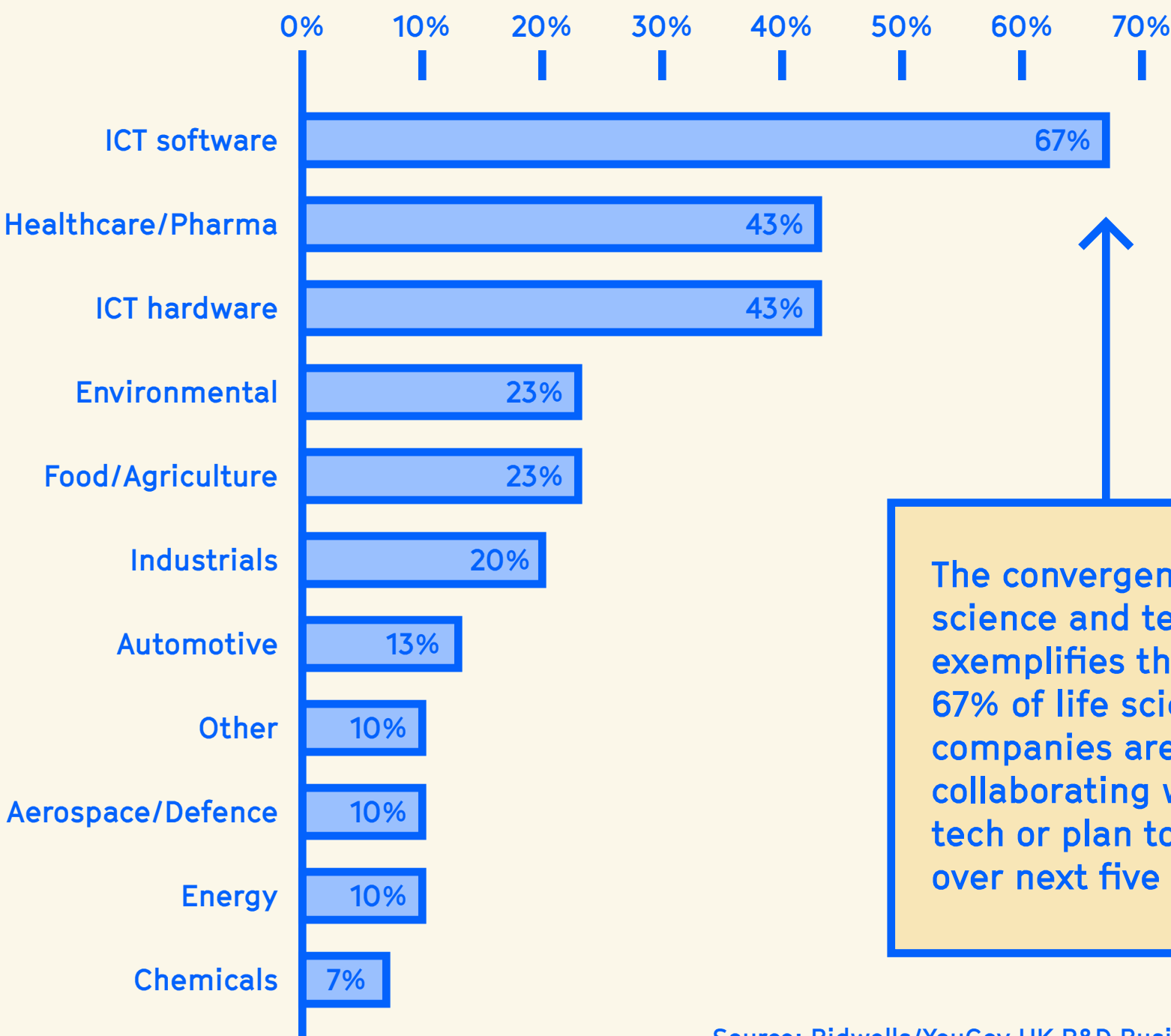
being required overall

£2.2m sq ft

Is the amount of laboratory floorspace required across Oxford and Cambridge (Q3, 2022)

Stats

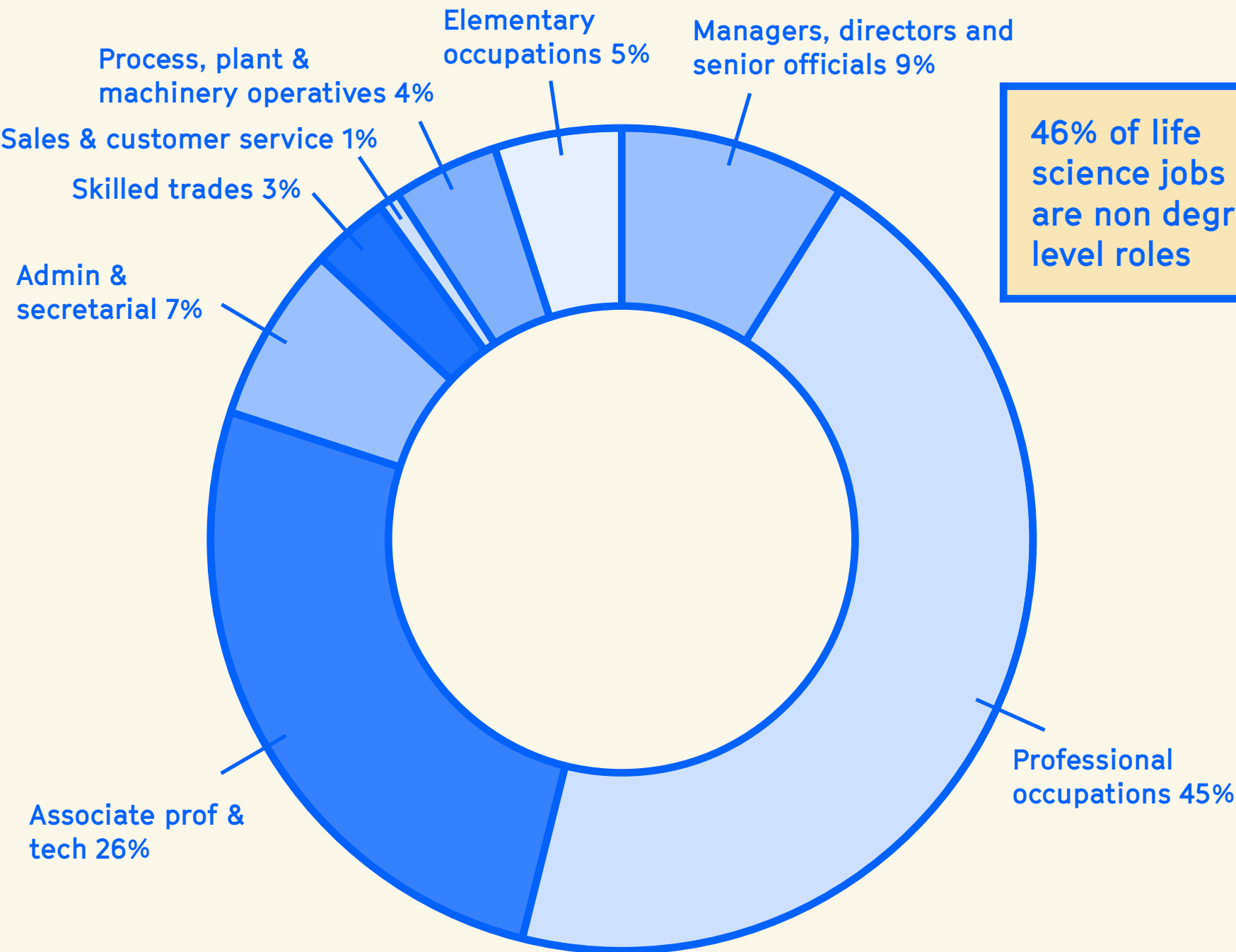
The collaborative partners of life science R&D businesses, now or planned over the next five years



The convergence of science and tech exemplifies this; 67% of life science companies are collaborating with tech or plan to do so over next five years.

Source: Bidwells/YouGov UK R&D Business Survey

Employment in UK life sciences by occupational group



46% of life science jobs are non degree level roles

Source: Life Sciences 2030 Skills Strategy, Science Industry Partnership, 2020

Stats

37%

of companies state they outsource R&D to businesses near to their own location

40%

increase in life science employment in London between 2011–2020, from 20,500 workers to 28,700

£104,000

is the average Life science job GVA per employee, (compared with national average of £49,000)

82.5%

of companies surveyed needed space due to expansion (compared with 11.5% taking on alternative accommodation but staying the same size, for example).

2.5

additional jobs are formed in the wider economy for every life science job created

46%

of life science-based jobs are non-degree level roles.

Sources: Bidwells/YouGov UK R&D Business Survey |
Community & Cluster Dynamics | London Life Sciences Real Estate Report

A new model for inclusive Innovation Districts

This report brought together senior professionals in the built environment industry to share insights and thought leadership, through roundtable discussions, interviews and the NLA Expert Panel on Innovation Districts. Here we present some of the key lessons and ideas for creating inclusive innovation districts for built environment professionals — landowners, developers, planners, architects, and designers — as well as citizen groups that are involved in growing the next generation of innovation districts. As we embark on a new and more conscious approach to placemaking for these districts, there are some key considerations to factor in across all scales and stages of development.

In this section, we provide guidance and pointers for three key stages of conception: the initial strategic visioning stage; the design stage; and the operational stage when the place is lived in and cared for. All strands are equally important, and together they create the foundation for a successful whole-place approach to placemaking.



The Pears Building by Hopkins Architects and Heyne Tillett Steel

Vision and strategic direction

A collective vision and agile governance structure

A clearly articulated vision helps set the ambition for a place, builds widespread support and spark enthusiasm for its future. Where possible, the vision needs to embrace and retain the history of a place whilst remaining future focussed.

The process to arrive at a vision must be a collective effort, developed between landowners, local authorities, potential occupiers, and key stakeholders, and co-created with the community. This process is essential to build consensus and confidence amongst prospective partners, occupiers, and investors, which in turn will help unlock new delivery mechanisms and funding opportunities.

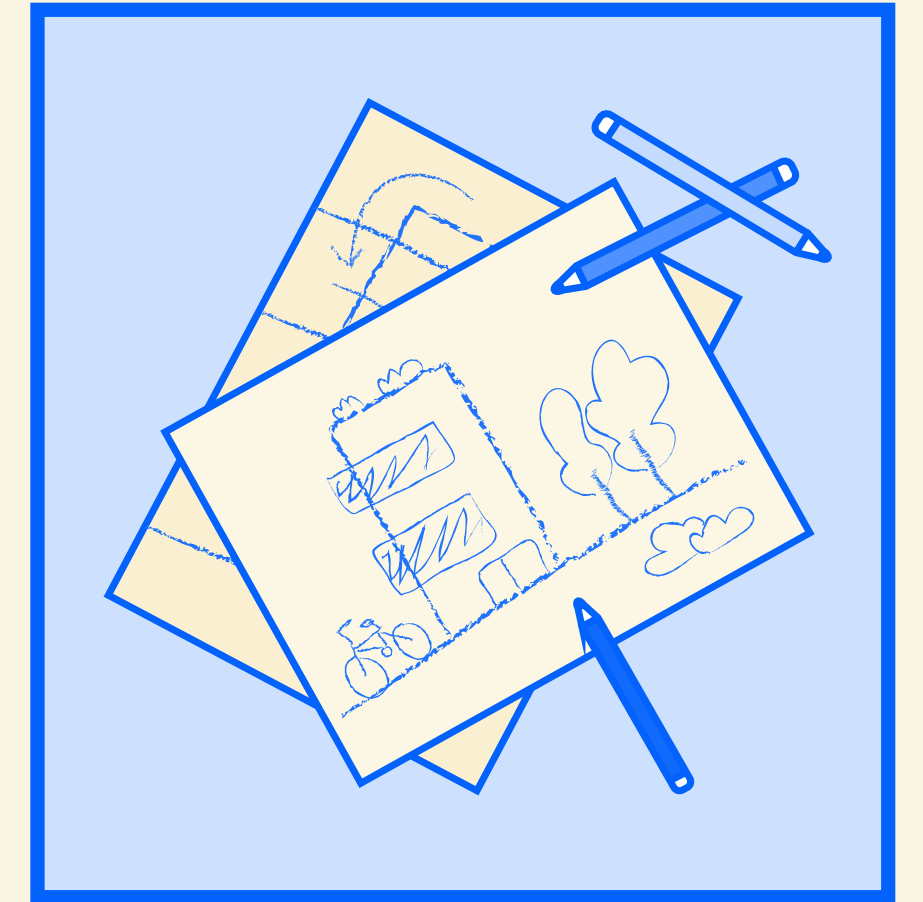
In 2017, the London Borough of Hammersmith & Fulham launched their local vision in the form of an industrial strategy, 'Economic Growth for Everyone'. Whilst the vision spans the borough, a large focus of its delivery is centred on the White City Innovation District and surrounding parts. Underpinning the borough's strategy is a working group of developers, businesses, start-ups, academia and the local council who meet on a regular basis to share strategic goals and combine efforts across key workstreams. Whilst the delivery of the

strategy is still in its infancy, its importance in providing a vision around which local actors can corral is clear.

“If we are serious about wanting London and the UK to be competitive, we need the agility/flexibility and we need places that can help inspire people to think about new horizons and be inventive”.

Jonathan Burroughs, CEO of Creative Places

Often, ownership structures in urban areas are highly complex, with each stakeholder working towards different goals and time horizons, which can make coordination challenging yet critical. To bring about change on the ground, a committed, dynamic, visionary and pragmatic leadership network can help co-ordinate innovative ecosystems over time and ensure they are responsive to changing needs. Such





A view of the public realm around 1 Triton Square by British Land

a model is playing out in the King's Cross Knowledge Quarter; their KQ2050 Strategy defines a strategy that builds on Camden Council's commitment to inclusive growth and the Knowledge Quarter's strong collaborative foundations.

Jodie Eastwood, CEO of London's Knowledge Quarter, argues that "an inclusive growth agenda shouldn't be a note in the back of a strategy, it should be integral to everything we do." The strategy (draft as of August 2022) sets out a framework that all Knowledge Quarter members and Council Partners will be expected to support. This also helps with transparency around change and growth, which can be daunting and often resisted, if not communicated effectively.

A democratic process of co-creation

Inclusive growth is underpinned by a democratic, open and genuine co-creation process where both citizens and the innovation community are engaged from the outset and given an ongoing seat at the table. Engagement is fuelled entirely by a sense of ownership, and it is paramount to not only engage people in conversation but allowing them to own that conversation. This makes people feel invested and part of, which inspires care, pride, and advocacy for places.

Community engagement can provide an essential fact-finding opportunity and feedback loop for built

environment professionals, to learn from residents and tenants and integrate their wisdom into the development process, ultimately making better places that are grounded in lived experiences. When people can recognise where their input has been translated into an output, trust between all parties will improve and they will have the confidence to keep participating.⁷

Community engagement is moving on from the traditional meeting formats where the same voices tend to dominate, with new models tailored to allow groups that are traditionally underrepresented or marginalised in the consultation process to be heard. Berlin, Paris and Madrid have introduced 'Participatory Budgeting', a transparent model of community empowerment that directly engages citizens in decision-making on the spending and prioritisation of the public budget. Participatory budgeting is becoming an integral part of the cooperation process between the administration, citizens and politicians, allocating small parts of the public budget to voluntary and community groups, with a goal of becoming a mainstream form for local budget allocation.⁸

Trust is essential in the co-creation process. Building trust in the project team happens over time, aided by a willingness to listen and learn, coupled with a regular presence on site. Furthermore, a professional team that is representative of society in general

will inevitably be more relatable. A community platform on the local high street or at the centre of change can create a welcoming space for residents to engage with the project team through an array of activities: themed workshops, pop-up events, one-to-one conversations, children's classes, exhibitions, visioning labs, Q&A sessions, supper clubs or weekly get togethers. Longer term, there is an opportunity for a place of this nature to evolve into a permanent community space for learning, business, meeting and conversing. Online consultation in the form of collective mapping exercises, presentations and workshops, etcetera should be used as a complementary tool to ensure that all members of the community are able to partake.

Site specific strategies

Creative places are driven by open competition, collaboration and cross-pollination. The enabling foundation is a potent mix of uses that are encouraged to expand beyond their traditional silos to nurture spontaneous interaction and serendipitous exchange, birthing an 'economy of convergence'⁹. The synergistic relationships that ensue inspire occupants to reach new heights of innovation and creativity.

Innovation districts rely on certain underlying conditions to succeed. NLA's 2018 *Knowledge Capital report*¹⁰ defines these as: 'a knowledge ecosystem of respected



Wards Corner community plan by West Green Road/Seven Sisters Development Trust

institutions and businesses; flexible buildings and public spaces that can respond to changing needs; permeability, wayfinding and accessibility in the urban grain; digital and physical connectivity and communication; clear vision and dynamic governance through policy and management frameworks that provides leadership enabled by collaboration; a balanced mix of active uses, including housing; varied building types and range of adaptable spaces for business and community use; and diverse high-quality public spaces, both lively and tranquil’.

A critical central pillar of innovation districts to date has been the knowledge and research intense anchor institution. We see this in Oxford and Cambridge, King’s Cross and White City — each location is centred on globally leading universities and/or research-intensive facilities such as the Francis Crick Institute in King’s Cross. As we seek to diversify innovation districts into more locations and across more sectors, the anchor-based model is one locational strategy that can be employed, along with other approaches that factor in site specific assets that can offer a unique competitive edge. In addition to academic institutions and medical facilities, it is the business collaborators and access to talent that drives innovative R&D location decision making. Kat Hanna, Director of Strategic Advisory and Place Strategy at Avison Young, highlights the importance of understanding an area’s specific assets and leveraging

those to your advantage. While not all locations will have a major anchor like a leading university or hospital, the principle of collaboration between institutions, the local authority and major occupiers is applicable in a number of areas. As an example, for town centres struggling post-covid, Hanna prompts us to ask “what are the assets that you have in terms of who is still there and how can they co-ordinate to create an innovation district type model, and how do you use assets and proximity to generate activity?”

Establishing planning policies and designations

Local plans and spatial strategies, such as the London Plan, are useful collaborative planning tools with the capacity to direct funding, strategic investments, and regeneration incentives towards focussed areas of change, as demonstrated by the London Plan’s Opportunity Areas designations. Adopted policies of this kind establish predictability and purpose in local government strategies, favouring whole-place considerations over fragmented investments. There is a case for a similar designation in support of innovation districts as mixed-use developments and critical clusters of economic growth, as highlighted in the Mayor’s Economic Development Strategy¹¹, to support the wider UK economy and the day-to-day life of citizens. The Mayoral strategy presents a comprehensive approach that factors in housing, transport, infrastructure, technology, jobs and skills,

Top location priorities of R&D businesses:

1. Recruitment and retention
2. Very close proximity to business collaborators
3. Very close proximity to academics/clinical collaborators

Source: Bidwells/YouGov UK R&D Business Survey

with the ambition to foster good economic growth that doesn't come at the expense of disadvantaged Londoners, air quality and the natural environment, employment standards or social integration¹².

On a more local level, a coordinated effort is required from local authorities, with cross-borough working for districts that straddle multiple administrative boundaries. In these instances, governance could be facilitated and streamlined through the establishment of a single authority; Old Oak and Park Royal as well as Queen Elizabeth Olympic Park masterplans are both delivered through a Mayoral Development Corporation, which has enabled a coordinated response through an area specific Local Plan and planning authority. For larger regions, such as the Golden Triangle, a single authority could prove essential to coordinate investment and safeguard future success.

For planning strategies to be effective long-term, it is also paramount to coordinate ambitions beyond party politics and the four-year term of office, so that innovation districts and places more generally can benefit from comprehensive policies with a long-term perspective. Such an approach has been used in Sutton with the London Cancer Hub, where a strategic long-term vision for a global cancer innovation centre in south London has been established.



