Land at Manor Farm, Poyle

Proof of Evidence: Data Centre Needs Assessment

Prepared for Manor Farm Propco Limited to accompany a planning appeal
Planning Appeal Ref No: APP/J0350/W/25/3366043

September 2025

savills

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1 Introduction

1.1 Author

1.1.1 My name is Mark Powney; I am a Director in the Savills Economics team and Head of London Economics. I have over 25 years of experience across viability modelling and commercial market assessments.

1.1.2 I have extensive experience in assessing market conditions relevant to Data Centres and the wider Industrial and Logistics (I&L) sector. I work with investors and occupiers across the UK to help them bring sites forward for development and find appropriate locations for future investment. Examples include Ark, Colt Data Centre Services, Wrenbridge, Endurance Estates, Vantage, Panattoni, Tritax, Segro, and GLP.

1.1.3 I am a member of Savills Data Centre Working Group and the British Property Federation's Industrial Committee. I am also the lead author of a number of I&L-related publications such as 'Levelling Up – The Logic of Logistics'[1] and the annual 'Big Things in Small Boxes'[2].

1.1.4 Some recent projects include:

- Colt, Hayes Digital Park – Data Centre Needs Assessment and Economic Benefits Assessment in support of Colt Data Centre Service's redevelopment of the Haynes Bridge Retail Park and Heathrow Interchange into a multi-purpose modern data centre and innovation hub.
- Confidential Data Centre in Wiltshire– Economic Impact and Social Value Assessment in support of a data centre proposal.
- Former Ford Site, Bridgend – Economic Benefits and Well-being Assessment for Vantage Data Centres in relation to its acquisition of the former Ford Factory in Bridgend.
- DC2 Thorney Lane – Economic Benefits and Well-being Assessment for Thorney Lane LLP in relation to its DC2 development at Thorney Business Park, Iver.
- Brampton Cross, Huntingdonshire – Data Centre Market Assessment in support of a 384 ha mixed use employment site in Huntingdonshire. This explored the key trends in the data centre market, the contribution of data centres to the wider economy, and the sources of demand for data centres.
- South Mimms, Hertsmere – Data Centre Needs Assessment in support of Wrenbridge's proposal for a data centre in Hertsmere.
- Confidential Data Centre in Scotland – Economic Benefits Assessment to support a bid for a large proposed data centre scheme in Scotland.
- Basingstoke Gateway – I&L Needs Assessment to support 85,000 sqm of industrial and logistics floorspace adjacent to the M3. Outline Planning Application approved.

[1] https://bpf.org.uk/our-work/research-and-briefings/levelling-up-the-logic-of-logistics/
[2] https://www.potterspace.co.uk/big-things-small-boxes

- South Mimms, Hertsmere – I&L Needs Assessment to support 12,000 sqm of industrial and logistics floorspace on a Green Belt site near the M25 and A1(M). Outline Planning Application approved.
- Gatwick Green, Crawley – I&L Needs Assessment for understanding the development potential of 48 ha of land nearby to Gatwick Airport and adjacent to the M23. Employment allocation secured.
- Worcestershire Parkway – I&L Needs Assessment to support the allocation of 5,000 homes and 50 ha of employment land adjacent to the M5. Draft employment allocation secured.
- Junction 13 Dunston, South Staffordshire - I&L Needs Assessment to support 60,000 sqm of industrial and logistics floorspace adjacent to the M6. Draft employment allocation secured.
- West Northamptonshire Local Plan Joint Representations on behalf of Wilson Bowden, Newlands and Tritax to support the case for additional strategic I&L employment allocations.
- East Midlands Gateway Phase 2 – Preparation of an I&L Needs Assessment to support the Development Consent Order application for East Midlands Gateway SRFI.
- 'Levelling Up – Logic of Logistics' report produced for the British Property Federation. Launch event webinar on the 27th January 2022 attracted over 500 registrations.
- 'Big Things in Small Boxes' report series for Potter Space.
- Firethorn Trust Market Opportunity Study – A study covering 24 industrial and logistics markets across the UK with the objective to identify the areas with the greatest investment potential.

1.1.5 The evidence within this proof of evidence is true and based solely on evidence from an objective market supply and demand perspective.

1.2 Purpose

1.2.1 This proof of evidence has been prepared by myself on behalf of Manor Farm Propco Limited ("the Appellant") in relation to Manor Farm and land north of Wraysbury Reservoir (the "Appeal Site") to accompany a Planning Appeal Ref No: APP/J0350/W/25/3366043 (local planning ref. P/10076/013) (the "Appeal") for the redevelopment of the site for an employment scheme comprising a Data Centre (DC) and a Battery Energy Storage System (BESS) with associated works (the "Development"). The description of development is as follows:

> *"Demolition of existing buildings and redevelopment to comprise a Data Centre (Use Class B8) and Battery Energy Storage System with ancillary substation, offices, associated plant, emergency backup generators and associated fuel storage, landscaping, sustainable drainage systems, car and cycle parking, and new and amended vehicular and emergency access from Poyle Road and other associated works"* ("the Development").

1.2.2 This report will demonstrate the immediate and substantial need for data centres at the Appeal Site, which is critical national infrastructure in meeting the Government's stated economic goals. The Appeal Development will also provide quality employment opportunities to the local economy. I also seek to respond to the Council's Statement of Case and to the matters that remain in dispute within the Statement of Common Ground as tabulated below.

Responses to the Council's Statement of Case (July 2025) [CD 9.1] [CD 10]

Statement of Case Reference	Council Comment	Where covered in this Proof of Evidence
6.3 – 6.5	6.3 - Although paragraphs 86 and 87 NPPF state that plans should pay regard to and make positive provision for data centres, there is no specific policy setting out the need for these. 6.4 - On 12th September 2024 an announcement was made by the Technology Secretary Peter Kyle, which confirmed that the Government has now classed data centres as 'Critical National Infrastructure'. 6.5 - This is the extent to which there is a recognised policy need for data centres.	Section 2
6.11 - 6.12	6.11 - Paragraph 6.15 of the Appellant's Planning Statement quotes the Inspector at recent appeal in Buckinghamshire (PINS Ref: 3307420) for a hyperscale data centre where he noted that the need has been estimated at 1730MW by 2027, which equates to an estimated need for around 12 to 15 new hyperscale data centres in this period in the Slough Availability Zone. 6.12 - In the absence of anything else this can be taken as an approximation of the scale of need for data centres in the region.	Section 5
6.56 - 6.59	6.56 The Appellant's claim in paragraph 1.5 of the Statement of Case states: *There are no appropriate alternative sites, and it is essential that the Development is located on the Appeal* Site. 6.57 This is not correct. There are large number of alternative sites available which are capable of contributing to the need for data centres in the Slough Availability Zone. The majority of these are much better located than the Appeal Site and are on brownfield sites. The Appeal Site does not have any unique qualities. 6.58 - As a result the "need" for the development should not be given any weight in the planning assessment of the proposed development on the Appeal site. 6.59 - The fact that there is no need for the development to be located in this area is a significant factor to be considered when assessing its impact upon the Green Belt, Strategic Gap and Colne Valley Park.	Sections 2 and 5 *(Also refer to the separate Savills Alternate Sites Assessment)*
6.147	6.147 - As set out above, there is not a demonstrable need for a data centre in this location because the demand for this type of development can be met upon numerous other sites in the Slough Availability Zone which are better located and are generally on brown field sites within the urban area. As a result, even if the site is classed as "Grey belt", the lack of any need for the development in this location means there is no justification for causing any harm to the Green Belt.	Sections 2 to 5
6.195 - 6.197	6.195 - Paragraph 8.4 of the Appellant's Planning Statement set out all of the reasons why they consider that there are "very special circumstance" which outweigh the harm to the Green Belt. 6.196 - The first one is that: • There is a clear and urgent need for data centres and BESS, both of which are considered to be critical infrastructure of national importance.	Section 5 *(Also refer to the separate Savills Alternate Sites Assessment)*

	• The Alternative Sites Assessment that will be submitted in support of the planning application provides evidence that there are no suitable and available alternative sites. 6.197 - The section on "Need" above shows that the Appellant's Alternative Sites Assessment was not correct in concluding that there are no suitable alternative sites, There are in fact a large number of alternative sites available which are capable of contributing to the need for data centres in the Slough Availability Zone. The majority of these are much better located than the Appeal Site and are on brownfield sites. The Appeal Site does not have any unique qualities.	

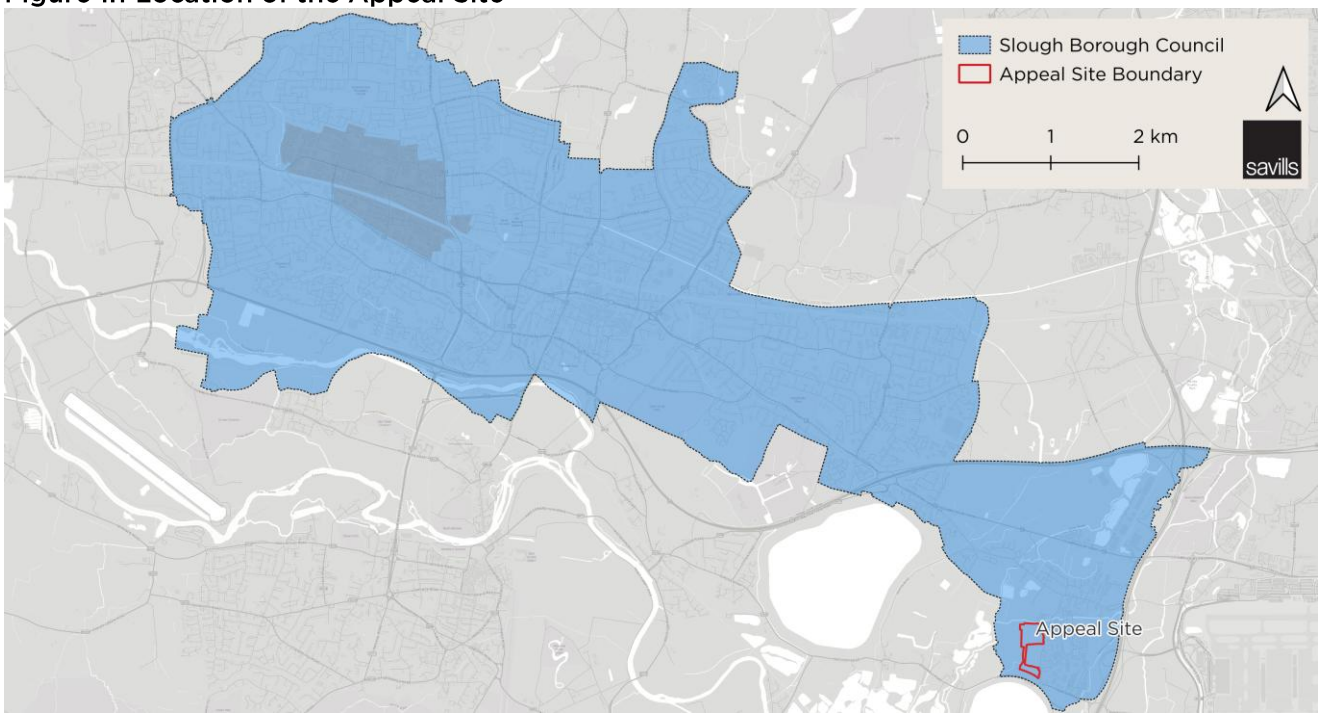
Responses to the Matters that Remain in Dispute in the Statement of Common Ground (August 2025) [CD 8.7]

Appellant's Position	LPA's Position	Where covered in this Proof of Evidence
Data centres are critical infrastructure. The scale of need for data centres at the SAZ and national level is overwhelming, urgent and of national importance.	It is necessary to consider all the recently granted permissions and indeed the Slough Trading Estate that already has 31 Data centres and a simplified planning zone which has a pipeline which has the ability to deliver 4.3m sq ft of additional data centre accommodation over the next 7 years. There are a large number of alternative sites that are capable of contributing further to the supply of data centres in the Slough Availability Zone. There is no need for the development to be located in this Green Belt and Strategic Gap.	Sections 4 and 5
It is critical that the Appeal Site is located within the SAZ.	The appeal site is located in the Green Belt, Strategic Gap and Colne Valley Regional Park, it has not been demonstrated that it is critical to be in this location. The appellant has also not demonstrated that it is critical for a hyperscale DC to be in the SAZ... but even if it is there other locations.	Sections 2, 4 and 5
There is a need for hyperscale data centres to be located in clusters (known as Availability Zones).	There is a preference for hyperscale data centres to be located in clusters (known as Availability Zones).	Sections 2, 4 and 5
The grant of planning permission would contribute to the Government's objectives of being at the forefront of the global digital economy and that data centres are central to the Government's economic and digitisation strategy.	The Government objectives in policy are being and can be fulfilled without permitting this site. Slough has a nationally significant number of data centres and has the SPZ and numerous planning permissions on more suitable sites.	Sections 2 and 3
Hyperscale data centres have specific locational requirements which mean that they can only be located in particular locations. These locational requirements can be of site, availability of fibre, reliable power, stable ground conditions and being outside of zones at risk from external factors such as fault lines, blast zones and flooding. These locational requirements restrict the availability of alternative sites.	Locational requirements such as these are available across the UK with a significant number of data centres and campuses located outside of the SAZ.	Sections 2, 4 and 5 *(Also refer to the separate Savills Alternate Sites Assessment)*

Appeal Site

1.2.3 The Appeal Site extends to approximately 8.16 ha, and is located within Slough Borough Council's (SBC) administrative boundary. **Figure 1.1** below presents the location of the Appeal Site.

Figure 1.1 Location of the Appeal Site



Source: Savills, 2025

2 Data Centre Sector Overview

2.1 Introduction

2.1.1 This section explores the key trends in the data centre sector, the contribution it makes to the wider economy, and what is driving demand for this 'Critical National Infrastructure'.

2.1.2 Data centres play a crucial role in modern digital infrastructure by housing the physical hardware, such as servers and networking equipment, that store, process, and manage vast amounts of data. They have become increasingly important to the functioning of a modern economy in recent years, especially with the rise of the digital economy, cloud computing and Artificial Intelligence (AI). It is for this reason that the Government recognise data centres as Critical National Infrastructure, as detailed below in **Section 2.5**.

2.2 Data Centre Typologies

2.2.1 There are four broad data centre typologies based on their purpose, ownership, size, and location. Each type of data centre serves specific business needs and operational requirements. They include:

- **Enterprise Data Centres** - These are owned and operated by individual companies to support their internal IT infrastructure. Enterprise data centres are typically built to serve the specific computing and storage needs of a single organisation. They are often located on-premises or near the company's headquarters.
- **Colocation Data Centres** - Colocation data centres (or 'colos') allow businesses to rent space within a data centre, rather than building their own. These centres offer shared infrastructure such as power, cooling, physical security, and network bandwidth.
- **Edge Data Centres** - These data centres tend to be smaller in scale and provide their customers with the benefit of lower latency[3]. The point of being at the "Edge" is to deploy servers near to the end users to reduce network costs and latency by requiring a shorter distance for data to travel.
- **Hyperscale Data Centres** - Large-scale operations designed for robustness and scalability. These data centres support big data analytics, cloud services, and streaming services, and are typically operated by major cloud providers and large tech companies including Google, AWS and Microsoft. **The Appeal Development is for a Hyperscale Data Centre.**

The Rise of Hyperscale

2.2.2 There has been a shift in the data centre industry from traditional enterprise models (serving one business) to colocation and hyperscale due to the growing demand for scalability, efficiency, and cost-effectiveness driven by cloud computing, big data, and AI workloads. Hyperscale Data Centres are designed to support massive and rapidly growing computing needs by using standardised, modular infrastructure. This enables them to scale up quickly, reduce operational costs, and maximise energy efficiency.

[3] Low latency in relation to data centres means minimising the time it takes for data to travel between a user's device and the data centre (and back again)

2.2.3 Hyperscale Data Centres have access to larger quantities of power, more efficient cooling, and more space for redundancy features such as back-up generators. This means they are more efficient and effective for cloud-based operations, better suiting cloud service providers. Hyperscale Data Centres are also best placed to support technologies like Artificial Intelligence, machine learning, and big data analytics due to their vast data storage and processing power.

2.2.4 As a result of the above trends, Hyperscale Data Centres have grown from 39% of total traffic within all data centres globally in 2016 to an estimated 55% by the end of 2021[4]. Recent global investment projections reinforce this trend: the Hyperscale Data Centre market is expected to grow from US$184.5 billion globally in 2023 to US$304.7 billion by 2029, reflecting a Compound Annual Growth Rate (CAGR) of 8.72%[5]. As a result of the data centre market in the UK being more established, the shift towards hyperscale data centres is more advanced in the UK when compared to the global average. **This steady upward trajectory underscores the Appeal Development's critical role in delivering the hyperscale capacity needed to meet growing demand. The Appeal Development for a Hyperscale Data Centre is in direct response to this growth.**

2.3 General Requirements of Data Centres

- **Access to Power** - In their simplest form, data centres use electricity to enable the computing power, and as such access to power is critical to their operations. Data centres use a lot of power, with some sites in the 100's of MW, which means that only sites with access to sufficient power can be used for data centre development. The lack of supply within the UK grid limits a lot of sites that otherwise would have the potential to deliver a data centre.
- **Proximity to End Uses** – It is important that data centres are located in areas with access to fibre connectivity that connects data centres to end uses. Proximity to end uses is also essential, the speed of data transfer is ultimately limited by physics, particularly the speed of light. This means that they need to be located in, or close to, London. London's role as Europe's largest concentration of businesses and consumers generates unparalleled demand for secure, low-latency digital services, while Slough offers the rare combination of proximity to London and robust fibre connectivity. Together, this makes the London–Slough corridor one of the most attractive and competitive locations for data centre development in Europe. I discuss the importance of London and Slough to data centres further in **Section 2.4** and **Section 4.**
- **Potential for Scale** – Scale in data centre developments can allow for increased efficiency. A large portion of a data centres' development area is for redundant power supplies, power infrastructure such as substations, and cooling infrastructure.
- **100% Availability** - The goal of any data centre and cloud network is 100% availability. This means that a system, service, or data centre is always operational with zero downtime, 24 hours a day, 7 days a week, 365 days a year. Traditional

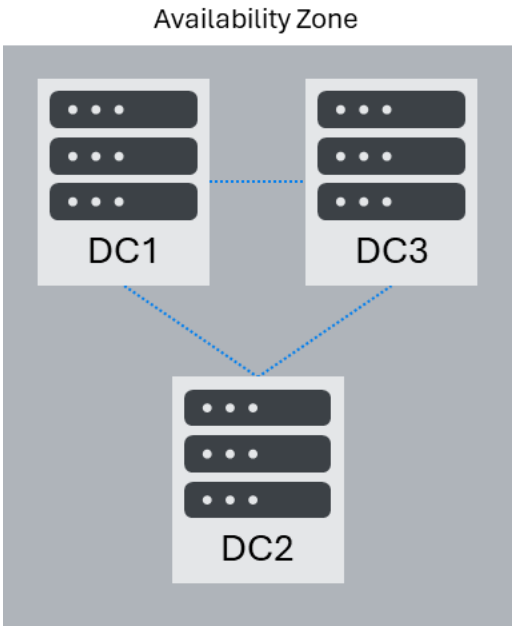
[4] Cisco (2018): "Cisco Global Cloud Index: Forecast and Methodology, 2016–2021" CISCO White Paper
[5] Arizton (2024) – Hyperscale Data Centre Market Landscape 2024–2029 (https://www.arizton.com/market-reports/hyperscale-data-center-market-report)

data centre design relied on single sites which were vulnerable to downtime as a result of hardware failures, power outages, maintenance windows, network disruptions and human error. These vulnerabilities quickly became too much to handle in the modern setting, particularly for cloud operators. ITIC's 2024 Hourly Cost of Downtime[6] survey indicates a single hour of server downtime can result in potential losses of $300,000 or more per hour for 90% percent of firms. 41% of firms said hourly outage costs now exceed $1 million per hour, with 20% saying outage costs exceed $5 million per hour.

