

Life Science & Innovation



South-East QLD
2023

Knight Frank's review of the opportunities and barriers to greater institutional investment in the life science and innovation sector, focussing on South-East Queensland

knightfrank.com/research



Opportunity to build scale in South-East Queensland

- Demand from life sciences and innovation users is growing quickly, but real estate capacity has not been keeping pace. Innovators are forced overseas or interstate if quality and affordable options aren't immediately available

74%

Increase in life science ecosystem in QLD since 2017 ⁽¹⁾

26%

Of the QLD life sciences ecosystem are in support industries ⁽¹⁾

57%

Of survey respondents were involved in human life science research

x2

Survey respondents expect to occupy double their current area by 2026

25%

Of companies surveyed started less than 5 years ago

4th

Ranked asset class for capital allocation in the next 18 months

Life science is the study of living organisms and life processes.

The life sciences industry consists of companies operating in pharmaceuticals, biotechnology, medical devices, biomedical technologies, agrisciences, agtech, marine science, nutraceuticals, cosmeceuticals, food processing, and others that dedicate their efforts to creating products to improve the lives of living things.



The Key Insights

Both government and private sector **funding into life sciences research and discovery** has accelerated since 2020. This has facilitated the growth of research undertaken in Australia with the goal to make us less reliant on offshore supplies of essential medications and chemicals.

While Australia and Queensland have long been recognised centres of innovation the lack of venture capital funding, access to clinical trials, talent and infrastructure shortage plus the smaller population base has seen **many innovations lost overseas for commercialisation**.

With a 74% increase in the number of organisations within the QLD life science ecosystem 2017-2022, the growth profile for the sector remains robust. The Queensland ecosystem is strongly skewed towards human medical therapeutic and medtech research.

The Knight Frank/Life Sciences QLD survey indicated that **more than half of respondents expected to have a headcount of greater than 50 in five years**, up from only 19% at the current time.

The average area occupied by survey respondents is expected to more than double by 2026. This is accelerated by the expectation of c35% growth between 2022 and 2023.

More than three-quarters of survey respondents indicated that they were planning for space and equipment requirements more than six months ahead. Significantly almost a third indicated that they needed to plan more than two years in advance, frequently without knowing their income and funding position.

Suitable sized space and the ability to scale-up on location were key locational requirements and ranked ahead of specialised plant & equipment requirements.

Co-locating with academia was most common and sought after, additionally a curated precinct requires access to ancillary services such as advanced manufacturing or digital services.

A recent web-poll indicated **that life sciences ranked 4th in terms of asset classes to be targeted in the next 18 months**, behind only Residential, Logistics and office sectors. Private sector investment in built-form is set to grow, initially aligned with a seed tenant or major research institution.



Knight Frank would like to thank the assistance and partnership of Life Sciences Queensland in facilitating the industry survey

Demand and Funding Increase

STRONG TRACK RECORD IN INNOVATION AND RESEARCH

From the Hills Hoist in 1945, the innovative Victa mower in 1952, Cochlear Implants in 1978, through to Wifi in 1992 and the HPV vaccine in 2006 Australia has a strong track record of innovation and world-changing research.

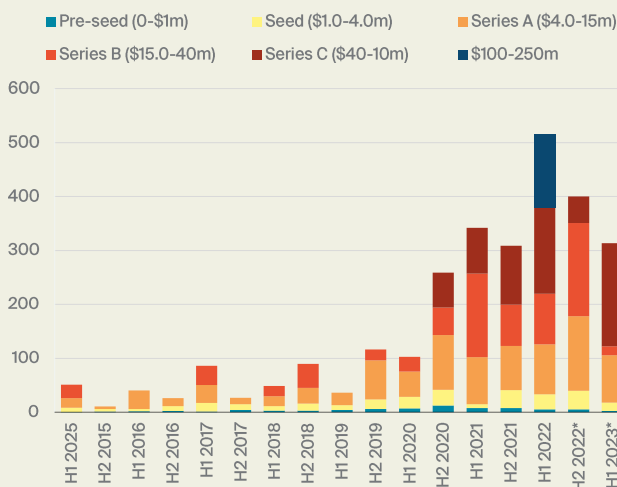
Highly ranked research universities, with seven in the top 100 (Times Higher Education) both overall and for research rankings, plus advanced teaching hospitals have underpinned a history of ground-breaking medical research in Australia. South East Queensland is well placed to capitalise on this with three tertiary hospitals.

Australia is considered an attractive location for research and innovation with supportive government policy, a stable of world-class institutions such as (ie CSIRO, Melanoma Institute Australia), world-ranked universities, and a highly and widely educated workforce. The Australian Government offers a range of tax incentives, grants and streamlined regulatory approval processes to encourage investment.

The government has also undertaken direct investment where there has been a funding gap for world-class research facilities such as the Australian Synchrotron and the Australian Centre for Neutron Scattering which support research and development in life sciences. The recent shift towards supporting more onshoring in manufacturing and essential medications/chemicals will further enhance government investment in both research and manufacturing capability. There has also been a significant uplift in venture capital funding post-COVID19 in Australia, which aligns with the global trend.

Australian Life Science/Innovation funding

\$ million, venture capital & grants



Source: Knight Frank Research, Dealroom(health energy, robotic, foodtech funding)
*Data extracted July 2023 note c12 month reporting lag particularly for smaller raises

SUBSTANTIAL GROWTH IN THE SECTOR IS BUILDING THE OPPORTUNITY FOR PRIVATE INVESTMENT

A study published by AusBiotech indicated that the number of organisations in the life sciences sector had increased by 60%+ in the four years between 2017 and 2022.

The Queensland acceleration has been higher at 74%. The data indicated a total of 2,654 entities involved in the life sciences sector in Australia—and Queensland has 12% of these entities with the market presently dominated by NSW (37%) and Victoria (36%).

The Australian ecosystem is 54% industry companies with a further 30% defined as support services and the remainder research institutes (9%), funding bodies (6%) and government or regulatory organisations (1%).