Landscape design and public realm with the London Stadium and the ArcelorMittal Orbit in the distance at the Queen Elizabeth Olympic Park by SHIFT

Design

Flexible frameworks and design tools

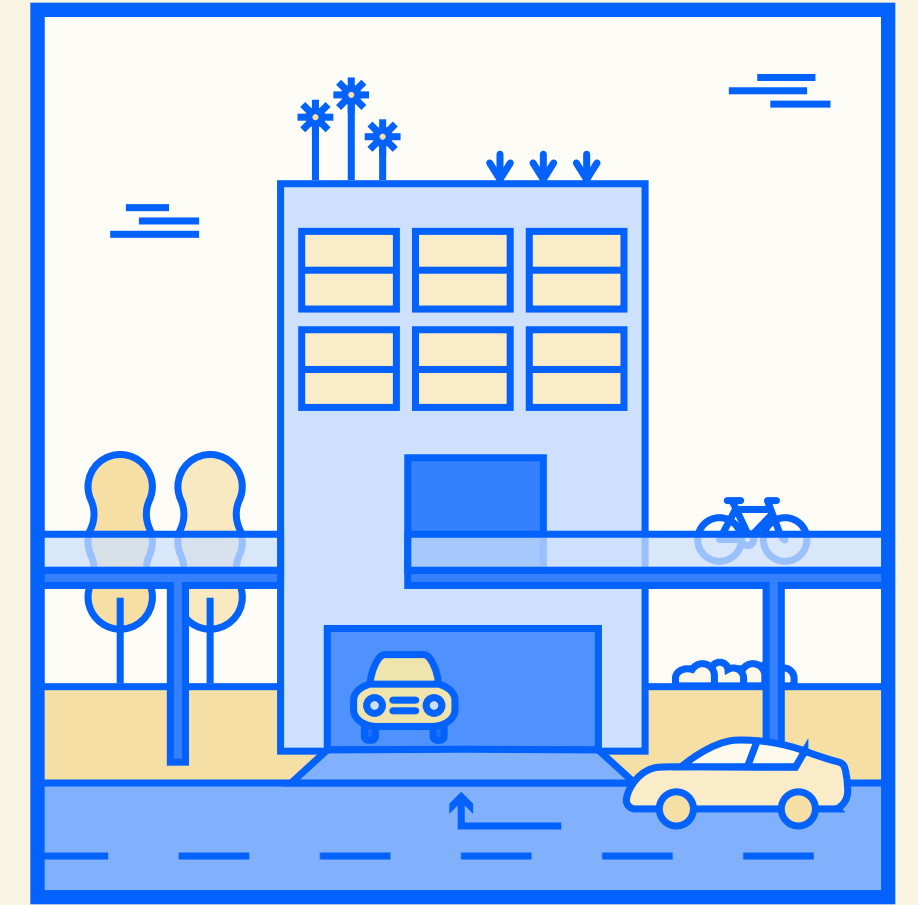
Critical to creating adaptable and resilient places is flexibility in the urban composition, both in terms of the configuration of building volumes, open spaces and uses. Frameworks are inherently more flexible than masterplans (which tend to be designed and delivered as one complete place) and can therefore provide overarching direction and structure within a looser fit. This allows many individual designs to come forward over time, prolonging the lifespan and relevance of the framework into an uncertain future market. As such, the conception of individual buildings within a cluster should be able to change to suit new and unpredicted uses, extend as needed, and adapt its programme of use, without undermining the wider place vision and identity.

This level of flex relies on a robust framework that can thrive despite shifting individual parts, allowing new detailed planning applications to come forward and add to the innovation district over time. Room for manoeuvre within the wider area planning application, for example in relation to uses and building envelope parameters, can be ways to build in flexibility. This will of course depend on dialogues with local planning authorities; however, the longer-term resilience and

sustainability of the place should be the prevailing driver for all involved parties.

A framework approach has been favoured for a new ambitious innovation district in the heart of Oxford. Working with Oxford Council, Levitt Bernstein has evolved a spatial framework that includes a public realm and movement strategy, design guides and a masterplan for Osney Mead Industrial Estate. Following a process of comprehensive stakeholder engagement, the framework will become adopted as a pragmatic SPD, which will set a benchmark for future developments and define a shared vision to unlock the potential for innovation.

To instil confidence around design quality, a design guide or design codes can provide a toolkit for buildings and public realm design, to be used by project teams to ensure a coordinated whole site approach to architecture and landscape. This should determine the fixed and flexibles for the area — what needs to be adhered to and where artistic license is granted — for example in ground floor activity and use, elevational treatment, materiality, planting, routes, wayfinding, etcetera.





An external view of the Cambridge Science Park building and surrounding public realm by Bidwells

A phaseable delivery approach provides opportunities to test concepts and markets before building out a place, which reduces risk during the course of construction. Quick win projects and meanwhile uses can be designed into the framework and delivered in partnership with local businesses and residents to co-create a strong place identity from the outset, inviting people to be part of its evolution through direct action and regular use.

Diversity and mix of uses

A vibrant mix of uses creates resilience and liveliness that boost wider place appeal. By introducing complementary uses to innovation districts, such as retail, culture, bars/restaurants, and community facilities, a more inclusive and welcoming place can be created that breaks down barriers between different sectors, companies and neighbourhoods. Adaptable and flexible ground levels can create a meaningful interface between residents and innovation district occupants. Dual use, for example opening up co-working spaces and studios as common platforms for after-hours community use, can help keep a place alive into the evening, whilst giving something valuable back to citizens.

The commercialisation of innovation within the health care, life sciences, social innovation, green tech, clean tech, and smart city tech sectors also have the potential to benefit local neighbourhoods. For example,

a 'living labs' concept has been trialled in the Ox-Cam Arc, which integrates healthcare and testing facilities in the district. Education needs to take a central role in the delivery of innovation districts, enabling those living in the area to upskill and serve the businesses in the area.

“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 too”.¹³

Kat Hanna, Director, Avison Young UK

The city is a multi-faceted structure, where built layers have amalgamated over time to create a diverse and complex fabric. Many urban innovation districts have sprung up on former industrial land and are navigating remnants of defunct economies — heritage buildings, working yards, canals and railway tracks. History anchors us — it offers meaning and identity. At King’s Cross, part of the London Knowledge Quarter, the icons of the past have been creatively integrated into the new place, interrupting the regularity of the urban grain to generate unusual juxtapositions that surprise and delight. Many hosts public uses and amenities that enrich the experience and open up the site to a wider audience. The future of innovation districts is diverse and mixed, blending old with new, innovation with civic uses. As such, they act as social nerve centres, expressing the city’s vibrancy.

Local housing in a range of tenures — including affordable and key worker homes — for a broad demographic group is a key component of a vibrant place. Variety and choice in the hyper local housing market will enable people to stay in the area as they navigate career shifts, grow a family, downsize or couple up. Liveable and affordable options for existing residents and early career professionals that don’t qualify as key workers should also be created. Research from the Life Science Skills Strategy (Science Industry Partnership) identified that 46 per cent of life science-based jobs are non-degree

level roles. Sue Foxley, Research Director at Bidwells, who specialises in working across the Ox-Cam Arc, believes that housing is a priority part of a mix of uses in those specific areas. “The lack of housing is a major issue in these areas — high growth sectors demand a significant employment base encompassing a range of skills and educational attainment.”

Welcoming building design

Innovation districts can feel intimidating and imposing due to their sheer scale and campus characteristics, which could lead to feelings of not being welcomed. A major challenge will be to change this sentiment where it exists and transform the perception of innovation districts into places for people — a platform for public life and interaction where everyone is invited. This approach is commonly adopted in contemporary innovation districts and campus environments. Mark Rowe, Managing Principal at Perkins&Will, says that “most of the architects I work with will try and open up the ground floor because they instinctively think it’s a good thing to do”. This could be achieved by breaking down real and perceived boundaries: increased ground level transparency and permeability, internal streets, inviting entrances, vibrant colours, clear signage, planting as well as increased granularity of spaces that are populated with a myriad of uses that reflect the needs of a diverse community. Publicly accessible spaces — cafés, foyers, rooftop gardens, squares and

46%
of life science-based jobs are
non-degree level roles

open spaces — along with ground level spill-out into the public realm further erodes the barrier between the innovation community and surrounding community, encouraging integration and organic interaction.

We see this approach in the design of the British Library extension in King's Cross by the developer Stanhope and Mitsui Fudosan. The original British Library design, delivered in 1997, was conceived as an academic research facility as opposed to an open and accessible building to the public. This original intent is clear in its current fortress-like building; however this is now being reversed with the new library extension. Charles Walford, Director at Stanhope, explains that “the extension project is about increasing the library offer to the wider public and providing them with space they can access”. He emphasises that through this new addition, “we have a unique opportunity to design a space which is accessible and moves away from its current design limitations”. One of the design features of the new extension is an entirely accessible ground floor with both east and west sides of the building having equal entrances, ensuring that the building isn't turning its back on local estates such as the Somers Town estate. Walford says that “you will be able to walk through the building and come out the other end if you want and no one will question you.”

Buildings do affect us, how we behave and interact, and “we are creatures of the places we're in”. Neuroscientists



The development of a 2.8 acre site to the north of the British Library's existing Grade I Listed building by Stanhope plc and Mitsui Fudosan



A proposed internal view of the foyer and reception area at Oriel by Penoyre & Prasad

and psychologists have found that buildings and cities can affect our mood and wellbeing; Colin Ellard's research indicates that boring and monotonous cityscapes increase sadness, addiction and disease-related stress. Architectural variation appears to be key to creating engaging places. The scale and mass of urban developments can be addressed by breaking down buildings into smaller volumes, and by demarcating lower levels through setbacks and terraces, which will help create a more humanised and intimate streetscape.

Oriel is a joint initiative between Moorfields Eye Hospital, UCL's Institute of Ophthalmology and Moorfields Eye Charity in St Pancras. This innovative building will bring under one roof world leading eye care, ophthalmic research and education, thus enabling the seamless integration from lab to first-in-human trials to clinical treatment. Central to the project is the belief that 'People's Sight Matters', and Oriel puts people at the heart of the vision. Rafael Marks, Principal at Penoyre & Prasad, explains that Oriel is designed to be a welcoming place for all. "The atrium at the heart of the building invites people in and forms a public living room for the city, comprising public facing activities such as art exhibitions, displays showcasing the work in the building, education facilities, café and other public facing activities". The atrium is designed as a calm and compassionate environment that breaks down the barriers between staff, patients, and visitors. The high-quality public realm will provide greater access

around the site and the ground floor activity will help reduce crime and anti-social behaviour.

Open and collaborative public realm

Increased connectivity, permeability and walkability can help stitch areas back into their surroundings and grant them a purpose beyond the innovation community, as integral parts of the wider city

As we have explored in previous sections of this report, an open and collaborative approach to innovation is re-working the spatial geography of innovation districts; previously closed institutions are becoming more open, with new opportunities to coalesce in the public realm. Generous open spaces and landscapes have the power to connect people and businesses as common platforms and meeting grounds. The public realm is where activities can extend outside building perimeters to become more accessible and democratic; exhibitions, talks, events, making and creating, and even innovation itself can offer knowledge sharing, insights, enjoyment, and an element of surprise. This simple but effective

gesture welcomes people in and allows them to feel part of a place. Today's science parks encompass open space ranging from informal to the formal, everything from yoga studios to football and cricket pitches.

Increased connectivity, permeability and walkability can help stitch areas back into their surroundings and grant them a purpose beyond the innovation community, as integral parts of the wider city — places to linger, meet and pass through. Playful and social urban landscapes give people of all ages the remit to feel light-hearted and joyous without the pressure of being productive. It unlocks opportunities for chance encounters and creative exchange, which could lead to new ideas and outcomes. Tribeca is a new landmark quarter at the heart of London's biotech cluster, that will offer innovative and collaborative workspaces, a portion of which will be lab-ready. Occupying a site on the Regent's Canal, the development is conceived to optimise site permeability and connections with surrounding neighbourhoods, with a myriad of ground floor active uses that invite the wider public into the site for the first time in over a century. The public realm will be playful and green, with a variety of spaces and internal streets that will encourage people from all backgrounds to meet and linger.

Amplified nature and ecology

The increased density of urban innovation districts not

only intensifies creativity and knowledge exchange, but it also comes with environmental benefits, such as reduced greenhouse gas emissions, brownfield site repurposing and regeneration, reduced travel needs as well as increased sharing of facilities, resources and amenities. As we increase density, we should also amplify urban greening to create harmonious and liveable places. Urban greening boosts local ecology and biodiversity, and if joined up, developments can through ground level and rooftop green spaces create continuous wildlife corridors through cities to increase species movement and combat biodiversity loss.

Soft planting and trees have a significant role to play in climate change adaptation, due to their capacity to moderate urban environments and contribute to general health and wellbeing. Mature trees filter carbon dioxide and particulate matter from the air, whilst dampening noise disturbance. Green infrastructure such as bio-swales and storm water planters can be employed to reduce and attenuate surface water run-off to below ground infrastructure whilst filtering pollutants, protecting water quality, and mitigating risk of flooding. Plants that slow down the movement of water and provide ecological benefits are crucial for effective green stormwater infrastructure.

Spending time in nature, including urban micro parks and gardens, is a powerful tool that benefits our mental, physical and emotional wellbeing. A study

from New Haven in Connecticut has discovered that increased greening reduces violent crime, property crime, vandalism and littering. A study of the population of England in 2008 found that the health effects of inequality, which tends to increase the risk of circulatory disease among those lower down the socioeconomic scale, are far less pronounced in greener areas. In a technology-saturated environment, being out in nature allows the prefrontal cortex part of the brain to recover, which frees up our minds for creative problem-solving. Trees and plants emit phytoncides, which helps us fight disease when we breathe them in. The multi-sensory experience of natural environments can reduce blood pressure, heart rate, muscle tension, and cortisol levels, leaving us feeling calm and more focused. Increased access to nature can also inspire movement, reduce obesity rates and prevent chronic diseases.

A sustainable and nature-based approach has been employed in the Oxford North development, a new global innovation district being built on 64 acres of land within Oxford city's northern boundary. Setting a new standard for placemaking, Oxford North will blend culture with low carbon innovation, sustainability with leisure, and open spaces with science. With access to wide open public spaces and public art throughout, Oxford North is configured to enhance wellbeing. The landscape is designed to increase biodiversity across the newly created public parks and facilitate access to nature for residents and visitors.



Architect's impression of the public realm surrounding Oxford North by Fletcher Priest Architects

Repurposing and revitalising existing structures

London and the UK has an abundance of underutilised structures that could be revitalised and brought back to life through clever architectural and public realm designs. The most sustainable building is that which already exists and repurposing rather than starting anew should be the preferred approach wherever possible. Reuse of buildings also reduces the impact of development on local communities who often bear the brunt of years of noise, dust and disruption. James Morgan, Director at Heyne Tillett Steel says that:

“Reuse projects are a lot shorter than a new development which means you don’t have as much vehicle movement and congestion. The community in the area benefit from a much quicker turnaround in construction”

Historic buildings add meaning and identity to new developments, injecting moments of surprise and a richness that create interest in the urban grain. The London South Bank University has launched a new Croydon-based campus in an iconic Grade II Listed building, the ‘Electric House’. The campus,

which has been developed in collaboration with local partners including Croydon Council, provides access to education and new opportunity for residents, and contribute to the continued regeneration of the area. More recent architecture is equally conducive to repurposing. Here East has been creatively redesigned as an innovation hub for the creative tech community, which involved breaking down the enormous, window-less Press and Broadcasting Centre into a collaborative campus where small and large companies can co-exist. New glazing elements were introduced, along with a gantry of studio units, a mezzanine level and carefully curated spaces to ensure the right mix of occupants.

On a local scale, our high streets are undergoing change in the wake of online shopping and covid-19. Here is an opportunity to diversify and increase resilience by introducing workspaces and new types of enterprise closer to local communities. The Mayor’s ‘High Streets for All Challenge’ is a London initiative to promote ‘a culture of ideas, experimentation and innovation’, driven by partnerships between local authorities, communities and business groups, cultural and third sector organisations, anchor institutions such as universities, colleges or hospitals, and commercial interest. The intention is to create a pipeline of incentives ripe for investment opportunities, with exemplar locations receiving seed funding to integrate new patterns of living and working.

Stewardship and management

Pragmatic governance, collaborative partnerships and diverse funding mechanisms

A long-term horizon is one of the fundamental principles underpinning good placemaking. This rests on an understanding that successful placemaking requires patience and commitment, with initial upfront investments that yield a slower return over time. This approach, which is manifested by London's Great Estates such as Grosvenor, allows landowners and developers to invest in long-term value-added growth that creates high-quality and resilient environments for its users without the pressure of short-term financial return. The long term perspective of both Oxford and Cambridge university Colleges towards the development of sciences parks has exemplified similar benefits. Trinity College's investment ahead of the curve at Cambridge Science Park accelerated the city's rise as a global science cluster.

Business Improvement Districts are another vehicle for local actors to collectively bring about positive change and growth. The Central District Alliance in the Holborn/Clerkenwell area was initiated by the local business community, who devised a common vision for the future of the area in collaboration with leading innovators: Camden Council, Transport for London and various city-wide initiatives such as the

B-Line for London and BEE the Change, which works to reduce homelessness.

The responsibility of positive placemaking and successful governance rests with many actors; national and local government, businesses and institutions, civic organisations, place leaders, landowners, investors and community groups need to collaboratively decipher what is possible, desirable and realistic for a district¹⁴. Usually, there is a need to coordinate, co-invest and sequence growth over time, as the place matures and develops. An agile and pragmatic leadership approach is therefore necessary.

A critical path to safeguarding financial stability is to diversify funding streams. Central and local government investment in support of comprehensive regeneration and infrastructure upgrades — public spaces, transport, housing, physical and digital infrastructure, and utilities — is essential to attract private funding. For example, to maximise the potential of the Golden Triangle, central government investments in the East-West rail project to improve the railway link between Oxford and Cambridge is fundamental to incentivise local and private



investment and make the region desirable for developers, businesses and commuters.

At Canada Water Dockside, plans for a major mixed-use scheme have been developed by Art-Invest Real Estate, an experienced investor, developer and asset manager operating across key gateway cities in Germany, Austria and the United Kingdom. The scheme, which received outline planning consent in March 2022, will provide c.1.5 million square feet of grade A, sustainability-certified workspace for up to 10,000 people, including over 100,000 square feet of affordable offices for small businesses, alongside community spaces, and other amenities such as retail and healthcare across the ground floor.

The wider Canada Water masterplan is being brought forward by British Land in collaboration with London Borough of Southwark, and has co-created a Social Regeneration Charter that captures the residents' priorities for the area. This has now been adopted as a model for developments across the borough. To deliver the scheme, a joint venture has been established between British Land and AustralianSuper, with rights given to the London Borough of Southwark to participate. The partnership will enable a faster delivery of new homes and workspaces, as well as new opportunities for local people.

SC1, London's new Life Sciences Innovation District,

was founded with the vision to create a transformative life science ecosystem in central London, dedicated to innovation, creative partnerships and improving life for local and global communities. Anchored by the world-class King's College University, and the founding partners of three NHS Foundations Trusts (Guy's and St Thomas' Hospital, King's College Hospital, South London and Maudsley), the Guy's & St Thomas' Foundation, and the Boroughs of Lambeth and Southwark, this global quarter delivers high impact innovation whilst addressing health inequity. SC1 brings together public, private, education and clinical partners to increase investments into life sciences and attract new companies to the area.

Top facilities valued by R&D businesses:

1. Public transport hubs
2. Meeting space
3. Conference facilities
4. Innovation/co-working space
5. Restaurants and cafes

Source: Bidwells/YouGov UK R&D Business Survey



Pears Maudsley Centre for Children and Young Peoples' Mental Health, part of the SC1 Life Sciences Innovation District by Arcadis IBI Group

Inclusivity and affordable solutions

Inclusive growth requires a greater focus on people, by improving education and skills, so that many more can contribute to and benefit from economic growth and innovation. Accessible training and upskilling opportunities can remove the need for long and expensive academic degrees and can be provided in partnership with core industries to address skills gaps and establish career pathways. School-to-work programmes, internships and apprenticeships for local residents have the potential to unlock access to the high concentration of job opportunities within innovation districts.