2.3.1 The separate Alternative Sites Assessment (ASA) prepared by Alex Cole of Savills Planning considers the Appeal Site and potential alternative sites against detailed criteria to assess their suitability for a hyperscale data centre within the Slough Availability Zone (SAZ). Whilst the above criteria are true generally for data centres overall, the criteria within the ASA are bespoke to the Appeal Development, namely the site being over 5.8 ha and regularly shaped and flat, free of constraints such as flood risk, environmental constraints or in proximity to incompatible land uses, within 10km of the central point of the Slough Trading Estate and within 10km of a 132kV GSP substation. The result of this ASA is that the Appeal Site is the only site within the search area that meets the detailed criteria.

Availability Zones

2.3.2 Availability Zones are the building blocks of cloud computing networks. They allow for scale without compromising service quality. Availability Zones are geographical areas where multiple data centres are interconnected. Within these areas, data centres can duplicate or spread their applications across multiple sites, reducing the risk associated with disruptions in a single data centre, such as a power outage or flood event. This allows data centres to achieve near 100% uptime for digital services. For this system to function effectively, the physical distance between data centres within an Availability Zone needs to be limited. The reason for this is that the speed at which data can travel between data centres is limited by the speed of light along fibre optic cables. The further this data, in the form of light travels, the longer it takes. This is also referred to as "latency". Low latency is essential in order to operate an availability zone.

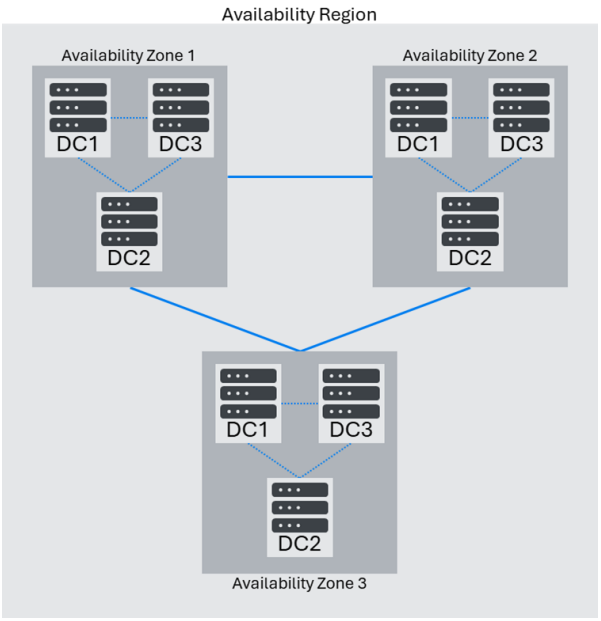


2.3.3 This distance requirements mean that any expansion of data centre capacity has to be within the Availability Zone. If an expansion site was outside of this zone, it would experience too high latency and therefore not be able to provide 100% uptime. Locational requirements are therefore crucial for data centres, and therefore cloud providers will not look outside of these availability zones for cloud operations. We discuss the SAZ specifically in **Section 4**.

[6] Information Technology Intelligence Consulting 2024 Hourly Cost of Downtime Survey

Availability Regions

2.3.4 Availability Regions are geographical areas with a minimum of three Availability Zones within them. They help create further redundancy and provide a cloud infrastructure for the end markets. Each region is typically isolated and independent from other regions in regard to the electricity grid in order to prevent a total collapse in services in the event of a grid failure. The availability regions spread across the world, allowing cloud operators to provide a global service.



2.3.5 Each major cloud operator operates slightly differently; however, all operate multiple availability regions across the world with broadly similar areas as a result of the target markets they serve. **The Proposed Development at Manor Farm would be able to serve the 'London' Availability Region for all of the major cloud operators.**

2.3.6 This structure of multiple availability zones within an availability region also allows cloud operators to 'load balance' – the process in cloud computing where incoming network traffic can be distributed across multiple servers in order to prevent a single server becoming overwhelmed and slowing performance. This is particularly important in the event of a disruption, if a server rack, a data centre or an availability zone faces downtime as a result of a disruption, the network traffic can be routed to servers that are unaffected, allowing for minimal disruption to the cloud network.

2.3.7 Load balancing is a key factor when building data centre ecosystems as it differentiates them from other building use classes. If we compare it to offices for example, building offices in one area may compete with existing offices as they compete for the same tenants. However, as a result of load balancing and availability regions, the growth of one availability zone does not come at the expense of another zone. Instead, they complement each other, helping to provide a better and more resilient cloud product for the end user. Therefore, **it is not possible for demand within one availability zone to be met by capacity within another availability zone, even within the same availability region.**

2.4 Locational Advantages of the UK and London

2.4.1 The UK is considered to be one of the foremost locations in the world for data centres, particularly Hyperscale Data Centres which are operated by multinational tech providers. Some key reasons why the UK is currently considered a strategic location for data centres include:

- **Geographical Location** - The UK's location offers excellent connectivity to both European and global markets. Its strategic location between the Americas and

mainland Europe allows for efficient data transfer between different regions, making it a central hub for international digital infrastructure.

- **Subsea Cables** – Access to a well-established network of subsea fibre-optic cables, providing fast, low-latency connections between North America, Europe, and beyond. This high level of connectivity is a crucial factor in the UK's status as a data centre hub.
- **Advanced Infrastructure (Energy and Internet)** – The UK has robust internet infrastructure, with multiple fibre optic networks and excellent broadband coverage across the country, which ensures high-speed, reliable data transmission. Moreover, it supports a highly reliable power grid, which is essential for data centre operations.
- **Political Stability and Strong Regulatory Environment** - The UK has stringent data protection regulations that align with international standards, such as the General Data Protection Regulation (GDPR).

2.5 Supportive Policy

2.5.1 The government has clearly recognised the importance of data centres recently via:

- The AI Opportunities Action Plan[7] (January 2025) [CD 12.10];
- Classing data centres as "Critical National Infrastructure;"[8] (September 2024) [CD 5.2];
- The updates to the National Planning Policy Framework (NPPF) (December 2024); and
- Government's Modern Industrial Strategy (June 2025, Updated August 2025) [CD 5.3]

AI Opportunities Action Plan (January 2025)

2.5.2 The government recently announced the AI Opportunities Action Plan (January 2025), which represents a significant shift towards positioning the UK as a global leader in AI innovation and adoption. From transforming industries to delivering smarter public services, this Plan emphasises the incredible potential of AI to drive economic growth, provide jobs for the future, and improve lives in the UK.

2.5.3 Data Centres and their link with AI are key to delivering this initiative, with data centres referred to as the 'engines of the AI age'[9]. This is because AI requires data centres that house the large and complex computers that are used to train AI models and to run 'inference' (where AI is used to complete tasks and answer queries). Notably, the Action Plan includes the following three key actions that are likely to positively impact the data centre sector:

[7] https://www.gov.uk/government/publications/ai-opportunities-action-plan-government-response/ai-opportunities-action-plan-government-response
[8] https://www.gov.uk/government/news/data-centres-to-be-given-massive-boost-and-protections-from-cyber-criminals-and-it-blackouts
[9] Foreword by the Secretary of State for Science, Innovation and Technology, AI Opportunities Action Plan (January 2025)

- **AI Growth Zones**: These would be areas that have fast-tracked planning and enhanced energy connections for data centres in order to enable the deployment of AI infrastructure.
- **Public Compute Capacity Expansion**: This includes a twentyfold increase in public computing power, requiring the build-out of data centres.
- **Energy Innovations**: With the establishment of an AI Energy Council, data centres are expected to play a critical role in advancing sustainable energy technologies including modular reactors.

2.5.4 With all 50 recommendations of the plan being adopted, this initiative positions the UK as an AI market that can encourage inward investment. This fact, alongside the government's own goals of AI rollout, indicate the strength of future demand for data centre capacity in the UK. Notably, the window for applications for AI Growth Zones opened in February 2025 and is still open for applications.

Critical National Infrastructure (September 2024)

2.5.5 In September 2024, the Secretary of State for Science, Innovation and Technology announced that data centres are designated as Critical National Infrastructure (CNI), underscoring the UK's commitment to strengthening data privacy and security. Awarding Critical National Infrastructure status shows the fundamental importance of data centres for the Government, and renews the commitment to ensuring the UK data industry remains secure and stable. The move will provide greater reassurance that the UK is a safe place to invest in data centres.

2.5.6 Data centres have now been placed on an equal footing with vital services such as water and energy, providing additional protections and priority in the case of power failures or cyber-attacks. This designation also provides data centre operators with access to a CNI data infrastructure team of senior government officials. The remit of this team is to monitor and anticipate potential threats, provide prioritised access to security agencies such as the National Cyber Security Centre, and coordinate support with the emergency services should this be required. This support, as a result of the CNI designation, is hoped to attract further investment in data centres and as a deterrent to cyber criminals. Technology Secretary Peter Kyle said:

> *'Data centres are the engines of modern life, they power the digital economy and keep our most personal information safe. Bringing data centres into the Critical National Infrastructure regime will allow better coordination and cooperation with the Government against cyber criminals and unexpected events[10]'.*

Updates to the NPPF (December 2024)

2.5.7 One of the demonstrated goals of the updated NPPF was to:

[10] Press Release, Data centres to be given massive boost and protections from cyber criminals and IT blackouts (Department for Science, Innovation and Technology and The RT Hon Peter Kyle MP (12th September 2024)

"reflect our broad economic and infrastructure priorities including supporting rapidly advancing commercial opportunities which will be the foundation of the UK's future: data centres, gigafactories and laboratories"[11].

2.5.8 In response, the updated National Planning Policy Framework (December 2024) places greater emphasis on innovation and productivity - both of which are directly supported by data centres - and, for the first time, includes specific references to data centre development itself:

- **Paragraph 85** focuses on the future and driving innovation and high levels of productivity which are key benefits of data centres and the enhanced computing power they support:
- *'Significant weight should be placed on the need to support economic growth and productivity, taking into account both local business needs and wider opportunities for development. The approach taken should allow each area to build on its strengths, counter any weaknesses and address the challenges of the future. This is particularly important where Britain can be a global leader in driving innovation, and in areas with high levels of productivity, which should be able to capitalise on their performance and potential.'*
- **Paragraph 86c** places a requirement on LPAs to identify appropriate sites for data centres when preparing local plans:
- *'Planning policies should pay particular regard to facilitating development to meet the needs of a modern economy, including by identifying suitable locations for uses such as laboratories, gigafactories, data centres, digital infrastructure, freights, and logistics'.*
- **Paragraph 87a** states that in determining planning applications, local planning authorities (LPAs) should recognise that data centres are a form of infrastructure with specific locational requirements needed to support the modern digital economy:
- *'Planning policies and decisions should recognise and address the specific locational requirements of different sectors. This includes making provision for clusters or networks of knowledge and data-driven, creative or high technology industries; and for new, expanded or upgraded facilities and infrastructure that are needed to support the growth of these industries (including data centres and grid connections)'.*

2.5.9 The updated NPPF demonstrates that the Government is both aware of the necessity of data centres, and that the Government is being supportive of their development as crucial tools to enable the future economy of the UK. The further support from the Government will also help to attract inward investment, fuelling further demand for data centres in the UK.

2.5.10 Further, the Planning and Infrastructure Bill clarifies that data centres can opt into the NSIP (Nationally Significant Infrastructure Project) regime via an s.35 application. This further demonstrates the importance of data centres to the wider economy, providing potentially

[11] Proposed reforms to the National Planning Policy Framework and other changes to the planning system, MHCLG, September 2024

greater certainty on their delivery in accordance with national policy.

Government's Modern Industrial Strategy (June 2025, Updated August 2025)

2.5.11 The UK's Modern Industrial Strategy, launched in 2025, is a 10-year plan aimed at boosting business investment and economic growth by focusing on eight high-potential sectors: advanced manufacturing, clean energy, creative industries, defence, digital and technology, financial services, life sciences, and professional and business services. These are the industries that are deemed to have the potential for the highest growth in regard to output and productivity.

2.5.12 AI, cloud computing - and by extension data centres - are critical to delivering this strategy and enabling the eight priority growth sectors. Every one of these growth sectors is underpinned by data centre infrastructure, underscoring its fundamental role in driving productivity, innovation, and resilience across the economy.

2.5.13 The Industrial Strategy specifically references the need for certainty in planning for *"gigafactories, laboratories and data centres"* as these are *"crucial commercial opportunities[12]"* for the growth sectors. The Industrial Strategy also makes specific mentions of the potential transformative effect of AI on the economy, echoing the notions in the AI Opportunities Action Plan including *"making the UK an AI maker, rather than a taker"[13]*.

[12] The interventions p82 The UK's Modern Industrial Strategy (UK Government, June 2025)
[13] AI Opportunities Action Plan, Department for Science, Innovation and Technology 2025

3 Data Centres and the Wider Economy

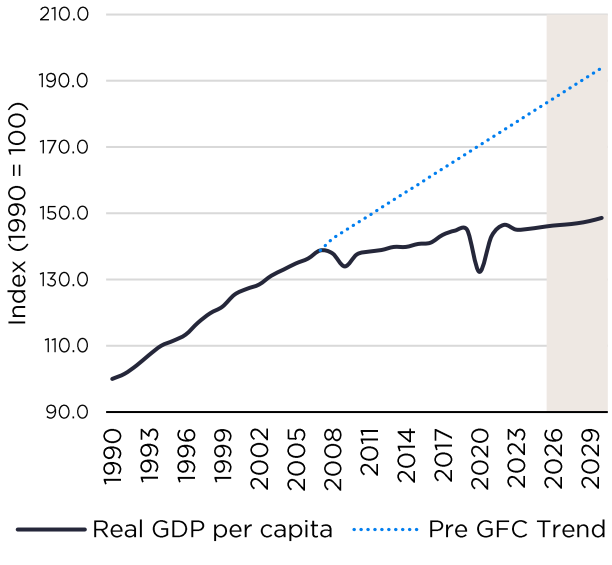
3.1 Introduction

3.1.1 In this section I seek to demonstrate the economic importance of data centres and how they are crucial infrastructure that is required to enable the functioning of a modern economy.

3.2 The Economic Performance of the UK

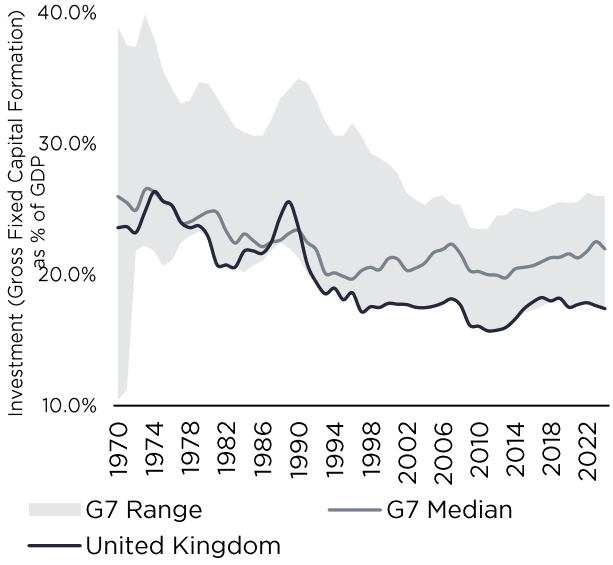
3.2.1 The UK has had a severe slowdown in economic growth since the 2008 financial crisis (**Figure 3.1**). Where the US and the Euro Zone have been able to return to similar levels of productivity growth, the UK has flatlined. The lack of investment in the wake of the crisis, austerity measures to limit government debt, and negative shocks such as the Covid pandemic have all prevented a return to growth for the UK economy. As a result, productivity per worker has been broadly flat since 2008. This has prevented wage growth across the economy, and living standards have also failed to increase further.

Figure 3.1 – Indexed Real GDP per Capita



Source: ONS, Oxford Economics, IMF

Figure 3.2 – Investment in the UK against the G7 average (Gross Fixed Capital Formation)



Source: OECD

3.2.2 Arguments can be made that advances of other countries, structural changes to the age demographics of the UK, and a shift away from traditional sectors such as manufacturing and resource extraction, are to blame for the economic slowdown. There is an element of truth to all of these, but one cause that is undeniable is a lack of investment in the UK. The UK has had the lowest level of investment[14] in the G7[15] for 24 of the last 30 years[16]. The last time the UK level of investment was above the median for the G7 was in 1990 (See **Figure 3.2**). This lack of investment has prevented the UK capitalising on its existing strengths.

3.2.3 In order to reverse the recent economic trends of the UK and return to growth, the economy must adopt and excel in the most productive industries of the future. Science and

[14] Includes public, private, household and non-for-profit investments
[15] Canada, France, Germany, Italy, Japan, the United Kingdom, and the United States
[16] OECD

technology have been the driving force of progress for much of our modern economic successes, and are expected to be key in the industries of the future also.

3.2.4 The UK has been at the forefront of many breakthroughs in the realm of science and technology including the discovery of DNA structure, Penicillin, and was the home of the Industrial Revolution. It can be argued that another economic revolution is now taking place, as we have seen the beginnings of a technological revolution with the widespread adoption of the internet, smart phones, and more recently cloud computing. We have also entered into an Artificial Intelligence (AI) era, with generative AI set to expand this further.