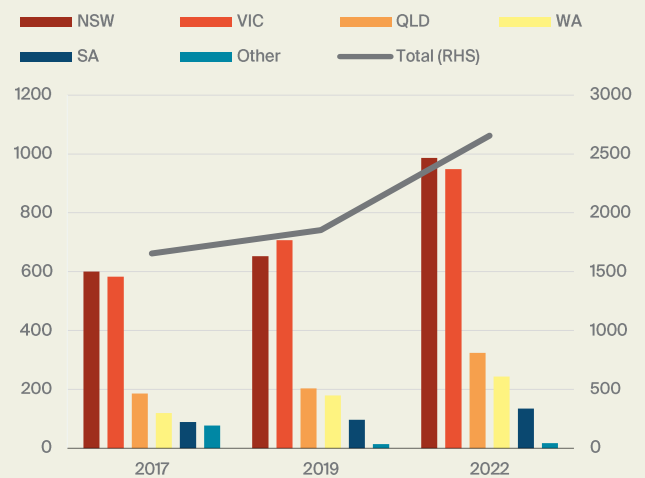
The scope and need for more aligned industries and support services in Queensland is highlighted by only 26% of entities provide support services, well below the Australian average of 30% (and Vic—32%, NSW 31%).

12%

of the Australian life science ecosystem entities are in Queensland

Australian Life Science Ecosystem

Number of companies 2022



Source: Knight Frank Research, Ausbiotech

LACK OF ACCESSIBILITY TO COST EFFECTIVE RESEARCH SPACE IS HAMPERING COMMERCIALISATION

Queensland research communities have a proven strong track record in the innovation sphere, however have frequently been forced overseas or interstate to complete the clinical trial and commercialisation phases. Australia has failed to capture the full value of inventions such as the black box flight recorder, heart pacemaker, photovoltaic cells, X-ray crystallography, wi-fi, all based on Australian breakthroughs, but commercialised overseas.

In the case of life science, this has been due to a lack of funding, available capacity within clinical trial providers and the fact that venture capital for commercialisation is often based overseas. Larger markets overseas also make for initially more profitable launches with less market penetration required to sell commercial quantities.

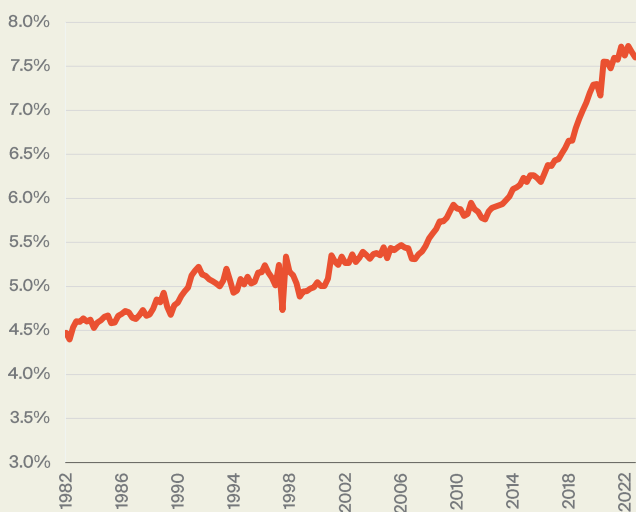
There is an emerging keen focus on the translation of knowledge through to commercialisation and “bench to bed” initiatives. The Federal Government’s Medical Research Future Fund will provide up to \$20 billion in long term funding to enhance local health outcomes including the \$750 million Clinical Trials Activity Initiative and the \$200 million Clinical Researchers Initiative.

HEALTH AND WELLBEING SPENDING IS ACCELERATING AS THE POPULATION AGES

National accounts data shows that the perceived additional focus on health and social assistance spending is backed up with this spending accounting for 7.6% of GDP in Q4 2022. This has accelerated from below 6% in 2013. While a boost in spending due to COVID-19 is expected, the share was already above 7% in 2019. This pure healthcare spending does not fully encompass the depth of life sciences spending, but indicates the clear acceleration in the sphere.

Healthcare spend has accelerated

Healthcare and social assistance % of GDP Australia



Source: Knight Frank Research , ABS

What is the difference between...?

BIOTECH

Biotech is using technology to change or enhance biology. Biotech can be very broad from GMO agriculture, biodegradable plastics or for drug creation or vaccine production/creation in healthcare. Drug creation and testing will predict how they will affect people, based on their cell information, genetic testing, and artificial tissue growth.

BIOMEDICAL

Biomedical science is the study of the human (or animal) body to prevent and treat diseases. The field looks at the “what”, “how” and “why” of the body processes. Biomedical studies a variety of conditions ranging from cancer and diabetes to stress and ageing. The research facilitates the development of new drugs, treatments and therapies.

MEDTECH

Medtech is commonly used for diagnosis, patient care, treatment, and improvement of a person’s health. It is mostly used inside a hospital or medical facility and is oriented toward diagnosing, monitoring and treatment rather than prevention. This includes equipment, devices, software and digital tools. Medtech equipment is designed to create better treatment: faster and more accurate diagnosis, safer surgeries, less invasive tests ie laser surgery, prosthesis, MRIs.



Understanding Qld Ecosystem

QUEENSLAND HAS A STRONG MEDICAL AND MEDTECH FOCUS AND TRACK RECORD

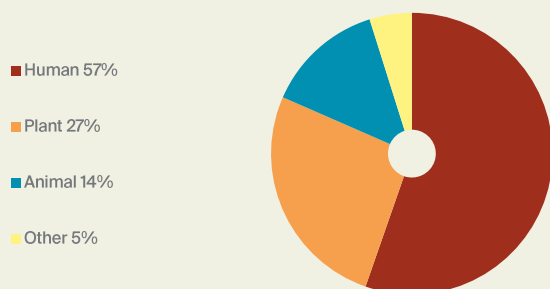
While much of life sciences research and commercialisation is focused on human medicine and health, the sector also covers agriculture, marine, zoology and botany. Innovation is also frequently coupled with life sciences and this encompasses broader technical advances which may not directly relate to the study or improvement of life—this includes artificial intelligence, advanced manufacturing, virtual and augmented reality and robotics which may lie outside of health and wellbeing (ie entertainment, retail, financial). However innovation is closely meshed with life sciences with AI, advanced manufacturing, robotics and immersive technology all essential to many health and biomedical advances (ie microsurgery robots, pre-surgery virtual models).

A recent survey of Qld Life Sciences, undertaken in H1 2023 by Knight Frank in partnership with Life Sciences Qld, indicated that Queensland is emerging as a clear biomedical, biotech and medtech hub. This aligns with broader data collated by AusBiotech which indicated almost equal numbers of medical technology & digital health companies as biotherapeutics ahead of Food & Agriculture. The strongest growth 2017-2022 has been within the biotherapeutics sphere with number of biotherapeutic companies more than doubling in that time.

