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UK Life Sciences Real Estate Q1 2023

Welcome to Linesight's guide to the UK life sciences real estate market

Designed to provide an overview of the burgeoning UK life sciences real estate market.

This guide is intended for anyone interested in expanding into the UK life sciences real estate market, including investors, architects, developers, owners, agents or occupiers.

This high-level comprehensive guide provides market statistics, drivers for growth, definitions, considerations, indicative costs and terminology used within this market to better inform those wishing to enter this exciting market.

If you want to explore this sector in more detail, please contact Priya Shah, Giles Heather or Natalia Gospodinova.

Priya Shah, Associate Director
priya.shah@linesight.com

Giles Heather, Director
giles.heather@linesight.com

Natalia Gospodinova, Associate Director
natalia.gospodinova@linesight.com

MARKET STATISTICS

2.4% of UK GDP by 2027
targeted to be invested in life science R&D. [1]

61%
2022
2020

£2.4bn investment into the UK LSRE sector for 2022.
This represents a growth of 61% from £1.5bn in 2020.

£20bn by 2024-25
is the overall national R&D investment target committed to in the Government's Levelling Up White Paper (LUWP), published in early February 2022. [2]

£1.65bn
investment volumes for life science related real estate across the Knowledge Arc of Oxford and Cambridge in 2022. [3]

MARKET DRIVERS FOR LIFE SCIENCES REAL ESTATE

There are a number of factors that are resulting in the overall increase in UK life sciences real estate:

DEMAND-SIDE

- Ageing population
- Lifestyle diseases
- Rising healthcare spend
- Personalised medicine

SUPPLY-SIDE

- Technology and discovery
- VC funding
- The patent cliff
- On-shoring of life sciences manufacturing post-Covid

[1] https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1013597/life-sciences-vision-2021.pdf
[2] https://www.savills.co.uk/pdf/life-sciences---trends-and-outlook-may-2022.pdf
[3] https://www.savills.co.uk/insight-and-opinion/savills-news/338384/life-science-sector-sees-record-investment-volumes-across-knowledge-arc-of-oxford-and-cambridge-in-2022

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REAL ESTATE CLASSIFICATIONS

SHELL AND CORE

- Concrete and metal frame - substructure, upper floors, roof, stairs, external walls
- Lobbies
- Lift shaft
- Loading bays
- Base plant – MEP systems to plant rooms and distribution of services via risers
- Fire compartmentalisation
- Fire detection including sprinkler plant if required
- WC facilities
- Back of house areas
- Reception
- Communal space amenities
- External works

CAT A OFFICE SPACE

- Basic level of finish, often to an industrialised standard
- Distribution of MEP services throughout lettable area including small power, lighting, air conditioning
- Raised access flooring with floorbox allowance - suspended ceilings, basic lighting
- Plastered and painted perimeter walls
- Basic fire detection systems including sprinkler plant if required
- Blinds

CAT B OFFICE SPACE

- Fitted out with completely bespoke level of finish – floor/ceiling/wall finishes
- Fully fitted-out kitchen
- Completely bespoke laboratory space
- Meeting rooms
- Offices
- Breakout spaces
- Workstations
- Furniture
- Power
- Data
- IT
- Feature lighting and design and brand detailing

LAB-ENABLED OFFICE SPACE

- Consideration given as to how the space could be developed as a laboratory
- Larger slab-to-slab height to create space for enhanced services
- Moveable work benches
- Enhanced power and data for high technology requirements
- Enhanced HVAC system to increase number of air changes per hour
- Space for external gas storage

SPACE TYPES COMPARISON – GENERIC OFFICES VS LIFE SCIENCES BUILDINGS

GENERIC	LIFE SCIENCE
Social/communal spaces	Wet labs
Café, collaboration zones, town hall, showcase and possible lecture halls	Research space – microbiological cabinets, freezers, tissue culture rooms etc.
Circulation spaces	Dry labs
Corridor stairs, lifts and goods lift etc.	Office space (increased MEP vs generic office space)
Utility spaces	Specialist spaces
Non-research storage, plant rooms, risers, cleaning cupboards, WCs and showers etc.	MRI, environment rooms, technical or specialist/ additional plant spaces etc.
Office space	Circulation spaces
Write up research/review data/standard office space, meeting rooms and meeting pods etc.	