3.2.5 The productivity gains unlocked by AI and digital technologies are critical to the UK's economic future, as underscored in the AI Opportunities Action Plan (January 2025) - discussed in **Section 2.5** - which calls for expanded AI Growth Zones, accelerated planning for data centre infrastructure, and long-term compute investment. The Modern Industrial Strategy (June 2025, updated August 2025) also discussed in **Section 2.5,** further reinforces this by identifying digital infrastructure as a strategic enabler of key growth sectors. Without timely deployment of data centre capacity, the UK risks falling behind. Stalling investment in this critical national infrastructure would materially undermine high-productivity industries and drive global digital investment towards competing nations.

3.3 Quantifying the Economic Benefits of Data Centres

3.3.1 The significant economic impact of data centres, and the crucial role they play in the future economy, is able to be evidenced in a variety of measures. Firstly, analysis by techUK[17] [CD 12.8] shows that for every £100 of GVA generated directly by data centres, an additional (indirect) £17–£164 of GVA is created across the wider economy. A similar pattern exists for employment: for every direct data centre job, between 1.4 and 2.5 additional (indirect) jobs are supported elsewhere. These indirect benefits arise both through supply chain linkages (such as construction, energy, and facilities services) and through the wider digital ecosystem that relies on data centres, including cloud computing, AI, and other data-driven applications.

Figure 3.3 Indirect and Induced GVA in Comparison to Direct GVA

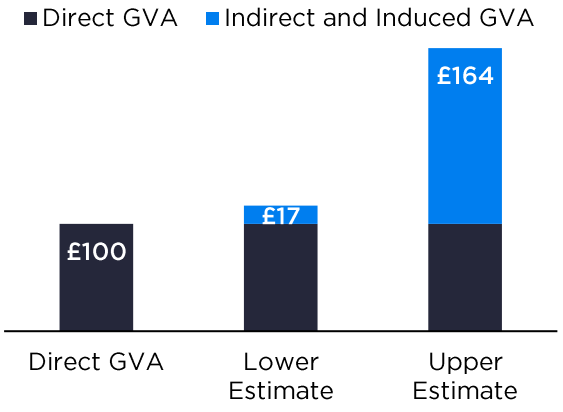
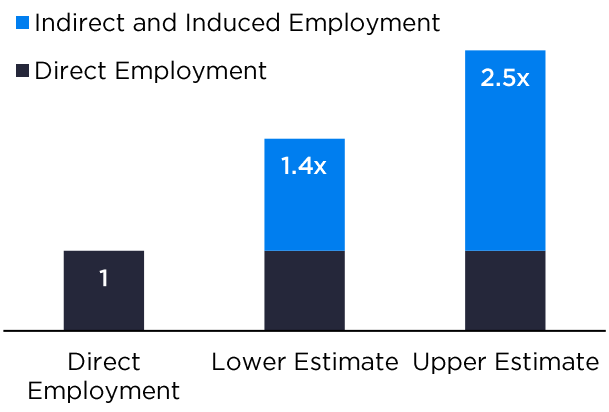


Figure 3.4 Indirect and Induced Employment in Comparison to Direct Employment

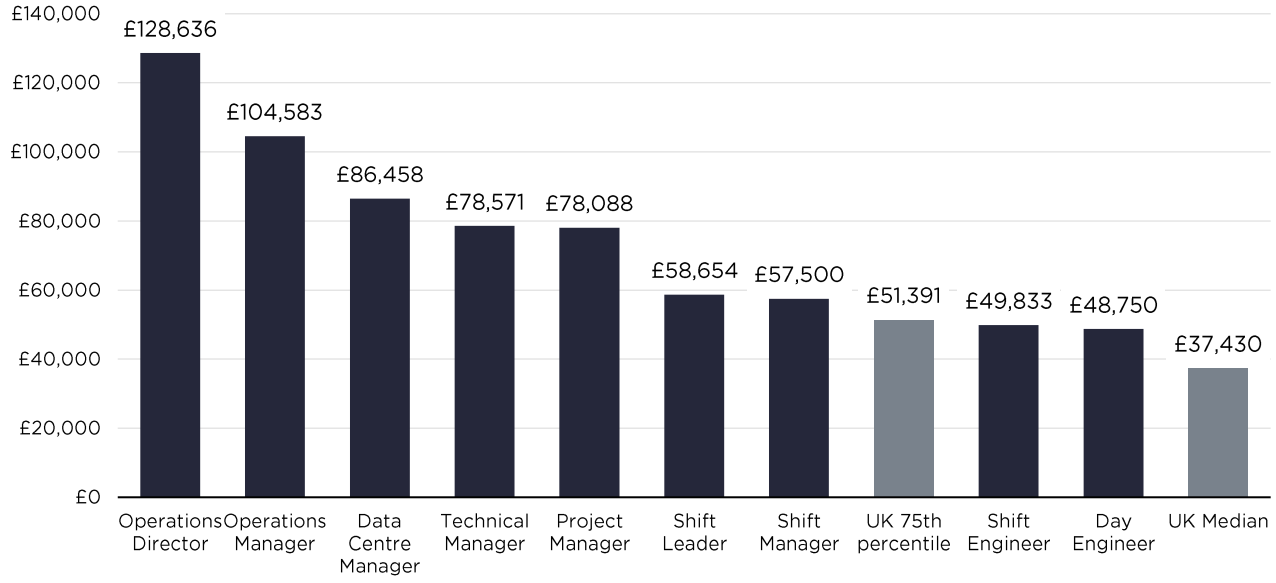


Source: TechUK

[17] TechUK: Foundations For The Future: How Data Centres Can Supercharge UK Economic Growth

3.3.2 We can also evidence the economic value of data centres through the wages of employees. Data X Connect run an annual survey on over 1,000 data centre employees in the UK. The results of this survey, illustrated in **Figure 3.5** below, show that data centre jobs, including the lowest paid data centre jobs, pay substantially above the UK median wage. Further, the majority of data centre jobs are in the top 25% paid jobs in the country. The high wages of these employees shows both the skill levels of the workers, but also the economic importance of the jobs.

Figure 3.5 Data centre roles and average associated salary compared to the UK median and 75th percentile, 2024



Source: Data x Connect Data Centre Salary Survey 2024, ONS

3.4 The Digital Economy of the UK

3.4.1 The UK is one of the most advanced digital economies in Europe, attracting inward investment into start-ups and scale-ups in the tech world, alongside a substantial presence by global tech companies. To align with government statistics, we use the definition of the digital economy as defined by the Department for Science, Innovation and Technology in their digital economy estimates[18]. The detailed SIC codes for those sectors that make up the digital economy are shown in **Appendix A**.

3.4.2 Highlighting the digital economy is important when understanding the impact of data centres, as these are the industries which are likely to gain the most from an increase in data centre provision. As we mention above, data centres also have many major positive spillover effects for the rest of the economy, but the scope for increases in productivity are greatest within the digital sectors. A strong digital sector is also the major determinant of demand for inward investment into infrastructure such as data centres in the UK. The UK is an attractive market for data centre investment as a result of its strong and growing digital sector as I explore further below.

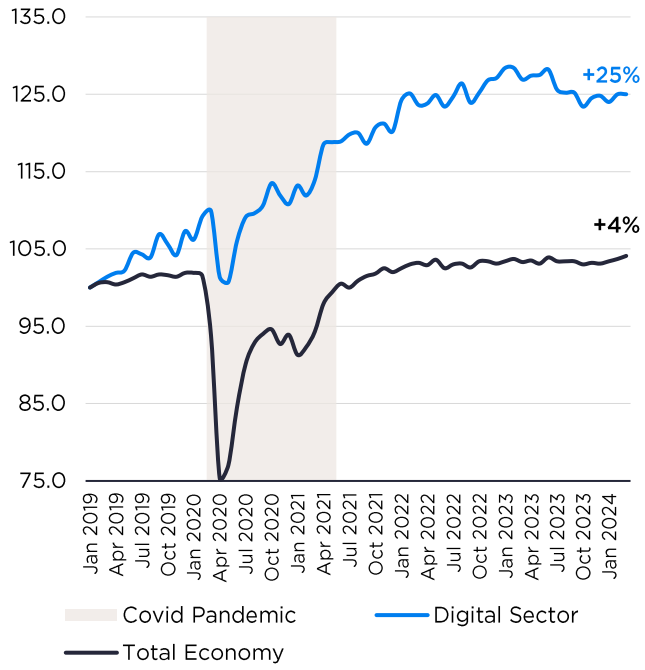
[18] https://www.gov.uk/government/statistics/economic-estimates-digital-sector-regional-gross-value-added-2019-to-2022/economic-estimates-digital-sector-regional-gross-value-added-2019-to-2022

Economic Output

3.4.3 The digital sector has become a large part of the UK economy, generating £160 billion in GVA in 2024, which comprised 7.2% of the total UK GVA[19]. This is unsurprising given the supply side strengths of the UK, with many major global technology companies such as Amazon, Google and Meta all having large presences in the UK. As such, they have invested in technology, people and real estate, all positively contributing towards economic output. The UK also has a strong start-up industry, especially in the tech sector, which raised over $21.3 billion worth of venture capital in 2023[20]. As such, the UK tech sector is the number one tech ecosystem in Europe and the third most valuable in the world[21] behind the USA and China. As a result of this investment, the digital sector has seen productivity rise faster than the economy as a whole (see **Figure 3.6**). Productivity rose by 25% in the digital sectors between January 2019 and January 2024 compared to only 4% in the total economy.

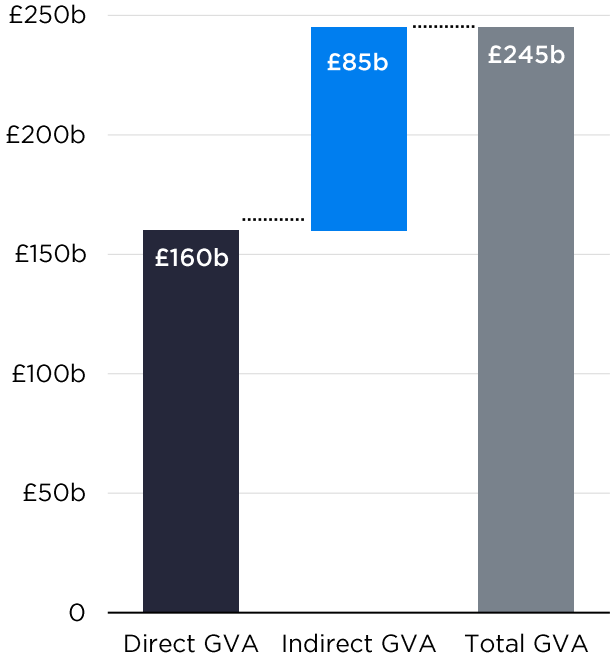
3.4.4 Another vital component of the digital sector's 'economy story' is 'Indirect GVA'. Indirect GVA captures the impact that the digital sector has on other segments of the economy. For example, the digital sector contributes to the real estate and professional services sectors, which trigger a GVA contribution from those sectors. The direct GVA from the digital sector equated to £160 billion in 2024, while its indirect GVA equated to £85 billion. Therefore, the total GVA (both direct and indirect) attributable to the digital sector equated to around £245 billion in 2024 (**Figure 3.7**).

Figure 3.6 Indexed growth in GVA in the digital sector and the total economy



Source: DSIT, ONS

Figure 3.7 Direct and indirect GVA of the digital sector (2024)

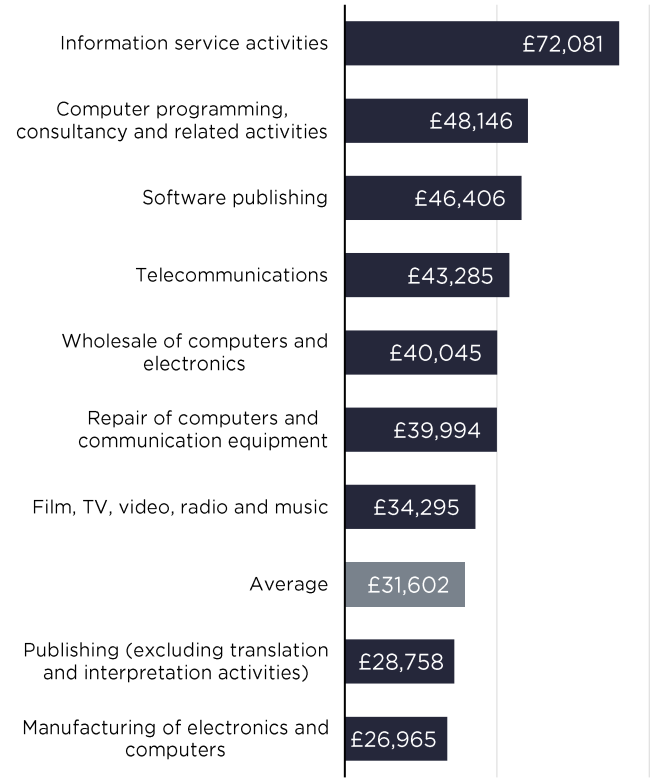


Source: Savills analysis of ONS Type 1 Multipliers and DSIT ONS data, Note: figures may not sum due to rounding

[19] Department for Science, Innovation and Technology, 2024
[20] The Tech Nation Report 2024
[21] ibid

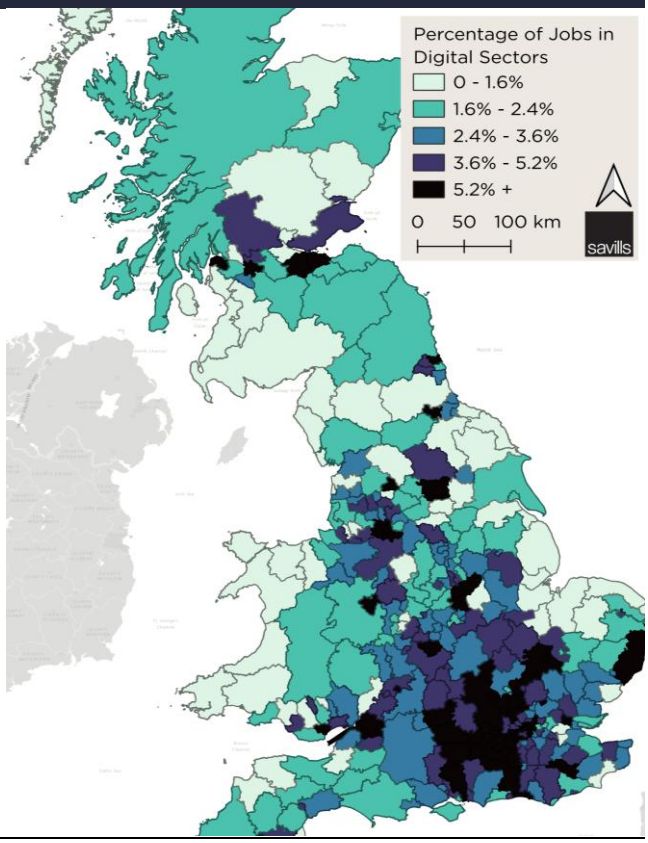
3.4.5 Jobs in the digital sector also typically pay more than the all sector average as shown in **Figure 3.8**. However, unlike most industries in the UK, these productive sectors are not only limited to London and the South East. All UK regions have over 3.5% of total GVA attributable to direct digital output. In London this figure is 11.9% as a result of employment from large global tech firms in places such as Kings Cross and a growing Fintech market built upon the historic expertise of the London finance industry. This geographic split is also true for employment, where jobs in the digital sector are geographically spread across the country (**Figure 3.9**), meaning many areas of the UK are sharing in the sectors growth. London however, will remain the most important location evidenced by the fact it has the highest proportion of digital jobs at 9%. This means that building data centre infrastructure will positively benefit London and the local area to Slough, but also further afield in the UK economy.

Figure 3.8 Annual gross earnings of digital sectors against the all job average (2024)



Source: Savills analysis of ONS Annual Survey of Hours and Earnings

Figure 3.9 Distribution of digital jobs by local authority



Source: Savills, ONS

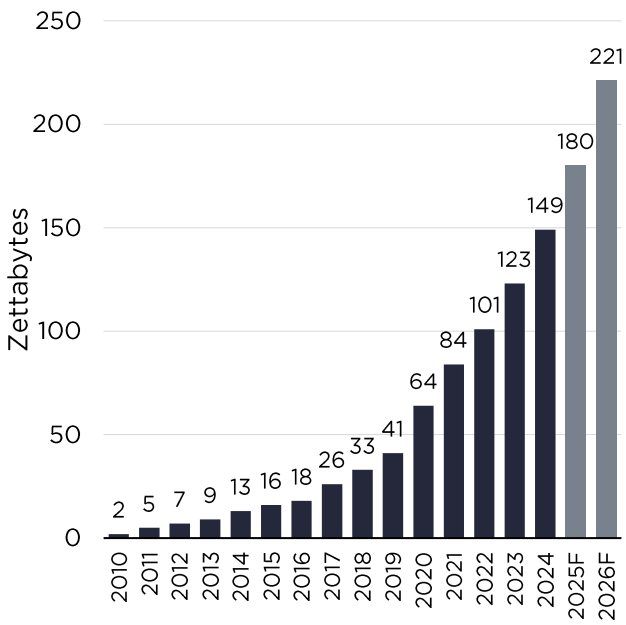
3.5 Data Storage and Processing

3.5.1 The world is experiencing a dramatic surge in data creation. By 2026, the global datasphere, the total volume of data generated and replicated worldwide, is expected to be over double that created in 2022. The 'Global DataSphere' provided by the International Data Corporation ('IDC') quantifies the amount of data created, captured, and replicated in any given year (see **Figure 3.10**). This growth in data storage and processing is driven by the

rapid adoption of emerging technologies and the evolution of existing ones. In simple terms, global populations are increasing, the time people are spending on connected devices such as smartphones is increasing, and the media we view is changing from text based or photos, to high quality video. Accordingly the data needing to be stored and processed in data centres is rapidly expanding. Further to this, new technologies such as the Internet of Things (IoT), which is transforming once "dumb" devices like refrigerators, doorbells and fitness watches into intelligent, connected systems that continuously generate and transmit data.

