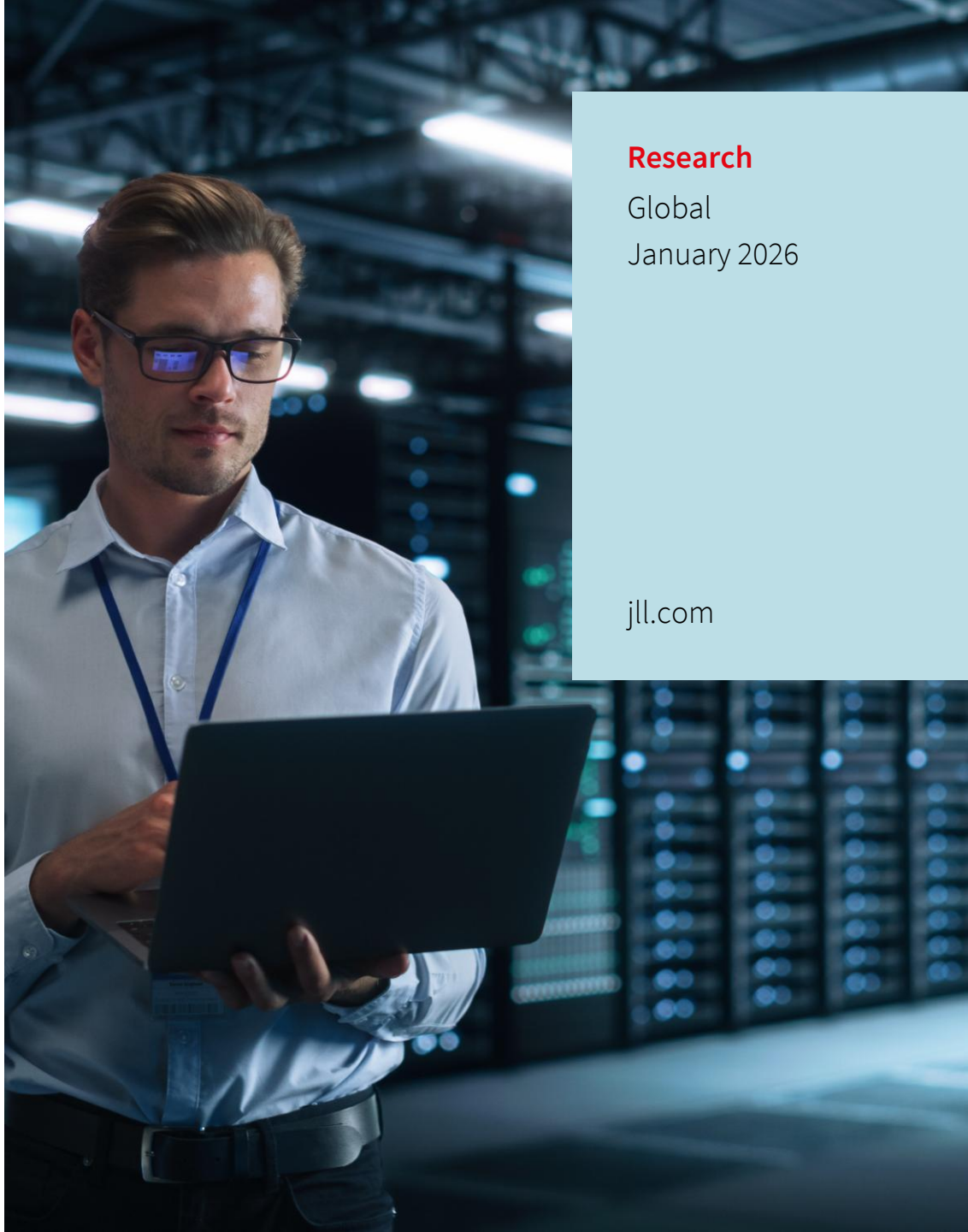
2026 Global Data Center Outlook

Navigating AI demand, power constraints and global opportunities in 2026

JLL SEE A BRIGHTER WAY



Research

Global

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jll.com

Key highlights

Nearly 100 GW of new data centers will be added between 2026 and 2030, doubling global capacity.