LABORATORY TYPES

CLEAN ROOM / LAB

A room specifically designed to limit the number of airborne contaminants.

DRY LAB

Focused on computation, physics and engineering. Similar to collaboration spaces used for research and development.

WET LAB

Space for manipulating liquids, biological matter and chemicals. Where biohazards are in use, they are categorized by Biosafety Levels [BSLs], which are used to identify the protective measures required:

BSL-1

- Requires no containment and poses minimal potential hazards to personnel.
- Used to study infectious agents or toxins not known to consistently cause disease in healthy adults, e.g. E. coli.

BSL-2

- Used to study moderate-risk infectious agents or toxins that pose a risk to health if accidentally inhaled, swallowed, or exposed to the skin.
- Includes hand-washing basins, eye washing stations and doors that close automatically and lock.

BSL-3

- Used to study infectious agents or toxins that may be transmitted through the air and cause potentially lethal infection through inhalation exposure. Biosafety cabinets and carefully controlled air flow or sealed enclosures are used to prevent infection.

BSL-4

- Used to study infectious agents or toxins that pose a high risk of aerosol-transmitted laboratory infections and life-threatening disease for which no vaccine or therapy is available. e.g. the Ebola virus.

CLEAN ROOM / LAB

CLEAN ROOM / LAB

DRY LAB, FOCUSED ON COMPUTATION, PHYSICS AND ENGINEERING

WET LAB FOR MANIPULATING LIQUIDS, BIOLOGICAL MATTER AND CHEMICALS

HAZARDOUS MATERIALS

HVAC

SPECIALIST CONSIDERATIONS AND REQUIREMENTS

When compared with buildings for more generic usage, life sciences buildings have a set of specialist considerations and requirements. These are primarily in the following areas:

PLANNING & ARCHITECTURE

Regulations	Health and safety must be prioritised.
Modifications	Conversions to life sciences buildings may require modifications to be made e.g., new facade for better ventilation.
Planning	Exterior modifications may require additional approvals from local planning departments.
Hazardous materials	Change in occupancy or use classification may require upgrades to fire protection, power and extraction systems.
- Site and service	Additional space to receive, store, distribute and dispose of hazardous materials.
- Service elevator	For delivery and removal of hazardous materials.
Programme	Enhanced infrastructure systems and structural upgrades [if required] can result in additional lead time.

STRUCTURE

Columns	6.6 x 9.9m office / labs
Loads	>4.8 kN/m² as a uniform live load.
Vibration	Controlled environmental conditions and solutions to dampen vibrations.
Floor-to-ceiling height	Best practice is at least 4m for life sciences buildings.

INFRASTRUCTURE

HVAC	All air to be extracted and not recirculated for safety and cleanliness requirements, which results in higher demand on heating and cooling infrastructure. Assumed minimum 6 air changes per hour.
Power	Increased power requirements due to additional HVAC and renewable energy initiatives. This could result in potential upgrades to electrical services and hence increased costs and extended schedules.
Backup system	Encourages clean air and renewable energy initiatives.

ENVIRONMENTAL, SOCIAL & GOVERNANCE

Environmental:	Building Certifications (BREEAM, EPC Rating) Procurement of energy from renewable sources Setting targets for enhanced energy efficiency
Social:	Enhanced team breakout and collaboration provisions Enhanced provision of catering facilities to ensure staff well being on site.
Governance:	Transport links ensuring adequate access for all staff.