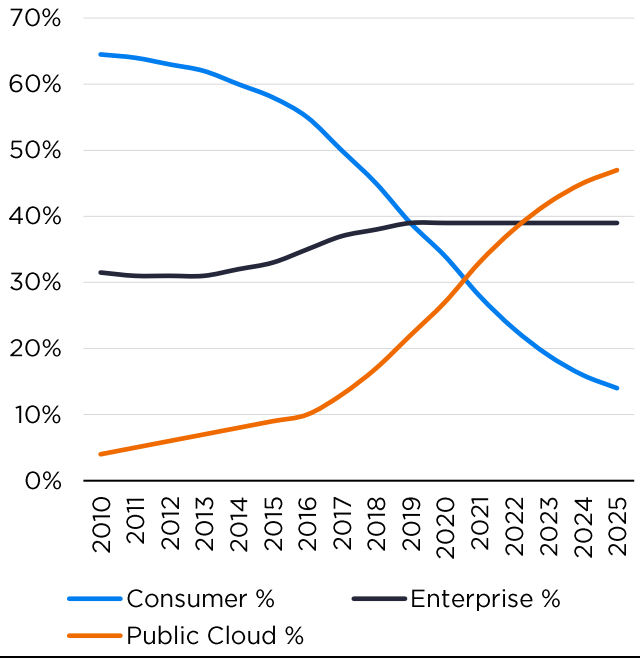
3.5.2 A notable trend in the data storage and processing sector is the shift away from local storage and processing, to pooled storage and processing. As shown in **Figure 3.11** the proportion of data stored and processed in consumer facilities, which can comprise memory sticks, computer hard drives or the storage on your phone, has seen its share decline in the last 15 years. In its place we have seen the rise of enterprise and public cloud storage, through more commercial cloud operators such as AWS or Google, or more public cloud systems such as iCloud storage on an iPhone. This shift in storage and processing locations has had a drastic effect on the demand for data centres - they are the centralised locations for this storage and processing and will therefore need to see a drastic increase in capacity in order to power this increase in data storage and processing.

Figure 3.10 The Global Data Sphere: Data Created and Replicated Per Annum (2010-2026)



Source: IDC Global DataSphere Forecast

Figure 3.11 Where data is stored



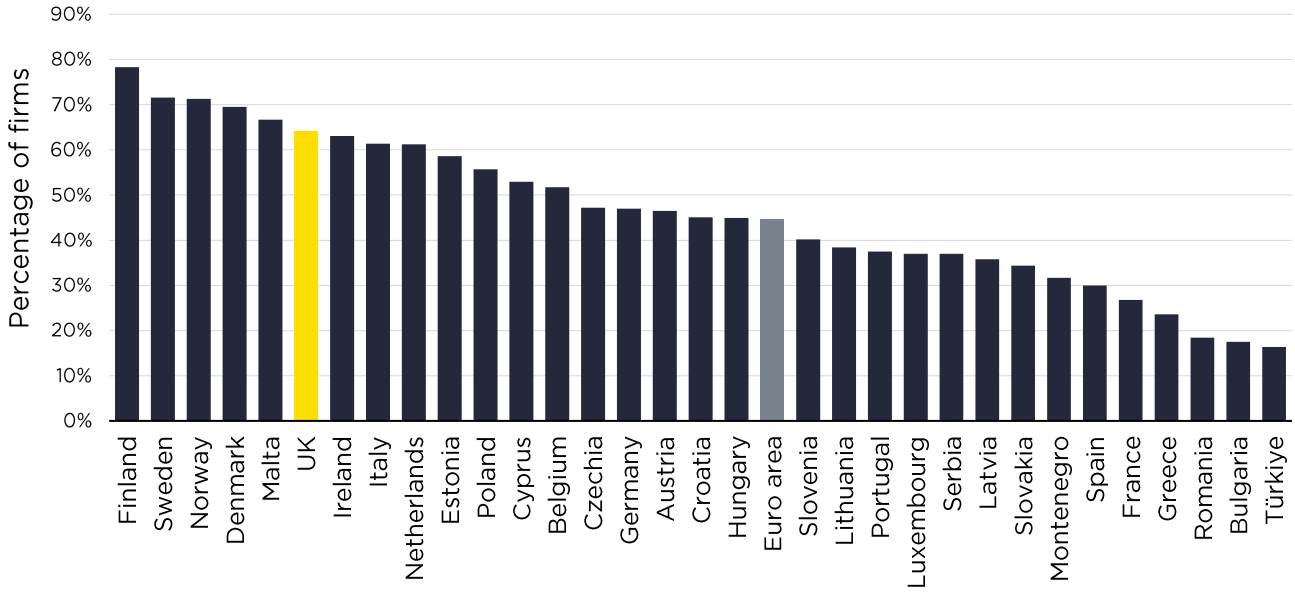
Source: Data Age 2025, sponsored by Seagate with data from IDC Global DataSphere, May 2020

3.6 Cloud Computing

3.6.1 The UK is one of the most advanced cloud computing ecosystems in the world. Key to this is the UK finance industry being one of the early adopters of cloud computing. This was accelerated during the Covid pandemic, with the push to work from home. The UK is one of the heaviest adopters of work from home, with an average high school educated worker

working 1.5 days from home per week[22]. This ranked second globally and was substantially higher than the global average of 0.9 days. As a result, the UK has seen strong implementation of cloud computing. In 2023, the UK had the sixth highest number of firms adopting cloud computing (64%), substantially higher than the Euro Area average of 45% (**Figure 3.12**).

Figure 3.12 Cloud enterprise adoption in 2023 (Percentage of firms)



Source: Eurostat, Telecom Advisory Services

3.6.2 Firms adopt cloud computing as a result of the productivity increases it brings including access to files across different devices, collaborative working and integration of technologies such as email and calendars. Telecom Advisory Services estimate that in 2023, the economic gains as a result of cloud computing equate to over £42 billion[23], or almost £1,300 per worker. The cloud computing sector is equivalent to 1.6% of UK GDP, which is larger than the UK automotive manufacturing sector[24].

3.6.3 Cloud computing is an industry inherently linked with the provision of data centres. Data centres are facilities that house a large number of servers, storage systems, and networking equipment that are the physical infrastructure that powers cloud computing services. Without data centres, cloud platforms could not deliver the on-demand, scalable, and flexible services that businesses and individuals rely on today. As such, to support the strong cloud computing sector requires the further development of data centres. There has been strong demand from cloud computing operators for this, with Amazon recently committing £8 billion in the UK, hoping to support 14,000 jobs[25].

[22] Working from Home Around the Globe: 2023 Report; Cevat Giray Aksoy, Jose Maria Barrero, Nicholas Bloom, Steven J Davis, Mathias Dolls, Pablo Zarate; EconPol Policy Brief 53
[23] https://www.teleadvs.com/economic-impact-of-cloud-computing-in-the-united-kingdom/
[24] ONS, GVA by industry
[25] https://www.aboutamazon.co.uk/news/job-creation-and-investment/aws-plans-to-invest-8-billion-in-the-uk#:~:text=The%20total%20economic%20impact%20of,the%20UK's%20automotive%20manufacturing%20sector.

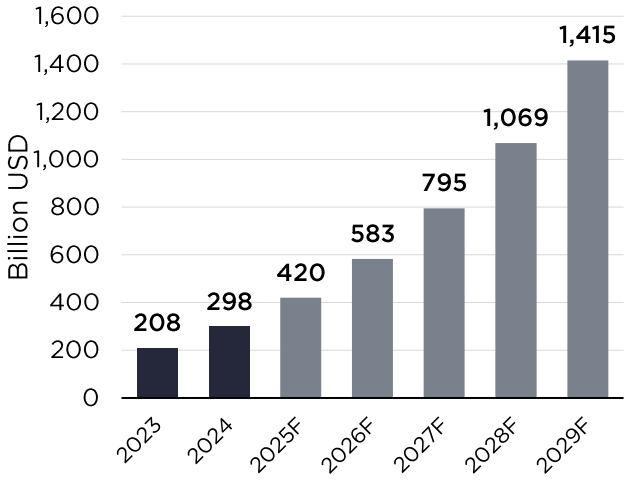
3.7 Artificial Intelligence

3.7.1 In recent years, AI has become one of the main talking points in regards to data centre demand. Primarily, data centres are required during the training period for AI models but also during the operational phase to process requests from end users. The training of AI models requires a large number of computations. The rate of training computation has roughly doubled every six months since 2010[26] as AI models become increasingly more complicated. Data centres, as the most optimal machines for computer processing, are required in large quantities to enable AI development.

3.7.2 If we use AI revenue as a proxy for market growth we can see that AI is expected to see rapid growth in the near future (see **Figure 3.13**). As a result, expected revenue and spending on AI related infrastructure has been high in recent years.

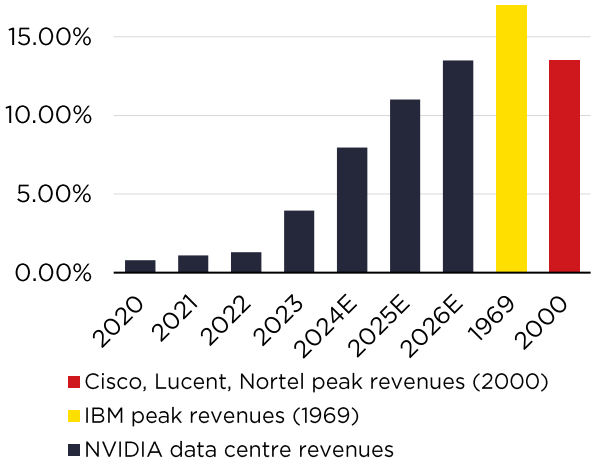
3.7.3 Infrastructure capital expenditure on data centres in 2025 comprised 1.2% of US GDP[27]. This level of capital expenditure is substantially higher than the dot-com spending in 2000 and is approaching the expenditure levels for building the railroads in the Gilded Age. Data from JP Morgan's Michael Cembalest shows that the leading AI chip manufacturer Nvidia is on pace to capture the highest share of market-wide capital spending since IBM's peak revenues in 1969, surpassing that of Cisco, Lucent and Nortel in the dot-com revenue boom (see **Figure 3.14**). Whilst this data is from the US and not the UK, it helps to contextualise the strong growth in AI and data centre investment in what is the strongest market globally, and one the UK needs to try and emulate if it is to keep up. There has been evidence of the appetite of the largest technology firms to invest in the UK for data centres, including AWS planning to invest £8bn over 2024–2028 in UK data centres[28], and Microsoft committing £2.5bn over three years to expand UK AI/data-centre infrastructure[29].

Figure 3.13 Projected Global AI Revenue (Billion USD)



Source: Next Move Strategy, Statista

Figure 3.14 Share of market-wide capital spending (US)



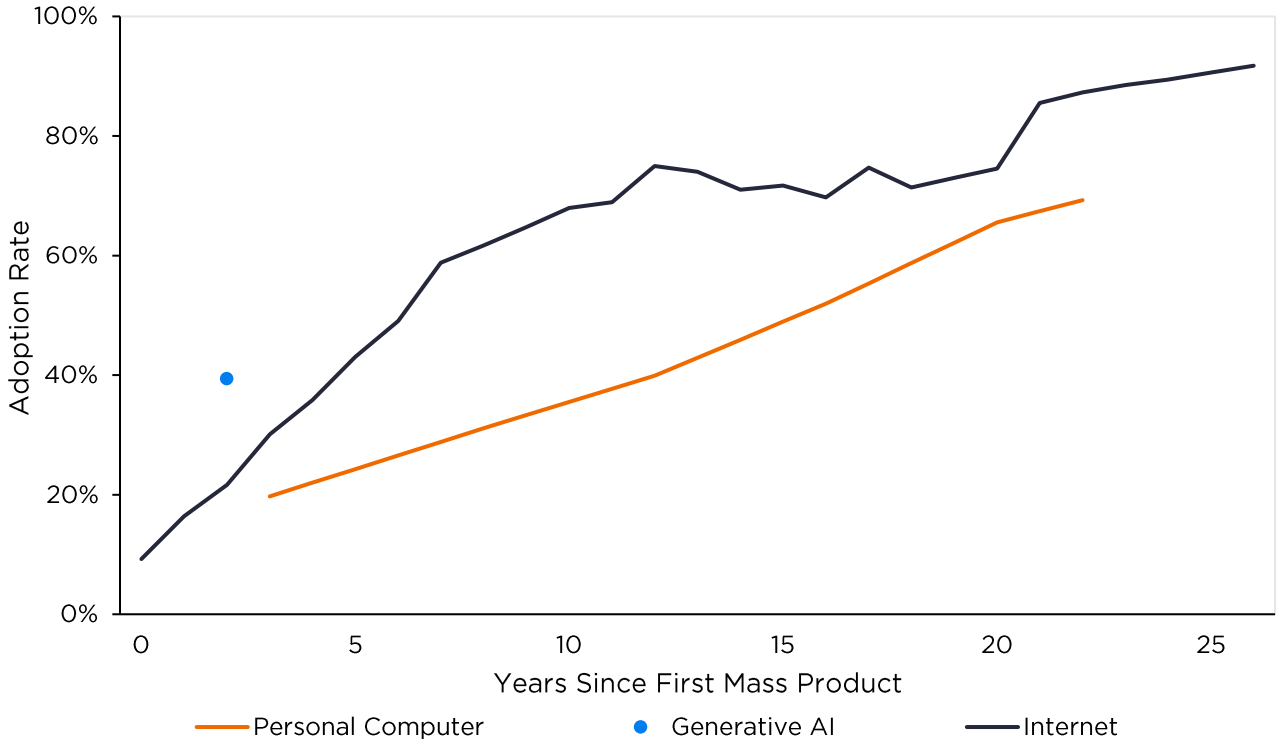
Source: JP Morgan, Empirical Research

[26] Jaime Sevilla, Lennart Heim, Anson Ho, Tamay Besiroglu, Marius Hobbhahn, Pablo Villalobos (2022) — Compute Trends Across Three eras of Machine Learning. Published in arXiv on March 9, 2022
[27] Parul Kedrosky, Jens Nordvig. Available at: https://paulkedrosky.com/honey-ai-capex-ate-the-economy/
[28] https://www.gov.uk/government/news/chancellor-announces-8-billion-amazon-web-services-investment-as-she-vows-to-make-every-part-of-britain-better-off?
[29] https://www.gov.uk/government/news/boost-for-uk-ai-as-microsoft-unveils-25-billion-investment?

End-User Adoption

3.7.4 The strong AI revenue projections are unsurprising given the rapid adoption of AI by end users. **Figure 3.15** below demonstrates the adoption rates of new technologies in the years following the first mass product. It shows that generative AI tools like ChatGPT and Gemini are being adopted faster than breakthrough technologies of the past. The St. Louis Federal Reserve has estimated that the rate of adoption for generative AI is roughly twice as fast as the Internet and the personal computer in their early stages. Again, whilst this data is from the US and not the UK, it helps to contextualise the strong utilisation of AI systems which is being mirrored here in the UK. According to PwC's Annual CEO Survey (2025)[30], 93% of UK CEOs say their businesses have adopted GenAI to some extent within the last year. This has more than doubled since the results of the 2024 survey, indicating further adoption of this technology in a work setting. Further to this, UK CEOs are ahead on GenAI adoption compared with their global counterparts, where 83% have adopted GenAI to some extent.

Figure 3.15 Adoption Rate of Generative AI at Work and Home versus the rate for other technologies



Source: Federal Reserve Bank of St. Louis 2024[31]

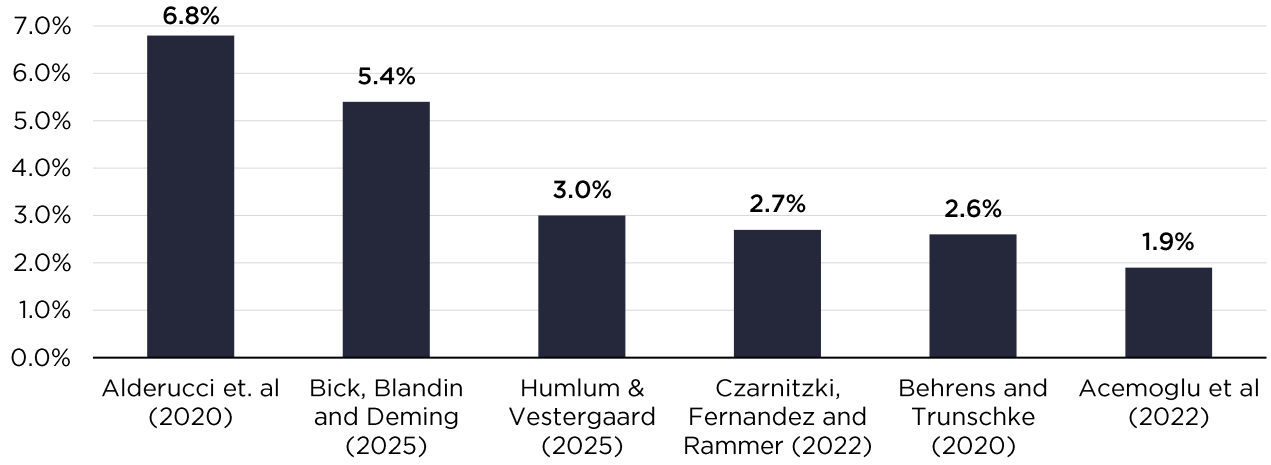
Impacts on the wider economy

3.7.5 The consensus among both AI experts and economists is that generative AI will lead to the automation of tasks that are currently providing employment. This is expected to lead to the increase in productivity in two main channels. Firstly, the majority of jobs are in sectors which are only partially exposed to AI automation, meaning that human intervention will still be required. For these jobs, following the automation of tasks using AI, workers will have some of their time freed-up to complete other tasks that can increase total output, and

[30] Available at: https://www.pwc.co.uk/ceo-survey.html
[31] Available at: https://www.stlouisfed.org/on-the-economy/2024/sep/rapid-adoption-generative-ai

therefore productivity. As shown in **Figure 3.16** below, many academic papers have found a circa 2-7% increase in productivity within firms after the adoption of AI automation.

Figure 3.16 Effect of AI adoption on annual worker productivity growth within firms



Source: Alderucci et. al (2020)[32], Czarnitzki, Fernandez and Rammer (2022)[33], Behrens and Trunschke (2020)[34], Acemoglu et al (2022)[35], Humlum and Vestergaard (2025)[36], Bick, Blandin and Deming (2025)[37]

3.7.6 Secondly, and perhaps more importantly, are the future expected gains in productivity from workers initially displaced by AI automation. While AI adoption will inevitably replace some roles, it is also expected to generate new ones — both directly through emerging AI-driven industries, and indirectly through higher economic output created by workers whose productivity is enhanced rather than substituted. The OECD notes that up to *27% of jobs are at high risk of automation* in advanced economies, yet many displaced workers are reabsorbed into new sectors over time (OECD, 2023[38]). The short-term transition may be disruptive, but over time, increased demand in the wider labour market is likely to support the re-employment of many of those affected (World Economic Forum, 2023[39]).