The global data center sector will likely expand at a 14% CAGR through 2030, which will require energy innovations to alleviate grid constraints. Hyperscalers will remain a key driver of sector growth, executing a dual strategy of leasing and self-building.

By 2030, AI could represent half of all workloads with inference becoming the primary driver.

AI only represented about a quarter of all data center workloads in 2025, with training driving most of the demand. However, a significant shift is anticipated in 2027, when inference workloads could overtake training as the dominant AI requirement.

The sector is experiencing an infrastructure investment supercycle requiring up to $3 trillion by 2030.

Roughly 100 GW of new capacity is anticipated to come online between 2026 and 2030, equating to $1.2 trillion in real estate asset value creation. Tenants will likely spend an additional $1 to $2 trillion to fit out their space with IT equipment.

Note: All monetary references in this report are in U.S. dollars ($)

2026 priorities for corporates

Outlook for corporates

- Power, not location or cost, will be the primary site selection criteria due to multiyear wait times for a grid connection.
- With 97% global occupancy, landlords will maintain negotiating leverage. Significant rent growth is anticipated through 2030.
- AI will fundamentally change facility design with rack densities approaching 100 kW and liquid cooling requirements.
- Hybrid portfolios will become the default. On-prem footprints will shrink, but sensitive workloads remain on-site. Enterprises will blend on-prem, colocation, hyperscale and edge.
- Supply chain and construction delays will continue to affect timelines. Over half of projects faced delays in 2025; tenants can no longer assume delivery dates without buffers.

Priorities for corporates

- Secure power early. Engage utilities and behind-the-meter generation partners in parallel with real estate decisions.
- Lock in long-term capacity sooner than needed. Evaluate preleasing and phased commitment opportunities to reduce exposure to rent escalation and capacity scarcity.
- Design flexible facilities. Even non-AI tenants should future-proof facilities for higher densities and cooling upgrades.
- Build risk into deployment plans. Assume longer construction schedules, equipment delivery delays, and cost inflation. Consider modular components and all-in-one systems.
- Embrace hybrid portfolio solutions. Evaluate cost and flexibility when developing long-term infrastructure capacity plans.

2026 priorities for investors

Outlook for investors

- The sector is in a capital-intensive supercycle with up to $3 trillion in combined real estate and tenant CapEx by 2030.
- Barriers to entry are rising. Power access, financing and execution capability are concentrating among fewer players.
- Development risk is shifting. Sites without secured power are increasingly stranded, regardless of zoning or demand.
- Liquidity structures are diversifying. ABS and CMBS issuance is emerging as a critical financing channel beyond traditional bank debt.
- Regulatory and community risk affects valuation. Community opposition and sustainability compliance now materially influence timelines and returns.

Priorities for investors

- Prioritize AI-capable and retrofit-ready assets. Assets that can support liquid cooling and higher densities will outperform over the next cycle.
- Expand capital stack sophistication by utilizing ABS, CMBS, and structured finance to preserve equity and fund growth.
- Invest ahead of regulation, not behind it. Assets aligned with renewable mandates and water efficiency will enjoy smoother approvals and stronger exit demand.
- Plan exits earlier via recaps. With core capital growing, partial liquidity events may outperform full asset sales.
- Prioritize community engagement. Proactive outreach reduces entitlement risk, protects project timelines and IRRs.

01

Market sizing and sector forecasts

The global data center sector will likely expand at a 14% CAGR through 2030 driven by cloud growth and AI

The data center sector is projected to increase by 97 GW between 2026 and 2030, effectively doubling in size over a five-year period. By 2030, global data center capacity could reach 200 GW. This rapid growth will be driven largely by hyperscale cloud expansion and AI demand.

