# One year on, data centres stand at heart of UK digital strategy



A year after the UK government designated data centres as Critical National Infrastructure (CNI), the sector has entered a period of rapid investment and rising expectations. The designation, announced in September 2023, placed data centres alongside transport, energy and telecommunications as essential to national security and economic resilience, highlighting their central role in powering public services, businesses and emerging technologies such as artificial intelligence.

Since then, over £25 billion has been committed to UK data centre projects. Amazon Web Services alone has pledged £8 billion over five years, and a proposed £3.75 billion facility in Hertfordshire is set to become Europe’s largest. These investments signal investor confidence and reflect the sector’s growing importance as demand for data capacity and AI infrastructure accelerates.

Yet CNI status brings operational responsibilities. Data centres now face mounting energy costs, grid connection delays and transmission constraints—factors that could push investment overseas unless addressed. Operators are co-investing in grid upgrades, adopting on-site renewables and exploring energy storage to bolster resilience and support national energy stability.

Sustainability has become a core focus. While concerns persist about fossil fuel reliance, especially off-grid gas, the industry is adopting greener practices. New facilities employ closed-loop cooling, minimise water use, avoid landfill, and use recycled materials. Some are repurposing waste heat for local housing or adding biodiversity features such as living walls. Greener fuels like Hydrotreated Vegetable Oil and biomethane are also gaining traction.

The rise of AI has added urgency. The government’s 2024 AI Action Plan committed £14 billion to infrastructure and skills, but a shortage of engineers and data specialists remains a barrier. Expanding training programmes and strengthening public-private partnerships will be vital to building sovereign AI capabilities within the UK. CNI status also strengthens cybersecurity by enhancing collaboration between operators and government.

This is critical for protecting sensitive data—from NHS records to financial systems—and boosting national resilience against cyber threats and service disruptions.

The past year has marked a turning point for the UK’s digital infrastructure. Recognising data centres as critical assets has unlocked record investment, spurred innovation and sharpened political focus. But delivering long-term success will require urgent progress on energy integration, sustainability, skills and governance. As National Data Centre Day approaches, the sector stands as both a symbol and enabler of the UK’s ambitions in AI, digital leadership and economic security.

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## Bibliography

1. <https://www.datacenterdynamics.com/en/opinions/national-data-center-day-reflecting-on-a-year-of-cni-status/> - Please view link - unable to able to access data
2. <https://www.reuters.com/world/uk/uk-class-data-centres-critical-national-infrastructure-2024-09-11/> - In September 2024, the UK government announced that data centres would be classified as 'critical national infrastructure' (CNI), aligning them with sectors like energy and transport. This designation aims to enhance protection against cyber attacks and underscores the importance of data centres to national security and economic stability. The move is expected to bolster investor confidence, with significant investments from companies like DC01UK and Amazon Web Services, which plans to invest £8 billion over five years to build and operate data centres in the UK. The CNI status facilitates better coordination with the government to mitigate potential economic disruptions from critical incidents.
3. <https://www.ft.com/content/9a0f8cea-bc38-4187-996f-8202e62ec8d4> - A recent letter to the Financial Times highlights the pressing need for sustainable solutions in powering data centres, especially as the UK aims to lead in artificial intelligence and meet rising digital content demand. While acknowledging that fossil fuels may temporarily meet these power demands, the author warns this could jeopardize national net-zero goals, especially if off-grid gas usage increases. The letter advocates for a systems-thinking approach, including co-locating data centres with facilities that can reuse waste heat and incorporate advanced cooling systems or energy sources like batteries, pumped hydro, and small modular nuclear reactors. It emphasizes the necessity of long-term innovation and policy coordination to reduce the environmental footprint of data centres, highlighting their future role in shaping urban planning and national energy resilience.
4. <https://www.gov.uk/government/news/data-centres-to-be-given-massive-boost-and-protections-from-cyber-criminals-and-it-blackouts?icid=learn_more_content_click> - In September 2024, the UK government announced that data centres would be designated as Critical National Infrastructure (CNI), placing them on par with sectors like energy and water. This move aims to enhance protection against cyber attacks and other critical incidents, ensuring the safety of vital data, including NHS records and financial information. The CNI status will provide data centre operators with direct coordination with government agencies, facilitating better preparedness and response to potential threats. The government also welcomed a proposed £3.75 billion investment in Europe's largest data centre, planned for Hertfordshire, which is expected to create over 700 local jobs and support nearly 14,000 data and tech jobs across the country.
5. <https://www.cnbc.com/2024/09/12/uk-labels-data-centers-critical-infrastructure-to-boost-cybersecurity.html> - In September 2024, the UK government classified data centres as 'Critical National Infrastructure' (CNI), a designation typically reserved for key sectors such as energy and defense. This status aims to bolster cybersecurity by providing data centre operators with direct coordination with the government to prepare for and respond to threats. The move follows significant investments, including a £3.75 billion proposal for a large data centre in Hertfordshire, which is expected to become the largest in Europe upon completion. The CNI designation is intended to enhance the resilience of data centres, ensuring the protection of critical data and services.
6. <https://www.nationaltechnology.co.uk/Uk_classifies_data_centres_as_critical_national_infrastructure.php> - The UK government has classified data centres as 'Critical National Infrastructure' (CNI), aligning them with sectors like energy and transport. This designation aims to enhance protection against cyber attacks and underscores the importance of data centres to national security and economic stability. The move is expected to bolster investor confidence, with significant investments from companies like DC01UK and Amazon Web Services, which plans to invest £8 billion over five years to build and operate data centres in the UK. The CNI status facilitates better coordination with the government to mitigate potential economic disruptions from critical incidents.
7. <https://www.capacitymedia.com/article/critical-national-infrastructure-for-data-centres-one-year-on> - Reflecting on a year since the UK's data centres were designated as Critical National Infrastructure (CNI), the article discusses the progress and challenges faced by the sector. The CNI status has led to increased investment and political engagement, with over £25 billion committed to UK data centre projects in the past year. However, challenges remain, including high energy costs, delays in grid connections, and transmission bottlenecks. The article emphasizes the need for smarter builds, faster connections, and stronger integration with the energy infrastructure to maintain the UK's position as a leader in technological innovation.