3.7.7 There is a clear historical precedent for this pattern. The rise of the internet displaced many traditional manual and clerical roles, yet also created entirely new occupations such as web designers, software developers, and digital marketers. These new roles boosted aggregate incomes, which in turn drove demand in other sectors such as healthcare, education, and leisure. A study by economist David Autor and colleagues, using US Census data, found that around *60% of workers today are employed in occupations that did not exist in 1940* — illustrating the long-term capacity of technological innovation to generate entirely new

[32] Alderucci, Dean, et al. "Quantifying the impact of AI on productivity and labor demand: Evidence from US census microdata." Allied social science associations—ASSA 2020 annual meeting. 2020.
[33] Rammer, Christian, Gastón P. Fernández, and Dirk Czarnitzki. "Artificial intelligence and industrial innovation: Evidence from German firm-level data." Research Policy 51.7 (2022): 104555.
[34] Behrens, Vanessa, and Markus Trunschke. "Industry 4.0 related innovation and firm growth." ZEW-Centre for European Economic Research Discussion Paper 20-070 (2020).;
[35] Acemoglu, Daron, and Pascual Restrepo. "Tasks, automation, and the rise in US wage inequality." Econometrica 90.5 (2022): 1973-2016.;
[36] Humlum, Anders, and Emilie Vestergaard. Large language models, small labor market effects. No. w33777. National Bureau of Economic Research, 2025.
[37] Alexander Bick, Adam Blandin and David Deming, "The Impact of Generative AI on Work Productivity," St. Louis Fed On the Economy, Feb. 27, 2025.
[38] OECD (2023) Artificial Intelligence and the Future of Work. Organisation for Economic Co-operation and Development.
[39] World Economic Forum (2023) Future of Jobs Report 2023

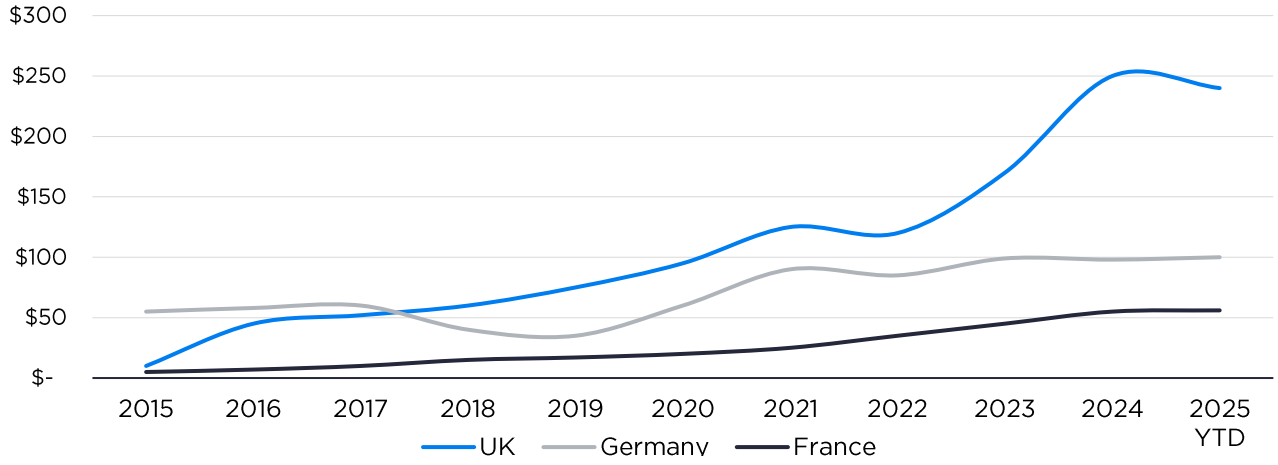
occupations (Autor et al., 2020[40]).

3.7.8 AI presents a similar case for modern economies. In the short term, automation will replace certain tasks traditionally performed by humans, but the productivity gains from freeing up labour have the potential to stimulate economic growth and improve living standards over time. This trajectory mirrors previous technological revolutions — including the industrial revolution — where initial disruption was followed by substantial net improvements in productivity, employment composition, and overall quality of life. The UK Government's Department for Science, Innovation and Technology emphasises that the scale of these benefits will depend heavily on proactive investment in reskilling, education, and regional economic strategies to manage the pace of transition (DSIT, 2024[41]).

Strong research but limited development

3.7.9 The UK has the potential to be one of the world leaders in AI development if the sector is supported. Venture capital has understood the future benefits of AI development and financing has grown rapidly in UK AI companies. As such, there has been growth in the value of these companies who have received funding (**Figure 3.17**), and this growth has been faster in comparison to European countries such as Germany and France. The vast majority of these companies are creating AI and AI related products that would require data centre infrastructure to develop and take to market.

Figure 3.17 Combined market valuation of the UK AI sector (billions)



Source: Tech Nation, Data from Dealroom.

3.7.10 However, a lot of these companies are unable to develop products as they would like to. Tortoise Media create a Global AI Index[42] to benchmark nations on their level of implementation, innovation and investment in AI. Overall, the UK ranks the fourth highest out of all countries. When these rankings are split into the individual 'pillars' (shown in **Table 3.1**) the UK ranks strongly in all areas apart from infrastructure and development. These are the 'pillars' most relevant to data centre capacity. Tortoise Media defines these 'pillars' as below:

[40] Autor, D., Mindell, D., & Reynolds, E. (2020) The Work of the Future: Building Better Jobs in an Age of Intelligent Machines. MIT Task Force on the Work of the Future
[41] Department for Science, Innovation and Technology (2024) AI and Employment in the UK. UK Government
[42] https://www.tortoisemedia.com/intelligence/global-ai/

- **Infrastructure** - "Infrastructure assesses the scale of advanced computing infrastructure and semiconductor manufacturing."
- **Development** - "Development focuses on the development of new AI models and the application of AI technology in patents across other fields."

3.7.11 Despite the strong rankings in the other pillars, the poor performance for Infrastructure (17th) and Development (16th) is holding back the UK's AI sector. Building new data centres is critical to addressing these weaknesses.

Table 3.1 UK's rankings in the Tortoise Global AI Index 2024

Talent	Infrastructure	Operating Environment	Research	Development	Government Strategy	Commercial Ecosystem
4th	17th	4th	4th	16th	7th	5th

Source: Tortoise Media

3.8 Data Centres are Crucial to Delivering the Government's Modern Industrial Strategy

3.8.1 As detailed in **Section 2**, AI, cloud computing, and therefore data centres, are essential to delivering this strategy and supporting the 8 key growth sectors.

3.8.2 Below I detail the links between data centre infrastructure and the targeted growth sectors in the Industrial Strategy, and detail some specific case studies of firms that have seen improvements as a result of products or services derived from data centre infrastructure. These case studies serve to demonstrate the significant economic impact of data centre infrastructure, and how it is crucial to the UK's future economic success.

Creative Industries

Source: Lux Aeterna

Impact from Data Centre Infrastructure

Creative industries are increasingly reliant on computing technology. More media content is being generated and consumed than ever, which requires data centre capacity. Further to this, media products are increasingly produced with computer generated images or AI imagery which generate substantial computing loads. In order to enable future, cutting edge creative technologies, the expansion of data centre infrastructure will be required.

Case Study – Lux Aeterna

Emmy Award-winning independent visual effects studio Lux Aeterna uses generative AI and neural networks for VFX production. Their dedicated R&D department trains bespoke AI models to assist in tasks such as restoring archival footage and asset creation. Alongside on-site CPU and GPU rendering, AWS Cloud rendering is integrated into their infrastructure to provide additional computing power.

Digital and Technology

Source: OpenAI

Impact from Data Centre Infrastructure

Of all the growth sectors identified in the Industrial Strategy, the link between data centre infrastructure and the digital and technology industries is perhaps the most pronounced. Whether it is AI firms training new models, software developers relying on high-speed connectivity, or technology companies leveraging the computing power that data centres provide, businesses in this sector are among the most dependent on robust data centre infrastructure to sustain and expand their future operations.

Case Study – OpenAI

In the UK, OpenAI has established a presence with a London office, its first international location, which is set to expand further. The company's operations in the UK include research and engineering teams contributing to frontier AI models and providing support to local businesses and startups.

OpenAI recently entered a strategic partnership with the UK government, formalised through a Memorandum of Understanding. This partnership aims to expand AI security research collaborations, explore investments in UK AI infrastructure, including exploring potential routes to deliver the infrastructure priorities outlined in the government's AI Opportunities Action Plan and find new ways to use AI in taxpayer-funded services.

Professional and Business Services

Source: Luminance

Impact from Data Centre Infrastructure

Similar to the financial sector, data centre infrastructure is fundamental to business and professional services, enabling the secure and efficient transfer of documents and data. As cloud computing and AI technologies continue to advance, data centres will become even more critical to the productivity, innovation, and operational success of firms within these sectors.

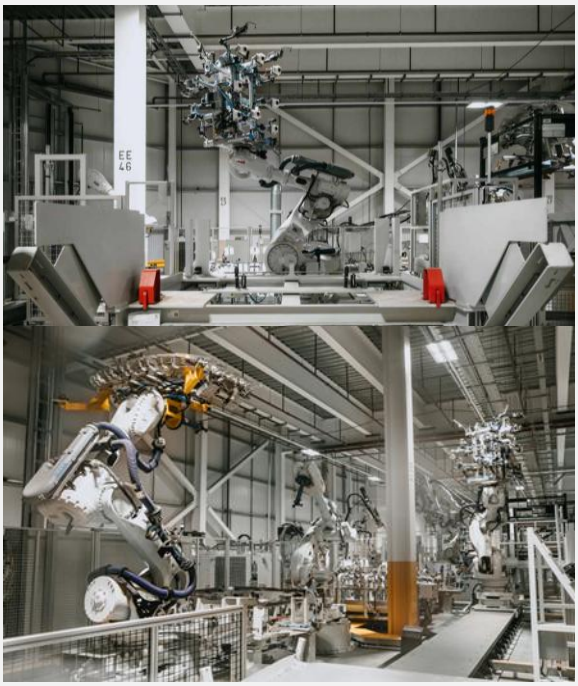
Case Study – Luminance

Luminance, a UK-based legal tech startup founded in 2015, has revolutionised the legal industry by applying artificial intelligence to document analysis and due diligence. Developed using machine learning from the University of Cambridge, Luminance helps law firms and in-house legal teams rapidly review and understand large volumes of legal documents.

Adopted by over 500 firms in more than 60 countries—including magic circle firms like Slaughter and May—Luminance demonstrates how AI can enhance efficiency and reduce costs in legal practice. Its success reflects the UK's position at the forefront of AI innovation in professional services, particularly in the highly regulated and document-heavy legal sector.

Luminance's core platform infrastructure is built and hosted on AWS (Amazon Web Services). However Luminance have worked with Azure OpenAI to deliver a chatbot powered by generative AI. The link between data centre infrastructure and the success of Luminance is clear to see. Not only is data centre capacity required to store and process the legal documents securely, it is also required to train and process the requests of the generative AI elements.

Advanced Manufacturing



Source: JLR

Impact from Data Centre Infrastructure

Data centre infrastructure plays a vital role in advanced manufacturing by supporting cloud computing, AI, and smart machinery. Advanced manufacturing can process vast amounts of data in real-time, enabling predictive maintenance, automation, and AI-driven quality control. Cloud-based platforms allow machines and systems to be interconnected, optimising production lines and supply chains with minimal downtime. Digital twins and robotics can all be used by manufacturers in the R&D stage to both test and improve but also to make manufacturing processes quicker and more efficient.

Case Study - Jaguar Land Rover – Halewood, Mersey

JLR has invested over £250 million to transform its existing factory in Halewood, Merseyside in preparation for electric vehicle production. A fleet of 750 robots, laser alignment technology, and cloud-based infrastructure join 3,500 JLR employees on the factory floor to produce the manufacturer's next-generation vehicles.

Cloud enabled infrastructure such as this requires data centre provision to manage these production chains. Further, with the advancement of AI, these production chains can further improve efficiency and therefore productivity.

Defence

Source: Anduril

Impact from Data Centre Infrastructure

Data centre infrastructure plays a crucial role in modern defence operations, serving as the backbone for storing, processing, and transmitting vast amounts of sensitive military data. These facilities underpin command and control systems, intelligence gathering, logistics, and advanced warfighting technologies like AI and machine learning. Data centres will also be crucial in the R&D and manufacturing stage of cutting edge defence technology through AI, simulations and production.

Case Study - Anduril

Anduril Industries, founded in 2017 by the founder of Oculus VR and other tech veterans, is an American based defence technology specialising in advanced autonomous systems including drones, surveillance networks and command and control networks using AI, robotics and computer vision.

Anduril has been active in the UK since 2019, securing contracts with the UK Ministry of Defence (MOD) and other government bodies. It has rapidly expanded its UK operations, significantly increasing its local workforce and intends to continue this growth, focusing on high-value technology manufacturing. The company's UK activities include research and development in autonomous systems and AI-enabled command-and-control platforms, aligning with the UK's vision for a resilient and innovative defence sector. Due to the reliance on data and AI, there are obvious links between high-tech defence companies such as Anduril and data centre infrastructure. For example Anduril work extensively with Oracle Cloud Infrastructure, especially with their Lattice software.

Finance

Source: Thought Machine

Impact from Data Centre Infrastructure

Financial services rely heavily on digital infrastructure (i.e. data centres) for secure data storage, real-time transaction processing, and compliance with data privacy laws.

The finance sector was a leading driver of the first wave of data centres in London, servicing trading operations and providing data back-up.

Case Study – Thought Machine

Thought Machine, a UK-based fintech founded in 2014, delivers Vault Core, a cloud-native core banking platform built around smart contracts. Designed to modernise legacy banking systems, Vault Core is used by leading financial institutions including Lloyds Bank, SEB, and Standard Chartered. Thought Machine partners with major cloud providers such as Google Cloud and AWS, enabling clients to deploy and scale banking services globally with high availability, security, and compliance. The platform is infrastructure-agnostic, supporting both public and hybrid cloud environments, and integrates seamlessly with a wide ecosystem of fintech and technology partners.

Clean Energy

Source: Rolls-Royce

Impact from Data Centre Infrastructure

Data centres benefit the clean energy industry in the research and development stage. Data centres also generate a demand for clean energy due to the vast quantities of power they require. Data centre operators are increasingly concerned with their environmental impact, with the majority of data centre operators prioritising net-zero energy.

Many data centre operators have signed up to the Climate Neutral Data Centre Pact, which is a self-regulatory initiative backed by major European cloud and data centre operators, developed in cooperation with the European Commission. It commits signatories to matching their electricity consumption with at least 75% carbon-free energy on an hourly basis by the end of 2025, rising to 100% by 2030. The Pact forms part of the industry's broader goal to make European data centres climate neutral by 2030 through measures covering energy efficiency, water conservation, and circular economy practices.

Case Study – Rolls-Royce SMR

The UK government has selected Rolls-Royce SMR as its preferred bidder to deliver the country's first small modular reactors (SMRs), committing £2.5 billion over the next few years through Great British Energy – Nuclear to fund the development. The initiative aims to power approximately 3 million homes, create up to 3,000 skilled jobs, and build a foundation for long-term clean energy resilience.

Data centres, requiring 24/7 low-carbon power and stable pricing, are viewed as ideal off-takers for SMR output. Rolls-Royce is already in early discussions with major tech operators and exploring microreactor variants for remote or space-based digital infrastructure. A fleet of SMRs could supply up to 1.5 GW by the early 2030s.

Life Sciences

Source: Latent Labs

Impact from Data Centre Infrastructure

Data centre capacity is critical to advancing life sciences by powering cloud computing, AI, and data-intensive research. Data centre infrastructure can enable researches to process and analyse larger datasets from genomics, clinical trials, and medical imaging in real-time. Further, there has been a rapid increase in the use of AI in drug discovery, precision medicine, and AI-driven diagnostics. Cloud platforms also support global collaboration, allowing scientists to share data securely and scale their work efficiently. In order for UK based scientists to compete globally, a mass rollout and adoption of data centre related services will be required to fuel productivity.

Case Study – Latent Labs

Founded in 2023 by former DeepMind scientist Simon Kohl and headquartered in London (with operations in San Francisco), Latent Labs seeks to make biology programmable via generative AI. Based in the UK, the company builds foundational models to design novel proteins and synthetic molecules, speeding up drug discovery. It has recently launched its frontier AI model Latent-X that can be used by scientists in both commercial and non-commercial uses.

Latent Labs have partnered with Amazon Web Services (AWS) and therefore require data centre infrastructure in order to train the generative AI models. They also require data centre infrastructure to run the simulations that can be used for drug discovery.

4 Data Centre Market Assessment

4.1 Introduction

4.1.1 This section first establishes the strong growth in data centre capacity globally. Next, I define an appropriate Study Area relevant to the Appeal Site. Within the Study Area, key supply and demand signals are then considered with the aim to objectively assess the local market strength for additional data centre capacity.

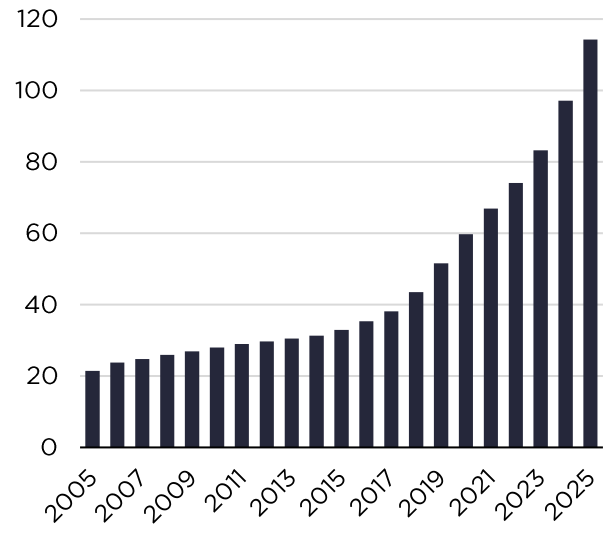
4.1.2 The consideration of market signals is a key requirement of the National Planning Policy Framework ('NPPF') (Paragraph 32) for underpinning the preparation and review of Local Plan policies.

4.2 Global Data Centre Trends

4.2.1 Reflective of the demand drivers in the data centre sector as described in **Section 3,** there has been a rapid increase in installed computing power globally. **Figure 4.1** shows that the global installed data centre capacity per year (expressed in gigawatts abbreviated to GW) is almost 6 times higher in 2025 than in 2005.

