Ten trends

Data Centres

Overview

Data Centres lie at the core of the digital infrastructure platform that enables the modern world to operate. Whilst originally a peripheral asset class left to a small collective, they have become mainstream. As major power consumers they also are at the centre of discussions around energy transition and the race to net zero.

As the interest in and demand for data centres both as investments and as a service have risen over the past two decades so have the complexity of laws surrounding them. Within this intricate landscape, we identify ten trends in the areas of power, technology, real estate, funding and finance that will be relevant throughout 2025 and beyond.

Power

The data centre sector is witnessing a significant uptick in power demands, driven by the exponential growth in cloud computing and artificial intelligence technologies. This demand is further amplified by substantial improvements in rack density, allowing for greater power consumption within more compact spaces. However, this increase in power requirement is met with challenges from aging electricity grids, which are struggling to keep pace. As a result, data centre operators are increasingly prioritizing the availability of power in their site selection criteria, ensuring their infrastructure can support the burgeoning demand.

Green Energy

Amid escalating power demands, the data centre industry is navigating a dual challenge: increasing energy consumption and intensifying pressure to operate sustainably. This pressure is compounded by evolving ESG regulations, which are expected to tighten the connection between data centres and the green energy they claim. Operators and hyperscalers are responding by investing in renewable energy projects and developing private wire solutions. Virtual Power Purchase Agreements remain a core part of their green energy approach but longer term may not stand up to regulatory scrutiny. The industry takes a proactive approach to sustainability. But the negative perception is hard to overcome.

Demand dynamics

Vacancy rates for powered colocation space in Europe have hit historic lows, reversing the trend of falling prices per kilowatt and boosting potential returns for spaces with available power. While significant price hikes are unlikely to deter demand, they may prompt end-users to weigh the trade-offs between latency and cost more carefully. This scrutiny could lead to a heightened focus on optimizing the placement of workloads based on each location's specific benefits and costs.

New entrant risks

Data centres have evolved from niche to coveted investments in the real estate and infrastructure arenas. This allure is drawing investors, particularly from industrial and logistics backgrounds toward the data centre market including repositioning of existing assets. Yet, transitioning into this sector involves complex challenges, as these facilities demand technical expertise beyond securing land and power. End users can have very specific demands and have been known to walk away simply because the shape of a building does not suit their standard design. Investing in the right team of advisors on all aspects can make a significant difference to success or failure of a project.

Funding

The data centre sector's growing appeal has attracted ample capital, yet new investors, especially funds, acknowledge their need for experienced operators to succeed. This recognition has spurred a rise in joint venture structures, applied to both stabilized and development assets, allowing investors to align opportunities with their fund's risk profile. Experienced operators are leveraging their expertise, facilitating these partnerships to capitalize on the influx of interest and investment (in particular from private equity and infrastructure funds), demonstrating a strategic approach to navigating the sector's expanding landscape.

Financing

As data centres have moved into the mainstream and growth across the sector has accelerated, the data centre sector is experiencing a dynamic shift in financing trends. Lenders are keen to participate in the different types of financing needed at the varying stages of the lifecycle. Financing can be structured in many ways to meet needs and risks associated with each stage: development/construction financing, project financing, Government incentives, acquisition financing, debt financing, REITs, securitisation.

Lenders are drawn to the high-value assets, stable customer base and key role for data centres in the global digital infrastructure generally.

Impact of AI

The rise of LLM AI models has shifted focus towards GPU racks, which consume more power and generate more heat than CPUs, leading to higher rack densities of up to 100kW. This challenges traditional cooling methods, prompting a shift to liquid and immersion cooling techniques. Retrofitting existing data centres is complex. However, the excess heat presents an opportunity for waste heat reuse. Some edge HPC operators are even positioning themselves as heat generation businesses, exploring innovative applications of this byproduct.

Construction

Constructing data centres is increasingly costly, exceeding £10m per MW of IT power, and requires specialized expertise often not available locally, leading to high importation costs. This, plus strained supply chains for essential M&E equipment have prompted developers to turn to modular solutions, which can shorten construction times and possibly lower expenses. Yet, this shift complicates legal distinctions between supply agreements and construction contracts, raising questions about product liability and necessitating careful navigation of these emerging challenges.