LOCAL COMPANIES WANT BOTH LOCAL AND GLOBAL COLLABORATION PARTNERS

Of the entities surveyed 78% either had their sole office or headquarters based in Brisbane, making this a highly relevant cohort for local needs. A further 16% were subsidiary offices and 6% were a satellite office of a global entity. Interestingly while local collaboration and access to service providers and allied industries is seen as a necessity, key collaboration partners are increasingly global. The enhancement of the local network and global access is key to the success of translating innovation into reality.

Sector specialisation



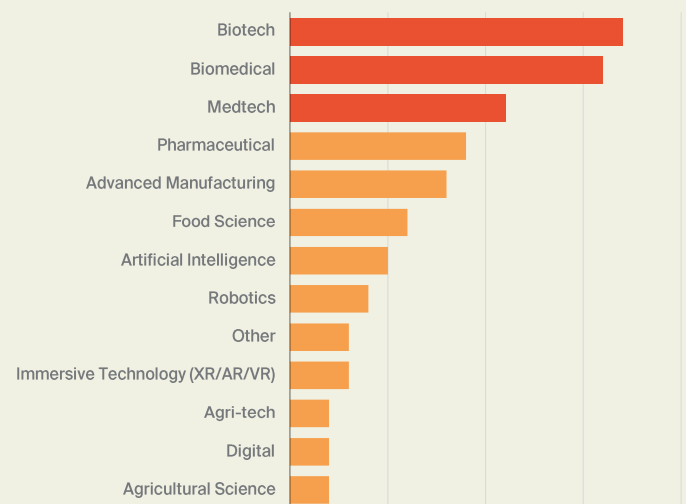
Source: Knight Frank Research, Life Sciences Survey 2023

30,000+

Employed in QLD BioTech ecosystem ⁽¹⁾

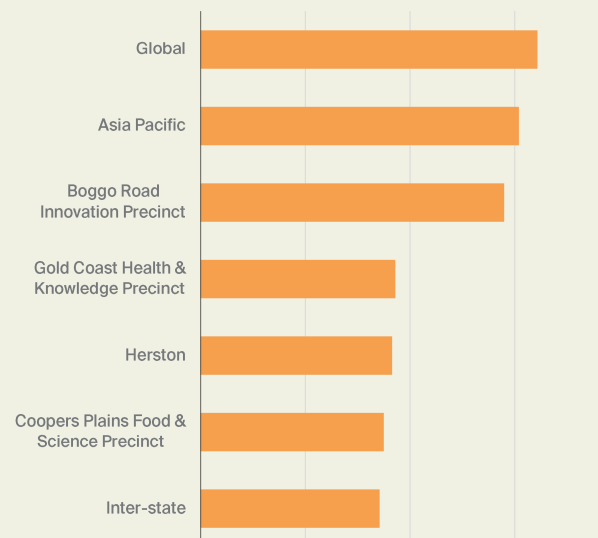
Areas of specialisation

Ranking, survey respondents could select up to three



Location of key collaboration partners

Ranking



Source: Knight Frank Research, Life Sciences Survey 2023

CASE STUDY

Vaxxas



Local success stories include Vaxxas, now reaching commercialisation stage for its novel nanopatch vaccine delivery system. Phase 1 clinical studies of a covid vaccine, not requiring refrigeration and with the potential for self-administration, has recently released interim results.

Vaxxas is focused on enhancing the performance of existing and next-generation vaccines with its proprietary high-density microarray patch (HD-MAP). Targeting applications in infectious disease and oncology. Leading global health organisations have invested in the company's technology and programs, including the Bill and Melinda Gates Foundation, World Health Organization (WHO) and CEPI (Coalition for Epidemic Preparedness Innovations). Vaxxas is also working towards improving access to vaccines in hard-to-reach areas by simplifying vaccine distribution and administration.

Vaxxas' core technology was developed at The University of Queensland (UQ) and the company was established as a start-up in 2011 by UQ's commercialisation company UniQuest.

Initial equity financing was led by OneVentures Innovation Fund I with co-investors Brandon Capital Partners, Brandon BioCatalyst, and US-based HealthCare Ventures, followed by further financing rounds led by OneVentures. OneVentures Innovation Fund I and Brandon BioCatalyst are supported by the Australian Government's Innovation Investment Fund (IIF) program.

Vaxxas has been located within the Translational Research Institute in Brisbane and has just opened new headquarters in Hamilton. This 5,500 sq m state-of-the-art biomedical manufacturing facility will support the production of millions of Vaxxas' high-density microarray patches (HD-MAPs) per year for future late-stage clinical trials and first commercial vaccine products.

Funded by the Queensland Government and Vaxxas, the facility showcases world-class and first-of-a-kind biomedical manufacturing capabilities. Vaxxas has received additional funding from the Australian Government through its Modern Manufacturing Initiative to support the installation of specialized manufacturing and production infrastructure.

The property contains two independent Good Manufacturing Practice (cGMP), qualified aseptic cleanrooms, a medical device manufacturing space, a device assembly cleanroom, and supporting infrastructure including laboratories and office space. This is Vaxxas' new global headquarters and home to 130 employees including highly-skilled engineering and scientific experts. The company expects to grow to 200 employees in the next three to five years.



Source: www.vaxxas.com

South East Qld Existing Hubs

MAJOR LIFE SCIENCE/INNOVATION HUBS—SOUTH EAST QUEENSLAND

Location	Focus	Major occupiers	Comment
Boggo Road Innovation Precinct <i>Dutton Park</i>	Health, biomedical & environmental sciences	PA Hospital, Translational Research Institute, Pharmacy Centre of Excellence, QUT, UQ, CSIRO, QLD Govt, Thermo Fisher	Eco sciences precinct has \$270 million of development with c1,000 scientists on site. TRI is an Aust first accelerator for implementation of new medical research and has an adjoining biopharmaceutical manufacturing facility. Sanofi-Qld Translational Hub.
Heath & Food Sciences Precinct <i>Coopers Plains</i>	Biosecurity, healthcare, Food Technology & Forensic analysis	Department Agriculture & Fisheries, CSIRO, UQ, Queensland Health	190 scientists (QAAFI) 550 employees (QHFSS) Liquid Chromatography Mass Spectrometer Orbitrap
Gold Coast Health & Knowledge Precinct, <i>Southport</i>	Health, Energy, Environmental Sciences, Advanced Manufacturing	Griffith Uni, Gold Coast University Hospital, City of Gold Coast, Qld Govt	c1,000 researchers plus student body. Institute for Glycomics; Menzies Health Institute Qld; Institute for Integrated and Intelligent Systems; Centre for Clean Environment and Energy; the Qld Micro and Nanotechnology Centre; and the Qld Node of the Australian National Fabrication Facility.
Herston Health Precinct <i>Herston</i>	Health & Medical research	Royal Brisbane Hospital, UQ Medical School, UQ Oral Health Centre, UQ Clinical Research & Public Health, Herston Imaging Research Facility, Qld Institute of Medical Research (Berghofer), Q-Pharm, Q-Gen	Long-established medical hub with the UQ medical school co-locating with RBWH since 1922. First imaging research facility devoted entirely to clinical research. Herston Quarter Development is spurring new construction and opportunities in the precinct.
Springfield Health Hub & BioPark Australia Precinct <i>Springfield</i>	Health & Biomanufacturing	Springfield Land Corporation, Biomanufacturing Alliance	Part of a \$15-billion, 120ha, Knowledge Precinct approved for more than 1.2 million square metres of commercial space and more than 5000 apartments. Existing 11,000sqm health hub with Mater hospital a tenant and co-investor. Mater Hospital Springfield to open 2024. BioPark Australia has a focus on biomedical manufacturing. Aegros have received State Govt funding to construct a \$352 million plasma fractionalisation plant, timing tbc. Biomanufacturing company Cytiva has \$12.5 million in Federal funding to expand in BioPark.