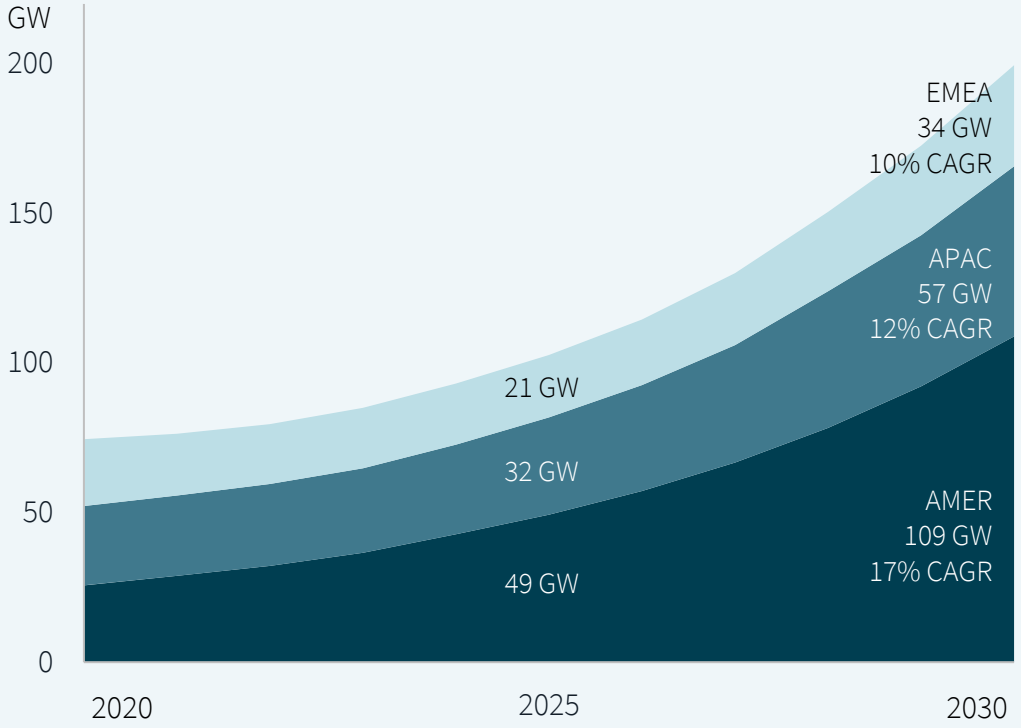
The Americas is the largest data center region, representing about 50% of global capacity. The Americas also has the fastest growth rate of the three global regions, with a projected 17% supply CAGR through to 2030, preserving its position as the dominant data center region. The U.S. drives most of the activity in the region, accounting for about 90% of capacity in the Americas.

APAC data center capacity will expand from 32 GW to 57 GW by 2030, achieving a 12% CAGR. Colocation leads growth at 19%, while on-prem capacity is projected to decline 6% as enterprises continue cloud migration.

EMEA's 10% CAGR forecast is fueled by government support for AI infrastructure and strong demand for sovereign AI clouds to meet data privacy regulations. The region will add 13 GW of new supply, with growth concentrated in established European hubs and emerging Middle Eastern markets pursuing digital transformation strategies.

Nearly 100 GW of new data centers will be added between 2026 and 2030, doubling global capacity

Global supply forecast by region (GW)



Source: JLL Research
Note: supply totals include colocation, build-to-suit, hyperscale owner-occupied and on-prem

JLL's base case forecast of a 14% supply CAGR is framed with 20% upside and 7% downside scenarios

