



LINK WEALTH

Life Sciences Real Estate Report

March 2021

Real GDP (YOY %)	Mar/2020	Jun/2020	Sep/2020	Dec/2020	Dec/2021	Dec/2022
Germany	-2.2	-11.3	-4.0	-3.6	3.5	4.0

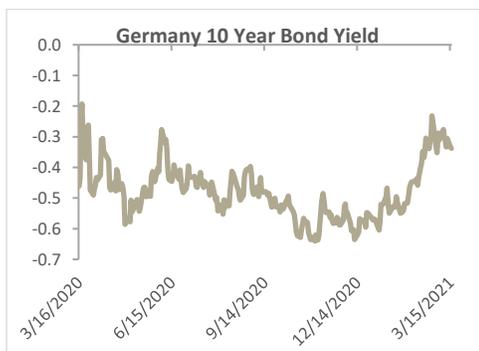
Source: Bloomberg

Germany	2017	2018	2019	2020	2021e	2022e
Real GDP (YOY %)	2.6	1.3	0.6	-4.9	3.5	4.0
Inflation (YOY%)	1.7	1.9	1.4	0.4	2.0	1.4
Unemployment	5.7	5.2	5.0	5.9	6.0	5.5

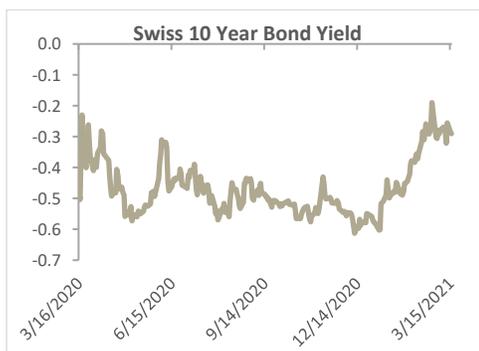
Source: Bloomberg

Eurozone	2017	2018	2019	2020	2021e	2022e
Real GDP (YOY %)	2.6	1.9	1.3	-6.6	4.2	4.1
Inflation (YOY%)	1.5	1.8	1.2	0.3	1.5	1.2
Unemployment	9.1	8.2	7.6	7.9	8.8	8.3

Source: Bloomberg



Source: Bloomberg



Source: Bloomberg

The COVID-19 pandemic has heavily impacted many segments of the real estate sector, although some niche sub-segments were less impacted and are already witnessing increased investor interest. One such sub-segment is life sciences real estate, which refers to the medical and research facilities, laboratories and specialized and designated healthcare office spaces.

Although demand for life sciences real estate facilities was already rising even earlier, the COVID-19 pandemic and the subsequent need for laboratory research facilities may accelerate demand. The pandemic may have put renewed thrust on medical research, drug discovery and testing for various diseases, which should drive demand for healthcare and related research and diagnostics facilities. The convergence of medical advancements (cell and gene therapies) and technological advancements (artificial intelligence), is expected to drive investments in life sciences and the corresponding real estate space. In this report, we will discuss in more detail about the inherent nature, requirements, prospects and challenges facing the emerging life sciences real estate space, also termed by some industry analysts as ‘Propsci’.

Life sciences real estate developed in clusters; specialized needs may hinder growth options