Source: Knight Frank Research, Qld Govt



01 Lumina RDX, Gold Coast



02 TRI Building, Translational Research Institute, Wolloongabba

Accelerated Growth Trajectory

GROWTH PROFILE IS UNIQUE TO INNOVATION

Understanding demand for the life sciences and innovation sector requires an understanding of the life cycle of start-up companies. As there has been greater venture capital penetration into funding start-ups, there is a greater emphasis on speed.

Venture capital is seeking a fast answer to whether or not a concept will be successful. Therefore they are willing to invest more heavily in early stage research to provide the necessary resources to either prove the concept or move on quickly.

This is often referred to as “Grow fast or fail quick” and is quite different from older style grant funded researchers who may seek to make the funding last as long as possible.

Despite this, most life sciences tenants are expecting and planning for a strong growth profile. This is reflected in the expected staffing and income results from the survey with half of respondents expecting to have a headcount of greater than 50 in five years, up from only 19% at the current time.

The reality is there is a high churn rate within the discovery and incubation phases with both rapid upscaling and downscaling possible. This aligns with 12% of survey respondents expecting to have no headcount in 5 years time with the current company bought out/dissolved.

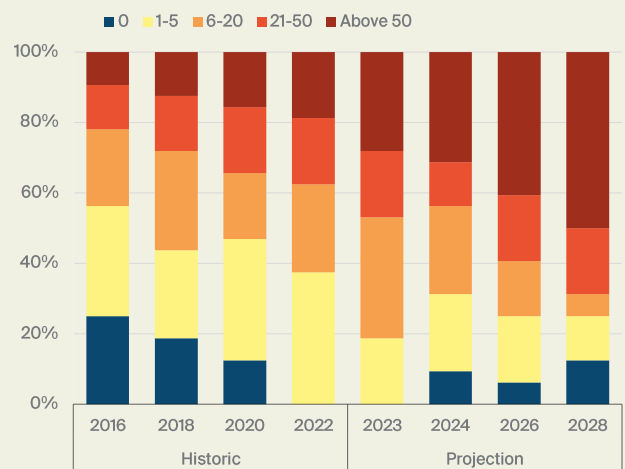
Grow fast or fail quick is the current mindset

25%

Of companies surveyed did not exist (zero headcount) in 2016

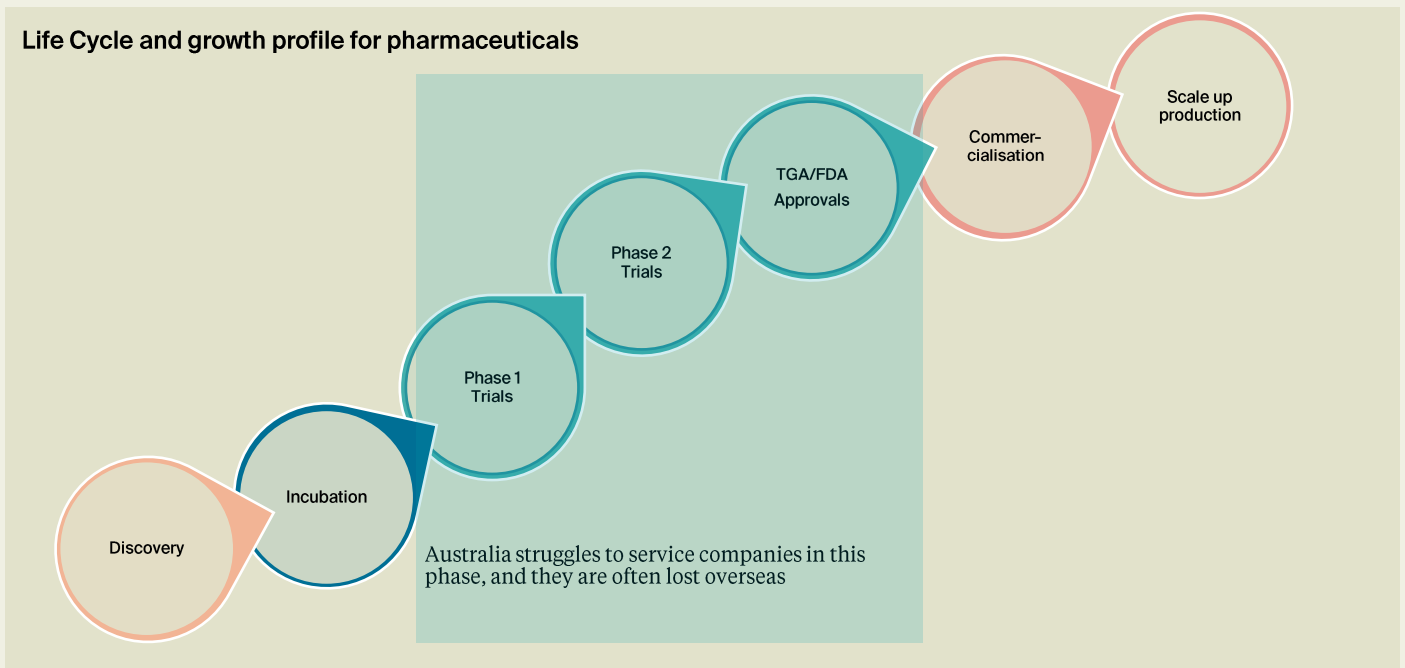
Expected Headcount

Historical and projected company headcount



Source: Knight Frank Research, Life Sciences Survey 2023

Life Cycle and growth profile for pharmaceuticals



The Real Estate Requirement

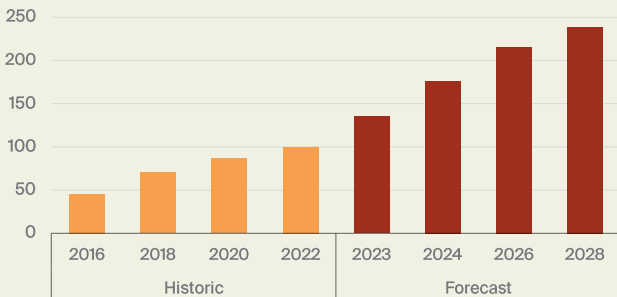
FUNDING & ACCESS TO RESOURCES VARIES HUGELY ACROSS THE COHORT—“HAVES AND HAVE NOTS”