Employment platforms such as Briqs enables organisations to recruit from a hyper-local talent pool, connecting local communities with high-quality knowledge economy jobs. In the Knowledge Quarter, the Wellcome Trust has partnered with Briqs to recruit entry level policy roles from local estates, including Somers Town.

Flipside in Queen Elizabeth Olympic Park is an industry-led talent development programme for young people that promotes learning by doing in ‘live working environments’ to establish career pathways for young people entering the creative and tech sectors. In the same area, SHIFT operates as an inclusive innovation district, founded by seven partners — University

of the Arts London, University College London, Loughborough University, Here East, Plexal, Lendlease and London Legacy Development Corporation — with the ambition to power better urban futures through inclusive innovation that focuses on ‘good’ growth, environmental benefits, and civic involvement. SHIFT facilitates and coordinates connections between leading-edge academic institutions, established businesses and start-ups, creative clusters, a growing science and tech community, local residents and local government, to address the fundamental challenges facing cities today — climate change adaptation, wellbeing and social justice.

Affordability is a key aspect of inclusivity, and local councils play an important role in delivering affordable workspaces

The approach for each area needs to be location specific, with opportunities for learnings and feedback to be incorporated into policy and applied to future initiatives. In East London, the Mayor in partnership with the London Boroughs of Hackney and Tower Hamlets Council, and the London Legacy Development Corporation have invited innovators

to develop innovative solutions that will help local businesses to access and occupy affordable new space. This will ensure the retention of the local business community and support the resilience of the Creative Enterprise Zone there.

Another solution is for established companies within innovation districts to lease underutilised space on a reduced rent to emerging SMEs. Such a model has become increasingly relevant post-Covid as companies grapple with space optimisation in an increasingly hybrid working world.

Filling space with innovative and energised start-ups brings a buzz and vitality to workplaces whilst creating opportunities for cross-pollination and collaboration

Greenford Innovation Hub will cultivate a thriving ecosystem of green businesses within a 20-minute neighbourhood. The Hub is part of Ealing Council's boroughwide strategy to reimagine industrial land and prepare community-led frameworks across its seven towns. Located within the productivity arc between Central London, Park Royal and Heathrow, the Greenford Hub will build on its history of

industrial innovation, heritage buildings and high-tech businesses, and work with cross-sector partners including STEM education and affordable workspace providers to support socio-economic recovery.

Community stewardship

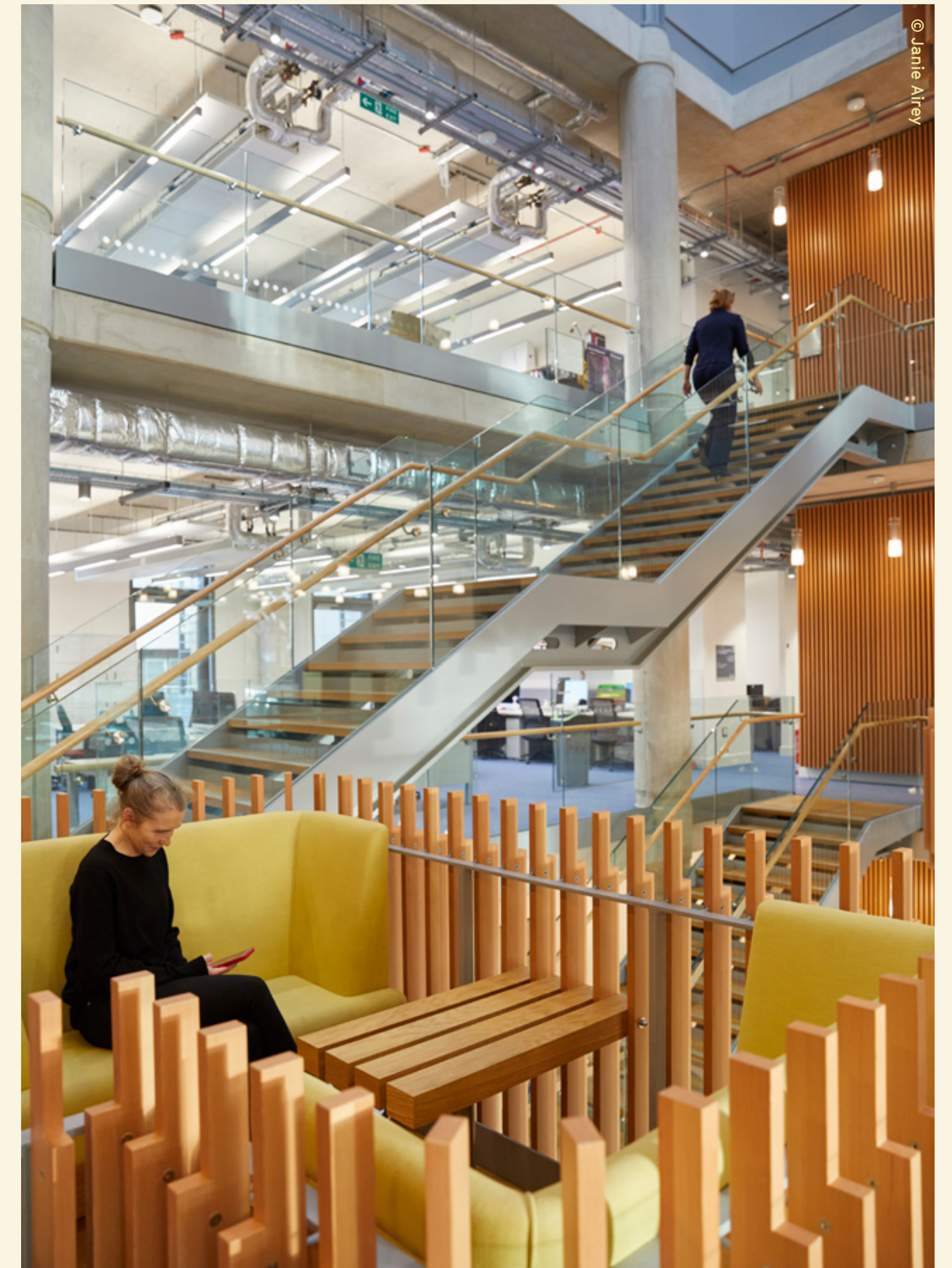
Community involvement helps create harmonious living environments that are responsive to needs and aspirations as they evolve over time. This generates thriving districts where businesses and people choose to be, because they feel invested and a sense of belonging; local pride and care for the neighbourhood encourage residents to become enthusiastic stewards of place and design, which helps sustain and maintain it long-term.

Community Land Trusts (CLTs) are one type of vehicle that help local communities — citizens and businesses — maintain local area assets. Many communities also bring sustainability into the equation and generate income through community-owned and operated renewable energy systems. An elected board governs the CLTs, and profits are injected back into the community.

The challenge for any local stewardship model, including CLTs, is to build a broad alliance of local people and relationships to ensure the democratic weight and momentum required to stand up to bigger players and politicians.



The Pears Building, part of the SC1 Life Sciences Innovation District By Hopkins Architects and Heyne Tillett Steel



Citizen-led research, as demonstrated by the Institute for Global Prosperity (IGP), can be employed to measure local prosperity and quality of place, to help introduce quantifiable measures into policy and planning. IGP work with a multi-stakeholder collaborative partnership — the London Prosperity Board — which is made up of the London Legacy Development Corporation (LLDC), local boroughs, Greater London Authority (GLA) and various community groups and businesses, to develop a set of metrics that can be used as a practical planning tool.

Brent Cross Town (BXT) is a joint venture between Related Argent and Barnet Council to develop a large-scale, mixed-use development with 6,700 new homes, retail, green spaces, state-of-the-art sport and play facilities and customised workspaces for over 25,000 people. BXT will be a net zero carbon town by 2030 at the latest; it pledges to enhance the wellbeing of its workers and residents through its pioneering Flourishing Index, a major new study of how individuals and communities flourish in a town centre.



An aerial view of Brent Cross Town by Related Argent

Conclusion

The Innovation District model is diversifying. The campus model of the past served a purpose but is now complemented by new urban and regional models that thrive in an atmosphere of open competition and cross-fertilisation. Driven by business demand and financial viability, campus locations are increasingly evolving into an urbanised model with a complexity of businesses and uses, including housing. These new innovation districts operate in synchronicity with their city context and thrive off the knowledge abundance emanating from nearby academic anchors and innovative industries.

The path to evolving the next generation of innovation districts is multi-stranded and complex, involving many actors with different agendas.

The challenge is to streamline ambitions into one clearly articulated vision that can guide development over many years and put in place practical tools to achieve that vision, as set out in this report.

With these measures in place, we hope that the future innovation districts will be agile and dynamic, welcoming and generous, open and collaborative. It is as much about fostering innovation and economic growth, as it is about creating prosperous communities where people choose to live, work and spend time.

A coordinated approach is paramount; central or local authority investments in infrastructure, utilities, public realm, housing, jobs and training can unlock new funding streams that can bring about comprehensive change on the ground, under one collective agenda. A leadership network that is representative of the place, can ensure that the innovation district matures in sync with fluctuating needs.

Bringing the local community along on the journey is essential. A transparent process of co-creation will build support for change and inspire a network of local custodians that care for the place longer term. This inspires pride and a sense of belonging, the linchpin of any successful neighbourhood and innovation district.

Viewpoints



Championing sustainability and collaboration through placemaking in Cambridge's Research Clusters
By Guy Kaddish, Partner, Planning, Bidwells



Creative Places
By Jonathan Burroughs, CEO, Creative Places



Creating Inclusive Innovation Districts
By Giorgio Cardone, Associate Director, Heyne Tillett Steel



Variety and Inclusion
By Elie Gamburg, Principal, Kohn Pedersen Fox Associates



Oriel – connecting the Kings Cross Knowledge Quarter with the community
By Rafael Marks, Principal, Penoyre & Prasad



A mission-based district-wide approach for addressing unprecedented problems, in unprecedented times
By Francesca Colloca, Head of Innovation, SHIFT

Championing sustainability and collaboration through placemaking in Cambridge's Research Clusters

By Guy Kaddish, Partner, Planning, Bidwells

Commercial occupiers are driving ESG policy requirements across Cambridgeshire and its leading innovation districts. Many occupiers want buildings which not only have the council mandated BREEAM Excellent, but now want to see BREEAM Outstanding ratings and are happy to pay a premium.

Occupiers in Cambridge's R&D sector are driven by sustainability more than ever before. The question we're asked by occupiers is not if we'll meet policy, but how far above it we will be. This occupier driven phenomenon matters because places of work, which prioritise health, wellbeing, and sustainability, attract the best talent.

From Cambridge Science Park and Cambridge Biomedical Campus to Babraham Research Park, each park is fighting to retain and attract talent to help them accelerate their research. Many innovation parks are attuned to this, so their investment in placemaking and sustainability is driving up the quality of innovation districts.

When looking at Cambridge Biomedical Campus with a close lens, its two phases of development

highlight how important placemaking and design is for collaboration. The 215,000 sqm first phase of development will bring global giants, industry start-ups, university spinouts, and healthcare entrepreneurs side-by-side on the campus. Its master planning created spaces that prioritised not only people's wellbeing, but also encouraged chance encounters. These encounters inspire researchers and scientists to spark collaboration and the sharing of ideas, in turn, cultivating an energetic buzz associated with research and development. These spaces include welcoming reception areas, shared facilities, cafes and a host of public realm areas for outside seating.

Within Phase two this concept was enhanced further as we created two multi-storey car parks on the outskirts of the campus to push the cars out and ensure that the heart of the scheme was focussed on buildings set within trees, walkways, and plazas so the landscape is completely flowing and open to all to use. There are no fences, gates or walls. Companies like Abcam and AstraZeneca have been drawn like a magnet to the working environment of these hubs, so that they can capitalise on the global centre of collaboration.

Cambridge Science Park's development shows that the R&D sector is responsive and keeping agile within the built environment. You can see the progression the Park has taken since the 1970s when it was first created and how its evolution demonstrates its commitment to R&D sector growth. Trinity College, Cambridge, is the main landowner custodian and has developed a 2050 vision. The creation of this kind of document for research and innovation parks is key. It clearly lays out each park's ESG vision, making it accessible to all occupiers so everybody can see it, buy into it and be part of its journey, ensuring everyone has that same culture of progression moving forward.

Life Science and R&D clusters only work if people are an active and happy part of it. Occupiers have shown developers that they want more from their places of works, not just first-class research space, but heightened sustainability credentials, and a healthy, bustling and collaborative working environment.



Cambridge Children's Hospital, Cambridge Biomedical Campus by Bidwells

Creative Places

By Jonathan Burroughs, CEO, Creative Places

Innovation districts provide opportunity for stakeholders passionate about growing innovation and enterprise to come together through place based initiatives. They are places that can have great impact if curated well. A relatively recent phenomenon, they've come to the fore where there's great connectivity and amenity/cultural offerings not far from where education and research providers are located — and post covid I think we'll see more districts making a play for the term.

This piece of work has been designed to help enable new locations to get onto the map of relevant activity — we've sought to give airtime to places with aspiration, where stakeholders may come together to build innovation and enterprise that isn't necessarily based on physical and medical sciences. There's real value to society in districts working to advance opportunities, productivity and success for the people and businesses in their immediate locale, and if interest in new things, new ideas, new careers, and formation of new businesses can be encouraged in an inclusive, meaningful way, we think this could be great for London and Londoners. Indeed for the UK, which desperately needs to enhance productivity and re-skill its people.

So, I hope this innovation district review can celebrate London's success at building the most extraordinary research clusters, where knowledge exchange between academics and those in the front line of product and service development involving R&D can be extraordinary; but offer an ever more inclusive approach to growing a more successful city. King's Cross is the bullseye location for so much Life Sciences and Tech activity and its reach into wider Camden and Islington is advancing at pace. Districts like White City that has involved the public sector, universities, property owners and businesses coming together to invest in a range of activity, have stepped up a gear and are now on the international map for the quality of their science and R&D. And we have new up and coming districts like SC1 in Lambeth and Southwark, where the foundations for extraordinary business engagement with hospitals and university activity are massive.

Curating the district's evolution and boldly planning developments offering good proximity to clinicians and academics will be very rewarding for all those involved, I have no doubt. Added to which, plans at districts like Whitechapel and Stratford are building at pace, with their leadership teams working hard to explore best practice and build their locations to optimum benefit.

Tomorrow I hope that places like Republic at East India Dock and the London Cancer Hub in Sutton will draw in a good number of creative, innovative and ambitious people, as these people and their business ideas/ businesses gravitate to districts offering great 'added value' through place.



A view of the London Cancer Hub and Community Plaza by Haptic Architects & Nordic Office of Architecture. Image credits Forbes Massie

Creating Inclusive Innovation Districts

By Giorgio Cardone, Associate Director, Heyne Tillett Steel

Productivity is considered one of the main determining factors in economic growth and improving living standards. Researchers have identified that clusters, like innovation districts, contribute to improved productivity and open innovation collaboration practices that can resolve shared societal and global challenges; create economic and time efficiencies, encourage cross-sector collaboration, and reduce the risk and cost of failure.

To create innovation district (ID) clusters that champion collaboration, they need to be inclusive and bring together a diverse range of people. Key factors in creating a successful ID cluster are people and culture; competency; funding and infrastructure.

The people and culture factor is about creating an attractive place to live and work, with low cost of living and spaces where people can come together, informally interact and engage. An ID cluster brings together a highly qualified and skilled workforce who need an environment that creates and supports a culture of sharing ideas. It is essential that a cluster has the supply of skills and technical capability to produce products and services that are in demands



External facade of the Pears Building by Heyne Tillett Steel and Hopkins Architects

giving the companies in the cluster a competitive advantage. Ideally the demand should come from within the cluster but in a lot of instances the demand is from the government itself. Funding is needed to support start-up companies and to build the infrastructure. Typically, this is initially provided by the government or a joint venture between developers, institutions, and companies. Providing the right infrastructure – affordable housing, transportation, technology and public spaces – is essential to attract companies and people. Planning rules must encourage the development of infrastructure, and the Government has a key role to play, but so do designers, at creating adaptable and sustainable spaces which can accommodate the evolution of these districts over the years.

Public realm design is fundamental to supporting these factors by providing connections between buildings and multi-functional spaces which foster communication between different organisations and people. This can be achieved by making the public realm attractive, inclusive and accessible for all, rather than being merely utilitarian corridors for transit. Attractive outdoor spaces that are accessible to all and enjoyable to spend time in provide a valuable opportunity for collaboration, shared innovation, diverse social interactions and fostering greater integrations across organisations and disciplines.

Innovation can be brought into public realm design by the application of new or sustainable solutions such as sustainable drainage systems, modern traffic management solutions, or public exhibitions of the work of organisations within and from beyond the ID cluster. Public realm design that prioritises pedestrian journeys and cycling, which are facilitated by higher density districts and shorter distances between destinations, help to break down barriers as well as being more sustainable. Making the public realm digitally accessible encourages individuals to spend time in these spaces, and creates an opportunity for interactions, as well as increasing the perceived value and investment in common spaces. Finally, access to inclusive, accessible and pleasant public realm spaces is attractive to potential occupants of the innovation districts, and likely to improve retention, allowing networks and communities to develop and strengthen, and innovation to flourish.

Variety and Inclusion

By Elie Gamburg, Principal, Kohn Pedersen Fox Associates

As ‘innovation districts’ proliferate, it is important to consider what makes them different from other neighbourhoods, or the science–research parks that were their antecedents. Not all innovation districts are the same, and not all deliver on the promise of catalysing new ways of thinking, working or collaborating. What is required from the built environment to encourage the gestation new ideas, support the economy and deliver a vibrant sense of place? That is, how do we drive innovation?

At KPF we have been asking these questions in projects around the world, from Boston’s Seaport (described as ‘a poster child for innovation–led economic revitalisation’), to Songdo City in South Korea (which helped the country pivot, post financial–crisis), and Vinegar Yard in London (which will be one of the first projects in the SC1 Life Science District). We would posit that the unique aspect of innovation districts is their ability to bring together creative people who would not meet otherwise, enabling them to work in close proximity and to meet socially. Referred to as a ‘triple helix’, innovation occurs where academia, industry and governance intersect. If everyone in an innovation district would

have met anyway, it means the physical district has not contributed to the development of new ideas.

If ‘chance’ encounters can result in new projects, research, and collaboration, how can we design for them? Research in life–science and technology already happens at university campuses and across research parks. Successful neighbourhoods already bring people together. It is the harmonious combination of both that we as designers (as well as urbanists, developers and policy makers) can ‘choreograph’ to result in a successful district.

Our goal, as designers, ought to be the provision of specialist space for science, design, engineering, and making, alongside the creation of meaningful places, programmes, and events that bring a broad audience together, time and again.

Latent in this definition, is a focus on the ‘built fabric’, in terms of the kind of buildings we make, spaces we provide and places we create, and the ‘human fabric’, namely the diversity of the community that is created and the events, spaces and activities provided.

In terms of the built fabric, innovation districts can supply the types of spaces that are currently hard to find in cities — often these need larger floor plates, higher ceilings, and more flexible plan arrangements than planning policies currently allow. Combined with these specialist spaces, we need a balance of programmes that make these neighbourhoods liveable and desirable: a variety of housing types, urban amenities, and a mix of open and cultural spaces. Critically, these programmes, whether housing, cultural or others, should be curated to attract the greatest possible diversity of people — from local residents to international experts, graduates to CEOs, and companies ranging in size and maturity from start-ups to industry leaders.

This approach sees diversity as an asset, and it is the key differentiator that will enable an innovation district to create new ways of thinking. In London, and elsewhere, the potential for these districts to leverage existing neighbourhoods and their populations, and to attract new and increasingly diverse constituencies, will be key to their success. Rather than designing for the few, the ability to accommodate a variety of uses and users, to create rich experiences and to connect people will be the measure of these districts' success.