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CASE STUDY - DEVELOPING A SPECULATIVE LIFE SCIENCES BUILDING - LONDON

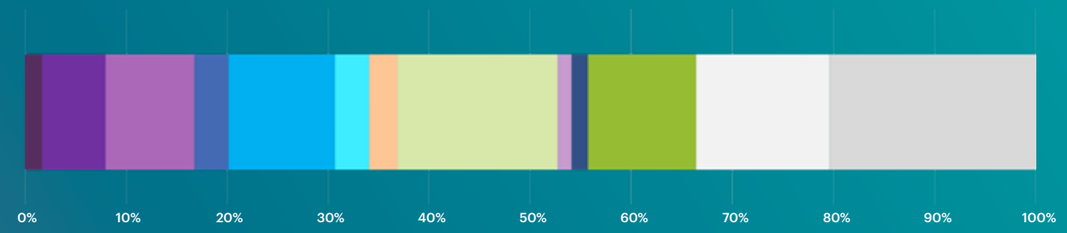
Commercial office

	COST / SQ FT (£) LOWER	UPPER
Commercial Office - shell & core	£305	£380
Commercial Office - CAT A	£50	£75
SUB-TOTAL	**£355**	**£455**

Order of cost uplifts for a commercial office development, to allow for a degree of future flexibility in adapting or fitting out as a life sciences building.

	COST UPLIFTS / SQ FT (£) LOWER	UPPER
Frame & Upper Floors Changes to grid size and slab depths to aid laboratory planning and control of vibration if required. A 6.5m x 9.9m in situ concrete fat slab construction will provide flexible planning of laboratories across floor plates.	£6	£9
External Façade Increased floor-to-floor heights to c.4.2m - 4.5m, incorporation of louvres, additional plant screening to roof areas. Increased wall/floor ratio.	£12	£15
Riser Strategy & Vertical Distribution Additional vertical distribution due to the increased air changes required on laboratory floors (up to 6 air changes per hour) and to provide fume cupboard extract infrastructure. Increasing riser space will reduce the net to gross efficiency compared to standard office development.	£6	£8
Fresh Air Provision Enhanced fresh air provision due to increased air volumes. Variable air volume systems to on floor distribution to laboratory areas instead of 4-pipe fan coil units.	£7	£12
Vertical Transportation Additional goods lift and lift shaft to serve specific laboratory use. Secure access from the ground floor/basement floor to the goods lift will be required.	£3	£4
Utilities Increased load of incoming electrical utilities.	£11	£17
TOTAL	**£400**	**£520**

Average % cost Distribution



NOTES/ ASSUMPTIONS

a) Costs are based on Q1 2023 prices, and estimated on gross floor area. Average costs as indicated should not be used for insurance valuation purposes.

b) The costs are representative of typical ranges for this type of project. Unique designs or challenging sites may not be within the cost range shown.

c) The rates shown are average construction build only and do not include VAT, professional fees, any other soft costs, or allow for future inflation.

d) The building costs noted above for the building types are exclusive of site development costs and external works, which can vary significantly based on the specific site.

e) The costs associated with brownfield sites can vary significantly and the building costs above exclude abnormal contamination.

f) The basic building costs above exclude basement construction costs. Should a basement be required, this should be costed separately.

g) The model above is based on an equivalent BCO Category A fit-out with a net/gross efficiency of 0.75. No allowance has been made for any tenant fit-out (including equipment).

h) An external area to be set aside for tenant gas storage.

i) No secondary / specialist laboratory drainage is assumed required.

j) Demolition and site clearance costs are excluded.

Note: All costs are indicative only and should not be used for any other purposes. Please contact us for advice related to specific projects.