Rapid expansion and increased venture capital funding can accelerate companies into revenue within a short time frame with strong early results. The flip side is that others may take longer to show promising results or not grab the attention of funding or research grants. This results in huge discrepancies in the resources available to start-ups that are otherwise quite similar in stage and sector.

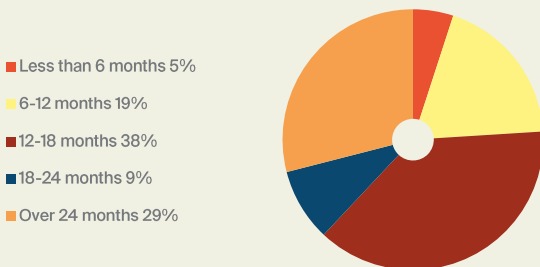
An example of resource-rich innovation is the Translational Research Institute (TRI), which was the largest medical research institute in the southern hemisphere when it opened. The 32,000sqm facility was founded by Qld Health (PA Hospital), UQ, QUT and Mater Medical Research with \$354 million development funding from Australian and Qld Governments, The Atlantic Philanthropies, UQ and QUT. A bio-pharmaceutical manufacturing facility by Thermo Fischer with fermentation capacity is located adjacent. TRI combines clinical and translational research to advance progress from laboratory discovery to application in the community which is the “bench to bedside” research model. Notable occupants in discovery and scale up phases include Vaxxas, AdvanCell, EMVision, Infensa Bioscience, Mibroba, Microbio and Ocugene.

Historic & expected growth profile of area occupied

Index 2022=100



Time horizon to forecast future spatial needs



Source: Knight Frank Research, Life Sciences Survey 2023

STRONG GROWTH MINDSET MEANS THAT EXPANSION PLANS ARE RAPID BUT FINDING SUITABLE SPACE AND EQUIPMENT IS TOUGH

The survey included occupiers across the spectrum of size, from one man operations through to established businesses, meaning analysis on the basis of average size was not meaningful. However analysis of the data indicated a clear trend for the expected growth profile. The average area occupied by survey respondents is expected to more than double by 2026. This is accelerated by the expectation of c35% growth between 2022 and 2023.

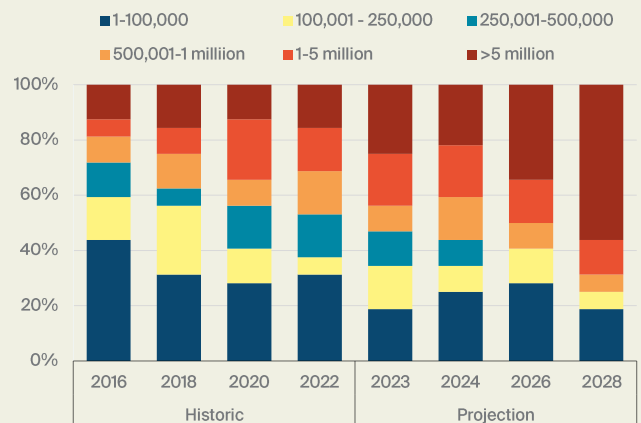
Globally, a 2022 AON report found that 71% of life sciences companies plan to increase their workforce, with more than one third of them by greater than 15%.⁽²⁾

While expansion can be rapid and unpredictable, given the uncertainty surrounding the timing of test results and funding, there is often a longer lead time required to find premises and equipment to suit. More than three-quarters of survey respondents indicated that they were planning for space and equipment requirements more than six months ahead. Significantly almost a third indicated that they needed to plan more than two years in advance, frequently without knowing what their income and funding position might be. Other, potentially less resourced, business owners indicated that the both their planning horizon and tenure they were able to offer were determined by venture capital investment timeframes.

“Access to resources allows early stage to flourish if funding permits”

Anticipated annual revenue

CY historic & forecast (excluding grants & VC funding)



Source: Knight Frank Research, Life Sciences Survey 2023

ABILITY TO SCALE UP/DOWN WITHIN THE SAME LOCATION IS A KEY FACTOR IN CHOOSING SITE SELECTION

Site selection for life science and innovation tenants has the need for a suitable size at its core, however it should be noted that prospective tenants are also keen to understand the ability to scale up within the same location for minimal interruption and the preservation of existing colocation synergies.

This flexibility is rated as more important than plant requirements (although for lab operations it is likely there is a baseline expectation for the space to be considered at all). Access to industrial space and the proximity and quality of the surrounding labour pool round out the top five requirements.

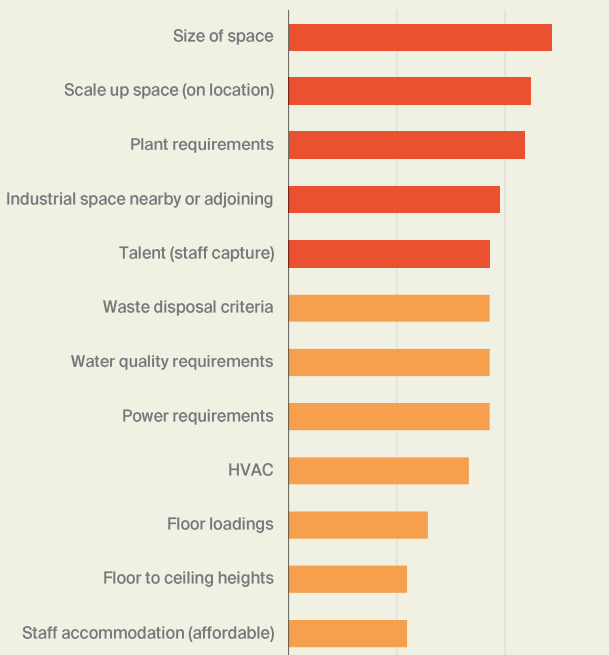
Specialised building or plant requirements obviously cover a wide variety of needs and equipment depending on the specialisation of the occupier.