Songdo Canal walk by Kohn Pedersen Fox Associates. Image credits Jae Seong Lee

Oriel – connecting the Kings Cross Knowledge Quarter with the community

By Rafael Marks, Principal, Penoyre & Prasad

Kings Cross is one of London's most celebrated regeneration areas and innovation districts. Embedded within this neighbourhood is the Knowledge Quarter. This innovative mix of academia, medicine, science, education, culture, and other knowledge-based institutions forms one of the largest knowledge clusters in the world, tied together by a welcoming public realm. Key to the Knowledge Quarter's success is its integration and inclusion into the local community and wider area.

Soon to be added to this rich mix is Oriel, a project that brings together Moorfields Eye Hospital and UCL's Institute of Ophthalmology, two of the world's leading institutions in eye healthcare and research. Designed by AECOM, Penoyre & Prasad and White Arkitekter, the project takes a radical approach to sight-related care, research and education. The facility is designed to promote collaboration to drive innovation, thus speeding up the transition from cutting-edge laboratory research to first-in-human clinical trials, and ultimately better clinical eye treatments and services.

Oriel focuses on a people-centred approach, harnessing the collective power of staff, students and patients to improve people's sight. The building is designed to be fully inclusive; this is achieved in two ways.

The first is by creating an accessible and easily visible environment for all who use the building. Catering to the full spectrum of sight-related conditions and a (neuro) diversity of users, full accessibility will be critical to the building's success.

The second is by engaging the public and community in the research and workings of the building, inspiring the next generation of scientists, medics and carers. At the building's heart is an atrium space that contains public-facing facilities at ground floor level. A public route runs through this atrium, connecting to the wider masterplan. This space provides for a range of public-facing activities that seek to broaden Oriel's outreach programme. Science-on-Show programmes, exhibitions and conferences, archive displays, and a curated art strategy aim to engage the public and patients.

Oriel forms the centrepiece of the broader life science and healthcare–focussed regeneration of St Pancras, anticipating a high–quality public realm with greater connectivity. This will improve accessibility, enhance passive surveillance, and reduce crime and antisocial behaviour. High levels of social and economic value will be created through the construction and occupation of the new buildings, which represent a significant investment in the local economy, with new jobs and training opportunities.

Where innovation districts are the new drivers for economic growth and productivity, their success will be their integration into the wider area’s local social, economic and cultural life. When complete, Oriel will be a major piece of the jigsaw that ensures the Kings Cross Knowledge Quarter is embedded in its local neighbourhood.

Brandon Buck, Principal at Perkins&Will said: “Vibrant, sustainable, and inclusive developments will help to transform this area of Camden by unlocking dynamic public realm, framed by highly efficient and adaptable life science accommodation. The evolving high–quality and innovative architecture in the area is a reflection of the growth and investment we are seeing in the life sciences space in the UK in general.”



The Oriel building by Penoyre & Prasad

A mission-based district-wide approach for addressing unprecedented problems, in unprecedented times

By Francesca Colloca, Head of Innovation, SHIFT

Throughout the COVID-19 pandemic we heard the term ‘unprecedented’ a whole lot. Collectively we experienced the shock of the ‘once in a lifetime’ viral pandemic, ‘unprecedented’ emergency response to the crisis, the acceleration of profound societal and economic trends made permanent — radical and fast paced change is now part of our shared human experience.

Something else that’s unprecedented for the modern age: in 10 years, the earth’s delicate ecosystem will be thrust beyond safety of its historical equilibrium. Due to human activity, environmental degradation, extraction and pollution, the temperature of the planet will have increased by 1.5C degrees (we’re currently at 1.2C).

In cities, we know the harsh reality of the climate emergency translates to things like more severe flooding, unbearable heatwaves related to the urban heat index phenomenon, ill-equipped buildings and poor air quality. The impact of issues like these on our physical and mental health is well-documented and disproportionately hits some communities more than others. And as Londoners we certainly know

it’s become increasingly difficult with the rise in cost of living, getting from A to B in an effective and environmentally friendly way, living in flats we can’t sleep in.

So how do we start to work on these issues? Redesigning the systems that don’t work can’t be solved by any one business, or any one government. Places, the powers that be in those places, experts, innovators and everyday citizens can come together to trial and roll out as many solutions as possible. As an innovation district, we’ve got the opportunity to mobilise the money, power, expertise of our place and its people to do just that.

Rather than a rationale focused on economic growth and technology for innovation’s sake — we are looking at the systems that exist within place and altering the approach so that we can become, for example, London’s first 1.5 degree demonstrator district. Using the assets we collectively steward, investing strategically and pulling levers to drive real change at a district level. Together with businesses, community leaders, investors, and commissioners we’re working in a spirit of collaboration and experimentation.



The Here East building within SHIFT Innovation District in Stratford by Lendlease

To drive the necessary societal transition towards a 1.5 degree-aligned world, we want to demonstrate what the future of life in cities could and should look like, via innovation trials set in our Testbed (Queen Elizabeth Olympic Park), to co-create innovation challenges and forge R&D partnerships that answer big questions, and build a skills and talent pipeline structured for solving problems today, and into the future.

Our focus is on three key themes that are vital to more resilient and adapted cities: climate adaptation, health and wellbeing and movement of people and goods. At the Park, partners are working on the roll out of digital twins and use of AI to better understand the impact of human activity on urban wildlife and plants, supporting new advanced forms of micro mobility, and testing solutions to logistics and last-mile carbon emissions; or if it's about deploying armies of citizen scientists, or working with hyper local community leaders to implement circular economy solutions.

SHIFT is a model for new inclusive innovation district. Business Improvement Districts and Enterprise Zones exist around the country. What is different with SHIFT is that this community of place-based innovators has coalesced around a concrete and bold mission to 'create better urban futures': to creatively solve some of our biggest issues in city living. With partners like University College London, University of the Arts:

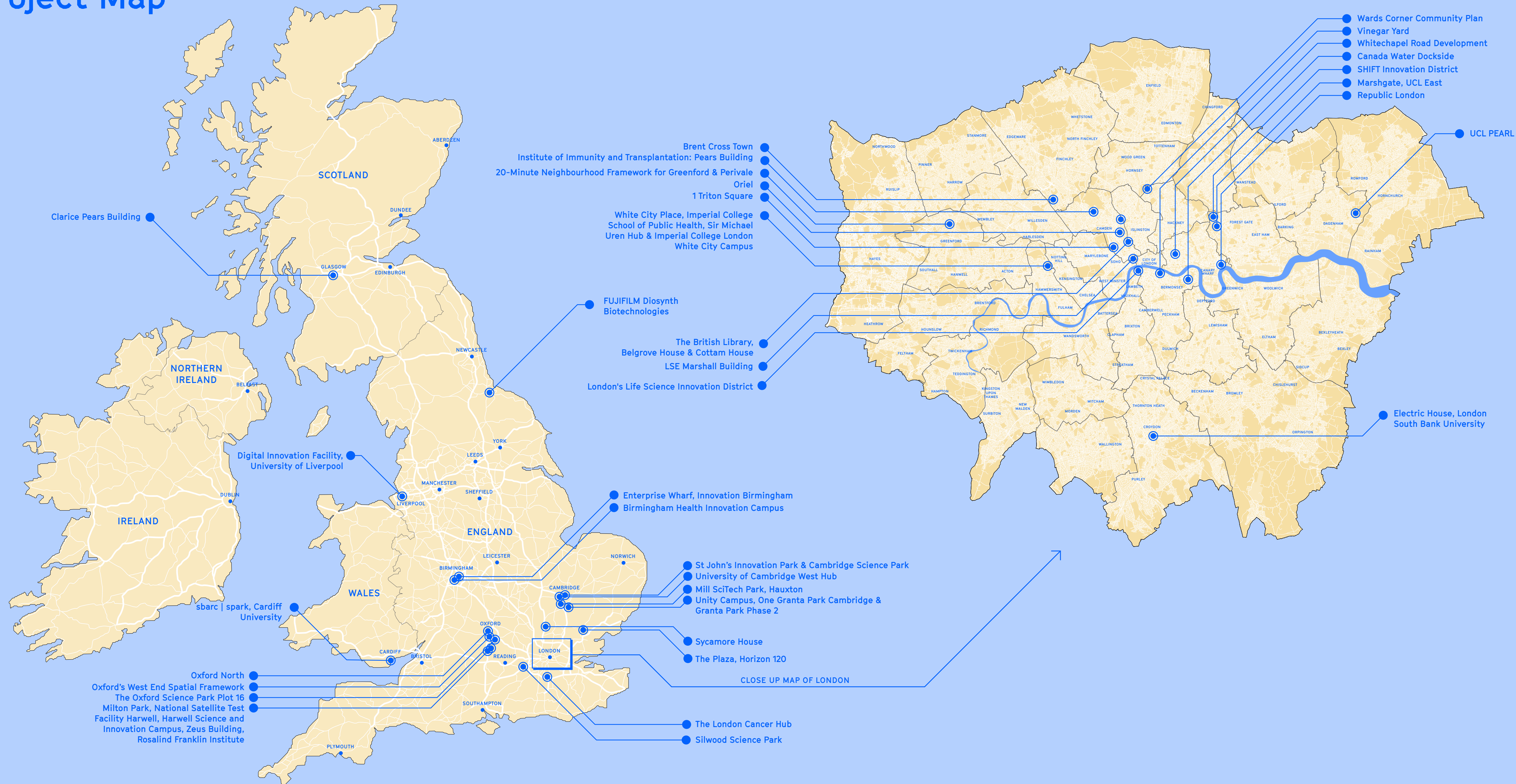
London College of Fashion, Loughborough University in London, Lendlease, Here East, Plexal and the London Legacy Development Corporation, we can go far.

A big part of what we can do as a strategic start up is focus on industry, big spending, strategic pressure points that can trigger innovation through the value chain. We've got some big hitters around the table, but it's not an exclusive seat. We are also focusing on the cultural shift that needs to take place with all of us as citizens, as community members, as consumers. So we're working with our brilliant local authority leadership in Hackney, Newham, Waltham Forest and Tower Hamlets, higher education and community leaders to identify the best points of intervention and brightest ideas and talent, acknowledging that the best ideas for place come from the combination of grassroots and strategic interventions.

We're collectively facing unprecedented problems as a society, and SHIFT is taking a collective approach that focuses on collaboration and mobilising place-based assets to come up with unprecedented solutions.

Project Showcase

Project Map



Project List

[1 Triton Square](#)

[20–Minute Neighbourhood Framework for Greenford & Perivale](#)

[Belgrove House](#)

[Birmingham Health Innovation Campus](#)

[Brent Cross Town](#)

[Cambridge Science Park](#)

[Canada Water Dockside](#)

[Clarice Pears Building, School of Health & Wellbeing, University of Glasgow](#)

[Cottam House](#)

[Digital Innovation Facility, University of Liverpool](#)

[Electric House, London South Bank University](#)

[Enterprise Wharf, Innovation Birmingham](#)

[FUJIFILM Diosynth Biotechnologies](#)

[Granta Park Phase 2](#)

[Harwell Science and Innovation Campus](#)

[Imperial College London White City Campus](#)

[Imperial College School of Public Health](#)

[Institute of Immunity and Transplantation: Pears Building](#)

[London Southbank University @ Electric House](#)

[LSE Marshall Building](#)

[Marshgate, UCL East](#)

[Mill SciTech Park, Hauxton](#)

[Milton Park](#)

[National Satellite Test Facility Harwell](#)

[One Granta Park Cambridge](#)

[Oriel](#)

[Oxford North](#)

[Oxford’s West End Spatial Framework](#)

[Republic London](#)

[Rosalind Franklin Institute](#)

[sbarc | spark, Cardiff University](#)

[SC1: London's Life Science Innovation District](#)

[SHIFT Innovation District](#)

[Silwood Science Park](#)

[Sir Michael Uren Hub](#)

[St John’s Innovation Park](#)

[Sycamore House](#)

[The British Library](#)

[The London Cancer Hub](#)

[The Marshall Building](#)

[The Oxford Science Park Plot 16](#)

[The Plaza, Horizon 120](#)

[Tribeca](#)

[UCL PEARL](#)

[Unity Campus](#)

[University of Cambridge West Hub](#)

[Vinegar Yard](#)

[Wards Corner Community Plan](#)

[White City Campus](#)

[White City Place](#)

[Whitechapel Road Development](#)

[Zeus Building, Harwell Science and Innovation Campus](#)

Belgrove House

King's Cross St Pancras, Euston Rd, London N1 9AL | *Status:* Proposed | *Completion:* 2024

Client: Precis Advisory | *Architect:* Allford Hall Monaghan Morris | *Acoustic Consultant:* Sandy Brown | *Approved Inspector:* Bureau Veritas | *Cost Consultant:* Alinea | *Ecology Consultant:* PJC Consultancy | *Facade Engineer:* FMDC | *Fire Consultant:* Bureau Veritas | *Heritage Consultant:* Peter Stewart Consultancy | *Landscape Architect:* Bradley-Hole Schoenaich Landscape | *M&E / Sustainability Engineer:* Atelier Ten | *Planning Consultant:* Gerald Eve | *Community Consultation Consultant:* London Communications Agency | *Services Engineer:* Atelier Ten | *Structural Engineer:* AKT II | *Transport Consultant:* TTP

The Knowledge Quarter Partnership was established in 2014 to develop Camden's strength as a thriving knowledge economy with world-class institutions in the scientific and creative industries.

Planning consent was granted in December 2021 for the redevelopment of Belgrove House to provide a specialised life science, laboratory-enabled building in the heart of the Knowledge Quarter innovation district, within the clustering of life sciences companies around The Francis Crick Institute, UCL and the London BioScience Innovation Centre.

Belgrove House will comprise a ten-storey commercial development for use as a research and office building with extensive public access provided to facilities at ground floor and lower-ground levels.

The vision for Belgrove House is to set a new benchmark and address the climate emergency through innovative design. The building will be highly sustainable and an example of how the carbon emissions of a life science research building may be reduced in construction, operation, and future refurbishment.

In conjunction with Belgrove House, a linked planning consent was granted for Acorn House, a further development by Precis Advisory in nearby Gray's Inn Road that will provide 33 new affordable homes, 500 sqm of affordable workspace and a retail unit.

Belgrove House is to be occupied by one of the UK's top five biopharmaceutical companies, MSD, as its new UK Headquarters and Discovery Centre. At Belgrove House MSD will undertake research in a state-of-the-art laboratory for human biology, to discover new medicines with a focus on diseases of ageing.

The proposed scheme will bring an extensive package of transformational benefits which follows the Government's ambition to reinforce the UK and London as a global centre for research and technological advances.

Belgrove House will meet Camden's ambitions for a successful Knowledge Quarter that directly improves the lives of local communities in which the development sits, economically, socially, and environmentally.

"A principal objective for Belgrove House is to ensure the development and its occupiers contribute to reducing inequalities and increasing life chances in the area. The proposed development will deliver a substantial package of public benefits that respond to this objective, and Camden's vision, maximising social value at the planning, construction, and end user phases by supporting increased access to jobs, skills training, and education opportunities."

The ground floor entrances will provide shared access for MSD employees, members of the public, and Knowledge Quarter organisations. This will foster engagement, exchange, and public awareness of the opportunities associated with the development.

A second objective is to deliver a highly sustainable building. To achieve this the team have utilised a full life-cycle carbon assessment model, and have developed a series of innovative design measures, including novel ventilation strategies and highly efficient systems that substantially reduce operational carbon emissions. A 'biophilic' double-skin façade will provide views through planting and the opportunity for fresh air from opening windows".

Precis Advisory, Gerald Eve Planning Consultants and AHMM Architects



Birmingham Health Innovation Campus

C3W6+C6 Birmingham, UK | *Status:* Under Construction | *Completion:* 2023

Client: Bruntwood SciTech | *Architect:* Sheppard Robson, PlanIt IE | *Engineers:* Mott MacDonald | *Planning Consultant:* Turley

Birmingham Health Innovation Campus (BHIC) is a world-class life science and health innovation facility and is one of only six Life Science Opportunity Zones within the UK.

Developed in partnership with the University of Birmingham, the campus will be situated in the heart of an academic and clinical cluster, closely located to the University and the Queen Elizabeth Hospital as well as a number of other leading healthcare institutions. The masterplan includes up to six buildings providing dedicated laboratory and incubation facilities. Once built, the campus will provide state-of-the-art space for the West Midlands' life sciences sector, support up to 10,000 jobs and bring around £400 million to the regional economy.

No.1 BHIC opens in September 2023. The 133,000 sq ft building will be home to the University's Precision Health Technologies Accelerator, with 68,000 sq ft of commercial lab and office space available to rent.

"BHIC is a real milestone in the evolution of the West Midlands as a health innovation and connected healthcare technologies powerhouse. The region has all the raw ingredients the sector needs — world-class universities, specialist NHS Trusts, quality infrastructure and a growing cluster of SMEs — to support the journey from early R&D to manufacture and market adoption of new health products and services. The Campus will be the epicentre where all these come together and attract further inward investment to ensure the West Midlands has one of the country's most exciting life sciences propositions for years to come."

Kath Mackay, Director for Life Sciences, Bruntwood SciTech



Cambridge Science Park

Science Park, Milton, Cambridge CB4 0PZ

Client: Trinity College | *Project Manager:* Bidwells | *Planning Consultant:* Bidwells | *Masterplan:* Hilson Moran | *Landscape Architect:* Bidwells | *Property Management:* Bidwells | *Facilities Management:* Bidwells | *Capital Markets:* Bidwells | *Leasing:* Bidwells

The stratospheric growth of Cambridge’s economy can be traced back to the opening of Cambridge Science Park more than five decades ago.

Trinity College retains the freehold of the park, which is continuously evolving to maintain its position as the number one destination for R&D businesses in Europe. Trinity supports current tenants and proactively drives new development to attract the world’s best new occupiers.

With an ambitious plan to achieve net zero across its property portfolio by 2050, a series of one-day events were organised throughout Spring 2022 to consult tenant businesses, engendering a common goal to reduce the park’s environmental impact. Car parking spaces are being reduced in number, electric bikes are being provided to discourage car travel and, through green clauses in lease agreements with tenants, data on energy usage is being collected and analysed.

The oldest floorspace at the park is being refurbished where possible, with photovoltaic panels added, reducing the use of fossil fuels, and with the addition of EV charging points.

With bold expansion proposals, new development plans for the park will engage with the wider priorities of the council, including sustainable design, increasing biodiversity and green spaces, and promoting the wellbeing of individuals utilising the park.

A crucial element of this is to connect more with the local community, encouraging people to enter and use the park’s facilities, and building on its long relationship with local schools.

As well as providing world-class facilities to support its science and technology sector tenants, Cambridge Science Park has also provided an opportunity to drive forward higher standards of buildings in Cambridge — shaping the modern agenda for the region.

—
“As well as providing world-class facilities to support its science and technology sector tenants, Cambridge Science Park has also provided an opportunity to drive forward higher standards of buildings in Cambridge — shaping the modern agenda for the region.”

Max Bryan, Head of Science & Technology, Bidwells



Granta Park Phase 2

4689+WG Cambridge | *Status:* Planning Granted | *Completion:* 2024

Client: BRE-BMR Granta Park Zone 2 Limited | *Architect:* Eric Parry Architects | *Services Engineer:* Scotch Partners | *Cost Consultant:* CB3 | *Landscape Architect:* Terence O'Rourke | *Project Manager:* Bidwells | *Ecology Consultant:* MKA Ecology

Consent for phase two of Granta Park provides 368,000 sq ft of space for high-tech research and development within five buildings, to meet the immediate demand for life sciences and other lab space in the Cambridge area.

The five new buildings are targeting a 32 per cent improvement on building regulation guidelines for energy performance and will be designed to meet the thermal standards set by the LETI Climate Emergency Design Guide. In addition, they will meet the requirements of BREEAM Excellent, WELL Gold and WiredScore accreditation.

