

# Powering clean tech innovation through property

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The UK's 'net-zero' economy grew three times faster than the broader economy in 2024<sup>1</sup>, and this rapid pace is expected to continue. Within this field, various interconnected sub-sectors exist, notably clean and climate tech. Real estate will play a critical role in facilitating this ongoing growth by providing suitable spaces that reflect the diverse needs and principles of the net-zero economy, ranging from office environments to specialised facilities like vertical farms and laboratory spaces. Equally, the sector will be key in embedding operational and technical support within collaborative, innovation-driven ecosystems.

### THE NET-ZERO ECONOMY

The net-zero economy largely encompasses clean tech and climate tech. While there is a significant amount of inter-connectivity and cross-over, they predominantly cover ten main areas below:

1. Renewable Energy
2. Energy Storage and Management
3. Carbon Capture, Utilisation, and Storage (CCUS)
4. Sustainable Transportation
5. Building Technologies
6. Circular Economy
7. Agriculture and Food
8. Nature-Based Solutions
9. Industrial Process Innovation
10. Deep-Sea Mining and Resource Extraction

For this paper, we focus on clean tech, where the sector has 3,669 active companies as at the end of Q1 2025, according to analysis of Beauhurst data, up from just over 1,000 a decade ago. In terms of industries, which companies can be listed under multiple, renewable energy comes out top with over half of those businesses,

Industry	% share by number of companies (top ten)
Renewable energy	54.14
Energy management and reduction	18.82
Heating, ventilation, air conditioning and mechanical and electrical systems	18.38
Tradespeople and trade services	15.36
Cars, motorcycles and other road vehicles	14.87
Application software	13.29
Waste management and recycling	11.36
Energy storage	8.77
Manufacturing	8.44
Data provision and analysis	7.11

Source: Beauhurst, Knight Frank Insight

followed by energy management and reduction. Looking at 'buzzword' areas they operate in, electric vehicles (EV) are the most prevalent, with 15% listing this, followed by biomass & biofuels with 6.5%.

The UK's clean tech ecosystem is characterised by a high proportion of startups. Indeed, 40% of the sector comprises seed companies, and 64% of companies employ fewer than 20 people<sup>2</sup>. The UK's academic institutions play a pivotal role, with breakthroughs in labs often turning into spinout companies. Imperial College

London, for instance, is a global leader in clean energy research – its scientists developed the fuel-cell technology behind Ceres Power, one of the UK's most valuable clean tech companies. Elsewhere, the University of Cambridge's spinout GaN Devices recently raised £25m. Their technology claims that efficiency levels of over 99% are achievable, translating into energy savings of up to 50% in a wide range of high-power applications. The University is home to multiple research institutes, such as the Centre for Climate Repair and the Cambridge Institute for Sustainability Leadership.

There is a small number of medium size enterprises poised to become the sector's next significant successes, which have included four UK clean tech unicorns, as of February 2025: Wayve, Zenobe, Octopus Group, and OVO Group. Most of the sector is experiencing growth, though at varying rates. Among clean tech firms reporting employee data over the past three years, 57% have recorded positive headcount growth over that period. Survival rates are also robust, considering the complex risk profile of the sector. Only 10% of companies

Top five UK universities for spinout activity:		
1	Imperial College London	22
2	University of Cambridge	21
3	University of Oxford	17
4	Royal College of Art	14
5	University of Manchester	10

Source: Beauhurst, Knight Frank Insight

founded five years ago have ceased operations, rising to 27% for companies founded a decade ago<sup>3</sup>. However, the limited number of successful exits highlights the need for greater support to ensure these businesses successfully reach commercialisation.