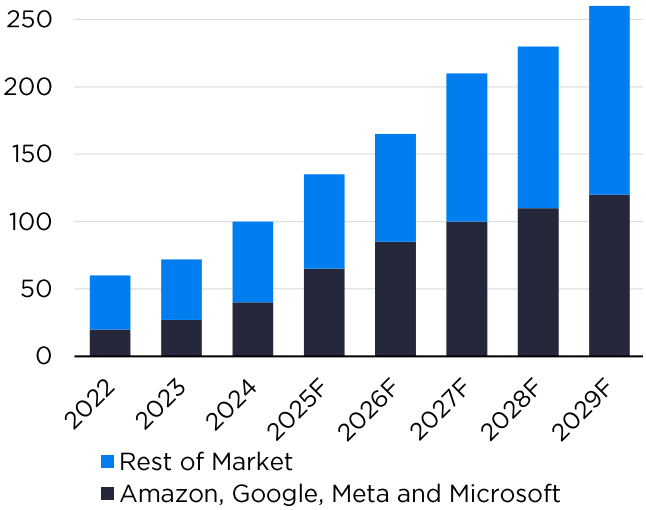
4.2.2 **Figure 4.2** indicates this growth in data centre capacity is likely to continue into the future given capital expenditure on data centres is forecast to be over 2.5 times higher in 2029 compared to 2024 in response to increased demand for computing services and AI.

Figure 4.1 Global Installed Data Centre Capacity (GW)



Source: International Energy Agency

Figure 4.2 Indexed Data Centre Capital Expenditure (2024 = 100)



Source: Financial Times, Dell'Oro Group, Baron Fung

4.3 The London Availability Region

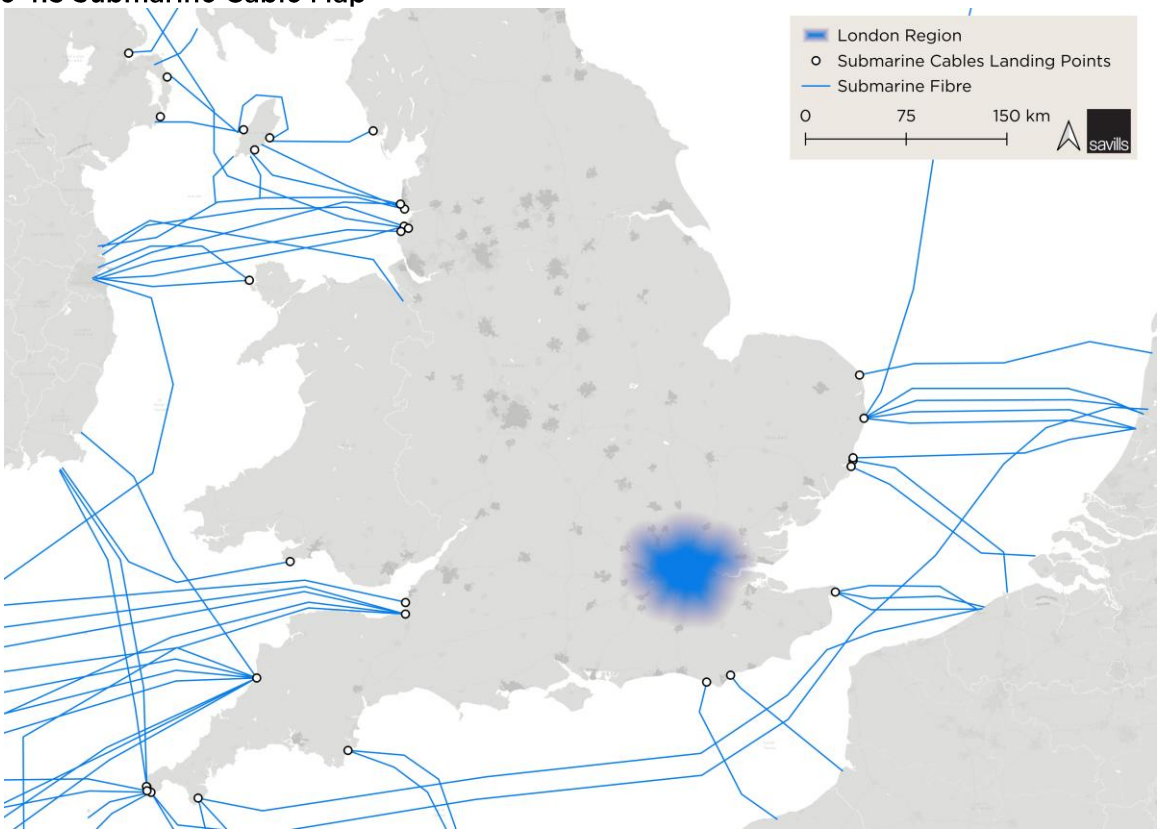
4.3.1 Within Europe there are five well-established data centre markets: Frankfurt, London, Amsterdam, Paris, & Dublin (FLAP-D). These markets are interconnected through a network of subsea and terrestrial cables in order to provide communication networks. The London

availability region is the largest of the FLAP-D markets in terms of computing power, falling only behind Northern Virginia in the USA in the global rankings.

4.3.2 London's data centre market has its roots in finance. The first wave of development was driven by financial institutions in the City of London and, later, Canary Wharf, who sought "disaster recovery" facilities at secure locations beyond the capital's core. Early sites were established in several areas with strong connectivity, including Slough, which quickly emerged as the leading cluster. By the late 1990s and early 2000s, operators such as IXEurope (later acquired by Equinix) and Digital Realty had developed facilities in Slough specifically to serve banks and trading firms. The opening of Equinix LD4 in 2007 marked a turning point: designed as a low-latency hub, it became critical to financial trading operations. Over time, this concentration of facilities evolved into the Slough Availability Zone (SAZ), now the largest and most important availability zone serving London.

4.3.3 Building on these financial foundations, London and the SAZ have strengthened their global position through the expansion of international connectivity. Since the 1990s, the growth of submarine cables has significantly enhanced links with Europe and North America, supporting the rapid transmission of data worldwide. This infrastructure has underpinned the UK's ability to maintain a dominant role among European data centre markets for more than 30 years. As such, London - and by extension the SAZ - remain highly attractive locations for continued investment, of which the Appeal Development is a direct representation. A map of these international cables is shown in **Figure 4.3**.

Figure 4.3 Submarine Cable Map

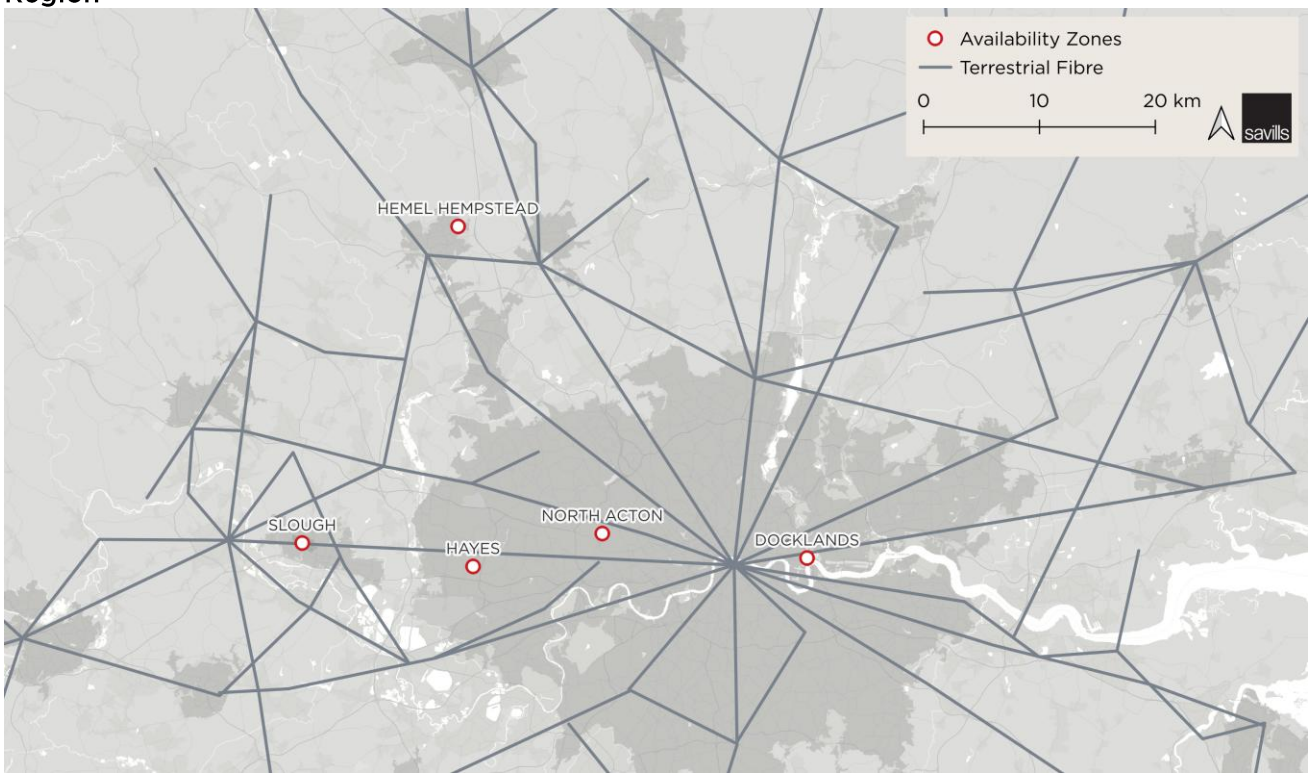


Source: Savills, ITU Broadband Mapping programme, TeleGeography

4.4 London Availability Zones

4.4.1 As mentioned in **Section 2.3**, within Availability Regions there are a number of Availability Zones working together to share the load. The separate London Availability Zones are Slough, Hayes, Hemel Hempstead, North Acton and the London Docklands (shown in **Figure 4.4** below)

Figure 4.4 Map of the midpoints of the major Availability Zones within the London Availability Region



Note: These points represent indications of the broad geographic midpoints of the availability zones

Source: Savills, ITU Broadband Mapping programme, TeleGeography

The Slough Availability Zone

4.4.2 The Appeal Development is located within the Slough Availability Zone (SAZ). The SAZ is the largest and most established availability zone within the London Availability Region in terms of computing power, but also in terms of the quantity of data centre operators and users. The SAZ is home to a number of cloud operators including: Microsoft, Amazon, Google, IBM and Oracle. The size and importance of the SAZ is noted in a recent House of Commons Research Briefing Note[43] [CD 12.6] which states:

> *'Europe's largest data centre cluster is in Slough, which is reportedly home to 30 to 35 data centres. Slough is easily accessible for potential employees; sits along high-speed fibre-optic cables connecting London with Ireland and the United States; and is close enough to London to provide the City's financial institutions with the extremely low-latency connectivity they need.'*

[43] House of Commons Library, Research Briefing, 26th August 2025, 'Data Centres: planning policy, sustainability, and resilience,' p16

4.4.3 One driver behind the clustering of data centres in the SAZ is the increasing difficulty of securing suitable development sites as the market has matured and cloud service providers demand larger facilities. In London, developable land is extremely scarce, and what is available faces intense competition from other high-demand uses, such as last-mile logistics and housing — both of which have experienced substantial growth over the past decade. As outlined in **Section 2.3**, the strict locational and operational requirements of data centres further narrows the pool of suitable and viable sites, reinforcing the concentration of facilities within established clusters.

4.4.4 Additional reasons why the SAZ has developed into a data centre hub include:

- **Proximity to London** – London is the largest business and residential hub in Europe. As mentioned earlier, a crucial component for many data centre operations, particularly cloud computing, is low latency. As latency is determined by the speed of light, short distances are therefore beneficial to end users which the SAZ provides.
- **Land Supply** – Whilst available land is obviously not infinite in Slough, especially in recent years as evidenced in Savills separate Alternative Sites Assessment (ASA), data centre developers have been able to secure sites over the last 20 years. These sites have been both large enough and at a price that has been viable for developers. Achieving both criteria is more difficult in other areas such as central London.
- **Access to high-voltage power** – Unlike some areas of the country, Slough has had access to high-voltage power, notably from the Iver substation and Slough Heat and Power Station, which is essential for data centre operations.
- **Dense fibre optic infrastructure** – As discussed, a data centre's value lies in its connectivity — to end users, to other data centres, and to wider networks. Slough benefits from its proximity to the Great Western Main Line and the Grand Union Canal, both of which host extensive fibre optic networks serving multiple national and international telecommunications providers. In addition, Slough has direct fibre links to connection points in Cornwall and Bristol, which in turn provide transatlantic connectivity to the United States via submarine cables (see **Figure 4.3**). This combination of infrastructure enables Slough to function as an availability zone within a wider availability region, offering local end customers access to a low-latency global network.
- **An existing cluster** – Slough established itself as an early data centre location that can service London. It is now home to network providers such as Microsoft, Amazon, Google, IBM, and Oracle. This means that any new data centre capacity in Slough can be used within an availability zone, bringing benefits such as load sharing, disaster mitigation and 100% uptime. This means there is a large pool of operators who would be willing to operate within Slough.

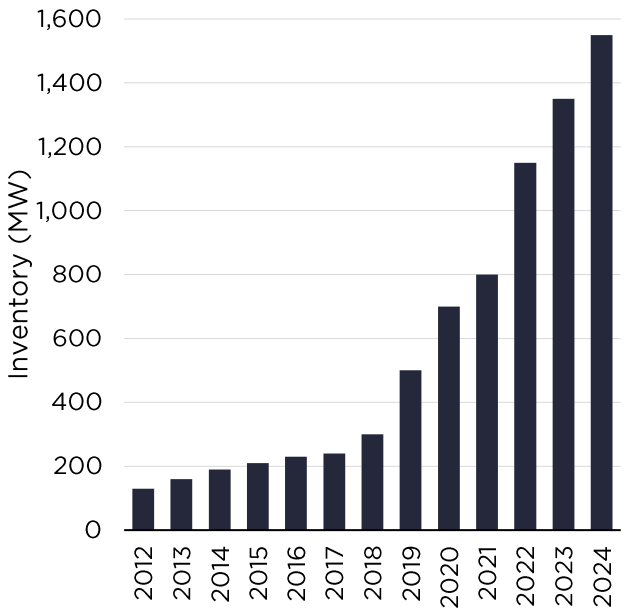
4.4.5 Taken together, these factors make the SAZ one of the most competitive and strategically advantageous locations for data centre investment in the UK. Its unique combination of proximity to London, availability of suitable land, access to high-voltage power, dense fibre

connectivity, and an established ecosystem of global technology firms positions the area as the leading availability zone serving the capital. This enables operators to scale computing capacity rapidly and cost-effectively, directly supporting the surging demand for cloud services, AI processing, and other data-intensive applications.

4.5 Data Centre Market Signals

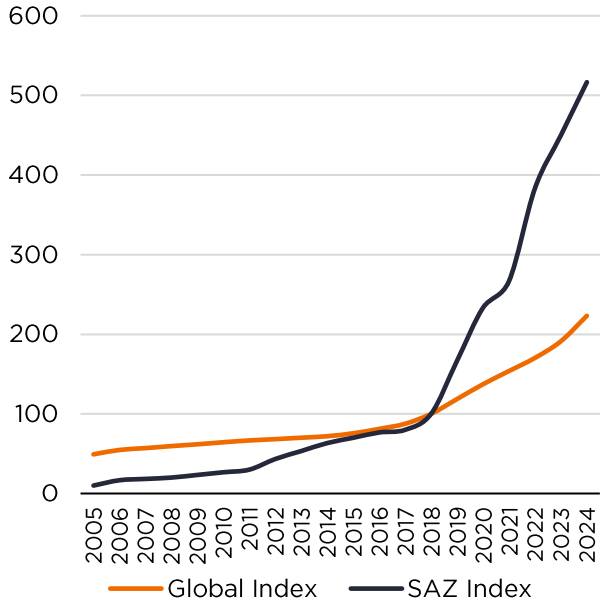
4.5.1 **Figure 4.5** below shows the data centre computing power in the SAZ as measured in MW. It primarily shows the raid rollout of data centre capacity in the SAZ, responding to the strong market demand. As a result, the computing capacity in the SAZ in 2024 is around 10 times greater than the capacity in 2012. Further, if we compare the growth in data centre capacity in the SAZ with global trends, we can see that the capacity has risen substantially faster in the SAZ (**Figure 4.6**). This clearly underlines the SAZ as being a premier data centre location globally.

Figure 4.5 – Data Centres Capacity in the SAZ (MW)



Source: DCByte

Figure 4.6 – Indexed Data Centre Capacity in the SAZ and Globally (2018 = 100)



Source: International Energy Agency, DCByte

Defining a Study Area for the Appeal Site

4.5.2 Before we can consider market demand and supply signals relevant to the Appeal Site (in **Section 5**), we first need to determine an appropriate Study Area. The Study Area needs to be relevant to the Appeal Site and is effectively the broad 'area of search' within which data centre operators will consider when looking to develop or lease space in the local area. Effectively the Study Area will include the competitor locations to the Appeal Site for meeting data centre need locally.