Rather than a set of individual identities, the buildings have been conceived as an ensemble of pavilions in a natural landscape.

Phase one of Granta Park was built around a 'village green' with a cricket pitch, surrounded by new tree planting. Making the landscape sustainable was treated as a first principle, with extensive use of permeable surfaces, rainwater attenuation ponds and landscape buffers between building plots to promote biodiversity.

Phase two develops this precedent with a wild landscape based upon the surrounding fens. The creation of wetland habitat, a drainage swale and wildflower meadows will lead to a net gain in Biodiversity of 40 per cent over the original site. The series of ponds forms the pedestrian heart of the scheme, with routes that cross the site converging on this central feature.

"This latest phase of development at Granta Park builds upon the experience gained by Eric Parry Architects during three decades of work on the site. The design for five new buildings has been developed in partnership with a client group that combines deep knowledge of the local market with global expertise as a leading provider of real estate solutions to the life science and technology industries. The beauty of the landscape was the starting point for Eric Parry Architects' work at Granta Park and this new phase retains our landscape-first approach. The buildings are set within grounds and wetlands inspired by the surrounding fens, placing nature on the doorstep of the R&D buildings to create an inspirational environment that supports wellbeing, biodiversity and sustainability."

Robert Dawson, Associate Director, Eric Parry Architects



Harwell Science and Innovation Campus

Didcot OX11 | *Status:* Under Construction

Client: Harwell Campus | *Project Management:* Bidwells | *Estate Management:* Bidwells | *Leasing, pre-letting and acquisition:* Bidwells | *Masterplan:* Hawkins\Brown Ltd | *Landscape Architect:* Hawkins\Brown Ltd

Harwell Campus is the UK's leading science and innovation campus, home to over 200 organisations and over 6,500 people. The campus attracts universities from around the world alongside public sector organisations and large and small companies across space, energy and environment, physical sciences, life sciences, engineering and big data.

Harwell Campus has been the site of many landmark scientific advances such as the launch of the world's first transistorised computer and Europe's first energy-producing fission reactor. The campus plans to add 1.5m sq ft of commercial space, new homes, hotel and amenities by 2027, as the next step in delivering its 5m sq ft masterplan.

The launch of Harwell Campus' 'Living Laboratory' will allow new technologies to be piloted in a real-world environment, accelerating the adoption and accessibility of pioneering technology solutions, spanning autonomous travel, green fuel solutions and integrated energy systems.

The campus has a successful track record of delivering millions of sq ft of complex construction projects, with recent schemes including the Zeus and Zephyr buildings, Oxford Nanopore Technologies, Agilent Technologies and Airmens Mess, Airspeed 1 and 2 and the Quadrangle development including Quad One and Quad Two. The continued expansion plans will provide world-leading facilities for science, technology and research, with a flexible approach embedded throughout to meet the needs of unique occupier demand. The plans also include new housing to serve the campus community.

Through cherishing and re-purposing the existing mature environment and the creation of nature corridors, efforts are being made to improve biodiversity across the campus. Sustainable transport is promoted through the provision of EV charging points and alternative modes of transport.

An inclusive approach is offered across the campus, with a range of on-site amenities such as childcare, conference and events venues and extensive provision of sports facilities and sports clubs.

"Bidwells has supported Harwell Campus for over 7 years, in particular as our Leasing Agents (working with companies such as ResMed, Vaccitech and Oxford Nanopore Technologies to help them grow and prosper on the campus) and Construction Project Management (delivering schemes such as an award-winning Quad One and most recently Zeus Building and Quad Two) whilst also providing important Estate Management support. We enjoy a hugely positive relationship with Bidwells' Oxford Office, who consistently provide invaluable market advice and more generally 'work harder and think more imaginatively' about proper proactive business development initiatives in the Knowledge Economy Sector."

Stuart Grant, CEO, Harwell Campus and Advanced Research Clusters



SC1: London's Life Science Innovation District

Status: Proposed

Client: London Borough of Lambeth, London Borough of Southwark | *Project Manager:* SC1

SC1, London's new Life Sciences Innovation District, was founded with the vision to create a transformative life science ecosystem in central London dedicated to innovation, creative partnerships and to improve life for our local and global communities.

Anchored by the world-class King's College London, and the founding partners of three NHS Foundations Trusts (Guy's and St Thomas' Hospital, King's College Hospital, South London and Maudsley), the Guy's & St Thomas' Foundation, and the Boroughs of Lambeth and Southwark, SC1 is born from the unique diversity of London. The partnership is creating a global quarter in the centre of London that delivers high impact innovation, and making improvements to address health inequity, both locally and globally. SC1 brings together public, private, education and clinical partners to increase investments into life sciences and attract new companies to the area.

The SC1 Innovation District is notable for three thriving hubs—Biomedical Hub, MedTech Hub, and the Mind & Body Hub. The area's university and hospital partnerships host a wealth of clinical and research expertise, with the largest clinical educator in Europe, state-of-the-art equipment, strong industry partnerships, and a growing number of spinouts and scale-ups.

Within SC1 there are ambitious plans underway that will create significant new spaces for healthcare and medical research, giving more people access to clinical trials, improving environments in which patients are treated, with the following potential benefits and centres of excellence:

- 60,000 new high-quality jobs in the sector by 2050
- 2 million sq ft of life science focused space on Guy's and St Thomas' Foundation's land at Royal Street
- Including 300,000 sq ft of lab enabled space and 100,000 sq ft of affordable workspace
- New centres of excellence such as the London Institute for Healthcare Engineering (LIHE) and Pears Maudsley Centre for Children and Young Peoples' Mental Health

"It is a privilege and honour to be the leader for SC1, London's Life Sciences Innovation District. SC1's founders have always been proactive about fostering world class innovation, while leveraging the unique diversity of South-central London. Our plans to grow the Innovation District are ambitious, and the challenges in health inequality that our communities face are stark — so we cannot embark on this mission alone. Patients, people and partnerships are at the heart of SC1's strategy, which will involve staff and patients in all activities, at every stage of the long-term programme. SC1 is now focused on developing transformative partnerships with our local and global industry partners, entrepreneurs, community and stakeholders.

Together, we can connect world leading institutions under the umbrella of SC1, London's life sciences innovation district, where the very best in science, technology, health, medicine and innovation is living, breathing and being delivered right in the heart of the Capital. We want to make a tangible difference in line with the UK Governments own life sciences ambitions, make a tangible difference to the communities living in Southeast London and create a blueprint for innovation and health equity that is modelled across the world."

Georgina Rizik, Executive Director for SC1,
London's Life Sciences Innovation District



Oriel

4 St Pancras Way, London NW1 0PE | *Status:* Proposed | *Completion:* 2025

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

Oriel is a joint initiative between Moorfields Eye Hospital, UCL Institute of Ophthalmology and Moorfields Eye Charity, bringing together world-leading eye care, research and education under one roof. A radical approach to the integration of sight related care, research and education, the project's aims include driving innovation and speeding up the translation of research findings into treatment. The vision is to create an environment for innovation to flourish, inspiring improvements in people's sight.

Moorfields Eye Hospital (MEH) and the Institute of Ophthalmology (IOO) of University College London (UCL) have been co-located at Old Street for two decades. This proximity of two world leading sets of practitioners, coupled with advances in digital and genetic technologies, has produced previously unimaginable advances in the treatment of eye conditions. At Oriel, they will not only be co-located but truly integrated, being free of the constraints of the current sub-standard and disaggregated facilities.

At the heart of the project is the belief that 'People's Sight Matters' and Oriel puts people at the heart of the vision. The new building will be a place where people's eye health is improved through the incubation and application of new knowledge and genuine engagement and participation of patients in the research.

Oriel will be at the centre of Moorfields' delivery of services across the region. It is well connected, both for London and the rest of the UK, making it a more accessible national centre for eye care. As an innovation hub at the centre of a network of over 30 sites, its breakthroughs and improvements in clinical services will radiate out to the peripheral services across London, the southeast and beyond.

"Oriel is designed to be a welcoming place for all. The atrium at the heart of the building invites people in and forms a public living room for the city, comprising public facing activities such as art exhibitions, displays showcasing the work in the building, education facilities, café and other public facing activities. It is here that the main patient-support services are located.

This atrium brings daylight deep into the building and enables easy wayfinding and orientation. The oriel — a mini-tower — rises up through the middle of the atrium contains all the public vertical circulation accessing all departments. From here, bridges cross into the embracing wings containing the main clinical and research departments. Main clinic waiting spaces are ranged around the atrium, reinforcing this sense of connectedness. Wayfinding is clear and straightforward, providing a safe and supportive route from entrance to clinic.

The interior of the atrium and the building more widely is inspired by the Moorfields motto — fiat lux, let there be light. Natural materials, daylight and good artificial light, good acoustics and interior planting all contribute to the health and wellbeing of the building's users. The design breaks down barriers between staff, patients and visitors to create a calm and compassionate environment.

Oriel also provides wider social and economic benefits. The creation of this world-leading eye-care centre in Camden will attract the most talented clinicians, researchers and educators from around the world while inspiring a new generation into the field. An active outreach programme will provide opportunities for local people through jobs creation, skills training and education programmes. The high-quality public realm will provide greater access around the site while the increase in activity will reduce crime and anti-social behaviour."

Rafael Marks, Principal, Penoyre & Prasad



Oxford North

QPR7+R9 Oxford | *Status:* Planning Granted | *Completion:* 2030

Developer: Oxford North Ventures GP LLP (a 50:50 commercial joint venture partnership with St John's College and its development company Thomas White Oxford with Cadillac Fairview with Stanhope) | *Architect:* Fletcher Priest Architects | *Residential Partner:* Hill Group | *Planning Consultant:* Savills | *Landscape Architect:* Gustafson Porter + Bowman | *Landscape Architect:* Townshend Landscape Architects | *Structural Engineer:* AKT II

Oxford North is a new global innovation district being built on 64 acres of land within Oxford city's northern boundary.

The new place starts with people, their ideas and ambitions. It's being built to celebrate and enable them, providing a place for people who want to make their mark on the world.

Oxford North will connect academia and commerce, invention and investment, providing a sustainable place to work, live, learn and socialise. Oxford North will be a thriving and vibrant new district with innovation and sustainability at its heart.

The project, masterplanned by Fletcher Priest Architects, will deliver one million sq ft of new labs and workspaces including a new innovation centre, and 480 new homes. Around 4,500 people will work there alongside 1,500 residents and who, along with the local community and visitors, will enjoy amenities including a hotel, nursery, shops, bars and cafes, three public parks, and significant investment in travelling around sustainably. The new district will be a unique home and workplace, for scientists, technologists and inventors, transforming lives and enhancing one of the world's greatest cities.

Setting a new standard for placemaking, Oxford North will blend culture with low carbon innovation, sustainability with leisure, and open spaces with science. It offers a new model for the future, supporting business, enabling discovery and, above all, improving lives, all in one place.

With access to wide open public spaces and public art throughout, Oxford North is configured to enhance wellbeing. The landscape is designed to enhance biodiversity across the newly-created public parks and facilitate access to nature for residents and visitors.

Woven into the new public parks are spaces for entertainment, events and exercise. Integral to the plans are areas for families and children to enjoy natural play while opening eyes and discovering the future. At every turn there will be opportunities for enjoyment, delight and new perspectives.

"With Cadillac Fairview, we came on board this exciting and globally ambitious project in March 2022. The project had received approval for the outline masterplan and detailed consent for the first phase of commercial space. The first buildings will deliver 145,000 sq ft of the one million sq ft of new space for science and tech occupiers. It includes the Red Hall, Oxford's newest innovation centre, two lab and workspace buildings and the first of three new public parks.

With an ever-changing world, the only constant is change. So we are moving fast to ensure that we can deliver to meet the high demand from companies needing space in Oxford. We are demonstrating that we're building sustainably, creating new jobs during the construction phases which have positive impacts on people's lives, and that our future phase plans meet the way that we all live, work, learn and play.

We are creating and curating Oxford's new innovation district to ensure that we connect academia and industry so that all-important collaboration and serendipity moments can flourish, and that we create a place which is designed specifically to help retain and attract talent.

We strongly believe that where there is opportunity, there is also great responsibility. Together with the College with its 500+ years of heritage and through Thomas White Oxford, this new place has to deliver social value and community benefits as much as buildings and places which enable life-enhancing discovery which can solve some of humanity's greatest challenges.

It's no mean feat but it's such a significant project with which to be involved and we are proud to bring all our experience of placemaking and development to deliver this new place."

Adam Smith, Development Director, Oxford North, Stanhope



© Fletcher Priest Architects

SHIFT Innovation District

Olympic Park Ave, London | *Status:* Under Construction | *Completion:* 2032

Partners: Lendlease, London Legacy Development Corporation, University College London (UCL), University of Arts London (UAL), Here East, Plexal, Loughborough University in London

SHIFT is a powerful collective of world-leading organisations, thinkers and creatives creating a mission-oriented living testbed at the Queen Elizabeth Olympic Park in Stratford, London.

United by a shared vision to tackle global crises and deliver better urban futures for all, partners include University College London (UCL), University of the Arts London (UAL), London College of Fashion, Loughborough University in London, Lendlease, Here East, Plexal and the London Legacy Development Corporation.

Based at the Olympic Park, SHIFT combines extensive physical and digital resources, cross-sector expertise and growing networks all aimed at directing and turbocharging innovation to find solutions to urban challenges that can be scaled up and applied globally.

Inclusive innovation

The Queen Elizabeth Olympic Park will play a pivotal role in SHIFT's mission and its approach to inclusive innovation. With 560 acres of green space, a network of streets and waterways, thousands of residents and daily visitors, as well as a range of academic, business and cultural spaces, it is a vibrant and diverse urban environment in Zone 2 of a global city.

Across its three innovation pillars of climate, health and wellbeing, and movement, SHIFT will work alongside communities, citizen scientists and local government in and around Stratford and utilise the Olympic Park as a living testbed to undertake ground-breaking research, trials and pilot initiatives.

By listening to Stratford residents, identifying the biggest problems they are facing, and using the Park to find solutions, SHIFT will improve the lives of local people while generating insight and learnings that can be scaled to the rest of London, other UK cities and internationally.

From improving health outcomes and leading climate adaptations to advancing technological innovations, SHIFT's ambition is for Stratford and the Olympic Park to lead the way in demonstrating a blueprint for a better urban future.

Get involved

SHIFT needs brilliant, fearless entrepreneurs, investors, and commissioners to join in its spirit of collaboration and creativity, exploration and experimentation. To strengthen its network and drive change that will shape the future of our cities and citizens. Join us.

“Life in towns and cities is under threat from the interconnected challenges of climate breakdown, spiralling cost of living and worsening economic and health inequities. Urban environments are failing to adapt at the needed pace and take the critical steps towards a net zero carbon world.

These problems are too big for one individual, organisation or sector to tackle on their own. We must act collectively now and in ways we haven't before if we are going to find meaningful solutions to these unprecedented problems and improve life in our cities for everyone.

SHIFT has been launched as a direct response to these challenges. Rather than paying lip service, its mission is to fuel meaningful innovation and deliver tangible public benefit.

In the years following the 2012 Olympic Games, Stratford has emerged as an international hub for business, education, and creativity. Based on the parks' physicality, incredible diversity of people and growing list of world-class institutions, innovation naturally started taking place.

Inspired by this, and how innovation could be fuelled by co-location and clear missions, SHIFT's seven founding partners came together and decided to formalise this activity — with combined governance, vision and strategy — to direct and turbocharge existing and future projects for maximum impact.

We are at the start of our journey and we don't have all the answers. We want to hear from likeminded people and organisations — those who are passionate about bettering lives and improving the world around us — to be part of our mission. Whether you are a young person with an idea, an organisation looking to co-locate and collaborate, or a start up with a project suited to the Olympic Park — get in touch.”

Jake Heitland, urban strategist at Lendlease



Sycamore House

2 Gunnels Wood Rd, Stevenage SG1 2BP | *Status:* Built | *Completion:* 2021

Client: Kadans Science Partner 2 UK Limited | *Architect:* Owers Warwick Architects | *Structural Engineer:* Heyne Tillett Steel | *M&E / Sustainability Engineer:* Hilson Moran | *Contractor:* ISG

Sycamore House is the redevelopment and conversion of an industrial warehouse into a vibrant hub for coworking biomedical research companies. The new building houses a combination of laboratory spaces, offices and collaborative meeting areas for start-up, scale-up and mature companies across the life science sector.

Commissioned by Kadans Science Partner and Mission Street, Owers Warwick Architects and Heyne Tillett Steel worked closely to create a new, modern and inclusive environment, whilst retaining as much of the existing structure and fabric as possible.

Designed with collaboration and inclusivity at its heart, the new inner structure has been devised as a large double height communal space and two long streets of offices and laboratories with ‘winter garden’ break-out spaces at key junctions. The office and laboratory spaces span over 2-storeys along the streets, created by new mezzanine floors. The elevations along the streets are predominantly transparent to create light and openness throughout the coworking spaces. There are small breakout areas and workbenches all along the streets to foster collaboration and at the two key junctions, larger ‘winter gardens’ have been designed to act as focal points for bringing people together to share knowledge and ideas.

“The brief from Kadans and their UK development partner, Mission Street, was to recreate their Dutch model of sub-divisible laboratory and office spaces with a key emphasis on vibrant, communal areas for staff from different companies to mix and collaborate.

The challenge to convert this large warehouse, on the outskirts of Stevenage, at first seemed daunting. However, as we analysed the building and its constraints a solution started to evolve that worked with the grain of the building to create an exciting series of spaces that worked functionally to meet the client's brief.

The primary concept was to form an internalised entrance

square, populated with café and meeting spaces to create a buzz as you enter the building. From here a wide street, flanked by office and laboratory pavilions, runs through the building, punctuated by two lush, verdant winter gardens. In these winter gardens are workbenches, soft seating, and kitchenettes to foster collaborative working.

The laboratories and offices pavilions sit below the mega-structure of the warehouse. Laboratories are located on the ground floor and help advertise the science-led nature the occupants.

The design team worked closely to overcome issues inherent in creating a laboratory-based building in an existing structure. The solutions included designing a thin concrete flat slab, that facilitates a flexible horizontal distribution of services and locating plant rooms in key spaces.

To fulfil the highly sustainable aspirations of the team, the building's roof is over-clad to waterproof and insulate the large existing envelope. The office and laboratory pavilions are the only mechanically conditioned areas whilst the warehouse-volume is left ambient. Together with the reuse and refurbishment of the existing structure and envelope, and minimal structural intervention we designed a sustainable solution.

A combination of colour, planting, roof lights and furniture soften what could be a hard space to generate a vibrant, collegiate environment.”

Richard Warwick, Director, Owers Warwick Architects



© Matthew Smith, Owers Warwick Architects



© Matthew Smith, Owers Warwick Architects

1 Triton Square

1 Triton Square, London NW1 3HF | *Status:* Built | *Completion:* 2021

Client: Lendlease | *Architect:* Arup | *Developer:* British Land

1 Triton Square is British Land's 34,000 sqm net zero carbon redevelopment at its Regent's Place Campus, located at the intersection of Camden, Fitzrovia and London's Knowledge Quarter. The Campus is home to over 20,000 workers and residents, offering a mix of well-located high quality, sustainable and affordable space, complimented by over 14,000 sqm of public realm, including Regent's Place Plaza — a place to eat, drink, shop and socialise.

Regent's Place is undergoing a period of transformation to attract a broader mix of occupiers. 1 Triton Square demonstrates British Land's Campus model in action, addressing the changing needs of innovation businesses by delivering new, collaborative, and sustainable space that matches their workstyles, with ground floor retail and leisure, and new affordable residential units.

British Land and Arup initially designed and delivered 1 Triton Square in the 1990's with future expansion and regeneration in mind. In 2020, British Land brought the original design and construction teams back together to adapt the building for modern workstyles. Taking a circular economy approach from the outset, the team committed to reusing as much of the existing building as possible, increasing the lettable area by 11,800 sqm, while delivering exceptional new public realm. The redevelopment achieved substantial carbon savings relative to a new build and was rated BREEAM outstanding at design stage.

