

This whitepaper explains why Greater Manchester is the perfect launchpad for the UK's next tech revolution

Investing in Data Centres: Why Greater Manchester?

Introduction

2023: A watershed moment for UK data centres

Timing is everything in tech. The successful innovations, the smartest decisions, the landmark developments: They can all be traced back to choosing the perfect moment.

For UK data centres - the engine rooms supporting the needs of 67 million people - that moment is now.

With businesses pushing boundaries with advanced tech more than ever before, the UK's data centre footprint has reached a pivotal point of evolution. West London and the M4 corridor to Slough has long served as the nerve centre for UK data centres and connectivity, but smarter and more sustainable synchronisation in addition to pressures on power and land availability means the industry is moving beyond reliance on a single location. Like France with Paris and Marseille, and Germany with Frankfurt and Berlin, a second destination beyond London is needed.

This whitepaper presents findings showcasing Greater Manchester as the UK's most viable secondary data centre and technology hub - and why the future of sustainable, high performance infrastructure lies within the city boundaries of one of the UK's most innovative, dynamic and rapidly evolving urban areas.



Where is the next emerging data centre hub?

The UK is more dependent on its capital city than many other countries - and data centres are the perfect case in point.



Centralisation of these facilities (**80%** of UK data centres are based in Greater London ^[1]) has followed a similar pattern to much UK development, with the capital offering proximity to the country's major decision-makers, financial resources and global connectivity routes but it has also created risks in security, resiliency and scalability. With the bulk of the UK's data centres residing in a 45-mile radius and dependent on an already congested energy grid, there is something of a bottleneck that requires addressing. There is a very real need for data centres to find a new home, although operators have, as yet, been slow to take advantage.

As such, Kao Data has dedicated a **£350 million** strategic investment in Stockport, taking North West England's connectivity blueprint to a higher level than ever before.

Why Greater Manchester?

A closer look at the digital footprint of the UK reveals that many of the key, data-intensive industries which rely heavily on data centres - media, creative, financial services, advanced engineering, life sciences, pharma, science and research - have settled in North West England.

This makes Greater Manchester - the one-time birthplace of the industrial revolution - the perfect launchpad for the UK's next technological revolution.

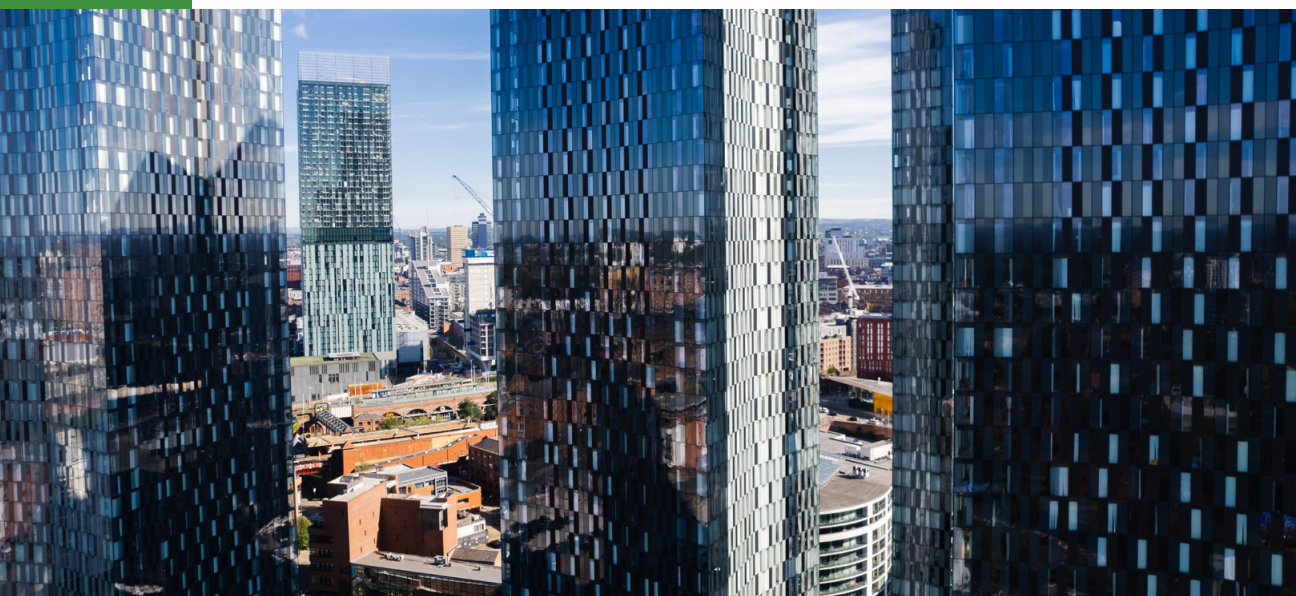
Greater Manchester has already emerged as the most important, growing digital and creative economy outside London - boasting a big economy, key industrial sectors and clusters, R&D presence and excellent fibre and transport connectivity - along with an incredible amount of talent, either currently working, or arriving into industry as students.

This is also a region that is home to real entrepreneurial spirit, with more digital workers here than anywhere outside London^[2]

Already there is strong evidence that global hyperscalers - Microsoft, AmazonWeb Services (AWS), Google, Meta as well as leading 'tier 2' cloud providers - are laying the foundations, through the deployment of cloud edge nodes, and other edge infrastructure, for a new cloud region in and around Greater Manchester. This is in addition to the plethora of AI start-ups and tech unicorns (such as AO, OnTheBeach and AutoTrader) already basing themselves in the region.

As such, the area is on the cusp of enormous change. A new technology wave is approaching, and one of the key catalysts and drivers underpinning digital transformation is the data centre. A select number of smaller sites have popped up in the North West along with major industry operators such as Equinix and AtlasEdge, but there is still huge potential for advancements in the scale and operation of other facilities.

Greater Manchester ticks all the vital boxes for criteria that drive data centre location and data centre site selection: Economy, Industry, Infrastructure, Talent and Sustainability.





"[Greater Manchester has made] concerted effort to create a vibrant, exciting, and world-leading ecosystem around digital and tech – an ecosystem that contributes over £5 billion every year to the Greater Manchester economy." ^[12]

Cllr Bev Craig, Leader of the City Council and GM Combined Authority portfolio lead for Economy, Business & Inclusive Growth



Economy

In an increasingly digitalised society, there is a growing demand for the infrastructure on which all this computerised activity can thrive so no surprise then that the data centre market in GB is expanding at a rapid rate of **5.5%** per year^[3].

But in order for these facilities to generate maximum impact and truly yield their potential, it is essential they are installed in a place with an economy that can support them.

Being home to the largest UK economy outside London (**£75 billion** p/a) - and widely considered to be one of the fastest-growing digital economies in Europe - Greater Manchester is perfectly placed to meet this need. The city-region alone has given birth to thousands of businesses, with **10,000** digital and tech firms^[4] (from SMEs to big corporations including Barclays, Deloitte and PZ Cussons) now based in Manchester.

£532 million was raised by tech firms in Greater Manchester in 2022^[5] - a **50%** increase on the previous year - and **78%** of digital companies in the city-region reported expansion in the same year^[5]

Greater Manchester is also underpinned by a strategic authority that is digitally-focused, savvy and fully prepared to support the region in its aims to fly the flag for tech in the UK. In 2023, the Greater Manchester Combined Authority - which represents all ten local boroughs - unveiled an ambitious digital blueprint for the city-region declaring significant investment and support that would take the regional data and technology sector to **£5.5 billion**^[5].

The economy is booming. The ambition is clear. The region is ready. Greater Manchester is riding an unprecedented wave of digital innovation and is primed for data centre development - something Kao Data believes will be vital to meet the UK government's economic and technological ambitions as it aims to become a world-leader in science and tech by 2030.

Industry

Greater Manchester is a region of superlatives: home to the UK’s largest advanced engineering and aerospace clusters, the biggest higher education facility in the UK, and the most sizable creative and media hub in the nation.

The buzz of the tech scene has spread beyond the city centre and into the wider boroughs. Greater Manchester now outperforming many of the emerging fintech cities such as Lisbon, Rome, Brussels, and Warsaw, raising **£1.8 billion** in venture capital funding over the past five years ^[6].

The opening of the 200-acre MediaCityUK in 2012 has seen innovation centres spread to Salford, with the mixed-use space on the ship canal now serving as one of the UK’s largest creative and digital clusters, and where many of the country’s biggest media institutions such as the BBC and ITV reside, as well as numerous film rendering, SFX and CGI studios. Also beyond central Manchester are numerous world-renowned scientific institutions including Jodrell Bank Observatory (which pioneers in astronomy), The Christie (which runs 650 clinical research studies every year on cancer treatments) and Daresbury Laboratory (home to the Accelerator Science and Technology Centre (ASTeC) and the Cockcroft Institute, which houses teams of scientists from nearby universities.

Once upon a time, Greater Manchester was a place where you could see the industrial revolution in full throttle. That industrialisation is still happening today, only the smoke and steam have been replaced by scientific research, digital businesses and computer servers.



“We are thrilled that Kao Data have chosen to invest in Greater Manchester. Manchester is thriving and continues to be ambitious.”

Sam Booth, Chief Executive,
pro-manchester



Infrastructure

Long stretches of development land within the M60 - at less than half the cost of West London - has proven ripe for opportunity with budgets going further.

Government statistics reveal Greater Manchester is a leading UK city-region for Foreign Direct Investment (137 FDI projects created **5,820** new jobs in North West England according to government statistics ^[7]), and the UK's **£5 billion** National Cyber Force is also planning a move to this part of the country.

Possessing a resilient grid network previously constructed for heavy industry, Greater Manchester has the plentiful, reliable power that data centres need.

The capacity of Greater Manchester's electricity network to accommodate increased demand is robust, and from 2023-2028 Electricity North West will be investing **£21m** in Greater Manchester's electricity distribution. The grid has been modernised over the years with billions of pounds invested, readying the region for higher peak demand, which is expected to grow from **4,049MW** in 2021 to **5,305MW** in 2030. Plus, the reliability level of **99.995%** is the best of all 14 national electricity distributors.

However, what makes Greater Manchester such a lightning rod for communications is its access to direct fibre. Manchester is now the second most connected city in the UK, with its gigabit broadband connectivity increasing from **4.8%** to nearly **85%** ^[5]. Any business seeking to ensure seamless links to the likes of New York City, Dublin or Amsterdam will no longer have to go via London for connectivity, as the Greater Manchester region picks up its own transatlantic routes.

For all its connections in cyberspace, Greater Manchester is also seamlessly interlinked on the ground. The city-region is superbly connected by one of the country's largest international airports, frequent train services, as well as the newly-launched Bee Network which has merged the Metrolink and bus transportation for passengers with improved timetables and faster services.

"Kao Data's facilities will provide infrastructure to ensure the growth and scale-up around cloud services, internet applications and data storage - harnessing the full potential of emerging technologies."

Katie Gallagher, Managing Director, Manchester Digital & Chair of UK Tech Cluster Group

TCG UK Tech Cluster Group





"Significant progress [has made] Greater Manchester a technical education city-region with so many employers coming on board..." ^[13]

Councillor Eamonn O'Brien,
GMCA Portfolio Lead for
Education, Work and Skills

GMCA GREATER
MANCHESTER
COMBINED
AUTHORITY

Talent

In 1948, Manchester provided the study space for Alan Turing - who is considered the father of modern computer science - and it is still underpinning and supporting inventive minds today.

Data centres drive demand for tech workers, and with a reported **7.2 million** workers living within a one-hour travel time of Manchester city centre ^[8] this guarantees a large, diverse talent pool within easy commute at all times.

As many as **69,000** creative, digital and tech roles were actively advertised by Greater Manchester companies in 2022 ^[5]. **29,000** STEM students reside here, and with five world-famous higher learning institutions - University of Manchester, Manchester Metropolitan University, University of Salford, University of Bolton and University Academy - spreading knowledge across the boroughs, the next generation of tech talent is being nurtured.

Sustainability

As the UK embraces a greener ideology that lowers its carbon footprint, cities are taking their own steps to play their part.

This is a crucial factor in supporting data centre infrastructure and having sustainable data centres that can support smart city ambitions.

Greater Manchester is one of the most ambitious regions of all, setting a long-term environmental vision to be completely carbon neutral by 2038. The UK government is aiming to reduce its greenhouse gas emissions to net zero by 2050.

Dedicated programmes have been designed to support businesses on their mission to lower carbon emissions, such as the Low Carbon Skills: Journey to Net Zero ^[9], and the Greater Manchester Environment Fund (GMEF). GMEF is the UK's first regional environmental impact fund, aiming to generate over **£100m** ^[10] of investment to align with projects that benefit the environment across the region.

As the UK steers increased resources into developing renewable energy data centres, it is crucial not to lose sight of where and how they operate. Through its green pledges, Greater Manchester has dedicated itself to supporting these facilities in an environmentally-focused way.



“My aim as Mayor is to make Greater Manchester the UK’s leading digital city region and the UK’s leading green city region.” ^[14]

Andy Burnham, Mayor
– Greater Manchester
Combined Authority

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“Our facility will set a new standard for sustainable data centres within the region and will provide a piece of foundational infrastructure that supports both Northern England’s advanced computing clusters and the UK Government’s ambitions to become a technological and economic powerhouse for HPC and AI.”

**Spencer Lamb, Chief Commercial Officer,
Kao Data.**

Who is Kao Data?

Kao Data leads the data centre industry, pioneering the development and operation of facilities engineered for AI and advanced computing.

Since 2014, we’ve provided technologically advanced and award-winning data centres, powered by **100%** certified renewable energy, encompassing three pillars that deliver high performance infrastructure, operations and efficiency.

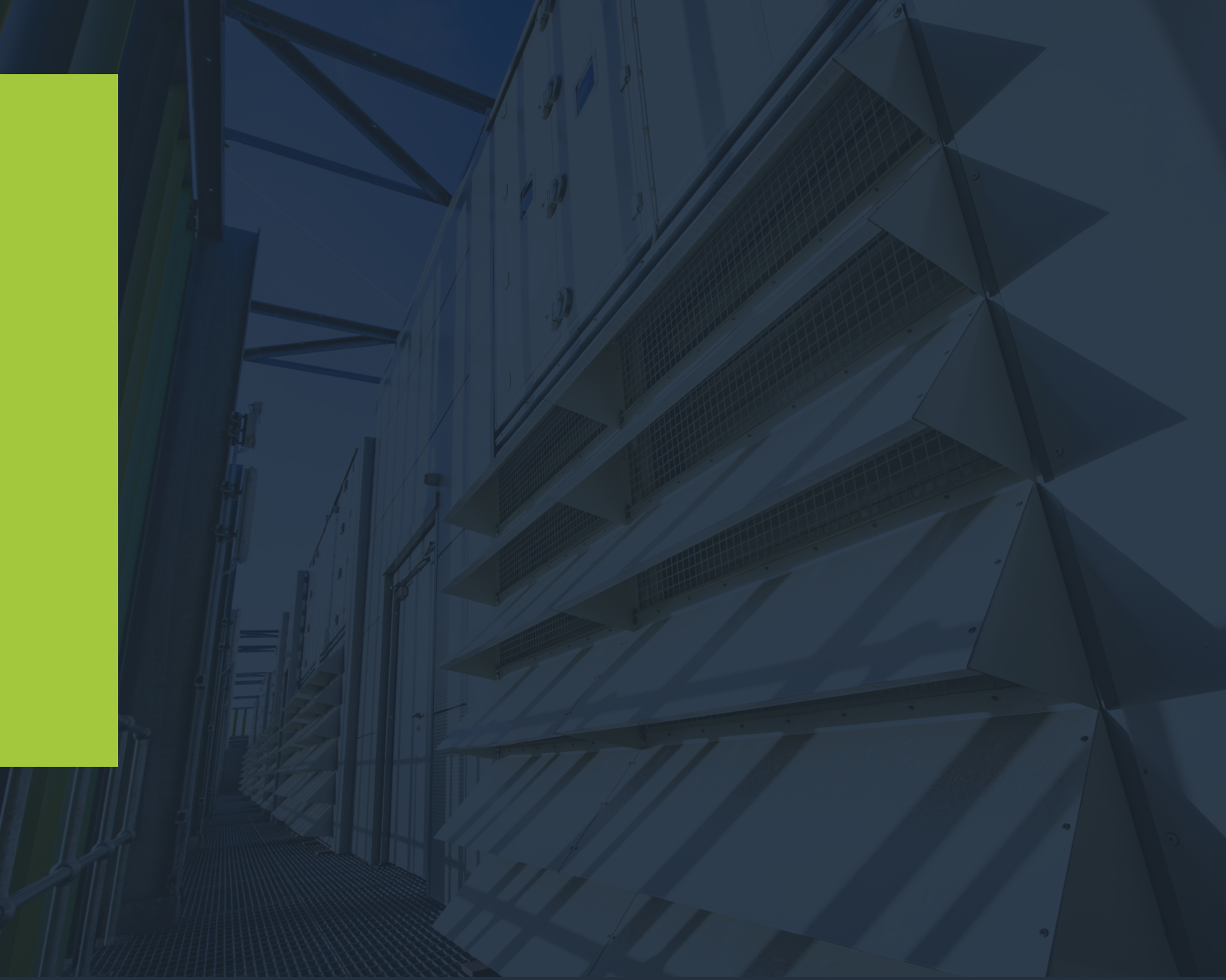
Through our hyperscale-inspired data centre platform, we provide our customers with a secure, scalable, and sustainable home for their compute.

With industrial scale facilities currently operating in Harlow, Slough, and Northolt, our new **£350 million** investment will create a state-of-the-art and high performance data centre in Stockport, providing **40MW** IT of capacity and a substantial contribution to Greater Manchester’s digital infrastructure.

It will also be the largest and most advanced facility in Northern England - functioning as a catalyst to drive increased migration of international tech firms to Manchester. But most importantly of all, it has the ambition to establish a new North of England hub for excellence in the sector.

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