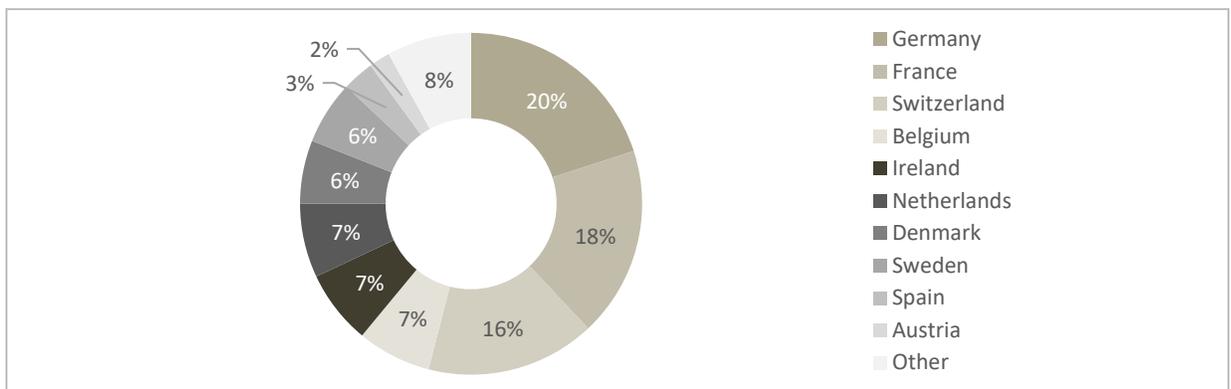
Globally, the life sciences and corresponding real estate is dominated by the US and the UK, where it is established in clusters in a few major cities, which attract majority of the investment. In the US, the three major life sciences clusters are Boston (including Cambridge), San Francisco and San Diego. In the UK, the ‘golden triangle’ of London, Cambridge and Oxford, and areas in their periphery form advanced life sciences clusters. Generally, the geographic concentration of such clusters in proximity to major academic institutions can offer not just abundant talent, but also academic funding for research. The co-location of all market participants offers potential for accelerated innovation, higher productivity and synergies. The advent of flexible co-working office spaces may offer a path to the development of life sciences real estate, thereby overcoming the problem of limited supply close to established universities or education institutes. The establishment of small scale and shared laboratory space could gain popularity amongst start-ups and early stage tenants who seek compact and customizable research facilities. For instance, Alexandria Real Estate Equities has developed low-cost lab and office spaces in New York for biotechnology start-up tenants.

However, developing life sciences real estate entails customized infrastructure such as lab space, unique plumbing and electrical requirements and/or hazardous/bio waste disposal facilities. Despite the high demand for lab spaces, the potential conversion of vacant commercial spaces for this purpose can be challenging as labs require tall ceilings (for large ductwork and vents), sufficient space for specialized machines and a solid building structure to protect against vibration. One of the impediments to developing a life sciences space is the lack of experience and understanding of the specialized requirements. Private real estate players may build a life sciences facility tailored for specific tenant needs, probably through a joint venture with companies having sufficient technical knowledge. Alternatively, the private real estate players could identify committed tenants and deliver designated spaces to them. These companies could then build and set up the space according to their specific requirements. Despite the strong growth potential, regulatory restrictions related to construction and the lack of experience of private real estate players in developing or renting life sciences buildings, may limit investments in the space.

Germany could emerge as a compelling alternative in the Brexit backdrop

Germany is the fourth-largest pharmaceutical market globally and boasts of well-established companies such as Bayer, Merck, CureVac and BioNTech, along with the presence of other foreign pharma majors. Of the total start-ups established in Germany during 2019, 8.5% belonged to the life sciences vertical. Moreover, the country has been at the forefront of COVID-19 vaccine development. We expect factors such as research capabilities and talented professionals, robust domestic market and rising elderly population to boost Germany’s life sciences real estate market. Since 2008, excluding the UK, Germany has received the highest proportion of life sciences venture capital funding. With the Brexit deal being finalised, the need to develop alternative life sciences clusters in Europe may probably gain steam and provide an impetus to the corresponding real estate in the region. In 2019, companies headquartered in Europe (excluding the UK) attracted a record EUR 3.7bn in VC funding (+23% vs. 2018). This was also 79% above the level achieved in 2016, when the UK voted in favour of Brexit.