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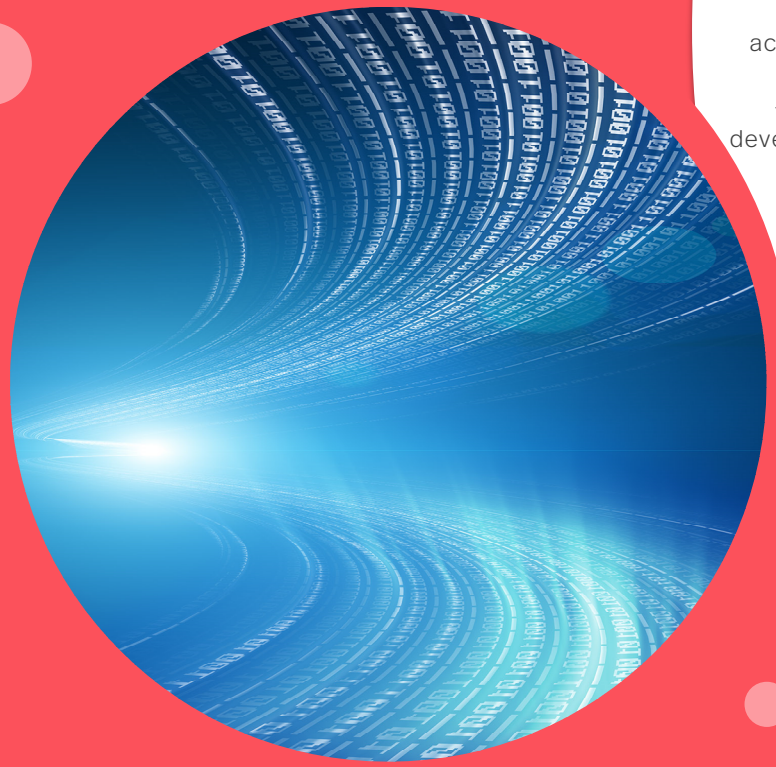
Regulation

Data centres and their clients are facing heightened regulatory scrutiny, not only as major energy consumers with substantial reporting duties under frameworks like CSRD and TCFD but also in hosting financially regulated customers, necessitating compliance with DORA. Additionally, as recognized critical infrastructure, they must adhere to NIS regulations for robust physical and cyber information security. With the EU AI Act regulating the burgeoning AI sector, data centre operators, though not AI creators, will encounter regulations around AI's use in system management and cyber protection.

Disputes

Data centre outages are high-profile, yet disputes are managed quietly, emphasizing discreet resolution. Operational risks peak during upgrades, with human error a common cause. Mitigation requires detailed planning, supervision, and adherence to best practices, alongside proactive customer engagement that respects insurance terms. Development delays and design-operation misalignments pose additional risks, underscoring the need for clear targets and change documentation. In this rapidly evolving sector, strategic dispute resolution is vital, balancing the intricate interplay of financial investments, contractual obligations, and stakeholder interests.

Our recent Data Centre highlights



Acting for a private family office on the equity investment into a proposed data centre development in the north of England with an initial power capacity of 144MW.

DEEP GREEN
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on its equity fund raise with Octopus Energy to fund the roll-out across England of its AI ready micro-edge data centres with waste heat reuse. We are also deploying an innovative fee arrangement based on kilowatts deployed.

VIRTUS
Data Centres

on a range of matters including;
- its group-wide financing arrangements to fund the further expansion of its UK data centre campus sites;
- its expansion into Europe with the acquisition of sites in Berlin to deliver over 350MW of power; and
- the financing of a new 75MW campus development in Saunderton, Buckinghamshire

Brookfield

on its acquisition of data centre firm operator Data4 from AXA including advising on the €2.5bn acquisition financing facility. The transaction was Winner of Europe Datacentre Deal of the Year at the TMT M&A Awards EMEA 2023 (selected for size, complexity and market impact)

Acting for a build to suit data centre developer on various aspects of its hyperscale data centre development in the Nordics including construction and supply agreements.

EQUINIX

on a range of matters including a number of data centre acquisitions.

Acting for one of the largest global data centre developers on the proposed acquisition and development of a site for a new London data centre with a 60MW IT load.

infranity

on their successful investment into Vantage Data Centers' EMEA platform, one of the fastest-growing hyperscale platforms in EMEA

KDDI
TELEHOUSE

on a range of regulatory matters as well as real estate and commercial transactions (wholesale and B2B customer deals)

GLOBAL SWITCH

in respect of the proposed acquisition of a data centre in Frankfurt, a development agreement with the ECB, data protection issues and customer contract templates.

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