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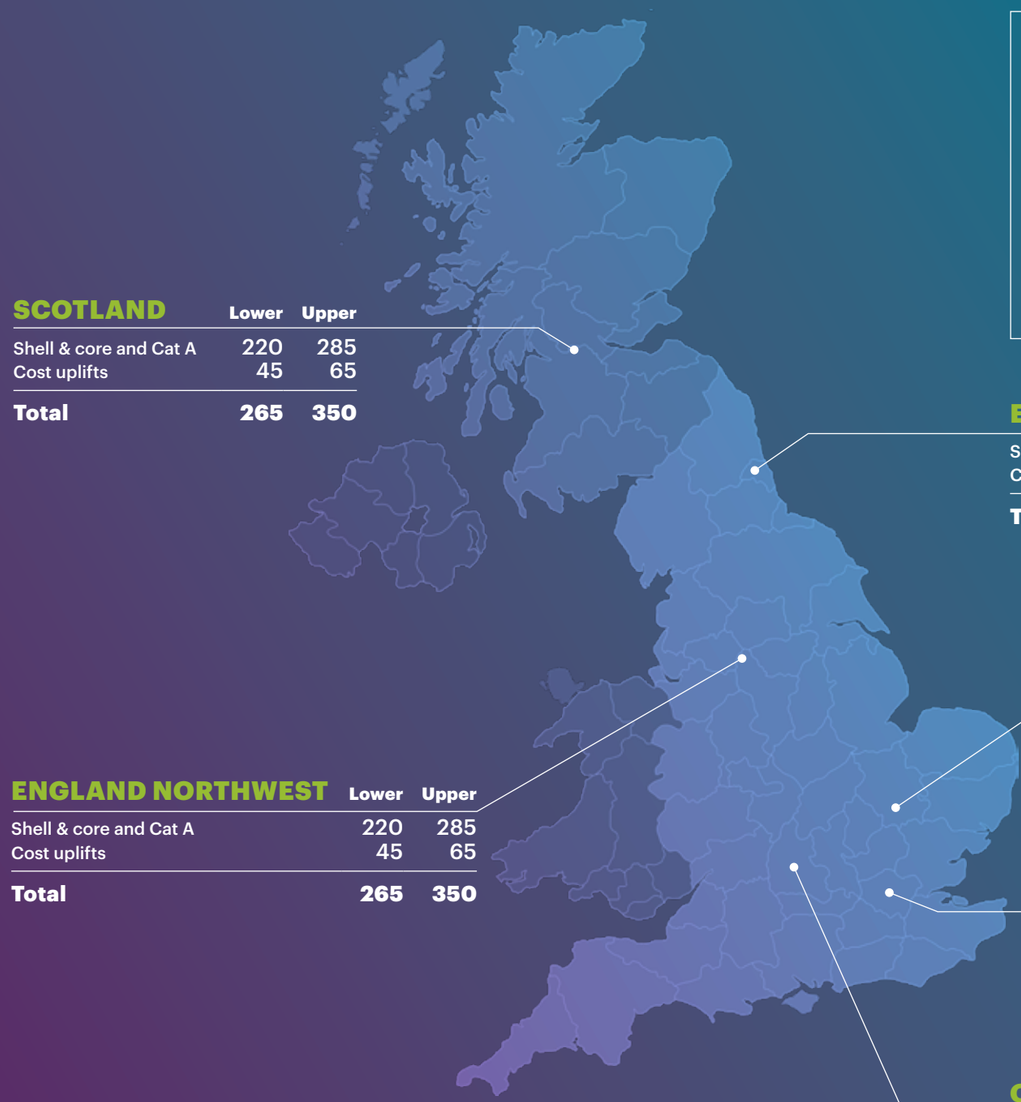
REGIONAL RANGES FOR DEVELOPING SPECULATIVE LIFE SCIENCES BUILDINGS

Typical Build Cost - £/SQ FT (GIA)



Shell & core and Cat A Office Development

Cost uplifts involved to future-proof a commercial office development to allow for future flexibility in adapting or fitting it out as a life sciences building.