The most requested facilities were clean rooms and PC Labs, mostly PC1 and PC2 were requested but there is also demand for PC3 facilities.

Second tier requirements included water quality, water volume, vibration isolation and laminar hoods and/or fume hoods. Less requested but also important for occupiers included animal facilities and vivariums, liquid nitrogen, radiation isolation and waste treatment, cytotoxic isolation and waste treatment, certified Good Manufacturing Practice facilities, access to agriculture and aquaculture.

Factors important to building or site selection

Ranking of provided list



Source: Knight Frank Research, Life Sciences Survey 2023

CO-LOCATION AND COLLABORATION ARE SEEN AS ESSENTIAL ACCELERATORS

Dedicated and curated life sciences and research precincts are founded on the understanding that collaboration and the proximity to similar personalities within a supportive environment will assist outcomes.

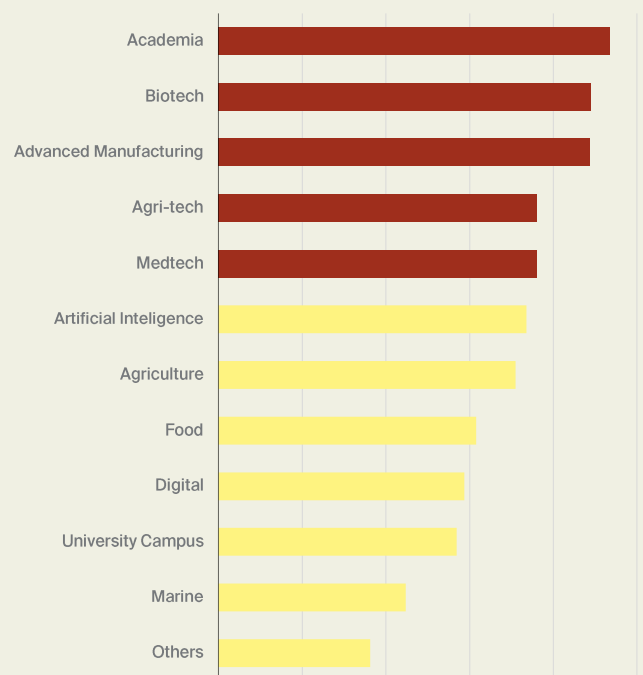
Reflective of the wide variety of businesses surveyed there was not one individual industry favoured as having the highest co-location compatibility, rather the broad church of academia was the most favoured co-locator. This has the benefits of bringing cutting edge research and experienced experts in the field together in the one place, frequently with funding benefits and the ability to leverage grant programmes and research already underway through tertiary education facilities. Tertiary organisations also have experience in spinning out discoveries seeking commercialisation.

The inclusion of advanced manufacturing as a top-3 co-location partner is interesting given this is generally a client/provider connection. This desire to be co-located indicates a high level of necessary trialling and collaboration in the initial stages but has not necessarily been a feature of life science precinct curation in the past. This indicates how technology now enables small scale testing of precision elements.

“Like minded companies to learn and grow with is important in site selection”

Co-location compatibility

Ranking of provided list



Source: Knight Frank Research, Life Sciences Survey 2023

INNOVATORS RELY ON A RANGE OF ALIGNED TECHNOLOGIES AND MANUFACTURING/LOGISTICS TO THRIVE

Start up and innovation companies have need of additional services to assist to prove the concept or create the product into a marketable form. These are referred to as ancillary services and can be either technological or practical manufacturing and logistics services.

On the practical side advanced manufacturing is the most common ancillary service followed by fill and finish services and proximity to logistics as companies upscale to a commercialised product or test for the final phase. From the technological side artificial intelligence is the most common ancillary service followed by digital services and robotics.

While not all ancillary services can be co-located within an innovation precinct the acknowledgement of these needs and understanding how proximity can facilitate greater efficiencies should be considered in the location and tenant mix of an innovation precinct. This also highlights the impact that a curated and facilitated hub can have for occupiers, allowing them to share services and have access to services they may not otherwise have the scale or funds to utilize.

What is Advanced Manufacturing ?

The advanced manufacturing industry sector involves companies that use innovative technologies such as robotics, automation and additive manufacturing to create complex products. This sector can offer potential for high-tech and high-value production, but can involve high capital and operating costs. Advanced manufacturing may make use of cutting edge materials and emerging capabilities enabled by the physical and biological sciences, for example nanotechnology, chemistry and biology. This involves both new ways to manufacture existing products and, more frequently, the manufacture of new products emerging from new advanced technologies.

What is Fill & Finish ?

In the pharmaceutical industry fill and finish is the process of packaging a vaccine, biological or pharmaceutical drug into vials or syringes ready for distribution and use. This includes batch testing, diluting and labelling the product in line with its clinical use. Most vaccine manufacturers will use third parties to fill and finish vaccines. Fill and finish can either be sterile or aseptic. Sterile means the finished product is treated to kill any microorganisms at the end of the process while aseptic means the whole batching, testing and packaging is done within a cleanroom/sterilised environment.

UNDERSTANDING PREFERRED AMENITIES CAN ASSIST TO CURATE A PRECINCT

Preferred amenities available close to the workplace for life sciences occupiers are topped by conferencing spaces, highlighting the importance of being able to host potential investors and keep stakeholders updated within a professional environment. Beyond that, other common workplace requirements like food and beverage facilities, visitor accommodation and proximity to where staff live were all important.

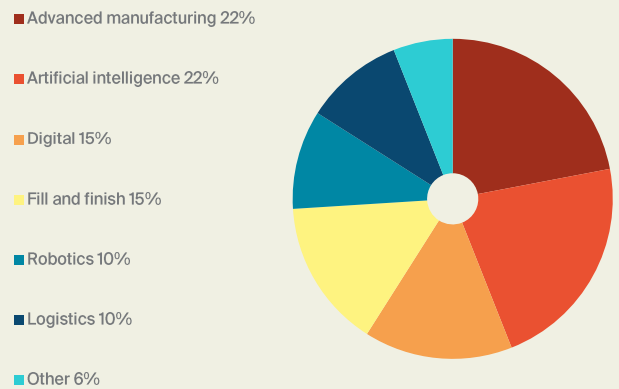
The nearby amenity wishlist indicates further that these curated clusters can be nearby or within established commercial, medical or retail hubs. A remote or specialised location is not generally required for mainstream research.