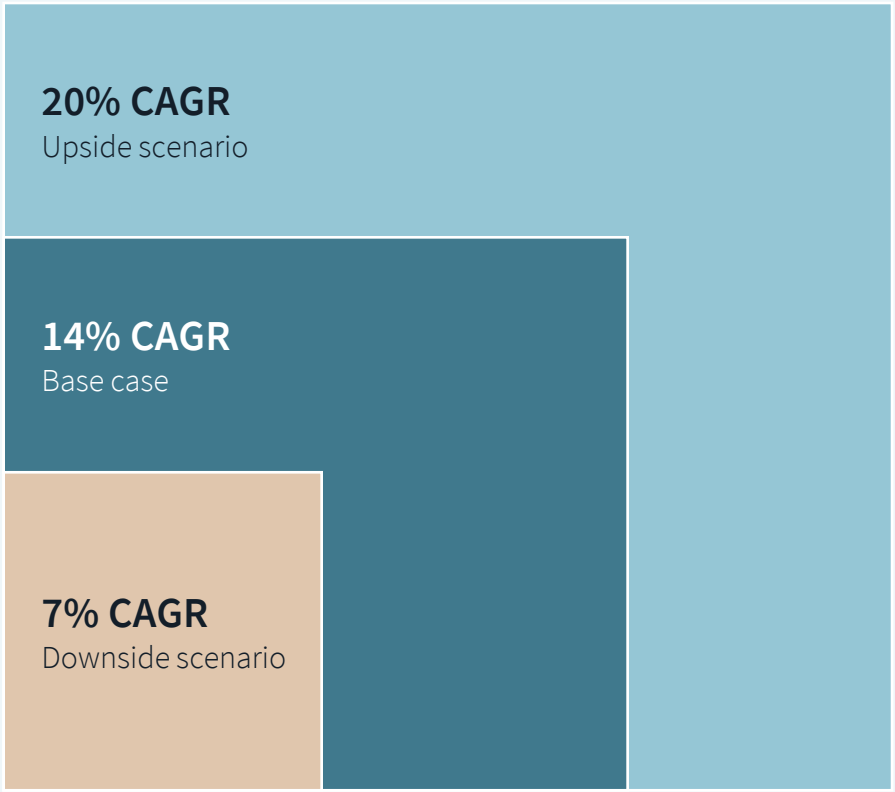
JLL's base case forecast of a 14% global supply CAGR was developed using a bottom-up approach, analyzing market conditions in each region and property subtype. The forecast considers demand trendlines and supply pipeline intelligence. Notably, this outlook presumes that innovations will mitigate persistent energy challenges. In this forecast, demand is projected to keep pace with supply growth, maintaining a sub-10% global vacancy rate.

An upside scenario of a 20% supply CAGR hinges on AI acting as a powerful, additive driver above and beyond our base case forecast. The accelerated adoption of humanoids, autonomous driving and other technologies could also support this outlook. However, as the sector continues to grow, a 20% CAGR will be difficult to maintain, due in part to the law of large numbers. This forecast also comes with added risk of oversupply.

A subdued 7% growth forecast could materialize from a significant pullback in AI investment, economic headwinds, persistent energy challenges, supply chain constraints, or restrictions in technology trade due to geopolitical factors. Additionally, disruptive technologies like quantum computing may necessitate changes to current infrastructure models.

Energy innovations will be required to support nearly 100 GW of new global capacity by 2030

2030 global data center supply scenarios (GW)



Source: JLL Research

Global hyperscale and colocation capacity will double between 2026 and 2030; on-prem will contract modestly

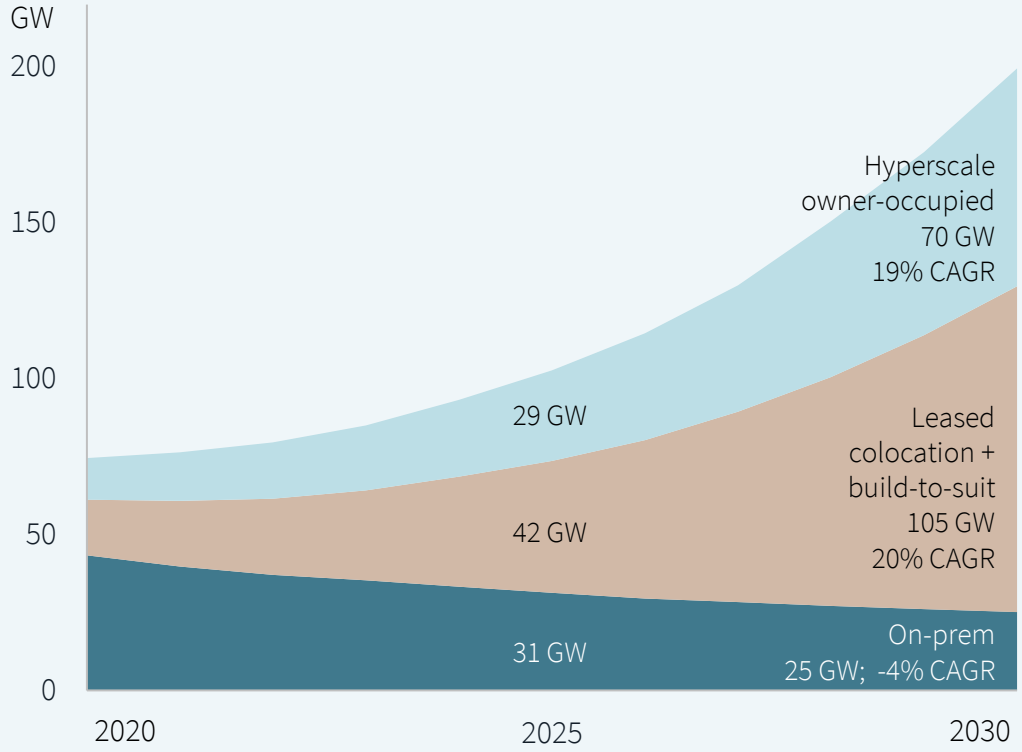
The leased data center segment, which includes colocation and build-to-suit facilities, is expected to add 62 GW between 2026 and 2030 to meet sustained cloud demand, increasing AI workloads and shifting enterprise requirements. Speed to power is the critical factor for project success. Developers are shifting to phased developments with hundreds of megawatts and signaling a preference for single-tenant hyperscale leases over colocation where possible.