European (excluding UK) life sciences venture capital investment since 2008 (% share of total)



Source: Savills Research (Mar 2020), PitchBook

However, countries, which aspire to develop themselves as robust alternatives to the UK market, may need to overcome certain challenges. For instance, Germany’s life sciences real estate market is nascent, more dispersed and its life science park clusters are smaller compared to those in other major global markets. Despite its strong position in life sciences innovation, the corresponding real estate facilities are in short supply in the country. Given the dearth of private real estate catering to life sciences laboratories, for many scientists the option to conduct research in Germany is largely limited to universities and publicly subsidized laboratories. Large life sciences companies in Germany have also started offering appropriate premises to scientists to conduct research, albeit in return for the right to market their research. Moreover, universities prioritize research at their discretion and exert influence over the grant of rights for the research conducted in their labs. We reckon that scientists seeking more independence in operations may prefer to rent large private research facilities rather than utilizing facilities offered by universities or large companies. Given the rising demand and limited space availability, it is becoming increasingly difficult for universities to offer suitable facilities. In our view, this offers huge opportunities for private German real estate players to develop at least small, dedicated life sciences facilities. According to a 2015 study commissioned by Sanofi, the lack of tax incentives for conducting research and development (R&D) in Switzerland, lack of venture capital funding in Munich and Berlin and lack of organizational simplicity in Paris are major challenges for the sector in Europe. Accordingly, higher tax breaks for in-house R&D, clinical trial approvals and investing in university research for skill development will be the key to driving growth of the European life sciences market.

In Europe (excluding the UK), Germany’s BioNTech (Pfizer’s partner in the COVID-19 drug development) is located north of metropolitan region Rhine-Neckar, which houses the BioRN life science cluster, which is part of a strategic alliance linking Heidelberg, Leuven (Belgium), Maastricht (Netherlands) and Copenhagen.

Investments continue to gain traction

According to the European Commission's EU Industrial R&D Investment scoreboard (tracking 2,500 companies investing in R&D), in 2017/18 Europe headquartered companies invested EUR 40bn (27% of total) in Pharmaceutical and Biotech R&D. For the period 2010-2019, the 12 leading biopharma companies witnessed a jump in bringing a new drug therapy to market to USD 2.6bn (EUR 2.3bn) from USD 1.2bn (EUR 0.9bn). In the corresponding period, their R&D returns sunk to 1.8% from 10%. Accordingly, major pharma companies are seeking higher efficiencies in all aspects of their operations, including real estate.

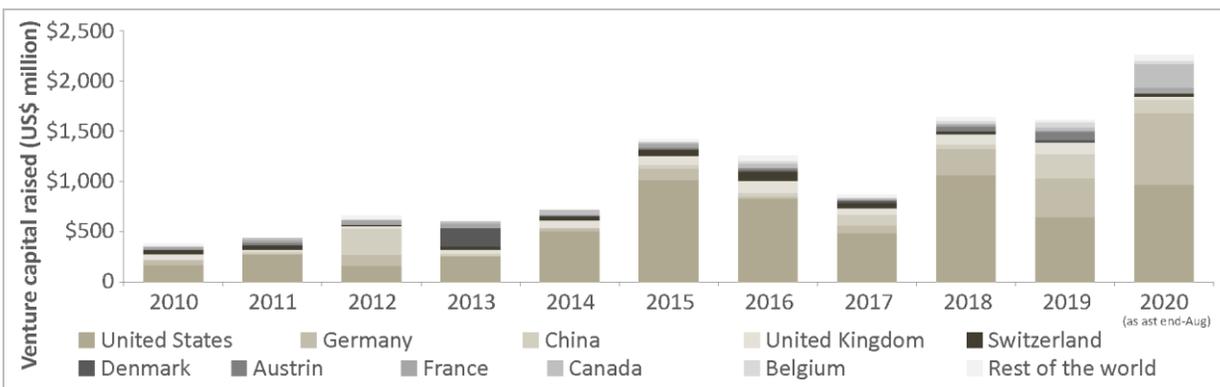
With the ongoing growth in these investments, the life sciences real estate space has witnessed investor interest globally in the recent past:

- In December 2020, private equity firm Blackstone Group Inc. announced the acquisition of a 2.3 million square feet (sqft) portfolio of lab office buildings in Cambridge (the US) from a real estate fund of Brookfield Asset Management for USD 3.45bn (EUR 2.8bn). During deal announcement, Blackstone reiterated that life sciences investments, overall as well as in real estate continued to be its highest conviction theme and that it is invested in this theme across the firm. In October 2020, Blackstone raised USD 7.5bn (EUR 6.4bn) from investors for its life science office real estate fund.
- In November 2020, AXA Investment Managers – Real Assets announced the acquisition of life sciences and laboratory office and research space developer Kadans Science Partner. The target's portfolio comprises 20 assets (150,000 sqm of operating space) and 7 assets under development (~70,000 sqm to be delivered over three years) in the Netherlands, the UK and Germany. JLL, which advised AXA on the deal, reportedly valued at ~EUR 500mn (according to IPE Real Assets), highlighted that the COVID-19 pandemic had put the European life sciences sector in the spotlight and indicated the strong investor interest in the space.
- In November 2020, Breakthrough Properties (joint venture formed in 2019 by Tishman Speyer and Bellco Capital) raised over USD 1.0bn (EUR 848mn) for a life science property fund to develop and acquire advanced lab facilities across leading biotechnology markets globally.
- In November 2020, Ventas, an owner of healthcare, senior housing and research & innovation (R&I) properties, formed a joint venture with GIC, Singapore's sovereign fund. The four under-development university-based R&I properties include 1.4 million sqft of space and project costs of ~USD 930mn (~EUR 789mn). The partnership should accelerate Ventas' life sciences properties including acquisitions in South San Francisco, US.

In our view, such investments reflect the high demand for modern life sciences research facilities, especially in the wake of the COVID-19 pandemic. Moreover, investor interest seems to have been galvanized on improvements in productivity, innovation and scientific discovery, in the backdrop of the biotechnology and technology sector convergence. Given the ongoing need to invest in the life sciences sector and its insulation from the overall economy, we reckon that investors in the real estate space get a certain level of risk mitigation. According to Savills, venture capital (VC) funding for vaccine development companies globally reached USD 2.3bn (EUR 1.9bn) year-to-date from the beginning of the year till August 2020, easily surpassing previous full-year figures. During the pandemic, such type of funding witnessed substantial growth probably on the back of investors seeking portfolio diversification and gaining access to growth of life sciences companies. The funding in early growth companies is generally utilised for talent acquisition, leading to higher demand for related real estate.

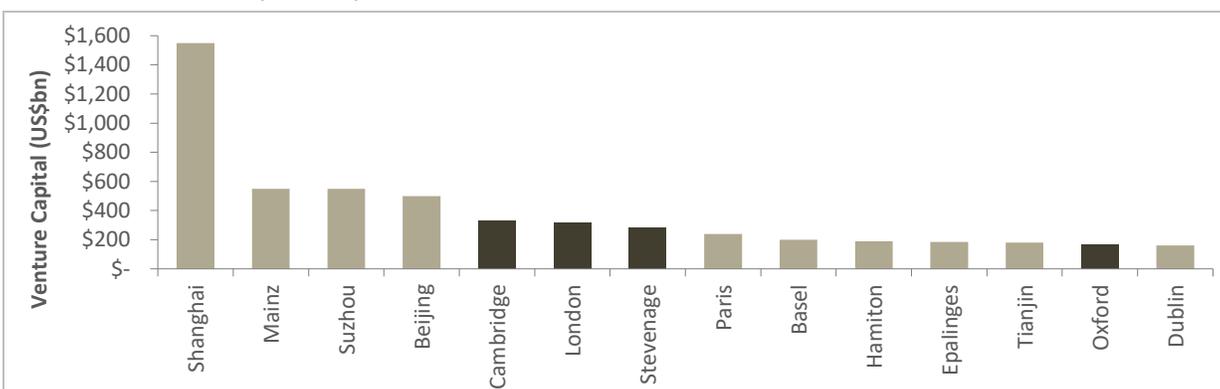
From 2015-2019, vaccine-related VC accounted for 0.6% of the global venture capital expenditure (1.2% in 2020 till August 2020). Over the past few years, Germany has captured a large proportion of the venture capital investment, which we think is attributed to its strong talent pool and established research capabilities. We expect these rising investments to continue and drive higher related real estate demand. Moreover, the higher levels of occupancy of these types of real estate assets even during the pandemic compared to other sub-sectors of real estate assets, should also enhance the appeal of these investments. For seed funding, Europe is now tracking the US, where a typical series A funding for life sciences is USD 25-50mn (EUR 21-42mn) compared to past levels of GBP 2-5mn (EUR 2.6-5.6mn).