Nearby/aligned amenity priority

Ranking of provided list



Ancillary services to life science users



Source: Knight Frank Research, Life Sciences Survey 2023

CASE STUDY

Knowledge Quarter, London



An example of how creating a centre of excellence and economies of scale can build a precinct attracting both private and public sector investment is in Camden, London. The Knowledge Quarter Innovation District is located near Kings Cross, Euston Road and Bloomsbury and is turning into a world leading science, technology and arts hub with major occupiers including Google, British Library, British Museum and University of the Arts London.

The innovation district has seen tremendous growth due to its excellent transportation links, highly skilled workforce, high-quality office and lab spaces and retail, art and leisure offer.

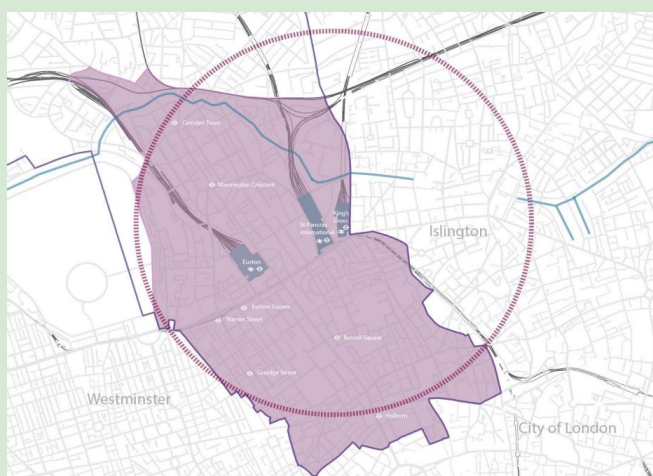
Partnership in KQ is open to organisations within a one-mile radius of King's Cross that are actively engaged in the advancement and dissemination of knowledge. Membership sits at 106 companies and more than 70,000 individuals. The quarter has a range of member only events, a yearly conference and a knowledge bank of members, staff and current projects to enhance knowledge sharing.

Under construction for 2025 completion is Belgrove House, a new HQ and discovery centre for pharmaceutical giant MSD. The 10 level, 180,000sqft (16,722sqm) building will have lab facilities on levels 1-3, collaboration zone and outdoor space on level 4 and HQ office space on levels 5-9. This private sector development is on a pre-commitment basis by Precis Group which will also build Acorn House providing affordable housing and 500sqm of flex office space.

The Camden Council is seeking expressions of interest for development partner for the £500million regeneration project to build new housing and research facilities in Camley Street, a new 3.5 acre neighbourhood located near King's Cross. This can deliver 200,000sqft (18,580sqm) of commercial space and 350 dwellings.

Development within the innovation precinct needs to meet a number of criteria which include:

- Provide for a suitable mix of workspace types including business accelerators, start-up and move on spaces;
- Ensure that buildings are designed to support future reconfiguration for different activities and where possible include flexible floorplates, plant room and mechanical and electrical systems that allow a change from offices to laboratories.
- Ensure that at least 20% of additional employment floorspace is affordable workspace.



01 Knowledge Quarter Innovation District Map (camden.gov.uk)



02 Illustrative render of Belgrove House from King's Cross Square (Belgoveacorn.co.uk)

Unlocking Private Investment

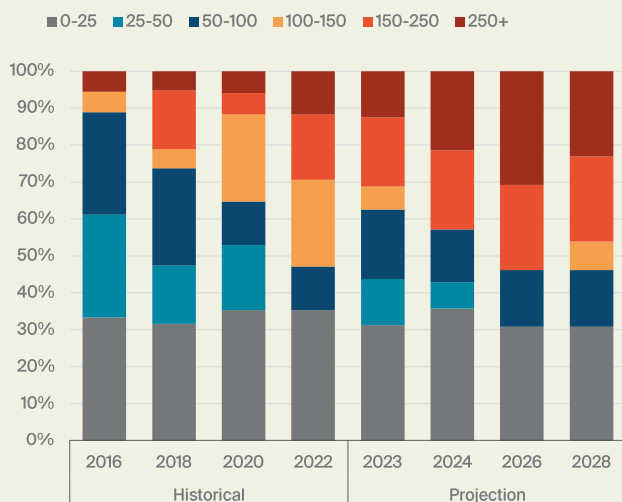
THE DEMAND FROM USERS IS UNDISPUTED, BUT HOW DOES THIS TRANSLATE FOR PRIVATE SECTOR INVESTMENT

The demand for specialised incubation space is undisputable with evidence clear that life science and innovation tenants favour specialised and curated space. The proximity to aligned teams and having ancillary services at hand enable the acceleration of the incubation and discovery timeline. This desire for faster discovery and proof of concept is aligned with greater penetration of venture capital funding into the sector with churn and an “onto the next idea” more highly sought than a slow-drawn out investigation process.

The timeline extends once the concept has been proven and pre-clinical and clinical trials commence. The type of accommodation and bolt on services also changes—but the ability of these tenants to pay higher rent also expands.

Data from the recent life sciences survey shows there is a fairly constant cohort of c30% of respondents that have in the past, and forecast into the future, to pay less than \$25/sqm for their building and/or office space. These are generally less funded or at earlier stages than other companies in their life cycle. Equally, there is another cohort that began paying \$25-100/sqm (shown blue in the graph below) with a clear trend to expect to pay more for space over time (and into the orange bars).

Net rent for building and/or office accommodation
\$/sqm



Source: Knight Frank Research, Life Sciences Survey 2023

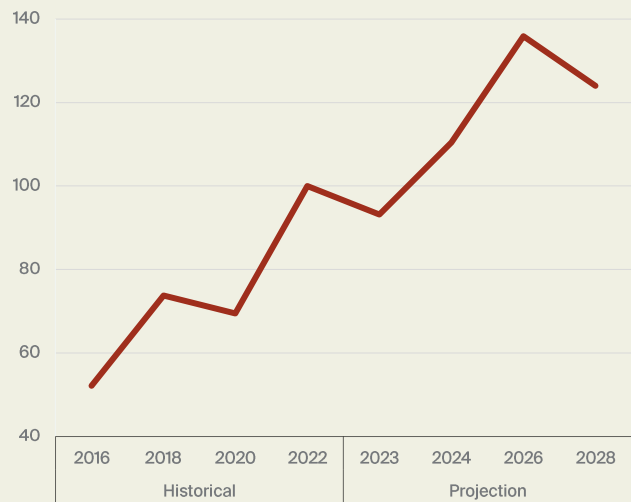
HEALTH, ENERGY AND ENVIRONMENTAL CONCERNS WILL DRIVE ADDITIONAL INVESTMENT IN THE SECTOR

There remains untapped demand across the life sciences sector and despite wider economic and capital/funding conditions this will continue to drive innovation. New developments across the health sphere include personalised medication both through gene therapy but also opportunities in compounding medications designed for an individual patient.