Hyperscalers will continue to execute a dual strategy of leasing capacity and self-building through 2030. Recent CapEx targets suggest this view, with hyperscalers likely to allocate $1 trillion for data center spend between 2024 and 2026. As a result, hyperscalers could construct 41 GW of owner-occupied capacity between 2026 and 2030, doubling the size of this segment to 70 GW.

The consolidation of the on-prem segment due to cloud and colocation migration is expected to continue globally, with higher momentum in APAC. AI workloads and the increasing complexity of data center operations has many enterprises adopting a hybrid portfolio strategy, with some capacity remaining on-prem while other workloads shift to colocation and the cloud. However, many sensitive and strategic workloads will remain on-prem, and certain industries such as finance are likely to keep operations in-house.

Hyperscalers will remain a key driver of sector growth, executing a dual strategy of leasing and self-building

Total global data center supply (GW)



Source: JLL Research

Global lease rates to increase at a 5% CAGR through 2030 due to robust demand and supply constraints

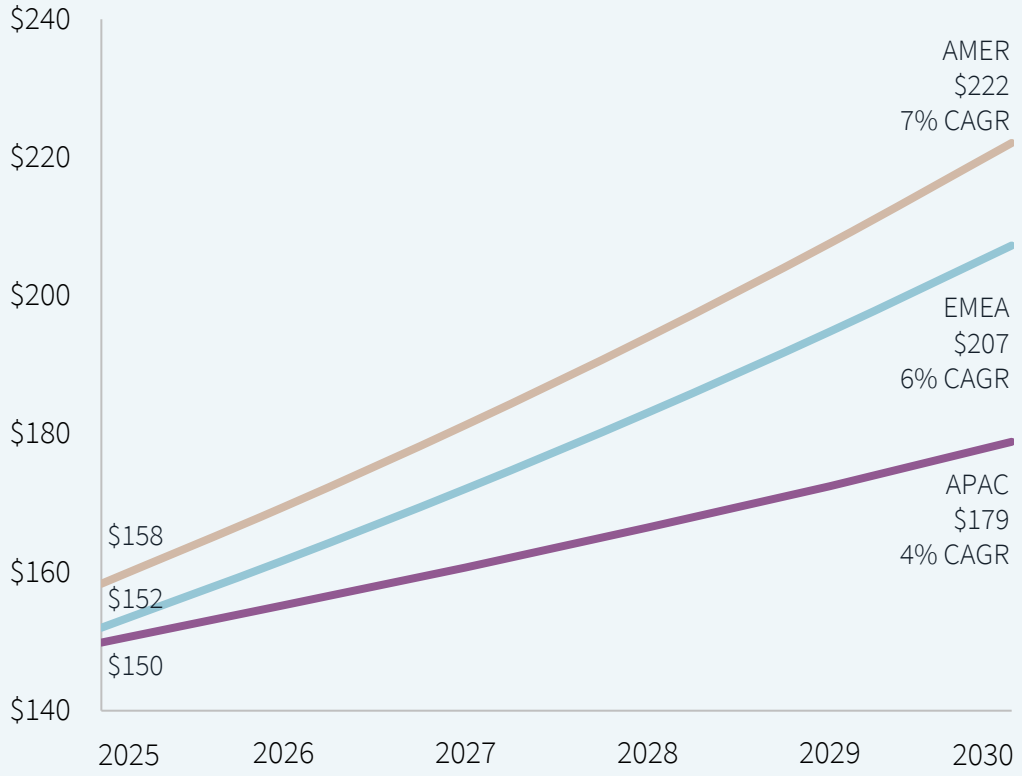
Data center rents in the Americas are projected to increase at a 7% CAGR through 2030, fueled by aggressive hyperscale expansion and severe supply bottlenecks from power constraints. For context, rates in the Americas increased at a 9% CAGR between 2020 and 2025, so it's possible the 7% annual growth target through 2030 will prove too conservative. Given supply scarcity in the Americas equating to just ~1% vacancy, the primary factor containing rent growth is developer competition to sign new tenants.

