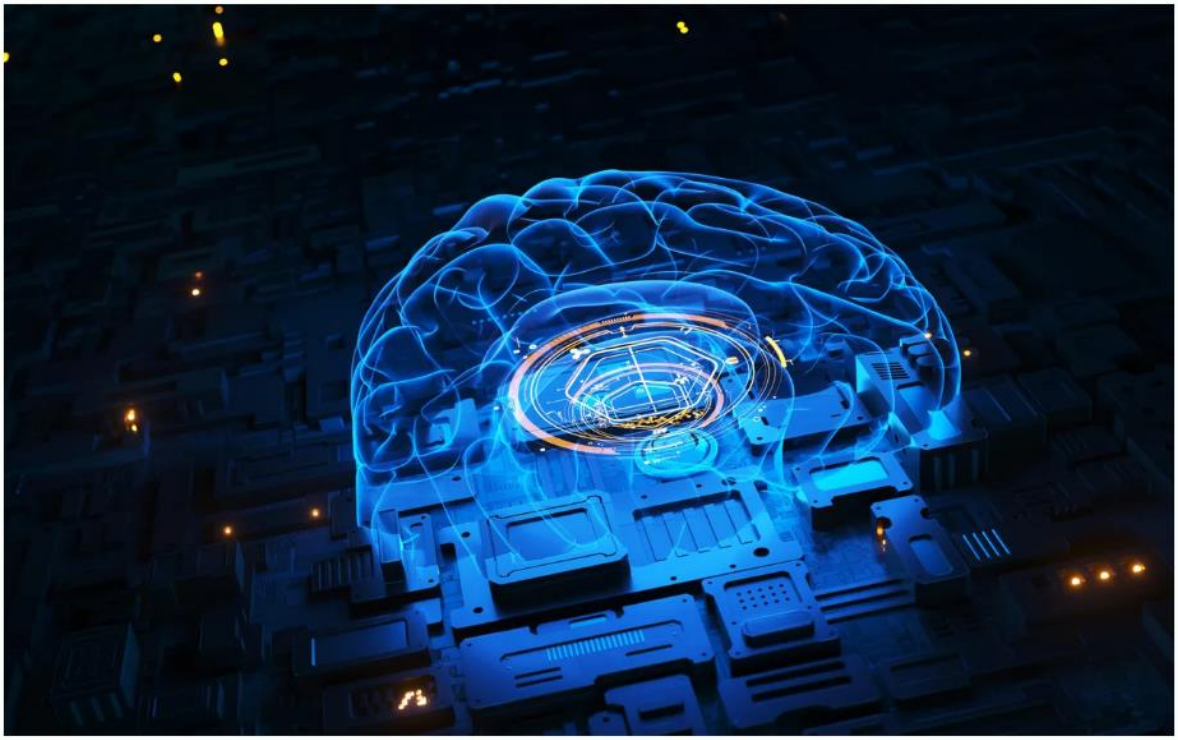
Green Street News

Thriving deep tech sector needs to be nurtured

Rapidly growing companies have specialist requirements



Simon Farnsworth
GUEST WRITER
Managing director at Ironstone Asset Management, Life Science REIT's investment adviser

You would be excused for thinking that deep tech was a genre of heavy dance music played in a basement club, but it is in fact the collective name for those companies at the very forefront of innovation, working towards scientific breakthroughs within fields such as quantum computing, AI and biotech.

Companies operating within these fields require significant investment in terms of both capital and time for research and development, but it can often take more than just the sum of their own parts to be truly transformative, so having access to strong, external networks is key. But the level of expertise and knowledge will often be impacted by where a company is located.

Ecosystem benefits

For deep tech companies, having access to a multi-faceted ecosystem of unparalleled academic research, latest technology, and companies from historically disparate fields, can have significant benefits when it comes to achieving speed efficiencies and greater innovation. With the right tools, these fields have the power to make great change overnight and make great waves in important fields such as drug development.

The co-localisation benefits that come from integrating life science, research and tech companies is something that Life Science REIT is experiencing across its portfolio of assets in Oxford, Cambridge and London.

This is particularly so at Oxford Technology Park (OTP), which is occupied by two of the world's leading quantum computing companies; Infleqtion, the world's leading quantum information company, and the first to install a cutting-edge neutral atom quantum computer at the National Quantum Computing Centre (NQCC), and Oxford Ionics, who won a £6m contract to supply the centre with its world-record breaking, Electronic Qubit Controlled trapped-ion quantum computer.

Oxford Technology Park

At OTP they are situated among biomed, research, data and AI companies, sharing knowledge and learnings on a daily basis, but are also within easy reach of research institutions such as the University of Oxford's Begbroke Science Park and the NQCC, the UK's national lab for quantum computing accelerating the development of the sub-sector's capabilities and infrastructure.

There are clear benefits in these companies collaborating and using technology to continue to break new ground at a faster pace. For example, Infleqtion sees a real opportunity in collaborating with oncology companies, anticipating that it will be able to use quantum computing technology to obtain more accurate and efficient simulations of molecular behaviour and enhance medical imaging.

This level of work requires a dedicated working environment and for quantum companies in particular as they rely upon superconducting qubits that require spaces that can be kept at temperatures as close to absolute zero because heat can cause errors and this can typically only be achieved through cryogenic cooling.

OTP, which is where Infleqtion and Oxford Ionics are located, includes labs designed to the highest specification – meaning it can capture most use cases.

Rapid growth

Dr Chris Ballance, co-founder and CEO of Oxford Ionics, explains that for Oxford Ionics, it is incredibly important for them to have a space that can accommodate its rapid growth and ambitious technology roadmap. They plan to grow to over 150 employees within the next 18 months and having a facility that could enable this scaling is crucial. Its building at OTP can now accommodate 20 of its world-leading quantum computers and means they can quickly accelerate the commercialisation of its powerful technology and enacting change that could have global significance.

> *"As of 2023, deep tech accounts for approximately 44% of all tech investments in Europe"*

According to McKinsey & Company, as of 2023, deep tech accounts for approximately 44% of all tech investments in Europe, an increase of 18 percentage points since 2019. This surge in technology investment has produced strong returns, and to continue to support this growth, we must ensure that we have adequate space for companies within these fields to scale and thrive.

The government's decision to withdraw £1.3bn in funding for deep tech projects in 2024 is worrying and has raised concerns about the UK's leadership among the industry. As the government seeks to deliver on its ambitions to grow the UK's most prominent life science clusters, ecosystems that cater for life science, tech and healthcare will only become more essential if we want to enhance our understanding of complex fields such as oncology and neuroscience.