SCOTLAND	Lower	Upper
Shell & core and Cat A	220	285
Cost uplifts	45	65
Total	**265**	**350**

ENGLAND NORTH	Lower	Upper
Shell & core and Cat A	220	290
Cost uplifts	45	65
Total	**265**	**355**

ENGLAND NORTHWEST	Lower	Upper
Shell & core and Cat A	220	285
Cost uplifts	45	65
Total	**265**	**350**

CAMBRIDGE	Lower	Upper
Shell & core and Cat A	240	305
Cost uplifts	45	65
Total	**285**	**370**

LONDON	Lower	Upper
Shell & core and Cat A	355	455
Cost uplifts	45	65
Total	**400**	**520**

OXFORD	Lower	Upper
Shell & core and Cat A	235	300
Cost uplifts	45	65
Total	**280**	**365**

The build cost ranges are included here as a guide and represent the approximate spread of costs within a region.

A scheme positioned within this range is dependent on key influencing factors, including but not limited to:

a) **Number of storeys** - e.g. high, medium or low rise.

b) **Range of functions** - proportion of wet, dry or specialist lab space.

c) **Logistics** - e.g. constrained city centres versus more easily accessible peripheries.

d) **Letting strategy** - multi vs single tenant.

e) **Supply chain** - e.g. appeal of scheme and supply chain appetite.

f) **Vibration control** - the performance of the structural grid to meet specific vibration control criteria is an important consideration.

g) **The regional ranges** are indicative only.

Note: All costs are indicative only and should not be used for any other purposes. Please contact us for advice related to specific projects.

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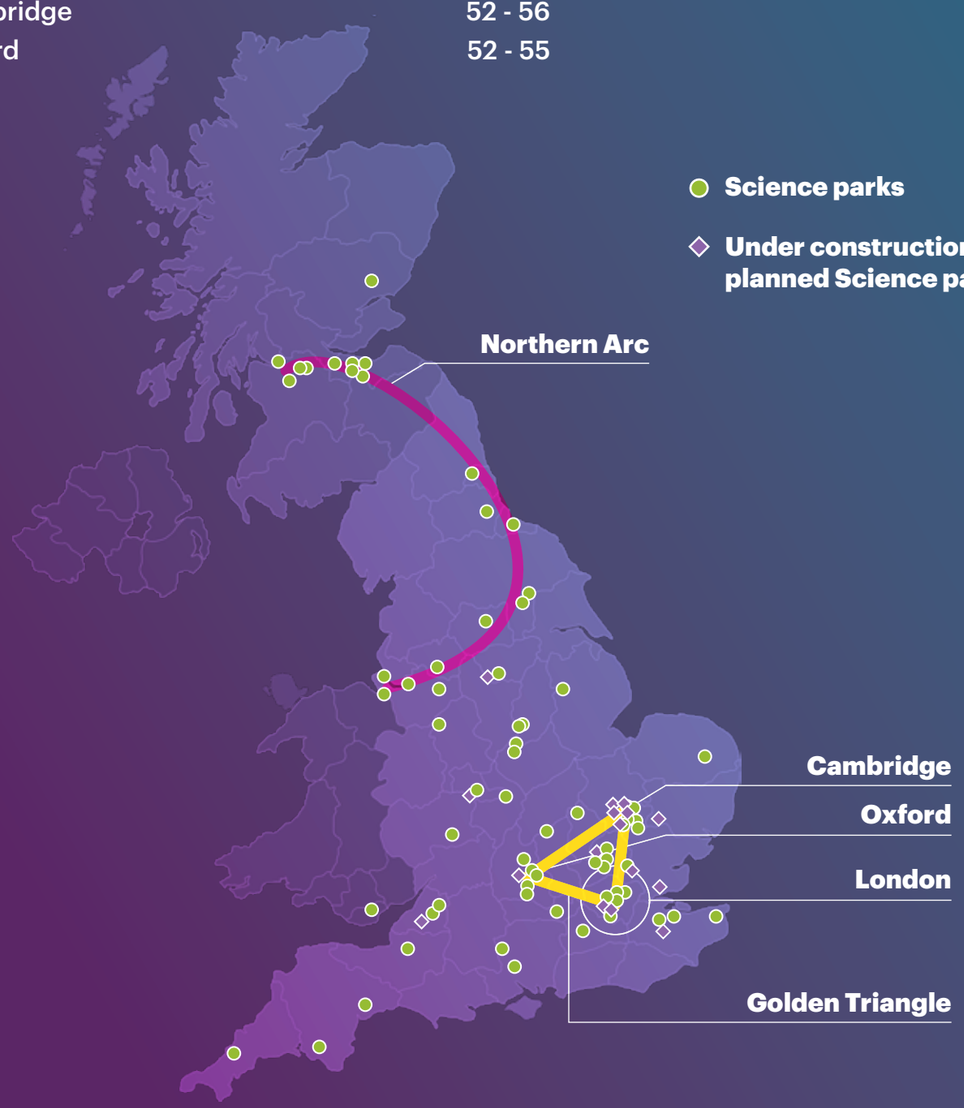
INDICATIVE RENT LEVELS Q1 2023