1 Triton Square achieved practical completion in 2021. The office element is fully pre-let to Meta, and The Gym Group is set to open a new flagship London gym within the building. British Land is now progressing works to improve the public realm across the wider Campus, upgrading outdoor spaces to provide new attractive and functional areas for workers and visitors to relax, socialise and collaborate.

“Real estate plays a significant role in supporting the growth of businesses in the tech and innovation sector. We have learned that as they grow these companies seek collaborative, dynamic, and sustainable office space in well-connected mixed-use destinations. Employees want to work in thriving urban hubs which offer more than just office space.”

Leveraging our strong track record of high-quality sustainable development, we are transforming Regent's Place into a London neighbourhood tailored to innovative businesses and their employees. The Campus has achieved exceptional sustainability credentials, including our second net zero carbon development at 1 Triton Square, while our public realm improvements will deliver fantastic new space to relax, socialise and feel closer to nature. Some of the most innovative and exciting businesses in the UK have been drawn to Regent's Place for its exceptional location in London's Knowledge Quarter, its high-specification design and its vibrant retail and leisure offering.”

David Lockyer, Head of Campuses, British Land



UCL PEARL

Yew Tree Ave, Dagenham RM10 | *Status: Built | Completion: 2021*

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

PEARL—the Person Environment Activity Research Laboratory—is UCL’s first net-zero carbon in-use building, and a first-of-its-kind research laboratory in which to create life-sized environments—a railway station, high street, town square—under controlled conditions, to examine how people interact with their urban environment and each other. “A building to house the world!”, Professor Nick Tyler, Director of UCL Centre for Transport Studies.

The facility’s objective is to create a world where everyone can experience an improved quality of life through better design of the environment, using an evidence-based understanding of how people interact with it, for a more accessible and sustainable future.

Located in Dagenham, London, PEARL sits within a major regeneration zone and has a strong focus on local connections and a community-focused approach to research, labour and apprenticeships. It is a hub for the community and works closely with multiple schools and colleges across the Borough.

The large, clear structural spans of the main laboratory space allow for a wide variety of different life-sized research experiments to take place, and a freestanding two-storey prefabricated cross-laminated timber (CLT) structure provides the community facing facilities, workshops and highly flexible academic workspaces that are a prototype for new post-Covid ways of working.

Externally, the building’s form and materials relate to the site’s industrial architectural heritage. The weathered Corten steel scalloped panels reference the roof form of the adjacent listed building and provide the building’s distinct identity.

PEARL is carbon negative in use due to its highly efficient fabric, services and the production of its own energy from a vast array of photovoltaics covering the entire roof. Built for deconstruction and the circular economy, the design maximises the use of recycled and recyclable materials, whilst minimising waste through off-site prefabrication and cut and fill site preparation.

“PEARL is a unique facility to explore the ways in which people interact with their environment. We can create life-sized environments under controlled conditions, so that we can examine how people interact with their surroundings at a variety of scales — spatially, from neurons to city blocks, and temporally from nanoseconds to decades.

This comprehensive approach is based on the idea that everything we know about the world comes via our sensory systems. People tend to treat their senses independently, but the human brain-body considers them all together to create the perceptions of the world that we have, that then inform the decisions we make. This brings human beings' physical, neurological, psychological, and physiological responses into focus to inform the design of environments so that people can live a healthier life with better wellbeing, and an enhanced sense of sociality.

Penoyre & Prasad’s design enables us to create an actively collaborative working environment so that it is easy for researchers to work with each other and members of the public to create a truly new world, better for people and planet.

We all have a responsibility to take action on climate change. With PEARL we had a chance to make choices that could really make a difference, so the design of the building and its operations had to enable us to do all our research and education activities and to do this in a way that is beneficial to the environment.

We are very proud that this has led to UCL’s first carbon-negative building. Achieving net-zero carbon in-use and A+ energy efficiency is great for the planet and pretty cool for UCL. Having this at the heart of all our decision-making from the outset has enabled this outcome.”

Professor Nick Tyler, Director of the Centre for Transport Studies, UCL CEGE



© Timothy Soar



© Timothy Soar

Vinegar Yard

78 St Thomas St, London SE1 3QX | *Status:* Planning Granted | *Completion:* 2026

Client: CIT Group | *Architect:* Kohn Pedersen Fox Associates (KPF) | *Structural Engineer:* AKT II | *MEP:* Sweco | *Landscape Design:* Space Hub | *Sustainability Consultant:* Trium Environmental Consulting | *Quantity Surveyor:* Arcadis

Vinegar Yard is designed to accommodate flexible medical use and to support the emerging Guy’s and St Thomas’s medical and research hub, alongside retail, commercial and affordable workspace. A new urban garden and additional public realm improvements will contribute to Southwark’s ongoing work to improve connections across the borough and regenerate the wider area.

Healthcare and life sciences are rapidly evolving disciplines that require highly-resilient buildings that are designed for a loose-fit and a long-life, with the potential to be refitted in response to the changing requirements of tenants and the potential of new technologies. The design team worked closely with the GLA and Guy’s and St Thomas’s Hospitals NHS Foundation Trust, using the Guys and St Thomas Adaptable Estates Strategy to allow flexible medical and R&D use. This included increased floor-to-floor heights, a more rigid structure to control vibration, and spatial provision for systems to support healthcare use.

The building has a distinctive stepped profile, rising to 20 storeys, composed as a series of carefully assembled volumes that respond to the sensitivities of the immediate context. Inspired by traditional warehouse architecture, the facades are differentiated through subtle variations within a palette of brick, terracotta, stone and glazing.

At its base, the building is active on all sides, with retail frontages and visual and physical permeability that will animate the new urban garden and surrounding streets. Above, its stepped arrangement creates a series of outdoor landscaped terraces for use by occupants. Small gardens also animate the façade and provide additional outdoor green space.

Targeting a BREEAM Outstanding and WELL Building Institute Gold standard with Platinum Fit-out. A 27 per cent reduction in embodied carbon has been set against the GLA Benchmark and the project is targeting embodied carbon below 800 kgCO2e/m2.

“Life sciences are an increasingly important element in the UK property sector, and our experience around the world tells us that innovation blossoms within a thriving mixed-use neighbourhood. That is central to our approach at Vinegar Yard, and we are looking forward to seeing it take shape.

A successful innovation district creates opportunities for people from different fields to interact, which requires both a variety of different workplaces to be located within close proximity of each other and the social infrastructure that ensures that people actually cross paths — whether that’s buying coffee, attending an exhibition or chatting on a terrace. It’s the opposite of highly-specialised knowledge silos, rather creating the atmosphere where leaders in their field can exchange ideas and socialise — and while they’re doing this discover new areas of overlap or interest.

Connecting the benefits of the development with Southwark’s diverse community is just as vital to the success of our building and the SC1 District. We have listened and directly responded to local aspirations so that the scheme delivers lasting improvements to the borough.”

John Bushell, Design Principal,
Kohn Pedersen Fox Associates



White City Campus

80 Wood Lane, W12 0BZ | *Status:* Part Built | *Completion:* 2025

Masterplan: Imperial College London (White City Campus)

As a leading research-intensive university, Imperial has extensive experience of assembling various health, industry, and government partners on collaborative projects. This is being applied on a broader canvas at White City, taking on stewardship role to spearhead place-based innovation and convene people and networks. Here, the College's place-based approach enables residents to benefit from outreach, educational and wider skills and employment opportunities that come with the growing presence of the White City Innovation District.

Imperial's community of innovators has grown out of the College's partnership with the London Borough of Hammersmith & Fulham (LBHF). In 2017, the council launched an industrial strategy called Economic Growth for Everyone. The result was a collective effort between business, higher education, and local government that attracted billions of pounds of investment and hundreds of companies to the area. Today, students and researchers at Imperial benefit from our close links to public and private sector partners, and our research makes a meaningful difference.

White City Innovation District is underpinned by the LBHF Industrial Strategy and Imperial College London's new White City campus. Together, they laid the foundations for an ecosystem which has since attracted entrepreneurs and established innovators, all seeking new solutions to the world's greatest challenges.

At the heart of the White City Innovation District, the White City Campus is where great ideas grow. Academics here are publishing ground-breaking research and turning their ideas into new ventures. Businesses, large and small, are leading the world in areas like quantum engineering, clean energy and machine learning. With close links to Hammersmith Hospital, we are running clinical trials into vital topics like dementia, cancer, infectious diseases and therapeutics. While the ideas generated here have a global impact, we are firmly rooted in White City. We run programmes for local school children, inspiring the

next generation of scientists and innovators. And our Campus is a place where the local community is welcome. No matter their age, everyone can learn, be inspired and invent in White City.

"Innovation comes from environments where ideas can connect, and Imperial's White City Campus is the embodiment of this vision. We have created an inclusive and engaging environment that supports our researchers in tackling some of science's deepest questions and some of society's most urgent problems. Our approach to translation and commercialisation is at the heart of this."

At White City, we are driving technological innovations across rapidly growing sectors, including quantum, advanced materials, life sciences, genomics, robotics and artificial intelligence. We turn science, creativity and ideas into real products and services that can disrupt industries, transform lives and drive the UK's ambition to become a 'science superpower.'"

Professor Mary Ryan, Vice Provost
(Research and Enterprise)



White City Place

89 Wood Ln, Shepherd's Bush, London W12 7FA | *Status: Built | Completion: 2017*

Clients: AIMCo | Architect: Allies and Morrison | Developer: Stanhope, Mitsui Fudosan (UK) Ltd | Construction Manager: Lendlease

White City Place is located within the White City Innovation District and comprises a cluster of workspace buildings united by new public realm and street level retail, restaurants and cafés. Its diverse community of businesses spans life sciences (which make up 30 per cent of occupiers), tech, broadcast and the arts.

The project includes the refurbishment and repositioning of 3 existing buildings to transform them into modern working environments: WestWorks, MediaWorks and the Garden House. The buildings were ex BBC spaces and benefited from a robust structure, generous floor to ceiling heights and riser space which made them ideal for adapting into lab space for life science occupiers.

Following Imperial College's expansion at White City, a concentration of life sciences innovators has formed in the area, thus cementing White City's emergence as one of London's Life Science Clusters. It was important to enrich our mix of occupiers to support the growth of this sector.

Life science occupiers include Autolus, GammaDelta, Vivan Therapeutics, Adaptate Therapeutics, Engitix and Synthace, with most being young, fast-growing companies, as well as pharmaceuticals giant, Novartis. Stanhope's asset management team now has experience of working with these life science companies understanding their operational requirements, funding stages and growth projections.

The campus is also home to Huckletree, ITV, JellycatLondon, Arts Alliance Media and the Royal College of Art. Over 3,000 BBC staff remain at White City Place, helping to make it a vibrant working environment.

A further 'Gateway' site at White City Place will consist of three new office buildings (Gateway West, Gateway Central and Gateway East) on the site of the former BBC Media Village. The three buildings will provide 1,110,809 sq ft of accommodation and together will create some 8,000 new jobs in White City. The new buildings on the Gateway site are designed to enable life science occupation.

"Stanhope, Aimco and Mitsui Fudosan are the developer and asset-manager of White City Place. Over the last four years, we have learned some big lessons about the life science sector, and it is what has helped us lease over 120,000 sq ft of space to eight life sciences companies, including giant Novartis.

Our biggest learning is that, to be successful in the life sciences sector, developers need to truly understand it, its ecosystem, and what companies need in order to succeed in their crucial work of discovery.

Making sure you understand the intricacies of what your occupiers do and providing the right wraparound services and back-of-house provisions to enable their day-to-day work will make a massive difference to them, and therefore to the success of your scheme.

For start-ups and scale-ups, their space has a bigger role to play than just a roof over their heads, and that can only be fulfilled through asset management. Providing life sciences companies with the right support could be the difference between those who succeed and those who don't.

Life sciences is a relatively new sector and the race for talent is truly an international one. With jobs that very often need to be done on-site, offices have a major role to play in helping companies attract the talent they need. As well as offering state-of-the-art facilities and modern communal spaces, what surrounds the actual building can be make or break. Anyone relocating from another country, or an in-demand British graduate courted by companies abroad, would much rather be located somewhere offering leisure options, gyms, restaurants, cafes, bars, and places encouraging chance encounters, than in a sanitised office development."

Claire Dawe, Head of Asset Management, Stanhope PLC



Greenford Innovation Hub

© LB Ealing

EMPLOYMENT

LOCALLY SIGNIFICANT & STRATEGIC INDUSTRIAL LOCATIONS
Greenford's valuable industrial land accommodates businesses with specialisms in sustainable transport systems and high-tech manufacturing

EDUCATION

HIGHER & FURTHER EDUCATION
Specialisms in Science, Technology, Engineering and Mathematics

HOUSING

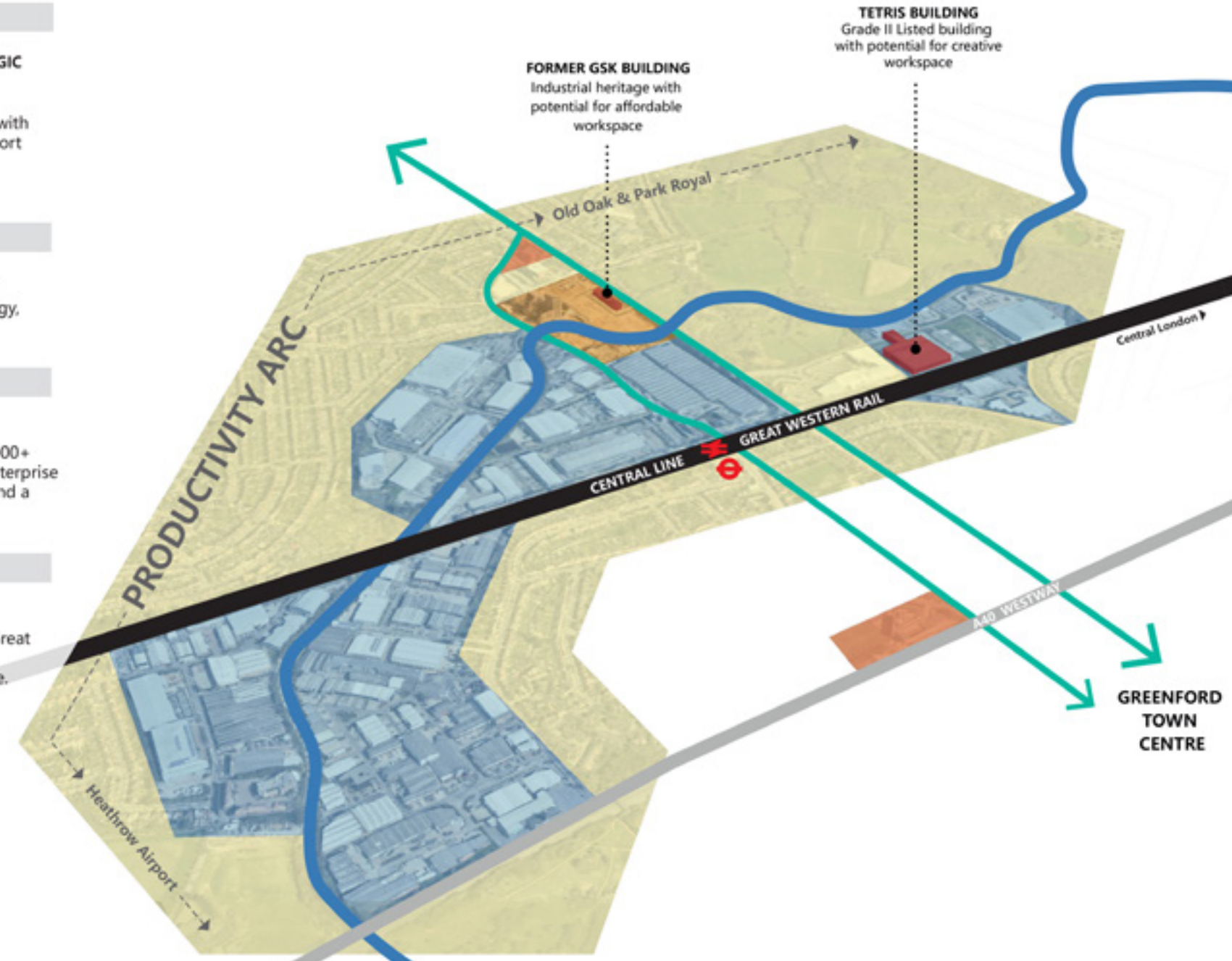
GREENFORD QUAY
Mixed-use neighbourhood of 2000+ new homes supports creative enterprise with workspaces, retail, leisure and a programme of events.

CONNECTIVITY

GREENFORD STATION
Central Line Underground and Great Western Railway provides fast connections to the Elizabeth Line.

GRAND UNION CANAL
Capital Ring Walk Route

SUSTAINABLE LOCAL LINKS
A 20-Minute Neighbourhood supports a network of walking, cycling and bus routes.



20-Minute Neighbourhood Framework for Greenford & Perivale

Auriol Drive, Greenford UB6 0AZ | *Status:* Proposed | *Completion:* 2037

Greenford Innovation Hub will cultivate a thriving ecosystem of green businesses within a 20-minute neighbourhood. The Hub is part of Ealing Council's boroughwide strategy to reimagine industrial land and prepare community-led frameworks across its seven towns. Located within the productivity arc between Central London, Park Royal and Heathrow, the Greenford Hub will build on its history of industrial innovation, heritage buildings and high-tech businesses, and work with cross-sector partners including STEM education and affordable workspace providers to support socio-economic recovery.

Client: Ealing Council
Masterplan: We Made That
Transport Consultant: Urban Movement

Brent Cross Town

Pennine Drive, London NW2 1BW | *Status:* Planning Granted | *Completion:* 2035

Brent Cross Town (BXT) is a joint venture between Related Argent and Barnet Council to develop a large-scale, mixed-use development with 6,700 new homes, retail, green spaces, state-of-the-art sport and play facilities and customised timber workspaces for over 25,000 people. BXT will be a net zero carbon town by 2030 at the latest; it pledges to enhance the wellbeing of its workers and residents through its pioneering Flourishing Index, a major new study of how individuals and communities flourish in a town centre.

Client: Related Argent
Architect: Allies and Morrison
Landscape Architect: makower





The British Library

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

The development of a 2.8 acre site to the north of the British Library's existing Grade I Listed building creating i) 100,000 sq ft of new space for the Library for learning, exhibitions and public use, including a new northern entrance and a bespoke headquarters for the Alan Turing Institute, the national centre for data science research ii) enabling works for Crossrail 2 and iii) 600,000 sq ft of lab-enabled new commercial space for organisations and companies that wish to be located at the heart of London's Knowledge Quarter.

Clients: The British Library
Architect: RSHP
Developer: Stanhope Plc and Mitsui Fudosan (JV)



Canada Water Dockside

Maritime St, London SE16 7FU | *Status:* Planning Granted | *Completion:* 2027

Canada Water Dockside is a 4.5-acre site adjacent to British Land's Canada Water masterplan area that will bring forward plans for 1.5 million sq ft GEA of workspace, alongside community spaces, and new places to eat and drink across the ground floor. Set within an established local community that enjoys easy access to a mix of green spaces with frontage onto the water, its design is inspired by these unique surroundings and a response to a post-pandemic paradigm change in aspirations for workplaces.

Architect: BIG – Bjarke Ingels Group
Developer: Art-Invest Real Estate
Landscape Architect: Townshend Landscape Architects
Project Manager: Gardiner & Theobald LLP



Clarice Pears Building, University of Glasgow

94 Byres Rd, Glasgow G12 8TB | *Status:* Under Construction | *Completion:* 2023

The School of Health and Wellbeing is one of the first to be delivered on the University of Glasgow's Gilmorehill Campus, which has masterplan permission in principle for a knowledge and education zone. It will bring together 5 research groups and provide 8,034 sqm of research, engagement and teaching space, becoming home to nearly 500 co-located academic and professional staff, 300 doctoral and postgraduate students, and 150 members of the public in the Engagement and Knowledge Exchange areas.