Venture capital raised by vaccine companies by country (US\$ millions)



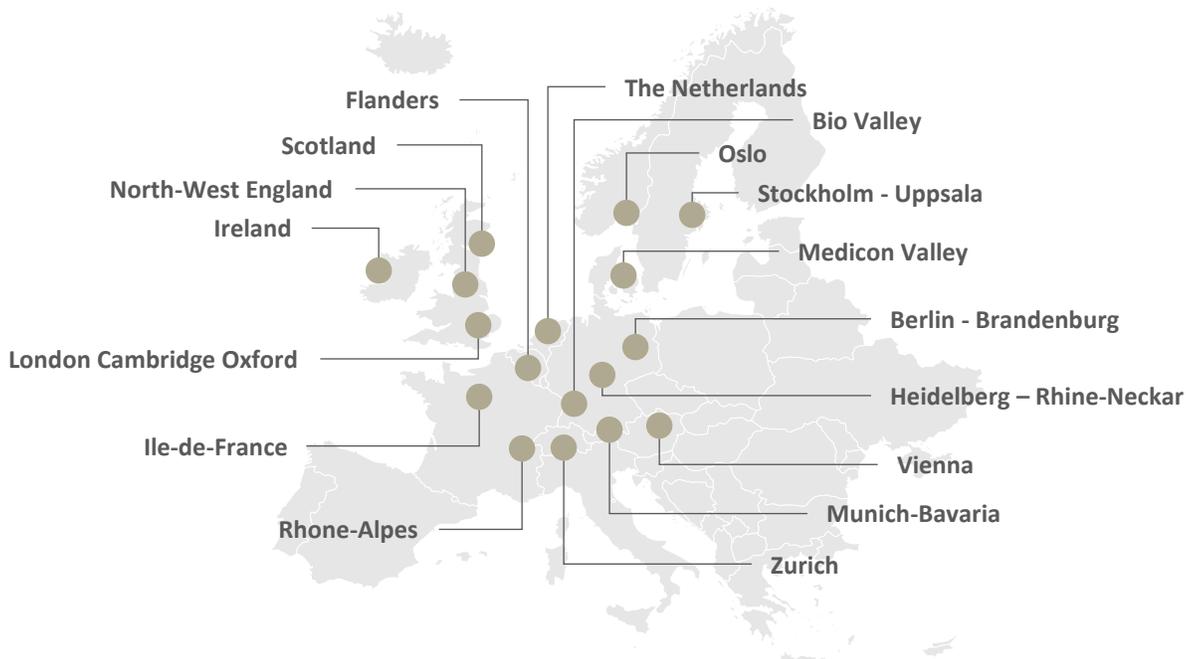
Source: Savills Research using PitchBook

Global VC investments (\$ billion)



Source: Savills Research, PitchBook

European life sciences clusters (2015)



Source: Science Business (Study Commissioned by Sanofi, September 2015)



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