APAC lease rates are anticipated to increase at a 4% CAGR through 2030 as demand shifts from constrained markets to emerging hubs where development and occupancy costs are lower. Rates in APAC increased at a 3% annual rate between 2020 and 2025, so the forecast out to 2030 represents a modest acceleration in the existing trendline.

EMEA will likely exhibit steady rent appreciation at a 6% CAGR through 2030 amid varying regional conditions. Primary markets in Europe like London, Frankfurt and Paris will face strong growth from land and power constraints, while Middle East markets will experience rapid development through government initiatives and sovereign AI strategies.

The Americas will see the strongest rent growth due to severe supply scarcity and outsized AI exposure

Average 1-20 MW lease rates by region ($/kW/mo)



Source: JLL Research

02

Artificial intelligence

AI inference vs AI training: what's the difference?

AI training

Developing and training new AI models is done by feeding in large amounts of data that the model learns from and identifies patterns. The model then goes through multiple epochs; this is a complete pass of the entire dataset which allows the model to learn from every example at least once.

AI training data centers demand high-power densities of 40 to 100+ kW per rack, which necessitates liquid cooling technologies to manage the substantial heat generation. Currently, there are a limited number of clusters worldwide as the power requirements restrict suitable locations, and access is restricted to major technology companies due to the significant capital requirements involved.

AI inference

Inference uses pretrained AI models to make predictions and decisions on new and unseen data. While training is the learning phase, inference is the application. This includes real-time user interaction and automated decision-making (medical diagnosis assistance, financial trading systems, etc.). Market access is largely dependent on the use case but likely accessed through cloud-managed services, edge deployments and some on-prem facilities.

AI model life cycle: from learning to performing

Data processing: Collecting, cleaning and structuring raw datasets to prepare training material for the AI model.

Model training: The learning phase where the AI system processes data through multiple epochs. This demands ultra-high-density data centers with specialized GPU clusters and advanced cooling systems.

Optimize: Fine-tuning the model through testing and compression. Models can be reduced in size for specific use cases to improve performance.

Deployment: Moving the trained and optimized model from development environments into live production systems where it can serve real users and applications.

Perform: Real-time operational phase where the model processes new data to generate responses for end-users. Operates through scalable cloud infrastructure and edge networks positioned near user populations.