Client: University of Glasgow
Architect: Atkins Ltd
Planning Consultant: Turley



Cottam House

36–40 York Wy, London N1 9AB | *Status:* Built | *Completion:* 2021

Located at the heart of Knowledge Quarter and adjacent to King's Cross, the refurbishment of Cottam House turned a Victorian warehouse building into a collaborative innovation hub. The building is now home to The Mills Fabrica, a company dedicated to accelerating techstyle and agrifood tech innovations for sustainability and social impact. The retrofit comprised a complete transformation of the ground floor, including a revamp of the entrance to establish an accessible street presence, as well as a reconfiguration of office space on the upper floors. The design conserved the existing fabric of the building, reused the original beams, and restored the Victorian window frames. Practical competition occurred in Q2 2021.

M&E / Sustainability Engineer: Sweco
Architect: Barr Gazetas
Contractor: BW



Digital Innovation Facility, University of Liverpool

Brownlow St, Liverpool L69 3GL | *Status:* Built | *Completion:* 2021

The Digital Innovation Facility is a new centre of excellence in virtual reality and simulation technology. A hub for academia, research, and business for the advancement of virtual engineering and robotics, it provides a centralised location for complimentary areas of research within computer science and engineering technology, facilitating collaborative research between the University's world class research facilities and its global business connections ensuring other organisations can benefit from the advances and impact of emerging technologies.

Client: University of Liverpool
Architect: IBI Group
Contractor: John Turner Construction Group Ltd



Electric House, London Southbank University

3 Wellesley Rd, Croydon CR0 2NW | *Status:* Built | *Completion:* 2021

LSBU's commitment to widening participation and access to education drove our decision to launch a new Croydon based campus. Working with partners such as Croydon Council, we have refurbished a Grade II listed iconic building 'Electric House' located in the heart of Croydon city centre. Our new campus provides access to education and opportunity for local residents and beyond and is a significant step in the continued regeneration of the area.

Client: London South Bank University
Contractor: Maris Interiors LLP
Quantity Surveyor: Broadfield Project Management Ltd



Enterprise Wharf, Innovation Birmingham

Holt St, Birmingham B7 4BG | *Status:* Under Construction | *Completion:* 2022

Expansion plans for Innovation Birmingham at the heart of the city's Knowledge Quarter. The project includes a 10-storey Smart-enabled building that will accommodate entrepreneurial digital and tech businesses and collaborative working space. Enterprise Wharf is the first phase of investment for Bruntwood SciTech within Innovation Birmingham. The investment is a reflection of the success of the knowledge and innovation sector within the Midlands and capitalises on synergy with the city's universities and significant new infrastructure.

Client: Bruntwood SciTech
Architect: Associated Architects
Planning Consultant: Turley



FUJIFILM Diosynth Biotechnologies

1 Cowpen Ln, Stockton-on-Tees, Billingham TS23 1LA | *Status:* Built | *Completion:* 2021

Ryder provided architectural, interior design and landscape services to develop proposals for FUJIFILM Diosynth Biotechnologies' north site. The scope of the works was to establish a masterplan and deliver the first building to create a comprehensive Bio Campus. The masterplan acts as a framework for a phased development. The first phase is the development of an office and visitor facility with associated parking and landscape setting, to accommodate 400 staff in a modern, barrier free office environment, supporting modern methods of working.

Architect: Ryder Architecture
Contractor: Willmott Dixon
Structural Engineer: BGP
Project Manager: Turner & Townsend
Interior Designer: Ryder Architecture
Landscape Architect: Ryder Architecture
MEP Engineer: Black & White Engineering
Quantity Surveyor: Turner & Townsend
Acoustic Consultant: Apex Acoustics
Fire Consultant: OFR Consultants
Principal Designer: Turner & Townsend



Imperial College London White City Campus

111 Wood Ln, London W12 7ED | *Status:* Planning Granted | *Completion:* 2032

Renowned in the fields of science, engineering, medicine and business, Imperial College London has been developing a new innovation district in west London. The decision to expand has been significant and practical; it simply cannot grow anymore in its South Kensington campus, but perhaps more importantly, a new campus at White City is enabling essential change. For Imperial, research innovation will be multidisciplinary and collaborative. The White City Campus proposes a new sort of place, vibrant and open, igniting discovery and innovation with researchers, academics and business forging new and creative links in a place of shared endeavour.

Client: Imperial College London
Services, Sustainability & Fire: Arup
Structure and Environment: WSP
Planning Consultant: JLL
Transport Consultant: Curtins
Landscape Architect: Gross Max
Accessibility: Buro Happold
Cost Consultant: Arcadis



Imperial College School of Public Health

90 Wood Lane, W12 0BZ | *Status:* Under Construction | *Completion:* 2023

The School of Public Health aims to achieve a healthier population through strengthening the public health science base, training the next generation of leaders in the field and influencing policies around the world. Their new home will comprise teaching, research and community outreach space for the School's multidisciplinary research at local, national and international levels. The new building has been designed to address both the central square at the heart of Imperial's White City North campus while contributing to the changing setting of Wood Lane.

Client: Imperial College London
Architect: Allies and Morrison
Structural Engineer: Curtins
Services Engineer: Hoare Lea
Facade Engineer: Buro Happold
Landscape Architect: Gross Max



Institute of Immunity and Transplantation: Pears Building

Pond St, London NW3 2QG | *Status:* Built | *Completion:* 2020

The Pears Building is a new state-of-the-art centre for research excellence which includes world-class laboratory space and adaptable, high-quality facilities for patients and visitors. The building comprises a five-storey exposed concrete frame with a two-storey steel frame above. Concrete was chosen to help achieve the exceptionally tight vibration requirements necessary for world-class laboratory facilities. At the building's centre is a light filled atrium designed to foster interaction amongst the researchers and create a vibrant hub for clinical research. Achieving BREEAM Excellent, the project sensitively responds to the local area.

Client: Royal Free Hospital NHS Trust
Architect: Hopkins Architects Limited
Engineer: Heyne Tillett Steel
Cost Consultant: AECOM
Project Manager: Buro Four
Contractor: Willmott Dixon



The London Cancer Hub

10 Brighton Rd, Banstead SM7 1BS | *Status:* Proposed | *Completion:* 2030

A strategic masterplan for a global centre for cancer innovation in south London. The vision behind The London Cancer Hub is to bring together the best scientists, clinicians and innovators from across the world to collaborate in this new innovation district.

Clients: London Borough of Sutton, Institute of Cancer Research
Architect: Haptic Architects



© Mark Harrington

LSE Marshall Building

44 Lincoln's Inn Fields, London WC2A 2ES | *Status:* Built | *Completion:* 2022

From Lincoln's Inn Fields to the intricate urban grain to the south, LSE Marshall Building responds to its context, adapting to maximise natural ventilation and daylight, achieving BREEAM Excellent certification. Sport, arts, teaching and research are volumetrically and structurally interwoven, with tree-like structures transferring the structural spans required, turning programmatic challenges into design opportunities. Under these branches the 'Great Hall', a new social space for the university is created, enhancing permeability, connectivity and generously engaging with the public realm.

Client: London School of Economics
Architect: Grafton Architects
Structural Engineer: AKT II
M&E / Sustainability Engineer: Chapmanbdsp
Contractor: MACE



© Hurton and Crow

Marshgate, UCL East

Sidings St, London E15 2LE | *Status:* Under Construction | *Completion:* 2022

Part of UCL's new campus within the SHIFT innovation district, Marshgate is a new 35,000 sqm academic building, which breaks down disciplinary siloes to promote the type of cross-disciplinary learning, thinking and research which is needed to tackle the biggest issues facing the world today. To allow this new mode of working to emerge, the design has focused on highly flexible, collaborative social areas, that promote interaction between teaching and research across different disciplines, as well as staff, students and members of the public.

Client: University College London (UCL)
Architect: Stanton Williams
Sustainability, MEP, BIM, Lighting, Acoustics, Fire, Infrastructure, Logistics, Transport, Security: Arup
Structural design: AKT II
Contractor: MACE
Landscape Architect: Vogt Landscape
Design Manager: Plan A
PD Advisor: Bureau Veritas
Project Manager: WSP / Turner and Townsend
Accessibility: All Clear Designs Limited & Arup
Access and Maintenance: REEF Associates Ltd
Cost Consultant: AECOM
Catering: Tricon



Mill SciTech Park, Hauxton

Mill Ln, Hauxton, Cambridge CB22 | *Status:* Proposed | *Completion:* 2024

Hauxton Mill masterplan creates a Life Science & Tech incubator for a community of entrepreneurs, re-purposing Grade II listed buildings & providing new laboratories within a landscaped public space.

Architect: Fathom Architects
Refurbishment Architect: Fourth Space
Planning Consultant: Carter Jonas
M&E / Sustainability Engineer: Elementa Consulting
Structural Engineer: Graphic Structures
Heritage Consultant: John Selby
Landscape Architect: LUC



Milton Park

99 Park Dr, Milton, Abingdon OX14 4RZ | *Status:* Proposed | *Completion:* 2024

Milton Park in Oxfordshire is a place of true transformation, with over 250 tech businesses already based there and employing 9,000 of the region's top talent, the client envisages the working population will reach 20,000 by 2040. Our flexible masterplan will elevate Milton Park as the leader of the new knowledge economy, supporting future visionary entrepreneurs with a neighbourhood-style campus, including adaptable spaces with high-quality amenities and improved mobility, while new laboratories will attract the best businesses and talent.

Client: MEPC Ltd
Architect: Perkins&Will
Cost Consultant: Exigere



National Satellite Test Facility Harwell

Didcot Road Bungalows, Harwell, Didcot OX11 0DP | *Status:* Under Construction | *Completion:* 2022

The NSTF is a specialist R&D facility supporting the assembly, integration and testing of space payloads & satellites weighing up to 7,000 kg. Operated by RAL Space, the NSTF is commercially available to both UK & international space organisations. Built at the world-leading Harwell campus on the site of a decommissioned Magnox complex, the NSTF's at-scale and unique R&D facilities include centre of gravity, vibration & pyro-shock testing for optimal launch sequences.

Client: UK Research & Innovation
Architect: IBI Group
Contractor: AECOM



© David Roden Architects

One Granta Park Cambridge

4699+23 Cambridge | *Status:* Planning Granted | *Completion:* 2024

One Granta is the latest addition to Granta Park Science Park undertaken by BioMed Realty. Located at the entrance to the park the project aims to deliver a gateway life science building that is a best in class, highly sustainable, helps the address the demand for high quality research and development space in the Cambridge market. The four level building plus roof plant will create 11,307sqm GIA of laboratory and write up/office space and a new 374 space multistorey carpark.

Client: BioMed Realty
Architect: David Roden Architects
Cost Consultant: AECOM
Project Manager: AECOM
Structural Engineer: Ramboll
M&E / Sustainability Engineer: KJ Tait
Landscape Architect: Townshend Landscape Architects
Ecology Consultant: MKA Ecology
Planning Consultant: Carter Jonas



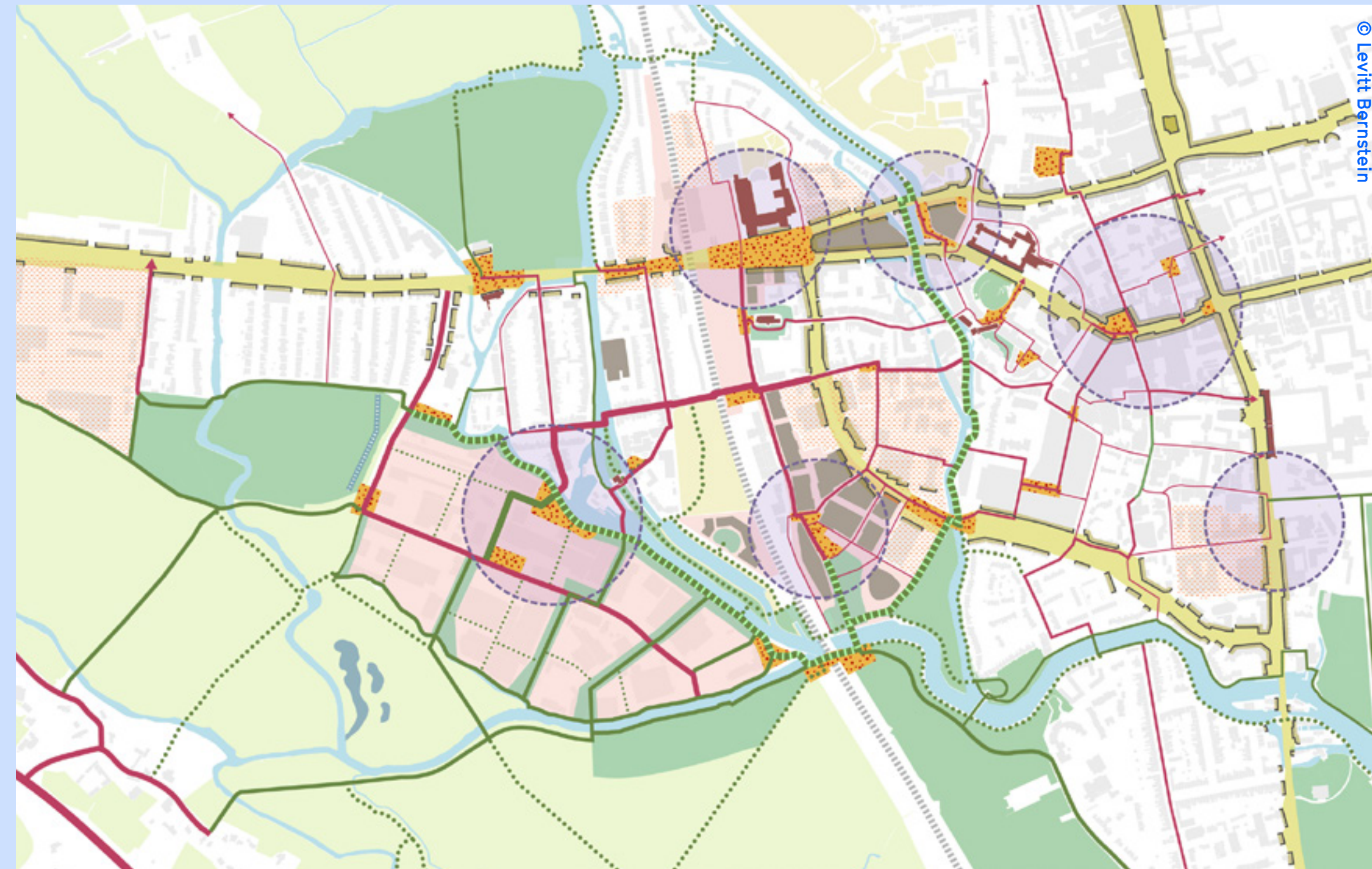
© Perkins&Will

The Oxford Science Park, Plot 16

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

Oxford Science Park is one of the United Kingdom's leading science and technology parks, with over 2,500 employees enjoying an exceptional working environment. Our design for a new laboratory and offices responds to the site's prestigious reputation and will awaken a previously undeveloped plot on the park's northern edge. The two new buildings, arranged around an enclosed sunlit square, will provide a pleasant experience for all users. A new rail connection to Central Oxford will improve access for future generations.

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



© Levitt Bernstein

Oxford's West End Spatial Framework

Holywell House, 64 Osney Mead, Oxford OX2 0ES | *Status:* Proposed | *Completion:* 2036

Working with Oxford City Council, Levitt Bernstein's draft proposals reflect the ambitions of an Innovation District in the heart of Oxford. This includes: an overarching Spatial Framework; Public Realm and Movement Strategy; Design Guide; and masterplan for Osney Mead Industrial Estate. Underpinned by comprehensive stakeholder engagement, a shared vision sets out the infrastructure and interventions needed to unlock place-making and potential for innovation. This ambitious yet pragmatic framework sets a benchmark for change as it becomes adopted as an SPD.

Client: Oxford City Council
Masterplanner and Urban Designer: Levitt Bernstein
Transport and Infrastructure: Arup
Delivery and Implementation: Urban Delivery
Urban Design Critical Friend: Robert West



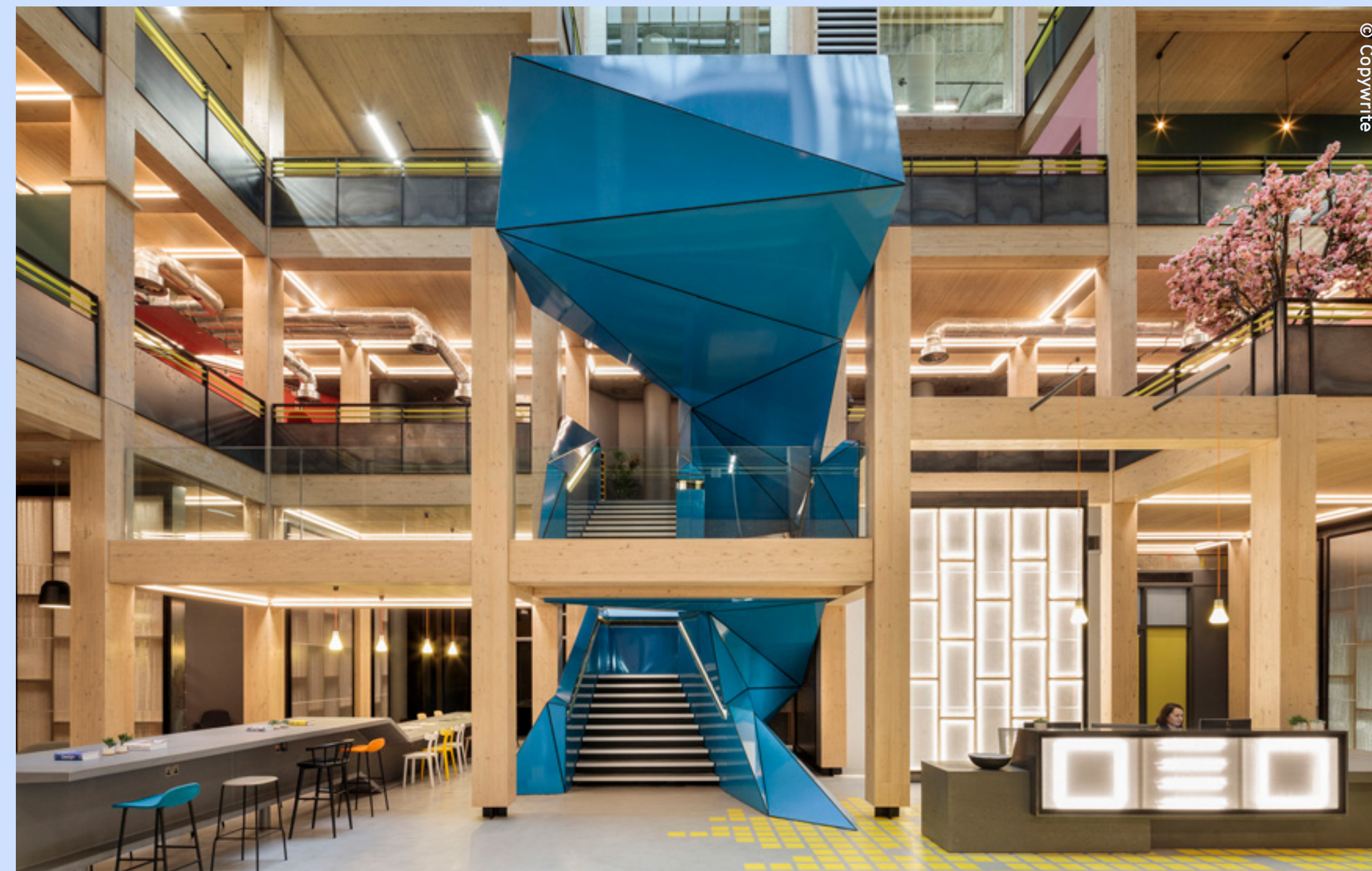
© Treglown Architects

The Plaza, Horizon 120

VG48+WQ Braintree | *Status:* Built | *Completion:* 2022

The Horizon 120 Plaza, Enterprise and Innovation Centre is a new modern and energy efficient complex with flexible and varied workspaces, which will help start-ups and small businesses innovate, develop, and grow. The facility is a place where businesses can collaborate, access support and advice and build-up knowledge and skills, providing office, coworking, events and public amenity spaces for the Horizon 120 Business and Innovation Park in Great Notley, Braintree, Essex.