OFFICES	£ PER SQ.FT.
London	
- King's Cross - Knowledge Quarter	84 - 87
- City of London	72 - 75
- London Docklands	35 - 36
- Canary Wharf	50 - 55
- Central London	86 - 90
Cambridge	52 - 56
Oxford	52 - 55

LABS	£ PER SQ.FT.
London labs	90 - 110
Cambridge labs	58 - 60
Oxford labs	65 - 75



UK Life Sciences Real Estate

Note: All rents are indicative only and should not be used for any other purposes. Please contact a specialist life sciences real estate agent to verify and use these rents.

LIFE SCIENCES DEFINITIONS

Life Sciences
Companies operating in R&D and manufacturing of pharmaceuticals, biotechnology-based food and medicines, medical devices and biomedical technologies.

Science Cluster
A group of organisations e.g., academic research, hospitals, start-ups, SMEs and major corporates, engaging in a range of science-based R&D, manufacturing and commercialisation activities.

Science Park
A purpose-built development of office space, labs, workrooms and collaborative space designed to support R&D in science and technology.

Science Incubator
Set up to assist in the establishment and growth of early-stage companies by providing resources and access to industry mentors and specialists.

LIFE SCIENCES ACRONYMS

BCO	British Council for Offices
BSL	Biosafety Level
Cat A	Category A, referring to the BCO standards
CL2/CL3	Containment Level 2 or 3
COSHH	Control of Substances Hazardous to Health
GMP	Good Manufacturing Practice
HEPA	High Efficiency Particulate Air
HVAC	Heating, Ventilation and Air Conditioning
IPO	Initial Public Markets Offering
LSRE	Life Sciences Real Estate
M&A	Mergers and Acquisitions
MEP	Mechanical, Electrical and Plumbing
MMC	Modern Methods of Construction
R&D	Research and Development
REIT	Real Estate Investment Trust
VC	Venture Capital

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Linesight's deep knowledge and experience within the life sciences and commercial office sectors enables us to achieve optimum outcomes and certainty in all cost and scheduling tasks.

OUR CORE SERVICES INCLUDE:

- Planning and Scheduling
- Benchmarking
- Project Management
- Cost Management
- Project Controls
- Procurement

Michael Riordan
Managing Director,
United Kingdom
michael.riordan@linesight.com

Giles Heather
Director
giles.heather@linesight.com

Priya Shah
Associate Director
priya.shah@linesight.com

Natalia Gospodinova
Associate Director
natalia.gospodinova@linesight.com

LONDON
48 Chancery Lane,
London, WC2A 1JF
United Kingdom

MANCHESTER
125 Deansgate,
Manchester, M3 2LH
United Kingdom

EDINBURGH
80 George St,
Edinburgh, EH2 3BU,
United Kingdom

linesight.com

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