By 2030, AI could represent half of all data center workloads

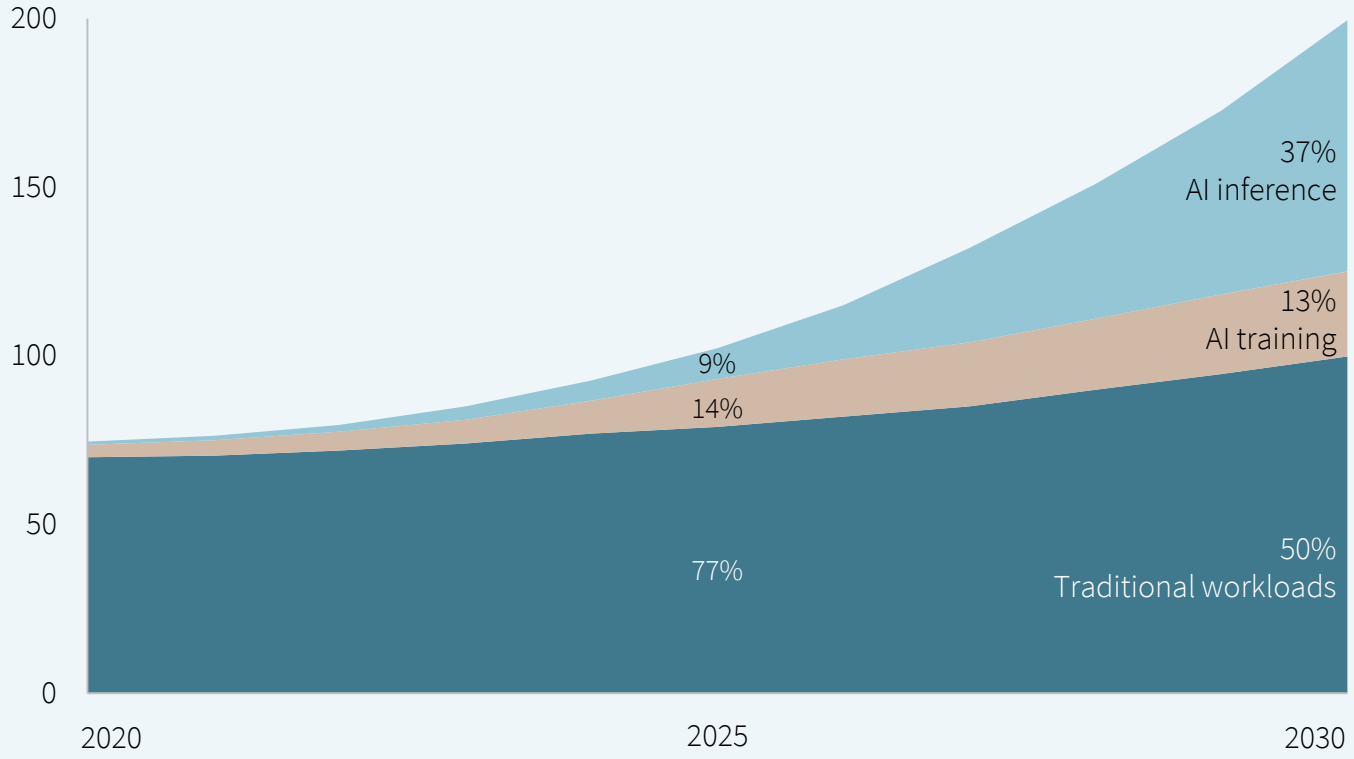
While AI has been quickly gaining daily active users, it only represented about a quarter of all data center workloads in 2025, with training driving most of the demand. However, a significant shift is anticipated in 2027, when inference workloads could overtake training as the dominant AI requirement.

While an AI model represents a one-time or periodic investment, once the model is created, inference generates ongoing revenue through application usage. Looking forward, every AI model deployment creates sustained inference demand that grows with user adoption. This growth, however, depends on the emergence and adoption of inference applications that do not yet exist at scale.

Inference demand requires geographical distribution to reduce latency and serve users effectively. This will drive regional deployments and embedded systems at the edge.

A significant shift is anticipated in 2027, when inference workloads could overtake training as the dominate AI requirement

Total global data center workloads (GW)



Source: JLL Research

The AI inference evolution will unfold in three transformative waves

Wave 1
2025-2035

Cloud centralization

During this period, the majority of inference workloads will be handled within existing cloud regions by the largest hyperscale companies with centralized infrastructure, due to cost and performance advantages. These facilities will begin to feature purpose-built inference clusters using custom-made chips.

The geographic concentration will initially be stark: 80% of global AI inference will occur in fewer than 50 clusters, primarily located in core markets and major population centers.

Wave 2
2027-2032

The hybrid transition

This period will see the rise of “inference at the speed of business”, where AI responsiveness becomes more critical than raw capability.

Data center companies will leverage existing fiber infrastructure to create regional inference hubs, while industry-specific clusters will emerge such as healthcare systems for real-time diagnostics, low-latency financial services for trading and fraud detection, and on-prem manufacturing systems for predictive maintenance.

Wave 3
2032 - 2035

Edge intelligence revolution

This era will be defined by “invisible AI” as inference capabilities are seamlessly embedded into devices, with smartphones potentially handling complex reasoning tasks that previously required cloud resources.

