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## Discussion summary

Life sciences in the UK is heavily concentrated in three places: **Cambridge, Oxford** and **London**. Between 2021 and 2023, £5.8 billion was invested in real estate for this sector – and £4.5 billion was in this "**Golden Triangle**".

These already thriving markets are set to benefit from continuing investment, as the current government has set a target for the UK to become a "global science superpower", while the opposition, that is the Labour party has also made life sciences a key priority, pledging to increase R&D by £10 billion a year.

But will the **Golden Triangle** retain its unassailable dominance as the sector expands, or will new hotspots emerge to challenge it?

Linesight convened an expert panel to discuss what makes a successful life sciences destination, the role of *clusters* in meeting the UK's ambitions, and what tomorrow's life sciences landscape might look like.



## Key takeaways

#### Achieving momentum for clusters (



To achieve momentum, life sciences clusters ideally need a university, a teaching hospital and a large corporate to anchor it, as well as good connectivity, access to talent and finance, and supportive regulators.

## Varying requirements of the sector



Requirements vary widely across the life sciences sector. There's a need for flexible. sustainable templates so that young companies do not have to pay for bespoke fit-outs.



#### Supporting cluster growth



Investment in transport networks, power and water infrastructure, and affordable housing will be essential for supporting cluster growth, and linking them together.

#### Research in universities



Early-stage research in universities is the lifeblood of the sector, so a mix of incubator and follow-on space is essential to feed the ecosystem.

#### Supporting start-ups



The UK has a lot to learn from the US on integrated supports for promising start-ups on their journey to production, and giving them the confidence to succeed.



#### Making of a scientific superpower



Established and emerging clusters must differentiate themselves, and collaborate rather than compete to make the UK into a science superpower.

#### Understanding the market



Commercial developers should be wary of rushing into life sciences without fully understanding the market - a redundant office does not automatically make a great laboratory.



## What creates a cluster?

Developers are flocking to the booming life sciences sector, but not every building can become a thriving ecosystem. So what does it take to succeed?

Gareth Roberts at British Land, identified three key elements of a life sciences cluster: a university, a teaching hospital and a large corporate. "Then we talk about things like proximity to talent, availability of finance and a friendly regulatory environment. We think that you need a certain number of those ingredients to be able to cook the recipe."

It is possible to create a community with just one dominant entity – as BT has done at Adastral Park, or Philips at Eindhoven in the Netherlands – but that leaves one organisation doing all the heavy-lifting. In comparison, Camden Knowledge Quarter has the Francis Crick Institute, UCL and its teaching hospital: "That's now become self-sustaining and it's growing of its own accord."



**GARETH** ROBERTS

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We have an excellent opportunity to unlock our full potential by enhancing infrastructure such as power, water, railways, and housing. Addressing these foundational elements is key to ensuring that UK plc fully capitalizes on the possibilities ahead.

"Central London also has a lot more to offer scientists than an amenity-light out-of-town campus," added Overbury's **Balwinder Brar**. "It's not just the space, it's what's around the space that's important too. What is there to do outside of work?"



## What does the panel think about the rebadging of Canary Wharf as a life sciences destination?

The logic is obvious, said Richard Papworth at HDR. "Life sciences wasn't in commercial developers' minds three years ago, but the banks are moving out, so what else are you going to put in there? It's become a soulless environment, so you're going to try to create an ecosystem."

"The problem is that it doesn't have either a university or a hospital close by," said **Edmund Vaughan** of chapmanbdsp. "It's going to be very hard to build a cluster there. This may be the start of it, but it's got a long way to go and it's not going to happen overnight."

Peter Gavican of real estate investment firm Eagle Street cautioned against the assumption every failed commercial office has the potential to become a great life sciences destination. "We always start at the very top, with the demand – where is the VC funding flowing into, what are the universities interested in, and what should be collocated with that? Depending on where you are in the manufacturing lifecycle, and whether it's biopharma or live organisms, or if it's more diagnostic or if it's medtech kit, there are always very different needs and there's a different solution for each one."



**PETER**GAVICAN

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If you're in manufacturing, you're not going to locate in the middle of a city; if you're in R&D, you might do. But if you're a scientist on £45-50K, you're not going to be living in Mayfair. Corporate needs are different to scientists' needs.

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## What clusters work for everyone?

In the UK, there is a long-term lack of followon or accelerator spaces for start-ups that have outgrown university incubators. To be a true ecosystem, a cluster needs to have a certain level of diversity, and a mix of organisations, from early-stage research to major corporates.

"Over the last 15 years, Big Pharma has been heavily reliant on biotech start-ups, and universities as the source of these," said John Hunt at Enterprise Ireland. "Early-stage research coming out of universities has been one of the key pipeline generators. If you want growth, you absolutely need that throughput and if possible proximity to feed and scale the ecosystem."

But providing spaces that can work for organisations at every stage is a perennial challenge in the UK. In particular, there is a long-term lack of follow-on or accelerator spaces for start-ups that have outgrown university incubators. "You do see those incubators that become static because there's nowhere for people to go," said Roberts. "The problem is that it's very hard to make money out of incubator space. It's an area where we probably won't play as we don't think there's the depth of demand to be able to charge the premium to cover the extra cost."

Developing accelerator space, meanwhile, is something of a catch-22: it's very expensive to produce a speculative building that could cater for different occupiers, but start-ups are neither willing nor able to commission a bespoke fit-out, when there's no guarantee the science will come good. "With VC funding, you're on a runway and you want to get to the end," said Gavican. "Are you going to use £2m to fit-out an accelerator? Heck no, you're going to stay in the university." He continues that tenant management is essential as it is not about what



they might want, it is more about what they actually need.