Greater investment from both government and private sector to gain and maintain green ratings, plus inclusion of embodied carbon and green metrics of both construction and waste removal into environmental ratings, will see much greater investment into recycling, waste management and building materials. While some of this lies outside pure life sciences definitions, technology like using algae and micro-biotics to break down and change the composition of waste is core life sciences and only beginning to be tapped as commercial activities.

Additionally, energy creation, conservation and storage continue to accelerate as areas of growth with strong funding inflows and product and digital advancement will be closely aligned to this. The idea of life sciences as operating separate from these digital, technological and energy developments seems increasingly dated. Given laboratory space can exist alongside most other users (given appropriate measures for radioactive or cytological research) the modern research hub appears to have a far broader user and investor base than was seen in the past.

Net rent for building and/or office accommodation
Index 2022 = 100



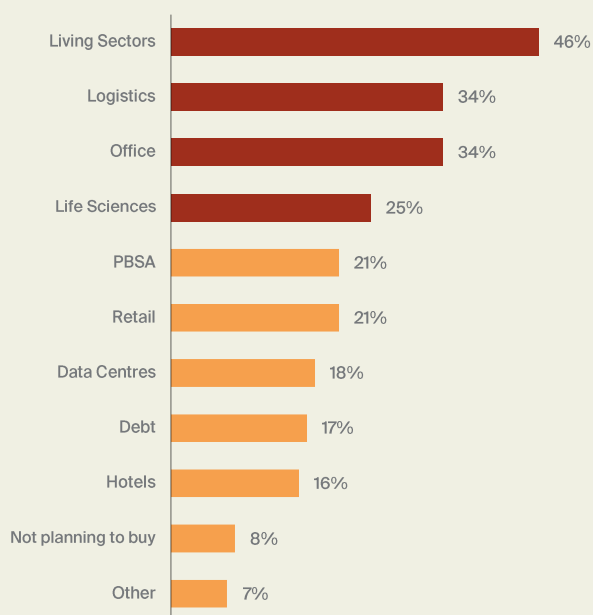
Source: Knight Frank Research, Life Sciences Survey 2023

INVESTOR APPETITE FOR LIFE SCIENCE REAL ESTATE IS ACCELERATING, BUT INVESTORS ARE WARY THAT THEY DON'T UNDERSTAND TENANT REQUIREMENTS

Global portfolios have been rebalancing away from the traditional office and retail assets which a decade ago accounted for 70% of the MSCI Global Annual Property Index, now making up just a little over half of the index. By contrast, industrial, living sectors and other property such as health and life science uses have seen their weighting grow. Industrial and the living sector now represent more than 40% of the capital value weight in the index. The shift in the composition represents an evolution of how broader technological and economic changes are reshaping real estate portfolios.

This was underlined by a recent Knight Frank live poll during an Active Capital webinar, which showed both living sectors and life sciences in the top four targets for capital allocation in the next 18 months. Living sectors outweighed both logistics and the office sector with investors looking for asset classes with inelastic demand.

Active Capital webinar poll – what top three sectors are investors targeting in the next 18 months



Source: Knight Frank Research

In Australia, local institutions such as HomeCo, Northwest, Centuria, Dexus, ISPT and Charter Hall have set up funds targeting alternate investment classes such as medical and life science. The capital flow into the sector thus far has primarily remained focussed on pure health assets like hospitals or medical centres as these market dynamics are more understandable to investors and there is greater asset availability. Institutional investors remain inexperienced in managing the churn, market dynamics and curation required for a life science precinct and have tended to remain co-investors, rather than lead developers to date.

BALANCING COMMERCIAL SPACE WITH LOW-COST INNOVATOR HUBS IS KEY TO LONG TERM VIABILITY

In making a decision to invest in the life sciences sector, either stand-alone or with a research-institution partner, asset owners need to understand the income stream from the sector and the management impost to handle churn and curate the precinct. There is little predictability on a company-by-company basis of their longevity or growth profile, however the sector as a whole has shown substantial growth and expectations of future growth remain as robust.

Private-sector investors have shown significant appetite for pre-committed developments such as Innovation Quarter in Westmead with Charter Hall taking a 49.9% share in the \$350 million facility next to Westmead Hospital. The 43,000sq m mixed use research, health, education and retail facility lies across three towers, with large flexible floor floorplates and future-proofed technology. Western Sydney University occupies about 47% of iQ on a 15-year term with the CSIRO taking a further 16% on a 10-year term. Other major tenants include Telstra Health, Psych Central and WentWest. These leases to established institutions/tenants and the long lease terms make this style of investment relatively core apart from the specialised building facilities.

In contrast, an incubation or innovation asset has a quite unusual tenant and income profile. The high churn, specialised facilities, broad user types and wide variety of the size and sophistication of tenants, plus the need for events and curation to maximise collaboration, means that multi-tenanted life science facilities have a far higher management requirement. In asset management terms this may be analogous to regional retail centres or high specialty store component retail assets—albeit on a far smaller scale.

Institutional investors remain inexperienced in managing the churn, market dynamics and curation required for a life science precinct and have tended to remain co-investors, rather than lead developers to date

While seeking a unicorn is always the goal of venture capital investors, for maintaining and growing an incubation precinct it is the constant churn and grow-on of occupiers that allows for real income growth over time.

Investment in incubation space alone has a greater income and management risk than a stand-alone pre-committed facility to well capitalised tenants. However, the upside can also be greater as a precinct becomes proven and a centre of gravity for life science users.

The reality is that major private sector investment into life sciences built form is likely to still come with key partners or partially secured by a major university or hospital tenant. In these assets it is important for such developments to also include incubation space as essential to the long term vibrancy, viability, growth and stability of the precinct.

References & Resources

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2. <https://www.aon.com/industry-insights/life-sciences-talent-set-to-surge.aspx>

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We like questions, if you've got one about our research, or would like some property advice, we would love to hear from you.



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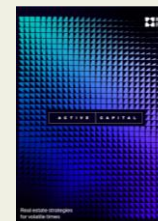
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