An extensive ecosystem of stakeholders supports these companies, including venture capital firms, private investors, research institutes, industry bodies, inward investment agencies, and accelerators and incubators. The sector's impact is far-reaching, with many additional organisations indirectly contributing through supply chain roles. Notably, the Ellison Institute of Technology has announced a £100m joint venture investment with Oxford University to address global challenges such as climate change, green energy, and sustainability, including a dedicated facility featuring research laboratories and advanced supercomputing capabilities<sup>4</sup>. Additionally, the Qatari government is investing £1bn in climate technology, including the establishment of new climate tech hubs in the UK<sup>5</sup>.

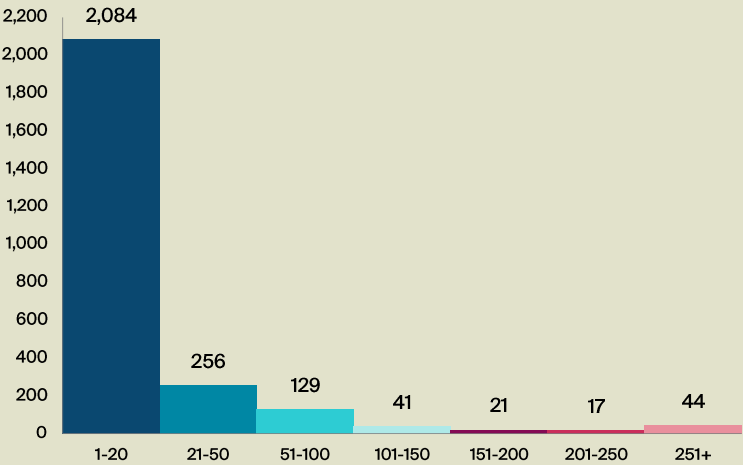
At the top are large corporations. Numerous examples exist of companies in adjacent sectors pivoting towards clean tech via in-house restructuring, collaboration and investment in startups. For example, Shell has a venture arm investing in clean tech (and acquiring promising startups), and Barclays Bank has their Climate Ventures portfolio to invest up to £500m of equity capital in climate tech startups between 2020 and the end of 2027.

**CLEAN TECH HOTSPOTS**

Geographically, the sector is concentrated in London, the East of England and the South East, home to just over 50% of active companies. There are also significant clusters at a local authority level outside of these regions, including Edinburgh (78 companies), Bristol (72), Glasgow (55), and the Cornwall (44). Nationally, every region has seen a growth in the number of active companies between 2019 and 2024, with London (+488), South East

**Sizing the market**

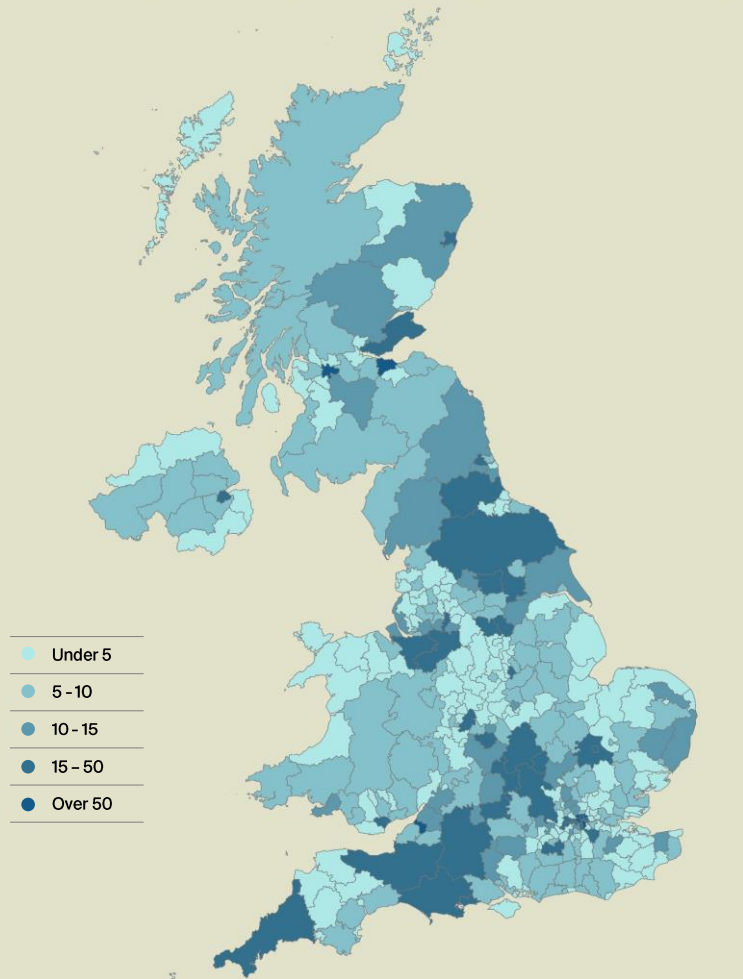
Number of active companies by number of employees



Source: Beauhurst, Knight Frank Insight. Only includes companies where figures are disclosed.

**UK clean tech hotspots**

Clean tech companies count by local authority, HQ or registered address only



Source: Beauhurst, Knight Frank Insight

(+175) and the East of England (+122) seeing the largest gains.

**FUTURE GROWTH AND BARRIERS**

The sector is expected to grow across the UK more broadly with the advent of the government's UK Modern Industrial Strategy, Invest 2035. The strategy outlines a commitment to advanced manufacturing & clean energy, and with the UK's legally binding net-zero commitment, this is unlikely to waver. Creating GB Energy, planning reforms, and establishing a National Wealth Fund will add further impetus. The pledge to decarbonise 95% of the electricity grid by 2030 and regulations such as Minimum Energy Efficiency Standards, putting the built environment on a decarbonisation trajectory, will see clean and climate tech sectors at the fore. As other major economies seek to row back or limit commitments, the UK has an even greater opportunity to lead in the net-zero economy and attract significant investment and entrepreneurship.

Fundraising activity remains essential for the sector's growth. Although total funding declined in 2024, aligning with broader market trends, the sector has attracted more than twice the amount of capital post-pandemic compared to the three years preceding<sup>7</sup>.

Furthermore, debt financing is increasingly complementing

**SELECT GOVERNMENT INVESTMENTS**

£22bn – carbon capture and storage

£2.7bn – nuclear energy

£3.4bn – energy efficiency

£163m – extension of the Industrial Energy Transformation Fund, alongside introducing a Carbon Border Adjustment Mechanism (CBAM)

Skills passport scheme alongside regional skills investments worth almost £4m

venture capital funding. In 2024, £2.79bn of debt financing was invested across 24 strategic deals<sup>8</sup>. Nevertheless, a shortage of Series B and later-stage funding remains, which must be addressed to enable companies to achieve commercialisation.

Other barriers to growth include limited grid and manufacturing capacity and slow planning processes that delay clean infrastructure. Financial pressures on universities also threaten the research and talent pipelines vital to early-stage clean tech innovation.

**WHAT THIS MEANS FOR REAL ESTATE**






Demand from the clean tech sector

is set to grow, with the data showing significant clustering activity. Unlocking regional opportunities will require a granular analysis of the sub-sectors that dominate in target locations, as there will be variations in real estate needs. For example, Manchester's heritage in engineering and manufacturing makes it well-suited for startups in areas like advanced materials and energy systems. Elsewhere, Cornwall has carved a niche in geothermal energy and is the site of Britain's first spaceport, aiming to launch satellites for earth observation/climate monitoring.

Clean tech companies have specific requirements – below, we look at some of the main real estate needs.

Given the nature of their operations, clean tech companies typically prioritise sustainability when selecting real estate, often choosing buildings with robust environmental credentials.

As most clean tech firms smaller, affordable and adaptable spaces are crucial, alongside operational support to enable growth. Small firms often want to co-locate with research partners, so regions that develop specialist innovation hubs will benefit significantly, as will those that actively develop relevant skills. Our analysis finds close to 100 'clusters' where three or more

Type of Space		Notes
	<b>Laboratory space</b>	A significant subset of clean tech firms require lab facilities – a chemistry lab for testing carbon capture solvents, a bio-lab for engineering algae that absorb CO <sub>2</sub> , or an electronics lab for prototyping energy-efficient sensors.
	<b>Workshops and industrial sites</b>	Many clean tech innovations need more than a desk – they need physical assembly and testing space. Battery startups, for instance, need safe facilities to build and stress-test battery cells, and vertical farming startups require warehouse-like spaces to set up their growing racks.
	<b>Office and collaboration space</b>	Some clean tech companies sit within the software, fintech, or consulting-oriented – like climate risk analysis startups or carbon accounting firms – and these fit into standard offices or coworking spaces. They may prefer to be in innovation hubs or co-locate with other like-minded companies.
	<b>Recycling facilities</b>	Facilities for waste recovery and recycling – e.g. collection centres, materials recovery facilities (sorting/recycling plants), composting sites, waste-to-energy plants, and remanufacturing units that turn recycled inputs into new products.
	<b>Manufacturing and logistics</b>	Space that supports manufacturing of clean tech components and advanced manufacturing. For example, electric vehicles and wind turbine components. Some may have bespoke requirements, such as accommodating automation and robotics systems.





## KEY TAKEAWAYS

1

Growing demand for clean tech real estate will be boosted by further investment and supportive policies.

2

Established clean tech clusters are growing, and new hubs continue to emerge. Combining real estate data with economic growth insights will be crucial for identifying supply-side opportunities in real estate early on and pinpointing optimal locations for occupiers.

3

Academia is driving demand by incubating promising startups. Space within these locations will be pivotal to success. Furthermore, startups need flexible, scalable spaces and supportive ecosystems. The operational aspects of real estate are just as critical as the physical built environment.

4

The sector is comprised of several sub-sectors that require tailored real estate solutions. Real estate needs vary from lab space to manufacturing, logistics to coworking and beyond.

5

Corporate restructuring among large companies and the creation of new research institutes are driving fresh demand in the real estate market.

clean tech companies are within 50 metres of each other. If we extend the buffer to 100 metres, it is almost 130 clusters, although this is limited by the HQ or registered address data and the true numbers may be larger. Some are flexible office spaces and others more targeted sector specific 'hubs'. Within these, the median cluster size is seven companies, with the median number of employees being five.

Real estate needs vary significantly across the renewable energy sector. For example, large-scale solar projects require extensive, flat land with high solar exposure. In contrast, urban solar solutions typically utilise rooftops or existing buildings. Hydrogen production facilities, meanwhile, resemble industrial sites, demanding large quantities of water and renewable electricity, and are usually located in industrial areas with suitable infrastructure. Industrial properties will support the manufacturing of components, such as wind turbines. These may be best suited to port locations, as quayside access is important.

Advanced manufacturing operations may have bespoke building requirements to accommodate precision manufacturing operations with high levels of automation and robotics systems; these requirements may relate to power, floor loading and finish, building

height, and other design features. The exact nature of the manufacturing will dictate other specific requirements. For example, commercially sensitive operations may require security (both physical and cyber) to protect their IP. In contrast, additive manufacturing (3D printing) may require advanced fire safety measures or explosion-proofing, and battery and semiconductor manufacturing typically require clean room environments.

### IN SUMMARY

The sustained growth of the clean tech sector will be enhanced by the UK's supportive policies and continued investment, presenting a transformative opportunity for the real estate industry. As such, demand for specialised spaces to support the sector, such as laboratories, workshops and sustainable offices, will rise. Regions with established clean tech clusters, like London, Bristol, Cambridge and Edinburgh, offer significant opportunities. At the same time, emerging hubs such as Cornwall and Manchester highlight the importance of regional strategies. Demand for sustainable spaces and evolving needs will require innovative solutions to align with strategic goals. Real estate can play a pivotal role in driving the clean tech sector's expansion by addressing these trends.