"One solution is to create buildings that are inherently flexible and adaptable," said Nick Pell –and even better, with installed versus constructed interiors. "For me, flexibility, moving something from A to B with ease, and adaptability, modifying something 'in-situ' with ease, are very different characteristics and value propositions. Each supports the sustainability agenda and each is either inherent in a product or it isn't. Achieving less 'fixity' needs to be considered from day one."

"Even with adaptability designed in, when a product is adapted to a different use there will always be degrees of compromise.

The question is, how much compromise is acceptable relative to the investment made." added Pell.



PRIYA SHAH

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One challenge for life sciences in the UK is red tape and the disconnect with the regulatory bodies. We're a number of years behind the US – but that's an opportunity to learn.





### What can the UK learn from the US?

In Boston, there is a well-developed market supplying incubator space, and also a well-oiled machine for progressing innovation.

"Achieving that dynamism and throughput is something that the world's leading cluster gets right: in Boston, there is a well-developed market supplying incubator space, and also a well-oiled machine for progressing innovation," said Gavican. "Modifying a gene in the lab is almost the easy part. Getting that through incubation into acceleration and then production is a huge task. There are specialist companies in America that handhold scientists through that process, work with universities, sort out the IP, get the government funding behind them. Here, there's a massive disconnect. It's not completely lacking, but in Boston, it's almost a one-stop-shop."

The Golden Triangle has plenty of untapped potential, he thinks, if it can plug that disconnect. In 2022, Oxford put out 37,000 scientific research papers per capita. And Cambridge 34,000, and Boston just 19,000.

"Compare that to the science-based real estate in those markets," said Vaughan. "Boston has a 35 million square foot lab market, with 12 million under construction. London's at 1 million, Oxford is at 3 million, and Cambridge is at 7 or 8 million. The research output isn't feeding into the real estate footprint, so where is it going?"



**GARETH** ROBERTS

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The degree of commerciality around academic institutions in Boston really sticks out. There's a confidence: people believe they can become a billionaire or cure cancer. That's night-and-day different to the UK.





"What else does Boston have that London, only the world's 16<sup>th</sup> biggest cluster, doesn't?" asked **Hamson**. "Critical mass," said **Hunt**. "That just takes time to develop."

"Don't forget the importance of funding," said Nick Pell – that's the main lesson he took from a study trip to review New York's life sciences sector which has grown significantly over recent years. "Back in 2016, Mayor de Blasio put US\$500 million on the table, with a 10-point plan for how it should be invested.

That commitment attracted what otherwise would have remained untapped additional investment from all corners of the life science and health sectors, including speculative real estate developers and investors. Significant, committed funding from central or local government can make a huge difference."



NICK PELL

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You have to get the provision right for the proposed use. The key is to design buildings that are flexible and adaptable, future proofed and sustainable.



# Beyond the Golden Triangle: Where could UK life sciences go next?

Edinburgh and Glasgow, Bristol-Bath, Leeds, Manchester and Birmingham are areas that are investing heavily in life sciences. The panel are unanimous that there is plenty of room for growth outside established clusters, and that harnessing this is the key to achieving the government's ambitions. As Fatos Peja at HDR put it: "There's a big world beyond the Golden Triangle. Once other parts of the UK start to flourish, we will be much closer to becoming that superpower."

Arup's **Tim Fry** thinks the Oxford-Cambridge Arc has "had its day". The corridors that connect them to London are more interesting – Stevenage or Reading, for example.

Outside the south, Giles Heather of Linesight sees life sciences as a potential route to regeneration and levelling up. "Look at Edinburgh and Glasgow, Bristol-Bath, Leeds, Manchester and Birmingham – all areas that are investing heavily in life sciences. There's as much opportunity outside the Golden Triangle as within it."

But both existing and emerging clusters need to differentiate themselves: "The opportunity is in understanding what each region should specialise in, and collaborating and treating the UK as a whole," said Linesight's Priya Shah.

UK regions shouldn't be competing with themselves, said Roberts. "It's the UK versus alternate locations like Eindhoven or Antwerp. As long as these emerging clusters can find the right specialism, and there are government catapults or whatever to stimulate them, I think there's a chance for a lot of them to succeed."

Roberts thinks the creation of the Office for Life Sciences is positive, as are government



investment in tax credits for R&D. But life sciences is also helped or hindered by the wider policy agenda. "There's a lack of water in Cambridge, big challenges around power in Oxford, and everywhere there are huge challenges around affordable housing. Funding for East-West rail is still not signed off. That's where government could really help."

"Oxford, Cambridge and London is referred to as a triangle," pointed out **Tim Fry**, "but from a travel perspective, it's a V."

Even if all of these issues were resolved, is it realistic to think the UK could ever rival the US as a global science superpower? Fry wasn't so sure: the US population is five times bigger than the UK. "We have to recognise that that we're not on the same scale and we're not going to be able to match the US – but we can still be really strong."



**GILES**HEATHER

It's collaboration rather than competition that ultimately drives innovation, and that's what will make the UK a science superpower.

But Gavican was more bullish: "Ireland only has 5 million people, which is the population of Greater Manchester, but it's the world's third largest exporter of pharmaceuticals. That just shows you what's possible. It's not going to happen overnight, but the fundamentals are present, governance and policy could be learned from elsewhere. The opportunity just needs to be grabbed."