Architect: Stride Treglown
M&E / Sustainability Engineer: Hydrock
Structural Engineer: Hydrock
Project Manager: CPC Project Services



© Copyright

Republic London

Anchorage House, 2 Clove Cres, Poplar, London E14 2BE | *Status:* Built | *Completion:* 2020

Republic is an award-winning, 720,000 sq ft sustainable retrofit at East India Dock. The project has transformed tired offices into a 21st century innovation campus that reimagines the way real estate can link the world of education with the future of work. A new type of campus is essential for the future success of both universities and businesses. Republic shows how creative, relationship-rich environments can offer first-class student experience alongside a workplace that supports young talent and life-long learning.

Client: LaSalle Investment Management
Architect: Studio RHE
Engineer: Heyne Tillett Steel
Developer: Trilogy Real Estate LLP



© Alex Antich

Rosalind Franklin Institute

Diamond Light Source, Didcot OX11 0SG | *Status:* Built | *Completion:* 2021

Located at Harwell Innovation Campus, the RFI hosts world-class research facilities, laboratories and specialist equipment. With huge potential to advance and impact lives around the world, the Franklin's mission develops disruptive new technologies in physical and engineering sciences for life science research and treatments. World leading technology hosted at the Franklin is matched by the innovative design of the building itself — unique in its experimental capabilities with visual cues referencing the Institute's historical lineage of ground-breaking discovery in life sciences.

Client: UK Research and Innovation
Architect: IBI Group
Contractor: MACE



© Will Scott Photography

sbarc | spark, Cardiff University

116 Maindy Rd, Cardiff CF24 4HQ | *Status:* Built | *Completion:* 2021

Cardiff University's 'home of innovation' is the world's first social science research park, designed to nurture future talent while connecting researchers, graduates, entrepreneurs and funders. Situated within the heart of the campus, Spark provides a variety of workspaces, recreational space, laboratories, and exhibition areas to support the University's mission to promote interdisciplinary knowledge sharing.

Client: Cardiff University
Architect: Hawkins\Brown Ltd
Contractor: Bouygues UK
Structural and Civil Engineer: CH2M
MEP Engineer: Arup
Project Manager: Gleeds
Planning Consultant: DPP
Cost Consultant: F&G
Fire Engineer: Arup
Acoustic Engineer: Arup
People Tracking: Buro Happold



Silwood Science Park

Virginia Water Lodge, Buckhurst Rd, Ascot SL5 7QA | *Status:* Proposed | *Completion:* 2025

Silwood Science Park includes two new buildings — a Life Sciences Centre and pavilion café — and several radically retrofitted structures, all set within a new landscape design. For client Newcore Capital Management, Silwood Science Park comprises a collection of buildings, located near Ascot and within the Royal Borough of Windsor and Maidenhead. The overarching ambition creates a series of sustainable projects that create world-class space for growing research-led companies.

Client: Newcore Capital Management
Architect: Sheppard Robson
Engineers: Hoare Lea, Ramboll
Landscape Architect: Gillespies



Sir Michael Uren Hub

86 Wood Lane, W12 0BZ | *Status:* Built | *Completion:* 2019

Part lab, part clinic, part office, the Sir Michael Uren Hub is a science building for multiple departments on Imperial College London's White City campus. Each floor is different, providing flexible and inspiring spaces for cutting-edge translational research at the interface of biomedical sciences and engineering. Its prominent location on the Westway is emphasised by a memorable exterior of 1,300 precast fins, designed in seven permutations and made of low-carbon architectural concrete, an innovation pioneered by the building's benefactor.

Client: Imperial College London
Contractor: ISG
Project Manager: Turner & Townsend
Services Engineer: Buro Happold
Structural Engineer: Curtins
Laboratory Planning: Abell Nepp & Buro Happold



St John's Innovation Park

Cowley Rd, Cambridge CB4 0WS | *Status:* Proposed | *Completion:* 2024

St John's Innovation Park masterplan includes super-flexible buildings, offering a range of office and R+D spaces, with the design defining a new civic square at the heart of the development. Designs include two new office buildings, as well as a transport hub, at St John's Innovation Park in North East Cambridge. The buildings sit next to a newly created and extensively landscaped public space, with their entrances addressing the green surroundings.

Client: St John's College
Architect: Sheppard Robson
Planning Consultant: Savills



Tribeca

258 Camden Rd, London NW1 9AB | *Status:* Planning Granted | *Completion:* 2022

Tribeca is to become a landmark quarter with innovative office and lab-ready workspace based at the heart of London's biotech cluster. Running alongside Regent's Canal, the buildings will be located within new public realm and also provide residential, retail and restaurant uses. The hybrid-workspace buildings will be arranged around external and internal 'streets' that create a permeable ground plane and an accessible canal edge, inviting the wider public into the site for the first time in over a century.

Client: REEF
Architect: Bennetts Associates
Cost Consultant: Gardiner & Theobald LLP
Lab Fit-out Consultant: Abel Nepp
Services Engineer: KJ Tait
Landscape Architect: Fabrik
M&E / Sustainability Engineer: Max Fordham



Unity Campus

London Rd, Sawston, Cambridge CB22 | *Status:* Planning Granted | *Completion:* 2023

Building on the industrial legacy of its neighbouring villages in the heart of the Cambridgeshire countryside, Unity Campus is a new urban innovation district with a difference. Currently home to 12 leading life science and technology companies, Howard Group is transforming the site of a former tannery into a stunning modern workplace. Out-dated industrial units have been sustainably repurposed into state-of-the-art laboratories and offices, and three new laboratory-enabled buildings are due for completion by the end of 2023.

Client: Howard Group
Architect: Nicholas Hare Architects
Project Manager: 3PM
Planning Consultant: Shrimplin Planning and Development



University of Cambridge West Hub

West Hub, University of Cambridge, JJ Thomson Ave, Cambridge CB3 0US | *Status:* Built | *Completion:* 2022

The West Hub sits at the heart of the University of Cambridge's emerging Innovation District, providing a dynamic shared resource for academics, researchers, students, and the local community. Marking the start of a radical transformation of the West Cambridge campus into a world-leading home for research and enterprise, the new co-working hub is designed to connect people from different departments and industries, incorporating a library, teaching and meeting rooms, learning spaces, shop, canteen and the campus's first bar.

Client: University of Cambridge
Architect: Jestico + Whiles
Quantity Surveyor: AECOM
Structural Engineer: Ramboll
M&E / Sustainability Engineer: Hoare Lea
Landscape Architect: Plincke
Project Manager: Currie & Brown



Wards Corner Community Plan

Manor House tube station, London N4 | *Status:* Planning Granted | *Completion:* 2022

We are a two decade long, migrant-led community run campaign fighting to save the Seven Sisters Market and implement a community regeneration plan that will ensure local ownership, re-invest up-to £84m in the community and provide a national example for how community-led regeneration can succeed.

Architect: Unit 38



Whitechapel Road Development

Whitechapel Rd, London E1 | *Status:* Proposed | *Completion:* 2027

The Royal London Hospital has had a Whitechapel presence since 1752. This transformative project will write its next chapter, creating a 21st century life science adaptable cluster around the hospital. It will bring back to life historic buildings and spaces vacated since the RLH's expansion with six new, flexible lab enabled buildings able to cater to private and public health and science occupiers. Brought together by an inclusive public realm, the project will restore and strengthen a characterful piece of city and give the life sciences a prominent presence in the heart of London's East End.

Client: Department of Health & Social / NHS Property Services
Collaborating Architect: Gibson Thornley Architects
Structures: AKT II
Services: Arup
Landscape: Camlins
Public Realm: Publica
Cost: Alinea
Acoustics: Arup
Fire: Arup
Development Manager: M3 Consulting



Zeus Building, Harwell Science and Innovation Campus

148 Sixth St, Harwell Oxford, Didcot OX11 0TR | *Status:* Built | *Completion:* 2021

Harwell is the UK's leading Science and Innovation campus. Flexible and adaptable, Zeus is the newest completed science and technology building within the campus, providing R&D, laboratory and office space. Designed to nurture innovation, it sits within a dynamic environment of numerous organisations of national and international significance mostly working within the space, healthtech and energy sectors. Divided into two rectilinear wings and thoughtfully designed to retain an existing cluster of trees on site, Zeus is a hybrid building able to adapt to the needs of the businesses and the people who inhabit it. Built speculatively, the building has been chosen by a leading space company—Astroscale, and a leading life sciences company—Vaccitech to be their UK headquarters.

Structure: eHRW

Services: Qoda

Landscape: Exterior Architecture

Project Manager: Bidwells

Cost: Faithful+Gould

Planning: Carter Jonas

CDM: Bureau Veritas

Contractor: Barnwood Construction

Acknowledgements & Profiles

Acknowledgements

NLA would like to thank our Programme Champions: Heyne Tillett Steel, Bidwells, Creative Places, Stanhope, Penoyre & Prasad, Perkins&Will.

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 and events:

Researchers: Jack Sallabank, *Founder, [Future Places Studio](#) and Cecilia Lindstrom, [Director of Research, Future Places Studio](#)*

Editor: Federico Ortiz, Florence Maschietto

Designer: Ruby Bergin

Marketing and communications: Sophie Goff

Alice Britton, *Founder and Director, Squint Opera*

Alistair Cory, *Director, Oxford University Science & Innovation Campus, UK*

Charles Walford, *Director, Stanhope*

Ciara Hanson, *Head of London Cancer Hub, London Borough of Sutton*

David Reay, *Development Director, Stanhope*

Elie Gamburg, *Principal, Kohn Pedersen Fox Associates*

Elie Gamburg, *Principal, Kohn Pedersen Fox Associates*

Francesca Colloca, *Head of Innovation, SHIFT*

Gavin Henderson, *Principal Director, Stanton Williams*

Giorgio Cardone, *Associate Director, Heyne Tillett Steel*

Guy Kaddish, *Partner, Bidwells*

James Morgan, *Director, Heyne Tillett Steel*

Jodie Eastwood, *Chief Executive, London’s Knowledge Quarter*

Jonathan Kendall, *Urban Design Lead and Partner, Fletcher Priest Architects*

Lisa Webb, *Senior Planning Partner, Gerald Eve*

Mark Rowe, *Principal, Architecture, Perkins&Will*

Peter Baird, *Urban Design Associate, Perkins&Will*

Piers Nickalls, *Office Leasing Lead, Argent LLP*

Raj Deb, *Managing Principal, Science & Technology, Perkins&Will*

Rafael Marks, *Principal, Penoyre & Prasad*

Sue Foxley, *Research Director, Bidwells*

Yigong Zhang, *Senior Urban Designer, Perkins&Will*

Innovation Districts Expert Panel:

Chris Walters, *Head of UK Life Sciences, JLL*

Ed Hayden, *Director, Scott Brownrigg*

Emily Slupek, *Project Director and Sciences Sector Lead, Buro Four*

Emma Frost, *Director of Innovation Sustainability & Community, LLDC*

Faaiza Lalji, *Director, Preciis Advisory Limited*

Gary Clark, *Regional Leader, Science + Technology / Lead Sustainable Architect, HOK*

Jennifer Townsend, *Partner, Knight Frank*

Jonathan Burroughs, *CEO, Creative Places (Chair)*

Kat Hanna, *Director, Avison Young*

Kate Gibbs, *Head of Inclusive Economy, London Borough of Camden*

Miloš Halečka, *Innovations Director, MiddleCap*

Richard Fagg, *Development Director, VINCI UK Developments*

Rob Partridge, *Design Director, AKT II*

Rui Dinis, *Associate Principal, Elementa Consulting*

Endnotes

1

<https://www.brookings.edu/essay/rise-of-innovation-districts/>

2

<https://www.brookings.edu/essay/rise-of-innovation-districts/>

3

Citizen Based Social Innovation (London Legacy Development Corporation, the Knowledge Quarter)

4

<https://www.mckinsey.com/business-functions/mckinsey-digital/our-insights/how-the-bio-revolution-could-transform-the-competitive-landscape>

5

<https://www.bioindustry.org/static/971705d9-651c-4db3-b563b39ba4f49d17/91c3d748-048d-4ab3-b6717fc3dcbfbc04/BIA-report-UK-biotech-financing-in-2021.pdf>

6

<https://www.medcityhq.com/wp-content/uploads/2021/10/Demand-Report-2021-2.pdf>

7

Citizen Based Social Innovation (London Legacy Development Corporation, the Knowledge Quarter)

8

Citizen Based Social Innovation (London Legacy Development Corporation, the Knowledge Quarter)

9

<https://www.brookings.edu/essay/rise-of-innovation-districts/>

10

Knowledge Capital (NLA, London 2018)

11

The Mayor’s Economic Development Strategy for London (December 2018)

12

The Mayor’s Economic Development Strategy for London (December 2018)

13

Knowledge Networks: London and the Ox-Cam Arc (NLA, London 2020)

14

Hubs of Innovation (Catapult Connected Places, 2021)

Further Reading

[The Case for Growth Centres: How to spread tech innovation across America by Robert D. Atkinson, Mark Muro and Jacob Whiton](#)

[Opening The Innovation Economy: The Case for Inclusive Innovation In the UK](#)

[NLA's Knowledge Capital report](#)

[NLA's Knowledge Networks report](#)

[Community and Cluster Dynamics: a MedCity report, 2022](#)

[Life Sciences 2030 report, Bidwells, 2022](#)



Bidwells is the leading property consultancy in the Oxford–Cambridge Arc — a region of global significance.

We offer national and international clients access to some of the most dynamic real estate markets, with the highest growth potential in the UK. Our deep insight helps investors, developers and homeowners harness the benefits of the exceptional growth in these markets.

We also manage thousands of square miles of the UK's countryside and coastline, maintaining a strong presence in land, estates, forestry, renewables and sustainable investment.

25 Old Burlington Street
London W1S 3AN

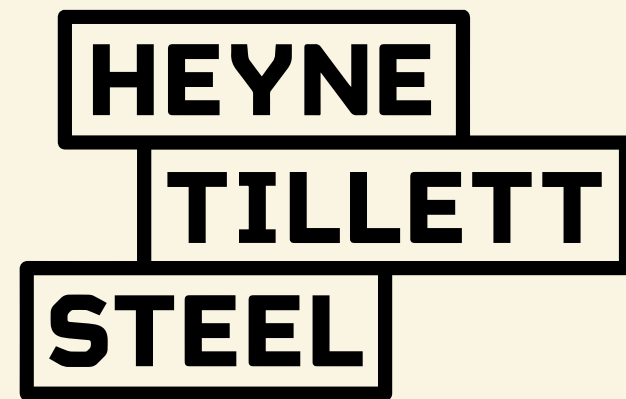
bidwells.co.uk
info@bidwells.co.uk
020 7493 3043



We are R&D property experts that use specialist, expert knowledge to help clients plan, create, manage and invest in collaborative places for people involved with research, R&D, the creative industries and innovation. We combine our understanding of academic and clinical research and R&D occupier needs with commercial property, place making and investment know-how to make places thrive — be they innovation districts, research and R&D campuses, research intensive hospital environments, innovation centres or incubators.

3 King's Parade
Cambridge CB2 1SJ

creativeplaces.com
enquiries@creativeplaces.com
01223 359 840



Heyne Tillett Steel is a structural and civil engineering practice with a reputation for delivering intelligent low carbon solutions on complex, urban sites.

We combine intelligent engineering with solid practicality and a hands-on approach, getting involved in a project from concept to completion. We are committed to low carbon design and giving new life to existing structures and spaces, as well as making new buildings as efficient as they can be. We are constantly pushing at the limits of emerging materials and technologies and have set up a research division, HTS+, to further our learning.

We enjoy our work, and thanks to our forward-thinking attitude and love of design, people enjoy working with us. Clients and collaborators trust us because we put in the time and effort to work out the best solution for every project. They know that our calm, pragmatic interrogation of the whole design delivers benefits in cost, time and consumption of carbon. And they

appreciate that we take the time to consider problems with care and a positive mindset. As an Employee Ownership Trust we invest in our employees and work hard to create a culture of continuous learning which supports, inspires and develops a passion for engineering and the built environment.

16 Chart Street
London N1 6DD

heynetillettsteel.com
mail@hts.uk.com
020 7870 8050



Penoyre & Prasad is a design-led practice, with over 30 years of experience across many sectors. Their distinctive design approach is a direct response to the aims and ambitions of their clients and building users, resulting in functional, sustainable and award-winning buildings. In 2019, Penoyre & Prasad became part of global architecture and design firm Perkins&Will.

The White Chapel Building,
10 Whitechapel High Street,
London E1 8QS

penoyreprasad.com
020 7250 3477

Perkins&Will

Perkins&Will, an interdisciplinary, research-based architecture and design firm, was founded in 1935 on the belief that design has the power to transform lives. Guided by its core values—design excellence, diversity and inclusion, living design, research, resilience, social purpose, sustainability, and well-being—the firm is committed to designing a better, more beautiful world. Metropolis named Perkins&Will “Firm of the Year” in 2022 for its industry leadership in advancing climate action and social justice.

Fast Company named Perkins&Will one of the World’s Most Innovative Companies in Architecture three times, and in 2021, it added the firm to its list of Brands That Matter—making Perkins&Will the only architecture practice in the world to earn the distinction. With an international team of more than 2,000 professionals, the firm has over 20 studios worldwide, providing integrated services in architecture, interior design, branded environments, urban design, and landscape architecture. Industry rankings consistently place the firm among the world’s top design practices. Partners

include Danish architects Schmidt Hammer Lassen; retail strategy and design consultancy Portland; sustainable transportation planning consultancy Nelson\Nygaard; and luxury hospitality design firm Pierre-Yves Rochon (PYR). For more information, visit perkinswill.com.

The White Chapel Building,
10 Whitechapel High Street,
London E1 8QS

perkinswill.com/studio/london
020 7466 1000

STANHOPE

Stanhope PLC is a property developer and asset manager based in London. We have over 25 years' experience of delivering high quality developments that optimise value for our partners and the communities we serve whilst setting new standards for sustainable workplaces, homes and cultural spaces that people love to use.

We are known for our strong partnership approach and our innovative responses to complex urban development opportunities, managing risk and delivering projects within budget and on programme.

We work with communities, landowners, investors, occupiers, designers and contractors, and are experts in assembling, leading and challenging project teams to get the best results. Our highly experienced team manage the whole development process from site identification, feasibility and purchase through design

and planning, funding, procurement, delivery and asset management.

We have delivered over 30 million square feet and around £40 billion of value, typically manage around £3 billion of construction and have a healthy pipeline of predevelopment projects. We have created and reinvented some of the most recognisable buildings in London.

Stanhope PLC
100 New Oxford Street
London WC1A 1HB

stanhopeplc.com
info@stanhopeplc.com
020 7170 1700

NLA Principal Partners



NLA Champions





NLA is an independent, purpose-led membership organisation for everyone with an interest in London's built environment.

NLA's programme and its family of brands and projects engages the broadest possible audience across government, business and the public and abroad to educate, challenge, connect and create positive change.


From public realm to workspaces to London's homes and more, NLA's broad range of projects, research and events connects London's network of professionals and enthusiasts, uniting the industry to shape a better city.


New London Architecture (NLA)

nla.london

info@nla.london

+44 (0)207 636 4044

 [@nlalondon](https://twitter.com/nlalondon)

 [@nlalondon](https://www.instagram.com/nlalondon)

Principal Partners:

