

#### **Foreword**

# AS WE STAND ON THE PRECIPICE OF A NEW ERA IN EMERGING TECHNOLOGIES AND ARTIFICIAL INTELLIGENCE (AI), THE QUESTION OF WHERE TO ESTABLISH THE UK'S NEXT AI GROWTH ZONES (AIGZ) IS OF VITAL IMPORTANCE.



The city of Manchester holds a special place in history as the birthplace of modern computing, thanks to the pioneering work of Alan Turing. Today, it hosts the UK's largest Al ecosystem outside of London and some of the world's most globally recognised universities, creating a fertile ground for further development and innovation.

As we begin to build our first hyperscale-inspired data centre outside of London, in Greater Manchester, and commit £350m of inward investment into the region, I have already witnessed so much of its exciting tech ecosystem and its amazing community, and can see the hugely exciting potential for growth in AI.

The establishment of a UK Government-led AI Growth Zone here would not only capitalise on existing strengths but catalyse further innovation and economic prosperity for the region and its wider communities. This report presents a compelling case for Greater Manchester and the wider North West region as the ideal location for one of the next UK AIGZs. We have explored the different elements of why the North West is uniquely positioned to build on its already outstanding reputation for industrial-scale innovation and become the UK's next Al powerhouse.

Importantly, it will explore the region's technological heritage, current capabilities and future potential, providing a clear roadmap for how an AI Growth Zone will not only support economic development in the North West, but the UK's position in the increasingly competitive global AI landscape.

#### **Spencer Lamb**

Chief Commercial Officer at Kao Data

## THE NORTH WEST THE BEST LOCATION FOR THE UK'S NEXT AIGZ

100MW
on shore
wind farm
proposed 2030

Scout Moor II Wind Farm

E30m

24km full-fibre, ultrafast,

**ANNOUNCEMENT** 

Tech giant Kyndryl 1000 jobs in Al

**675**%+

**LIVERPOOL** 

£5bn
Tech economy



104k university students

60%+
graduates
remain local

**MANCHESTER** 

150+
Tech businesses

Daresbury Science Park **10k** 

tech & digital businesses across the city region



Jodrell Bank

One of largest astrophysics research groups in UK

#### Introduction

On January 13th, 2025, the Government released its AI Opportunities Action Plan, authored by tech entrepreneur Matt Clifford, making 50 recommendations across key areas: improving data capabilities and access, developing AI talent, reforming regulation and driving adoption across both public and private sectors. The report was well thought out and well-received by the tech industry, regional authorities and MPs alike.

One of its recommendations was to create Al Growth Zones, the first of which was announced as Culham in Oxfordshire, the home of the UK's Atomic Energy Authority. The Government is now researching the best locations for further Al Growth Zones across the UK and has asked for expressions of interest. Kao Data has supported the joint expression of interest from Greater Manchester Combined Authority's (GMCA), Liverpool City Region Combined Authority (LCRCA) and a variety of other regional, national and international supporting stakeholders.

The Government had already shown its commitment to supporting and developing the data centre industry when it classified data centres as Critical National Infrastructure in September 2024. However, with a potential shortage of power in the West London and Slough area, and across the Irish Sea in Dublin, the North West region of England is the next most obvious location to create a new data centre hub.

Data centres are the foundations on which a digital economy is built and are the backbone that will power the AI revolution. A report from TechUK estimated that if the country increases data centre capacity above its trend growth rate (from 10% to 15% annually) this could result in an additional £44 billion of GVA by 2035, with almost 60,000 new jobs created and £9.7 billion of extra tax revenue.

Currently more than 85% of the UK's data centres are based around West London and Slough. From both a security and resilience perspective, given they have been designated as Critical National Infrastructure, it would be wise to encourage greater geographical diversity for the location of the UK's data centre industry.

If we look towards Europe, both France and Germany have a wide geographical spread of compute, with primary, secondary and tertiary markets now well-established in key cities such as Paris, Marseille and Lyon and Frankfurt, Berlin, Cologne and Munich respectively.





Al and digital technology are already transforming industries across the country – and here in the Liverpool City Region, we're determined to be at the forefront of that revolution.

"Our world-class tech ecosystem, strengthened by Kyndryl's commitment to create up to 1,000 AI jobs in Liverpool, proves that we have the talent and ambition to lead.

"With LCR Connect, our 214km full-fibre, ultrafast digital network – we're providing businesses with the high-speed infrastructure they need to innovate and grow.

"Combined with our outstanding universities and a strong supply of brownfield sites for development, we've got all the right ingredients to make sure the North doesn't just take part in this new era – but leads it. ? ?

Steve Rotheram Mayor of Liverpool



This is no accident, and many of our European neighbours are not only encouraging inward investment from the industry, but making great progress to alleviate the challenges surrounding land and power. The UK, therefore, needs to strategically develop data centres across other parts of the UK, which is one of the key measures identified in the Al Opportunities Action Plan.

Throughout this report we outline the key reasons why the North West region is already set up for success and prosperity as an Al Growth Zone, and why designating it as such could propel the region and its communities into further economic success and employment growth, while rapidly accelerating the use of Al within the UK.

Greater Manchester, the Liverpool City Region and the North West as a whole, are the perfect location to designate as an Al Growth Zone, and with the regional leaders such as Greater Manchester Mayor Andy Burnham now spearheading the process, we believe the region will be pivotal to reinforce the country's position as a global leader in Al and data centre capacity.

## Strong tech and innovative ecosystem

Greater Manchester has a fast-growing tech economy, with more than 10,000 tech and digital businesses across the city region, and the tech economy is <u>estimated to be worth f5bn</u>. Manchester also has strong fintech, healthtech and ecommerce sectors, as well as Al and data.

Neighbouring city Liverpool, just 35 miles to the west, has a vibrant digital and creative sector, which is estimated to deliver £1.7 billion to the regional economy. Liverpool is also seeing its tech ecosystem rocket, with data from Beauhurst revealing a staggering 92,610 active businesses operating in the region - the highest ever on record. The city has seen a <u>657% increase</u> in VC investment since 2019, outperforming both Manchester and London. A report found that in 2022, Liverpool-based startups attracted 85 equity investments totaling £93m.

In 2024, Manchester was named as the most 'Al ready' city in the UK in a <u>report from SAS</u>, with nearby cities Salford at number three, Leeds at number four and Liverpool at number six, demonstrating how strong the North West region is for Al. In February, a report from <u>Capital</u> <u>Enterprises</u> found that Manchester is the most popular city outside of London to start a tech business, with Liverpool being ranked fifth.

To date, the Greater Manchester City Region has attracted numerous tech giants to set up UK HQs here, while there are multiple homegrown tech companies and startups. Tech giant Google opened its second UK headquarters in Manchester in February 2024 in NOMA, the redeveloped business district near Victoria train station.

Dutch tech business Booking.com opened its UK headquarters in Manchester 2022, while Australian tech business Safety Culture opened its UK headquarters in Manchester, and in September 2024 was valued at £1.3billion, which gives it unicorn status.



As an industry body and membership organisation for the tech sector, Manchester Digital strongly supports our city region being designated an Al Growth Zone.

"By developing and supporting our AI economy, we can bring prosperity and more high quality job opportunities to the whole of Greater Manchester and the North West region. It's really important to decentralise AI growth and support the tech economies outside of the South East to drive economic growth across the region. The North West has the foundation, the talent and the vision to lead the UK's AI revolution.

**Katie Gallagher OBE** Managing Director at Manchester Digital and chair of the UK Tech Cluster Group



Greater Manchester and the wider North West are primed to become the UK's next Gov AI Growth Zone, thanks to a thriving tech ecosystem and a rapidly growing AI sector supported by collaborative innovation. Our world-class universities not only produce exceptional talent but also retain it, fuelling a skilled and future-ready workforce. With a reliable power supply, strong digital and transport connectivity, and an abundance of brownfield land ready for data centre development, the region offers the ideal infrastructure for scalable AI growth. We're not just ready for the future—we're building it here.









Greater Manchester is a frontrunner in the UK's AI landscape, recently identified as the country's most Already city and boasting the most Al-related businesses outside London. Our thriving sector is fuelled by a worldleading and collaborative research base, a wider £5bn digital economy, and strong partnerships between the cityregion's leadership and the private sector. With this mature ecosystem underpinned by a mature spatial plan, the cityregion stands ready to engage with the high level of ambition set out by central government on the Al Growth Zone agenda.

As a homegrown Northern business, Auto Trader consolidated its North West offices to one Manchester HQ in the city centre in 2014 and is soon to move to its new office at No 3 Circle Square.

In September last year, The University of Manchester and Bruntwood SciTech launched its new £1.7bn innovation district, called Sister, which is predicted to generate 10,000 new jobs, training and apprenticeship opportunities and contribute £1.5bn to the Greater Manchester economy annually.

Additionally, in the neighbouring county of Cheshire, SciTech Daresbury houses an innovation centre and partners with world-leading universities and Jodrell Bank, which, as well as being home to the iconic radio telescope, is a globally renowned deep science research facility run by the University of Manchester.

In March, Andy Burnham and Steve Rotheram signed a <u>Memorandum of Understanding with US-based Axiom Space</u>, which could lead to spacebased research, development and manufacturing in the region.

The Mayoral duo also spoke at MIPIM in Cannes and stated that they believe

that a 'Northern Arc' high speed Liverpool to Manchester railway would create "an economic supercluster" specialising in life sciences, AI, advanced materials and manufacturing that would add £7bn GVA to the UK economy.

The North West already has a very strong tech ecosystem and if the region was designated as an AIGZ, it would create much more investment and job creation as well as strong growth within the existing AI sector.

**Cllr Nick Peel** leader of Bolton Council and GMCA portfolio holder for digital city region

## Strong startup and Al ecosystem

Greater Manchester is a fast-growing hub for Al research and development, underpinned by the region's universities. The latest figures from GMCA states that there are 291 Al businesses in Greater Manchester, employing 14,000 people.

At the end of 2024, the Manchester Tech Climbers list was dominated by Al companies, with 77% of businesses on the list being product-led Al businesses. A report from Beauhurst found that after London boroughs, Manchester tech businesses received the highest level of investment from equity fundraising.

Manchester's homegrown Al companies include Peak; Dream Agility and DigitalBridge (re-branded as Fixtuur), and the city region is also home to a number of organisations including GCHQ and NCSC, who are growing teams in Al and Data Science.

Manchester's AI Foundry was launched in 2021 and brings together four universities - Manchester Metropolitan University, University of Manchester, University of Salford and Lancaster University. Additionally, the University of Manchester is an academic partner with the Alan Turing Institute, the leading body for Data Science and AI in the UK.

Additionally, the universities have strong spinout support, such as the University of Manchester's Innovation Factory. Other locations which have support for startups include: Bruntwood SciTech; Enterprise City Exchange and Manchester Tech Incubator. Additionally, The Turing Innovation Catalyst which opened in 2023 and focuses on commercialising and accelerating AI, deep digital tech, and digital trust technologies.

The startup ecosystem in the North West is underpinned by a number of Venture Capitalist investors, including Praetura Ventures; GC Angels and the Northern Powerhouse Investment Fund.

Industry body Manchester Digital runs a Startup Activator programme, which is a comprehensive advice programme for startups right across Greater Manchester, with access to advice from exited founders and entrepreneurs.



The North isn't waiting for permission to become the UK's next great tech hub: it's already happening. Greater Manchester's innovation economy is thriving, built on decades of strong publicprivate collaboration. Liverpool's tech sector has more than doubled in size since 2012, fuelled by initiatives like Baltic Ventures and Liverpool Slush'D. Meanwhile, Andy Burnham's newly announced 10-year growth plan could add £13 billion to the UK economy. ">>

**Jonny Clark** CEO of ecosystem experts Capital Enterprise

To the West, the Liverpool City Region is a growing Al hub which should not be underestimated. In 2025 alone, tech giant Kyndryl announced that it would create a new tech hub in Liverpool, creating 1000 jobs in Al for the region. On top of that, the University of Liverpool announced it would be creating a £12.47m Civic HealthTech Innovation Zone which will create 365 jobs and support more than 100 businesses.

In February, it was <u>announced that</u>
<u>Bruntwood SciTech</u> has invested more than £4m into Liverpool tech hubs to support the region's life sciences sector.

A Whitecap Consulting Report in 2023 stated that the Liverpool City Region has set an ambitious target of 5% R&D investment annually by 2030, nearly double the national target. This investment aims to provide £41.7bn gross GVA benefit and create 44,000 new jobs by 2030.

There is a really strong sense of community right across the North West startup scene, with a close connection between Manchester and Liverpool, including numerous meetups and networking events for all tech startups and Al specifically.

What the region now needs is access to world-class digital infrastructure enabling it to accelerate growth and innovation at pace and scale.



The progress already made, and potential for future growth in AI in Manchester is absolutely undeniable at this point. Since we launched in 2023, we've been nothing short of inundated at the Turing Innovation Catalyst Manchester with AI innovators, startups and researchers keen to accelerate the growth of their AI ventures. We're also starting to see an exciting trend of global startups and large corporates choosing Manchester as the base for their expanded AI teams. As a designated AIGZ, we'd be able to double down on these early successes and create the type of critical mass we know we'll need to fulfil the UK's AI superpower ambitions in the North of England.

Liz Scott MBE Director. Al Turing Institute



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The North West is the most exciting tech economy in the UK right now, and a lot of the progress has been driven by the huge leaps we've made in AI. From startup to scale up, we are developing businesses that give our economy a global competitive edge.

"The investment conditions for an AI Growth Zone are ideal. This support is essential in a fiercely fast paced market where other international competitors are already making moves to win their share.

"The founders in this region are also actively seeking this sort of support. Praetura's research found that 78% of North of England founders want to be part of an active ecosystem due to the benefits it'll bring. The research suggests they want to see more investment into their ecosystem with greater access to accelerators, more local funding, more sector events, greater connectivity and support attracting talent. They're also the region most likely to welcome public and private sector organisations to deliver this.

"As a venture investor, all of our funds are focused on this region because we believe in its untapped potential. The Al Growth Zone will be a huge step forward. ??

**Ben Davies** Marketing Director. Praatura Ventures



## World-class universities and talent retention

The North West region boasts a number of world-class universities, which are outstanding in STEM subjects. The University of Manchester is considered one of the top UK universities for computer science degrees, has the largest maths department in the country and one of its largest physics and astronomy departments.

More than 104,000 students in total are enrolled in Greater Manchester's universities, which include University of Manchester; Manchester Metropolitan University; University of Salford: University of Greater Manchester (formerly University of Bolton) and University Academy 92, collectively producing 42,000 graduates every year.

More than 60% of graduates from these universities remain in the North West after graduating. In a recent interview with Greater Manchester Mayor Andy Burnham, he stated that he intends to reduce the 'brain drain' to London even further.

On top of this, Greater Manchester Mayor Andy Burnham has launched his regional version of the EBACC qualification in September 2024, called the MBACC, which focuses on technical education for pupils who are unlikely to go to university. Each MBacc gateway will guide young people to the subjects most valued by the city-region's employers, and one of these pathways is digital and tech.

Liverpool has three universities and more than 60,000 students, also with many strengths in sciences and maths subjects. The University of Liverpool is part of the Russell Group, strong in STEM and ranks 17th in the UK. It has excellent retention rates, with 46% of UoL students remaining in the area after graduating.

A recent Regional Economic Forecast from EY found that Manchester's economy will see annual average growth of 2.1% (measured as Gross Value Added) from 2025-28, with job numbers in the city forecasted to grow at an average annual rate of 1.3%. The only other city outside of London forecast to see faster growth over the same period is Reading. The tech sector is Manchester's fastest growing sector, with an average annual GVA of 2.4%. Overall these stats are supported by the city's leading universities, numbers of STEM graduates and high retention rates.

By creating an Al Growth Zone, more graduates would be encouraged to remain in the region as there would be more techrelated jobs to keep them in the region.



## Power supply for data centres

Creating a sizeable data centre hub across the North West is critical for rapid growth in Al. One of the most important elements is having adequate power and access to sustainable energy.

A survey by BCS of 3000 data centre professionals found that more than 90% of participants ranked power availability among their top two priorities when deciding on data centre expansion plans, while 87% stated that limited grid capacity and a shortage of high-density facilities are slowing Al adoption.

To address this, there is currently a proposed renewable energy project called the Morgan and Morecambe Offshore Wind Farms scheme, where two wind farms will be located approximately 30km off the Fylde coast in Lancashire. This will have a nominal capacity of 480MW, capable of powering over 500,000 UK households, with up to 35 fixed bottom wind turbines. It would also see undersea cables landing at Starr Gate beach, near Blackpool Airport, and running around 10 miles underground to two substations between Kirkham and Newton.

The project is expected to start construction in 2026 at the earliest, with commercial operations anticipated in 2028/29. This will be a significant step towards the UK's net zero target to reduce greenhouse gas emissions by 100% from 1990 levels by 2050.

Another is Scout Moor wind farm, located north of Manchester, on moorland near to Rochdale and Ramsbottom and which currently generates 65MW of power. The owner Cubico Sustainable Investments has announced plans for Scout Moor II, a 100MW onshore wind farm which would become the largest in Europe and could be operational by 2030. The plans were announced in November 2024, after the current Government lifted a ban on new onshore windfarms in the UK imposed by the former Conservative administration.

By harnessing wind power from renewable schemes, data centres can significantly reduce their reliance on non-renewable energy sources, lower their carbon emissions, and contribute to a more sustainable future for both the tech and Al industry.

Both Liverpool and Manchester regional authorities have ambitious aims of net zero by 2040, instead of the Government's aim of 2050. In 2023, a report found that the North West has enough renewable energy potential to meet future energy twice over.

Renewables could generate an energy retail value of £50bn per annum to help lower bills, stimulate green economic growth, provide energy security and fund public services - with co-operative ownership a key element.

A report from Dallington Energy found there is about 4.6GW of new generating capacity in construction, awaiting construction, or in the planning process in the North West. The bulk of that capacity is offshore wind across four projects, with a much smaller proposition of solar PV and energy from waste.

Overall, the North West is well placed for power supplies due to its industrial heritage. However, significant investment is required to upgrade the national grid countrywide and decentralise energy generation.

To meet and exceed the government's Al ambitions, we need to see more renewable energy sources developing across the UK, and the North West is already taking steps to address this.



### Connectivity

Connectivity is the foundation of the digital online world and every person and business that uses the internet. At its core, this involves the transmission of data via data centres and undersea fibre optic cables - both of which serve as the backbone of digital infrastructure, enabling organisations to store, process, and distribute large amounts of data safely, securely and efficiently.

In 2020, a new fibre optic cable connected Blackpool with North America and Europe, via the North Atlantic Loop, which carries one third of the world's internet traffic. The connection to the subsea, fibre optic, Irish Sea cable network gives the capability to deliver some of the world's fastest, most resilient internet speeds, specifically to the North West of England. This cable is known as CeltixConnect-2; a next-generation system that is part of the Aqua Comms network.

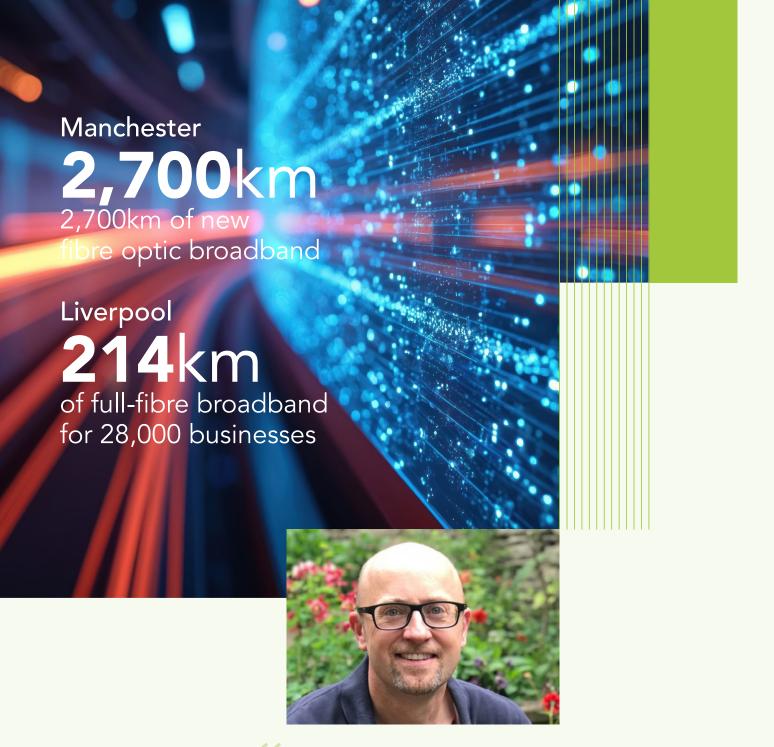
Further to this, in 2020, the GMCA secured world-class digital infrastructure through the UK's biggest government full-fibre investment via the appointment of Virgin Media Business with up to 2,700km of new fibre optic broadband infrastructure across the region. The £23.8M Local Full Fibre Networks Programme connected more than 1,500 public sites across

the city-region and remains an integral part of its connectivity ecosystem.

Over in Liverpool, a £30m 214km full-fibre, ultrafast, gigabit-capable network, called LCR Connect was launched in February 2024. It now equips 28,000 businesses, investors, universities, schools, hospitals, residents and students across the six local authorities, allowing them to access next-generation, future-proofed and cloud-enabled technologies.

The North West benefits from excellent connectivity, which is key for swift growth in the tech and AI ecosystem across the North West. On top of this, the region is perfectly placed to be a 'good neighbour' to the data centre hub in Dublin, as well as 'provide' a resilient digital gateway from the US into Europe.



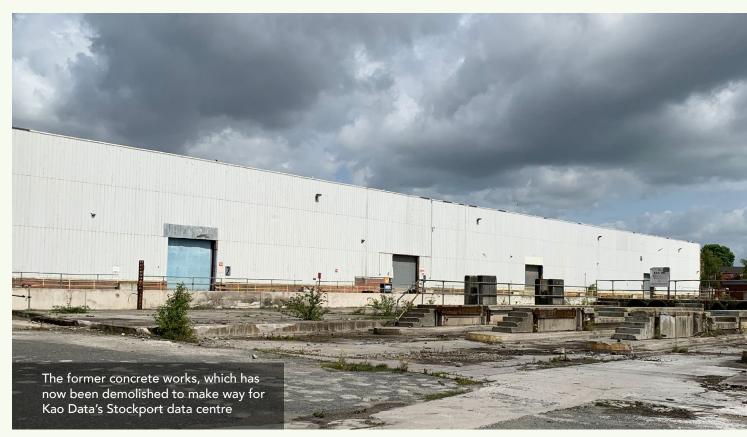


Having world class digital infrastructure in Greater Manchester is an essential component in our Digital Blueprint. GMCA works with industry to encourage and target investment – one example is GM One Network and GM Full Fibre which has connected over 1,200 sites across the city region, pushing fibre into poorly connected areas and both improving services generating efficiencies for local public services. Greater Manchester's leadership and capability to support groundbreaking developments complements our strategic positioning as a key location for data centres from Europe and North America.

Phil Swan Director for Digital at GMCA

# Lots of former industrial brownfield land for data centre building

The North West of England has plenty of brownfield land available for data centres due to its industrial heritage. As a former hub of the Industrial Revolution, the region has numerous unused sites that are prime for sustainable redevelopment. These brownfield sites often have existing power connections, making them ideal homes for data centres.





The UK government's push for brownfield development has led to the creation of brownfield land registers, which have identified substantial capacity for new developments. Local authorities in the North West are actively promoting these sites for redevelopment, including data centres, as part of their economic growth strategies.

Unlike factories or other industrial sites, data centres are quiet neighbours, with high security, making them more attractive neighbours than other options. The Government has stated that it will create fast track and streamlined planning processes in order to build Al infrastructure quickly. Local authorities are therefore encouraged to work collaboratively on planning solutions to speed up the process of getting data centres in place.

The regional authorities in Greater Manchester and Liverpool understand the benefits that data centre operators can bring to the areas.



### **Conclusion**

As Greater Manchester is the largest city region in the North, it has all the ingredients to become a central hub for AI growth, including connectivity and power; plenty of brownfield land to house data centres; world-class universities with high graduate retention rate and a very strong tech and a long-established AI ecosystem, which is already attracting global attention.

At Kao Data, we believe that Greater Manchester is perfectly placed to become the UK's next AIGZ, and the city region should continue working with its neighbours - the city of Salford; Liverpool Combined Regional Authority and Cheshire, Daresbury Science Park and Jodrell Bank - to accelerate AI growth in the region.

Creating a sizeable data centre hub across the North West, however, is critical to achieve the rapid growth demanded by AI, and securing access to adequate renewable energy is one of the most important elements to address.

This involves a great deal of collaboration between different authorities, but will hugely benefit the North of England - encouraging new businesses and investment, attracting talent, driving research and development opportunities, and creating more high quality job opportunities for its young people.

With AI forming a central part of the government's five pillars of economic success, and the Greater Manchester region the largest digital economy outside of London, now is the time to build on its already rich heritage in industrial-scale innovation, and ensure the North West plays a key part in the UK's future growth.