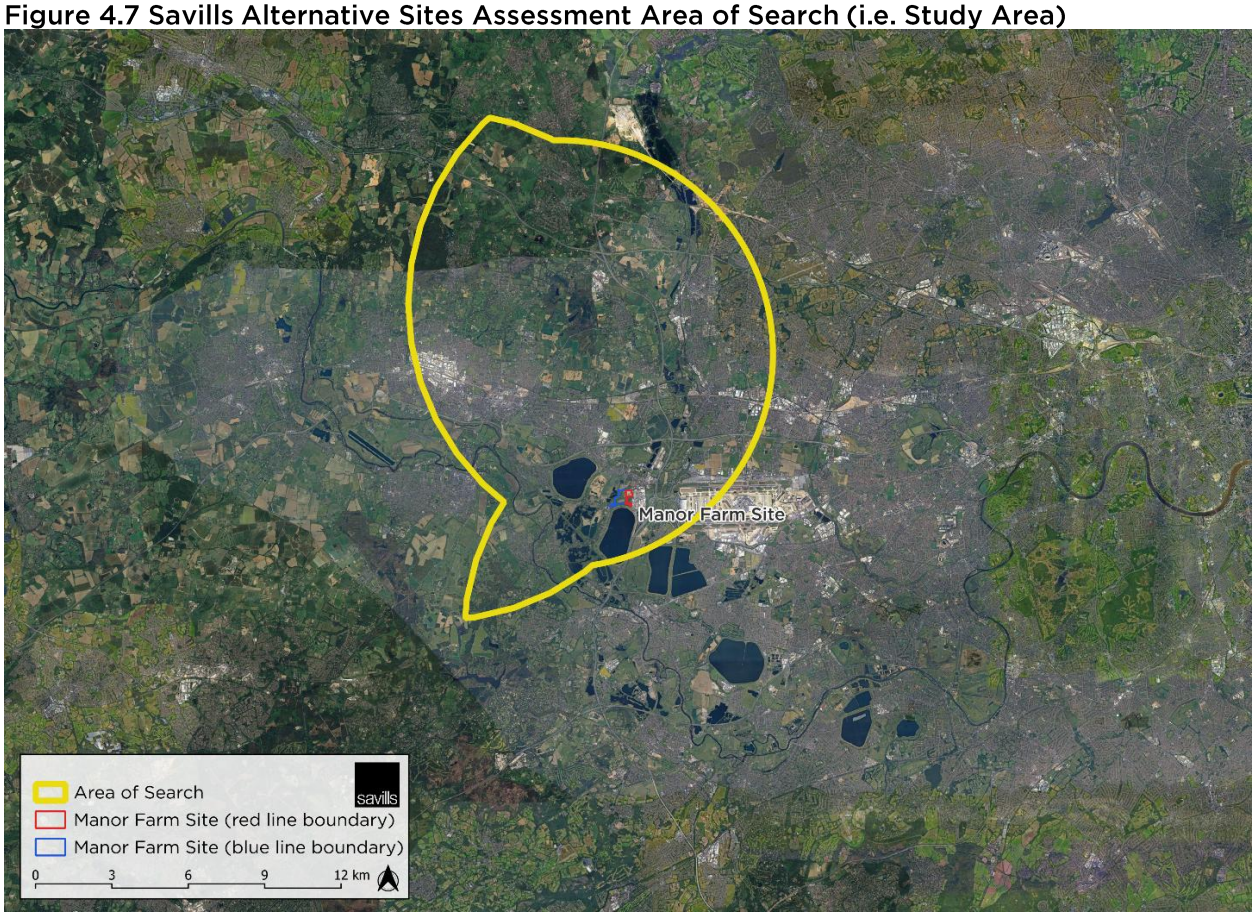
4.5.3 For consistency, I have used the same Study Area as outlined in Savills Alternative Sites Assessment (ASA) prepared by Alex Cole of Savills Planning. I also agree this to be a correct

and reasonable Study Area relevant to the Appeal Development. This area is shown in **Figure 4.7** and has regard to:

- Being within 10km of the central point of the SAZ (i.e. Slough Trading Estate);
- Being within 10km of a 132kV GSP substation; and
- Including the eastern part of the Woodlands Park Area of Seach as far as it relates to the Sough Availability Zone.

4.5.4 Further details on how the Study Area has been defined can be found in the ASA. Note fibre connectivity was not deemed as a constraint in the area given the area has a rich fibre network. **It is important to note there is no single geographic definition of the SAZ. This is because different data centre operators may define it slightly differently based on their specific operational requirements. Regardless of this, I consider our Study Area to contain the majority of the SAZ's existing data centre stock and future supply. Given this, our Study Area is considered comparable to previous definitions of the SAZ.**

Figure 4.7 Savills Alternative Sites Assessment Area of Search (i.e. Study Area)



Source: Savills Alternative Sites Assessment

5 Future Data Centre Demand and Supply

5.1 Introduction

5.1.1 The previous sections of this report have outlined the key demand drivers in the data centre sector, and how the expansion of this critical national infrastructure is imperative to meeting the UK Government's stated economic goals.

5.1.2 In this section, I first review recent data centre decisions relevant to the Appeal Development. Next, I estimate the future need for data centres within the Study Area specifically. Finally, I compare my future need estimate to the current planning pipeline of data centre schemes within the Study Area to demonstrate a significant shortfall in supply exists. Therefore, in my view the Appeal Development is clearly needed to help address part of this need shortfall.

5.2 Review of Recent Data Centre Decisions

5.2.1 Alongside the supportive Government policy for data centres, there have been a number of recent planning decisions which help to demonstrate the strong demand for data centres. These include:

December 2024 – Court Lane, Iver (Ref: 3337981) [CD 7.3]

Decision – The decision notices accepted the demonstrated need for data centres in the Slough and Hayes availability zones and that '*the Secretary of State further agrees with the Inspector's assessment that significant weight should be attached to the need for new data centres'* and that '*She agrees with the Inspector that failure to meet this need could have significant negative consequences for the UK digital economy*'[44]

Need Forecast - This need figure was produced by Knight Frank who collated their 'known' short to medium term (3-5 years) requirements.

May 2025 – Land off Bedmond Road, Abbots Langley (Ref: 3346061) [CD 7.2]

Decision – Whilst not in the Slough Availability Zone, the '*Secretary of State agrees that there is a very significant level of demand in the Hemel Hempstead AZ and that there is a need for this additional capacity to be provided in this AZ*' and '*agrees that a failure to provide enough sites to meet the need for new data centres could result in investment being lost to other well-established markets outside the UK.*'[45]

Need Forecast - This forecast, prepared by Montagu Evans, is based on JLL's market intelligence regarding demand levels and future requirements from several major global market players over the assessment period. It includes unfulfilled demand from 2022 and has been grossed up to reflect total market need, using current market share data to project the overall growth in data centre capacity required.

[44] Decision Notice: Court Lane Industrial Estate, Court Lane, Iver, SI0 9HI (ref: 3337981 – 6 December 2024)
[45] Decision Notice: Land off Bedmond Road, Abbots Langley (REF:3346061– 12 May 2025)

June 2025 - Iver Heath, (Ref: PL/24/2130/FA)
Decision – The '*Officers acknowledge that there is currently a need for data centres within the Slough Availability Zone. In dealing with other proposals for data centres within the surrounding area, the Council has also accepted that there is a need for data centres.*' [46]
Need Forecast - There was a need figure produced by Knight Frank who collated their 'known' short to medium term (3-5 years) requirements. Before this Knight Frank figure, Montagu Evans had estimated future data centre needs in a 2022 report using a trend based approach built upon historic delivery data.
July 2025 - Woodlands Park, Iver (Ref: 3347353) [CD 7.1]
Decision – '*The Secretary of State agrees with the undisputed position that need within the Slough Availability Zone (SAZ) has continued to rise significantly, from a short to medium term need of 1700MW identified in the Court Lane decision to a mid-range estimate of some 2,486MW of additional capacity needed between 2024 and 2029*'[47]
Need Forecast – Similar to the Court Lane decision referenced above, the need forecast is based on JLL's market intelligence regarding demand levels and future requirements from several major global market players over the assessment period. It includes unfulfilled demand from 2022 and has been grossed up to reflect total market need, using current market share data to project the overall growth in data centre capacity required. Montagu Evans then updated this with a growth rate reflective of the increase in historic rates.

5.3 Savills Assessment of Future Data Centre Need

Compliance with the Planning Practice Guidance

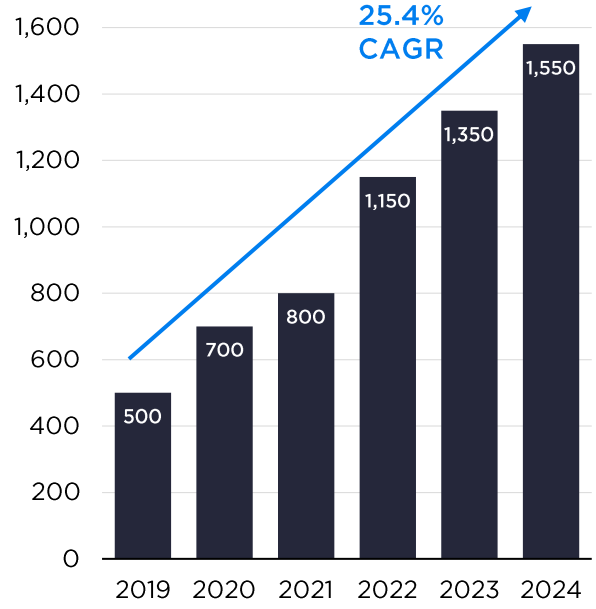
5.3.1 I consider my need estimation methodology for data centres to be compliant with the requirements of the Planning Practice Guidance (PPG) as it is *'based on the past take-up of employment land and property and/or future property market requirements'*[48].

5.3.2 I present my need estimates over a six year period (2025-2030). Given the intended timescale of the Appeal Development and constantly changing nature of the digital economy, I do not consider a longer projection period to be necessary nor that useful. In saying this, given the strong demand drivers and committed capital expenditure noted in the preceding sections, it is clear data centre demand will continue to be strong beyond 2030.

5.3.3 According to DCByte data (a market leading data centre analytics platform), over the period 2019-2024 the average annual deliveries of new data centre capacity in the Study Area is 208 MW. The average compound annual growth rate (CAGR) over this same period is 25.4%. These calculations are shown in **Figure 5.1 and Figure 5.2** and represent the baseline numbers I use to estimate future data centre demand (2025-2030) in MW.

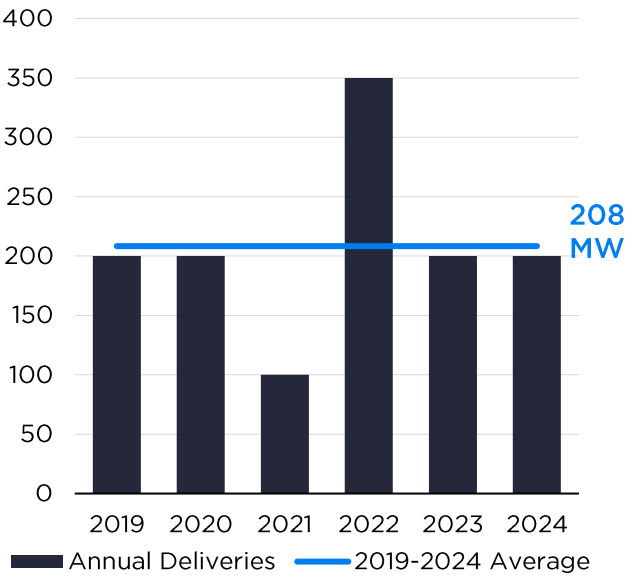
[46] Decision Notice: Dromenagh Farm, Sevenhills Road, Iver Heath, Buckinghamshire (REF:PL/24/2130/FA– 12 June 2025)
[47] Paragraph 18: Appeal Decision and Inspector Report (3347353)
[48] In accordance with PPG Paragraph: 027 Reference ID: 2a-027-20190220

Figure 5.1 – Data Centre Capacity in the SAZ (MW)



Source: DCByte

Figure 5.2 Data Centre Annual Deliveries in the SAZ (MW)



Source: DCByte

5.3.4 The results of this analysis are shown in **Table 5.1** and represent the demand for new data centres per annum in MW.

Table 5.1 Savills Future Demand Estimates in the Study Area (MW)

Avg. Historic net deliveries	Future projections based on 25.4% CAGR						
	2019-2024	2025	2026	2027	2028	2029	2030	Total (2025-2030)
Savills Future Demand Estimates	208	261	328	411	515	646	810	2,970

Source: Savills analysis using DCByte data

5.3.5 In order to validate my future need estimates, I have compared my results to a number of other forecasts for future data centre demand. I refer to these as sensitivity tests.

Sensitivity Test – Woodlands Park

5.3.6 Firstly, I compare my need estimates with the recently approved Woodlands Park[49]. Montagu Evans supported the need case for this successful planning appeal. As mentioned above, our Study Area defined in **Section 4** aligns with the common definition of the SAZ and it is therefore comparable to the results of the Woodlands Park appeal. In terms of need, the Decision Notice [CD 7.1] states that:

'The Secretary of State agrees with the undisputed position that need within the Slough

[49] Recovered appeal: Woodlands Park Landfill Site, Land South Of Slough Road, Iver, Buckinghamshire (ref: 3347353 – 9 July 2025)

Availability Zone (SAZ) has continued to rise significantly, from a short to medium term need of 1700MW identified in the Court Lane[50] decision [CD 7.3] to a mid-range estimate of some 2,486MW of additional capacity needed between 2024 and 2029'[51].

5.3.7 **Table 5.2** shows the 'Average' results from Montagu Evans need estimates. The report by Montagu Evans [CD 12.9] to support the appeal, Ref: 3347353, used research undertaken by JLL [CD 12.7] that originally supported a planning application at Woodlands Park in Iver that was subject to a public inquiry (Ref: 3307420) [CD 7.4]. The Planning Inspectorate and Secretary of State accepted the need figures presented by JLL and Montagu Evans in both appeal decisions and concluded that there is no doubt that there is a significant and substantial demand for new data centres.

5.3.8 The JLL and Montagu Evans' approach is to first estimate demand at the London wide level and then apportion a level of this demand (65%) to Slough. I have no issue with this approach, especially considering Savills data is referenced in these assessments. However, in my baseline demand assessments outlined above, I have opted to focus specifically on the Study Area by considering the net deliveries of data centre floorspace, consistent with PPG guidance, and then project this forward based on a CAGR specific to the Study Area. Despite these differences in approach, my demand estimates for the Study Area are strongly aligned with JLL and Montagu Evans to 2030 as I detail below and in **Figure 5.2.**

5.3.9 In order to compare my demand estimates with JLL / Montagu Evans I have had to align our forecasting periods. JLL's demand estimates were forecasted over a six-year period 2022-2027. The figures used within the Montagu Evans report utilises the previous JLL figures and projects them forwards to 2029 using a central growth figure of 20% to 'reflect historic realised growth in the London region'. For the sake of comparison to my forecast, I have used this 20% growth figure on the stated Montagu Evans figure to produce a demand estimate for 2030 consistent with my forecast period.

Table 5.2 Savills and Montagu Evans Future Demand Estimates in the Study Area/ SAZ

	2025	2026	2027	2028	2029	2030	Total
Savills Future Demand Estimates	261	328	411	515	646	810	2,970
Montagu Evans Estimates – Woodlands Park Appeal[52]	310	366	426	512	614	737	2,965

Source: Savills analysis using DCByte data, Data Centres Proof of Evidence – Ashley Collins – Woodlands Park Landfill Site, Land South of Slough Road, Iver November 2024 [CD 12.9]

Sensitivity Tests – 3rd Party Sources

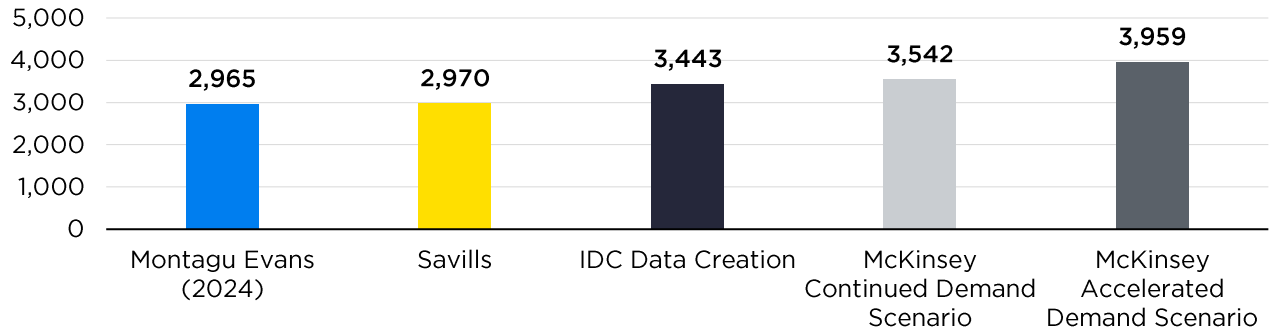
[50] Recovered appeal: Court Lane Industrial Estate, Court Lane, Iver, SL0 9HL (ref: 3337981 – 6 December 2024)
[51] Paragraph 17: Appeal Decision and Inspector Report (3347353)
[52] Note: The forecast in the Woodlands Park application was only to 2029, as such we have used the stated 20% growth rate to estimate the value for 2030 in order to compare to our figure

5.3.10 Other relevant sources of future data centre needs include:

- **IDC Data Creation Trend**[53] – The IDC provide an estimate of the total data generated globally, the 'Global DataSphere' includes the total data created, captured and replicated worldwide. The forecast of this is based on device counts and capacities alongside future drivers such as device proliferation, the rise of IoT and data consumption trends. It has been used by major players in the technology industry such as Seagate[54] to forecast future data storage requirements. As mentioned throughout my Proof of Evidence, there is a strong link between the quantity of data created and processed and the need for additional data centre capacity. Data centres, particularly hyperscalers, are becoming the main source of this data storage and processing capacity. Therefore, I have considered the IDC Data Creation Trend and applied it to existing data centre capacity as a further sensitivity test. Further details of this sensitivity test are shown in **Appendix C**.
- **McKinsey Continued Demand and Accelerated Scenarios** – McKinsey & Company have created a Data Centre Demand model in order to estimate future data centre demand. Their main demand driver in the model is AI related demand based on AI adoption trends. These include the 'continued momentum scenario' which assumes a steady integration of AI across industries in line with witnessed trends. In this case, most enterprises will adopt some AI use cases, but transformational adoption (e.g. fully AI-powered operations) remains limited to leading sectors. Their alternative 'accelerated demand scenario' assumes a rapid and widespread uptake of AI including advanced generative models in a number of industries. In simple terms, their 'continued momentum scenario' can be viewed as the baseline view, with the 'accelerated demand scenario' viewed as the upside scenario. I have used both scenarios as a further sensitivity test. Further details of this sensitivity test are shown in **Appendix C**.

5.3.11 If I apply the growth rates from the above sensitivity tests to the existing data centre inventory in the SAZ, we get the results shown in **Figure 5.3**. When we compare these against the Savills and Montagu Evans figures from above, we see that the Savills estimate is lower than the various sensitivity tests. **This leads me to conclude that my need estimate is somewhat conservative should data centre demand trends continue to accelerate as predicted.**

Figure 5.3 Future Data Centre Demand Estimation – Study Area/ SAZ (2025-2030)



Source: Savills analysis using DCByte data, Data Centres Proof of Evidence – Ashley Collins – Woodlands Park Landfill Site, Land South of Slough Road, Iver November 2024 [CD 12.9], IDC, McKinsey & Company

[53] https://my.idc.com/getdoc.jsp?containerId=IDC_P38353
[54] Accessible at: https://www.seagate.com/files/www-content/our-story/trends/files/dataage-idc-report-final.pdf

Sensitivity Test – Pessimistic Scenarios

5.3.12 All credible sources of future projections all point to the demand for data centres continuing to accelerate into the future (see **Figure 5.3** above). However, in order to account for the inherent uncertainty in projecting into the future, I consider it prudent to also produce a pessimistic scenario that includes lower expected growth trends. It is difficult to evidence what this should be given London, and Slough in particular, are the leading data centre locations in Europe.

5.3.13 To assist, I turn to research from TechUK[55] [CD 12.8] which assumes, based on limited evidence, a 15% growth rate in data centre capacity within the UK when considering economic impact. This 15% figure represents a near 60% reduction on the 25.4% CAGR I evidenced for the Study Area in **Figure 5.1** above. If I then apply this figure over the forecasting period, data centre demand reduces to 2,097 MW as shown in **Table 5.3. However, I do not consider this figure a realistic estimate of future demand, plus it is substantially out of kilter with the other sensitivity tests I have considered.**

Table 5.3 Future Data Centre Demand Estimation in the Study Area – Pessimistic Scenario (2025-2030)

	2025	2026	2027	2028	2029	2030	Total
Savills Future Demand Estimates - Baseline	261	328	411	515	646	810	2,970
Sensitivity Test – 15% annual growth	240	276	317	364	419	482	2,097

Source: Savills analysis using DCByte data

5.4 Savills Assessment of Data Centre Supply

5.4.1 Here, I seek to understand the current supply of data centres within our Study Area. As discussed, our Study Area defined in **Section 4** aligns with the SAZ. To do this, I consider:

- Approved planning applications,
- Schemes submitted for planning but awaiting a decision; and
- Sites known to be in the pre-planning stage and therefore may come forward in the future.

5.4.2 I have mapped the location of these data centre schemes in **Figure 5.4** and listed them out in **Table 5.4**, including how much capacity in MW each represent.

5.4.3 **This is likely to be a generous supply assessment (ie 1,152 MW to 2030) given the lengthy timelines of planning applications in the UK, time restrictions on grid connections and the long construction windows for data centres. As a result, it is unlikely all of this supply in the planning pipeline will be delivered before 2030.**

Figure 5.4 Map of Future Data Centre Supply

Source: Savills, Glenigan, DCByte

Table 5.4 Future Data Centre Planning Pipeline

Site Name	Map Reference	Status	Planning Reference	Size (sqm)	Size (MW) [56]
Court Lane Industrial Estate, Iver, Buckinghamshire	1	Outline Plans Granted via Appeal	PL/22/4145/OA	Up to 65,000 sqm	Unknown but c.100 MW
Iver Heath Data Park	2	Detailed Plans Granted	PL/24/2130/FA	69,110 sqm	90 MW
SEGRO Park Iver, Thorney Business Park DC1	3a	Outline Plans Granted	PL/22/1775/FA	Up to 92,304 sqm	Unknown but c.90 MW
SEGRO Park Iver, Thorney Business Park DC2	3b	Outline Plans Submitted	PL/24/3532/OA	Up to 106,616 sqm	Unknown but c.150 MW
Ridgeway Distribution Park	4	Pre-Planning	PL/23/2521/EIASR	30,523 sqm	Unknown but c.30 MW
Former AkzoNobel Site - Facility A and B (Yondr)	5a	Detailed Plans Granted	P/00072/108	42,238 sqm	Unknown but c.60 MW
Former AkzoNobel Site – Building C	5b	Detailed Plans Granted	P/00072/139	25,100 sqm	Unknown but c.35 MW

[56] Note: For schemes where the MW figure is not public we have estimated this based upon market knowledge where applicable, or through a floorspace conversion of 0.00142 MW per sqm based upon case study information from a number of schemes in the local area. The details of these schemes are shown in Appendix C

Wexham Road Data Centre Campus	6	Outline Plans Submitted	P/00072/152	90,614 sqm	Unknown but c.130 MW
200 Bath Road	7a	Detailed Plans Submitted	P/20367/001	30,130 sqm	40 MW
210 Bath Road	7b	Outline Plans Submitted		49,700 sqm	50 MW
Bay 9-13 Banbury Avenue	8	Detailed Plans Granted	P/20054/001	15,089 sqm	19.2 MW
Pinewood Road	9	Outline Plans Submitted	PL/25/2076/OA	Up to 55,030 sqm	Unknown but c.80 MW
Langley Business Centre	10	Outline Plans Granted	P/00437/095	96,000 sqm	Unknown but c.140 MW
Woodlands Park, Iver	11	Outline Grant via Appeal	PL/24/0754/OA	72,000 sqm	90 MW
Land South of Slough Road and East of M25, Iver	12	Pre-Planning	PL/23/2521/EIASR	15,192 sqm	48 MW
Total					Up to 1,152 MW

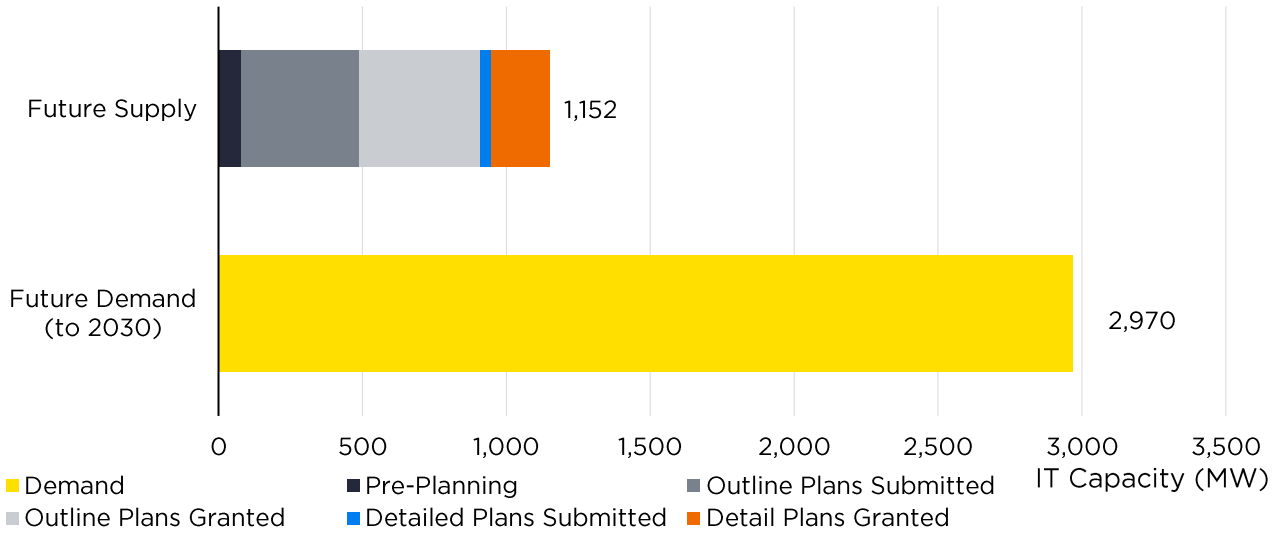
Source: Glenigan, DCByte, Data Centres Proof of Evidence – Ashley Collins – Woodlands Park Landfill Site, Land South of Slough Road, Iver November 2024 [CD 12.9]

5.5 Future Data Centre Supply and Demand Balance

5.5.1 Here, I bring together my data centre need estimates for the Study Area / SAZ with my assessment of supply to identify if a need shortfall exists (i.e. need less supply). **Figure 5.5** provides this need vs supply comparison. **Based on my figures there is a need shortfall of circa 1,820 MW by 2030 in the Study Area / SAZ (i.e. 2,970 MW of demand less 1,152 MW of supply).**

5.5.2 This shortfall would be even greater under IDC Data Creation Trend Scenario and the McKinsey Continued Demand and Accelerated Scenarios discussed in **Section 5.3**.

Figure 5.5 Savills Demand Estimates (to 2030) in the Study Area and Future Supply Pipeline by Category



Source: Savills, Glenigan, DCByte

Immediacy of the Need

5.5.3 As mentioned in **Section 2 and 3,** the UK economy is in a stagnant state with productivity flatlining, especially in the wake of the Covid Pandemic. At the same time, there has been a technological revolution with the rise of cloud computing, AI, and data generation that has sparked an appetite for capital expenditure on data centre infrastructure. Therefore, the need for data centre development is immediate, as demonstrated by the list of live requirements in **Table 5.5** below. This table was originally provided by Knight Frank as part of the Court Lane appeal in Iver (Ref: 3337981), and has been corroborated by Savills Data Centre Advisory as of September 2025. It demonstrates that current live requirements for compute power exceed 2,100 MW. This demonstrates the immediacy of the need for data centres in the Study Area, and that without developments such as the Appeal Development, this demand will not be met.

Table 5.5 A List of Live Requirements for Data Centres in the Study Area/ SAZ

Occupier	Requirement (MW)
US Tier 1 Cloud Provider	250
US Tier 1 Cloud Provider	400
US Tier 1 Cloud Provider	300
US Tier 1 Cloud Provider	350
US Tier 2 Cloud Provider	30
US Tier 2 Cloud Provider	100
US Tier 2 Cloud Provider	50
Social Media Content Provider	50
UK Tier 2 Cloud Provider	30
Chinese Cloud Provider	50
Chinese Cloud Provider	50
Chinese Cloud Provider	40
Total 'Known' IT Load	1,700 MW
Total 'Known' Site Load (PUE 1.3)	**2,120 MW**

Source: Knight Frank, Savills Data Centre Advisory

5.5.4 If the UK fails to allow the development of urgently required data centres we risk the success of the future economy of the UK by not enabling the growth sectors in the Modern Industrial Strategy. Further to this, due to the rampant demand for data centres, if a tone is set that the UK is not open for investment we risk limiting future investment opportunities from global investors. These investors may seek to invest in other countries that are more supportive of data centre development.

5.5.5 Further, due to the lengthy timelines of planning applications in the UK, time restrictions on grid connections and the long construction windows for data centres means that it is not a given that all of supply in the planning pipeline listed in **Table 5.4** will be delivered before 2030. Given the demonstrated difficulties connecting to the power grid, it is unlikely that all of this supply will gain access to power within the window to 2030. **In this regard my 1,152 MW supply figure may be an overestimate of future supply within the forecast period (2025-2030).**

Potential data centre capacity at the Slough Trading Estate

5.5.6 In the Council's Statement of Case (para 6.47) it is noted that Slough Trading Estate has a simplified planning zone which *'has a pipeline which has the ability to deliver 4.3 million sqft of additional data centre accommodation over the next 7 years'.* Whilst I do not disagree with the potential for some space within the Slough Trading Estate to be converted / redeveloped into data centres, this will not be able to meet the total needs of the data centre market. Using the same ratio as we have used in our future supply estimations, namely 0.0014 MW per sqm, based on case study examples (see **Appendix C**), the 4.3 million sqft (399,500 sqm) that is earmarked at the Slough Trading Estate would only provide circa of 559 MW.

5.5.7 If I combine this 559 MW figure with the 1,152 MW future supply within the planning pipeline, this would still not be able to meet the total demand I have estimated at circa 2,970 MW by 2030 – the resultant need shortfall equates to 1,259 MW. A need shortfall also exists against my various sensitivity tests as detailed in **Table 5.6** below.

5.5.8 As discussed above with regards to the Pessimistic Sensitivity Test, I do not consider it a realistic demand estimate to 2030 given it is based on a CAGR (15%) which is far below what the SAZ has achieved historically (25.4%). However, despite this and the fact that the below table assumes all of the data centre planning pipeline and Slough Trading Estate capacity comes forward by 2030 (a somewhat unrealistic assumption), a need shortfall of 386 MW still exists. The pessimistic sensitivity test being unrealistic is also evidenced by the fact that it is substantially out of kilter with the other sensitivity tests.

Table 5.6 Need Shortfall to 2030 within the Study Area/ SAZ for the different demand scenarios

	A. Demand Estimate (MW)	B. Study Area Supply (MW)	C. Future Supply - Slough Trading Estate (MW)	D. Need Shortfall (MW) = A – (B+C)
Savills Baseline	2,970	1,152	559	1,259
Montagu Evans	2,965	1,152	559	1,254
IDC Data Creation Trend	3,443	1,152	559	1,731
McKinsey Continued Demand	3,542	1,152	559	1,831
McKinsey Accelerated Scenario	3,959	1,152	559	2,247
Pessimistic Scenario	2,097	1,152	559	386

Meeting this need within the Study Area/ SAZ

5.5.9 This above shortfall is indeed substantial to 2030 and will therefore require sites such as the Appeal Site to be developed in order to meet this demand and help secure the economic benefits as described in **Section 3**. It is also important to note, that due to the locational requirements of data centres, it is not correct to state that this demand can be met elsewhere in London or the UK. The demand figures, and subsequent need shortfalls, presented above are specific to the Study Area / SAZ – other availability zones would have their own demand and supply balances that would need to be considered. Given the national demand for data centres and constraints on supply across the UK, many of these other

availability zones would likely have a need shortfall too.

5.5.10 There is the potential that cloud operators may try to build out data centre infrastructure in other availability zones in order to provide redundancy. It should be noted however, as above, that development in other availability zones would not be in place of development in the SAZ. Instead it would be additive. This is an important concept as it should be noted that due to the requirement for load balancing within availability zones, data centre capacity in one availability zone cannot be substituted by capacity in another availability zone. This is noted within the Abbotts Langley decision notice[57] [CD 7.2] which takes into account the "importance of load balancing between each Availability Zone" and that "the Secretary of State agrees that there is a very significant level of demand in the Hemel Hempstead AZ (IR209) and that there is a need for this additional capacity to be provided in this AZ (IR210)[58]."

5.6 Wider Consequences of Not Meeting Data Centre Need

5.6.1 If the demand for data centres is not met within the UK and specifically within the most in demand areas, such as the Study Area / SAZ, the economy will be negatively impacted in the future. The UK Compute Roadmap, produced by DSIT details some examples of how it would negatively impact the economy:

By 2030, limited domestic … capacity could seriously affect the UK economy. It may prevent the country from meeting sovereign needs like NHS or national security use cases that require secure, local data processing. Latency-sensitive technologies, such as autonomous vehicles and high-frequency trading, may be held back because they rely on real-time compute that can't be outsourced.[59]

5.6.2 Rejecting investment into projects such as Manor Farm may signal to the wider market that the UK is not aiming for growth. Accordingly, companies may choose to reallocate investment into more favourable countries that can facilitate the data centre infrastructure. This would restrict the next generation of investment into the UK and therefore undermine the Government's growth agenda and attempts to address the current stagnant productivity levels.

5.6.3 Data centre capacity going off shore also poses national security implications. For instance, the UK Compute Roadmap states:

'A growing dependence on foreign infrastructure could increase exposure to global supply chain risks, potentially disrupting access and raising costs.' and that 'hosting large-scale AI infrastructure … on UK soil strengthens the economy and enhances our strategic and economic resilience. [It] will ensure we are not reliant on overseas providers and insulate key elements of our economy from global shocks.'[60]

5.6.4 Consequently, providing data centre capacity within the most in-demand areas such as the

[57] Decision Notice: Land off Bedmond Road, Abbots Langley (REF:3346061– 12 May 2025)
[58] Recovered appeal: Woodlands Park Landfill Site, Land South Of Slough Road, Iver, Buckinghamshire (ref: 3347353 – 9 July 2025)
[59] DSIT, UK Compute Roadmap: evidence annex, 17 July 2025, p15
[60] DSIT, UK Compute Roadmap, 17 July 2025

Study Area / SAZ), will assist in meeting the strong demand alongside providing critical national infrastructure on UK soil. This means that this computing capacity will not be beholden to foreign governments or providers, and therefore not be a potential security risk that could impact national security and economy resilience.

6 Conclusion

6.1.1 The evidence set out in this Proof of Evidence demonstrates a clear and compelling case for the urgent delivery of new data centre capacity at Manor Farm. The UK's digital economy is expanding at an unprecedented rate, driven by the rapid adoption of cloud computing, artificial intelligence, and other data-intensive technologies. This trend is not only reshaping the technology sector, but also underpinning productivity, efficiency, and competitiveness across the wider economy - from financial services and manufacturing, to healthcare, education, and logistics.

6.1.2 My demand modelling shows that the projected need for additional data centre capacity in the SAZ significantly exceeds the supply that can be delivered within the currently identified sites. The magnitude of this shortfall is such that, even if all planned capacity were brought forward, it would still fail to keep pace with the market's needs. This conclusion is reinforced by JLL's and Montagu Evans' market intelligence for recent data centre applications, which uses detailed knowledge of key global operators' expansion plans, as well as by independent sensitivity testing undertaken as part of my future needs assessment. In my opinion, these various sensitivity tests validate my central finding: **demand for new data centre capacity is far higher than the available or planned supply, creating an urgent requirement for new, suitable sites such as Manor Farm.**

6.1.3 To illustrate this point, my Proof of Evidence has sought to respond to both the Council's Statement of Case and the 'Matters that Remain in Dispute' in the Statement of Common Ground. Notably, this report demonstrates an overwhelming level of need for data centres. **Based on my demand and supply estimates, there is a need shortfall of circa 1,820 MW by 2030 in the Study Area / SAZ (i.e. 2,970 MW of demand less 1,152 MW of supply). This shortfall cannot be addressed by the circa 559 MW of data centre capacity that the Council states could be delivered within the Slough Trading Estate over the next 7 years. This clearly indicates the Appeal Development is needed. The separate ASA produced by Alex Cole of Savills also demonstrates that the Appeal Site is the only site that can deliver the Appeal Development.**

6.1.4 The Appeal Development at Manor Farm offers the physical scale, infrastructure potential, and strategic location required to meet the operational specifications of hyperscale operators and cloud service providers. It would provide highly demanded computing power within the SAZ. Further to this, the demand for computing power within the SAZ cannot be provided for in other areas, as this would be too far away for adequate low latency load balancing, which is essential for the operations of data centres.

6.1.5 Its delivery would strengthen the resilience and competitiveness of the SAZ and the London Availability Region. In doing so, it would secure substantial economic benefits - both direct, through construction investment, operational expenditure, and skilled employment, and indirect, through enabling innovation and productivity gains across dependent sectors.

6.1.6 National planning policy, including the NPPF and the Planning Practice Guidance, requires that Local Plans and decision-making processes take account of future economic needs,

particularly for strategically important infrastructure. The Appeal Development at Manor Farm meets these criteria. It aligns with national objectives for digital infrastructure, supports the UK's net zero ambitions by enabling modern, energy-efficient data centre provision, and strengthens the resilience of critical national infrastructure in line with government strategy.

6.1.7 In summary, I consider the evidence I have presented to confirm that the Appeal Development is not simply a commercial opportunity - it is a strategically necessary response to documented capacity shortfalls and an enabler of the UK's continued economic and technological capability. Failure to deliver this scheme risks constraining growth in the digital economy, diminishing the UK's competitive position, and missing a critical window to secure long-term resilience in data infrastructure. Beyond this, rejecting investment of this scale will signal to investors that the UK and Slough are not open for business and the investment will likely relocate to competing markets in Europe.

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