Network effects will become crucial as edge AI value increases exponentially through device collaboration, putting smart cities with AI capabilities and existing infrastructure at a significant advantage compared to those with isolated applications.

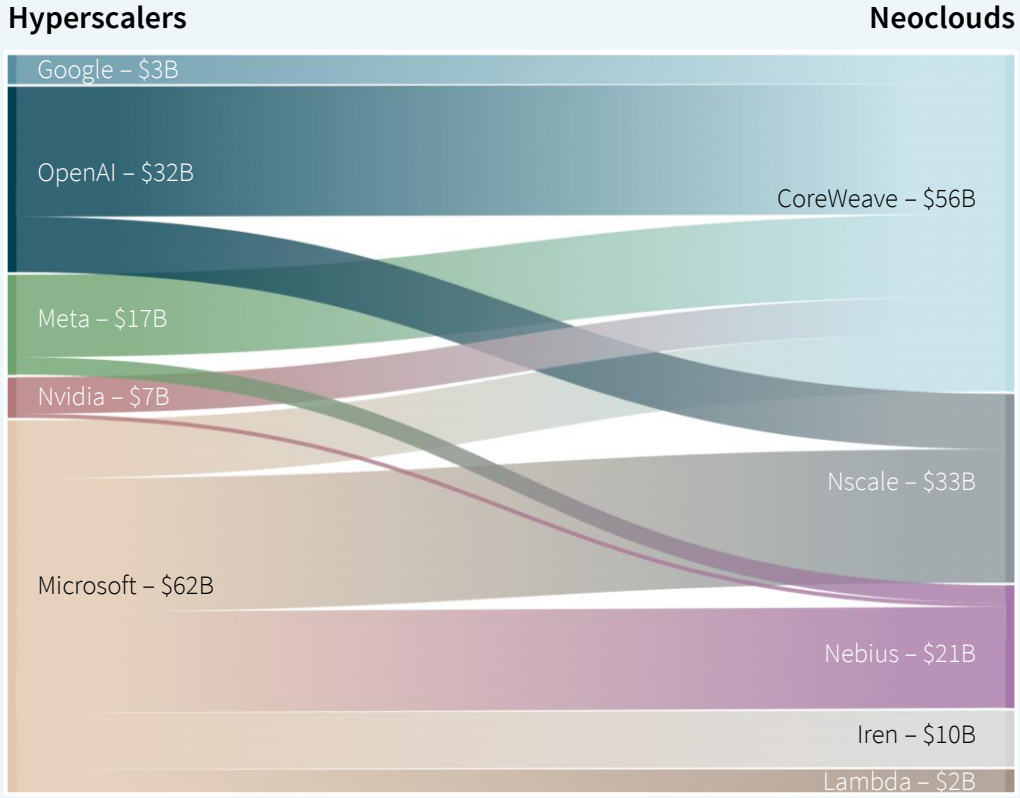
The AI infrastructure boom creates a massive neocloud market opportunity including hyperscale partnerships

AI infrastructure represents the most significant transformation of the data center sector since the original cloud migration about a decade ago. As a result, annual revenue for the data center semiconductor market could hit half a trillion dollars by 2030. AI training requires 10x the power density of traditional workloads, creating a new asset class with up to 60% higher lease rates.

AI infrastructure demand will explode over the next five years, driven by the 2027 intersection where inference workloads overtake training. This shift to distributed edge deployments plays directly to the core strengths of neocloud providers: flexibility, rapid deployment and geographic diversification. Neoclouds are specialized cloud companies offering GPUs as a service.

Early movers like CoreWeave have demonstrated this opportunity, scaling from a startup to a $19 billion valuation in just four years by building AI infrastructure that outcompetes cloud offerings on performance, flexibility and price. The relationship between hyperscalers and neocloud providers is evolving from competition to partnership. While hyperscalers dominate cloud services through scale, they're increasingly partnering with neocloud providers for AI workloads that require larger capacity requirements, broader geographic reach and faster deployment times.

Recent deals between hyperscalers and neoclouds



Source: JLL Research
Note: Does not include undisclosed agreements

Inference will drive nations to develop domestic AI capabilities

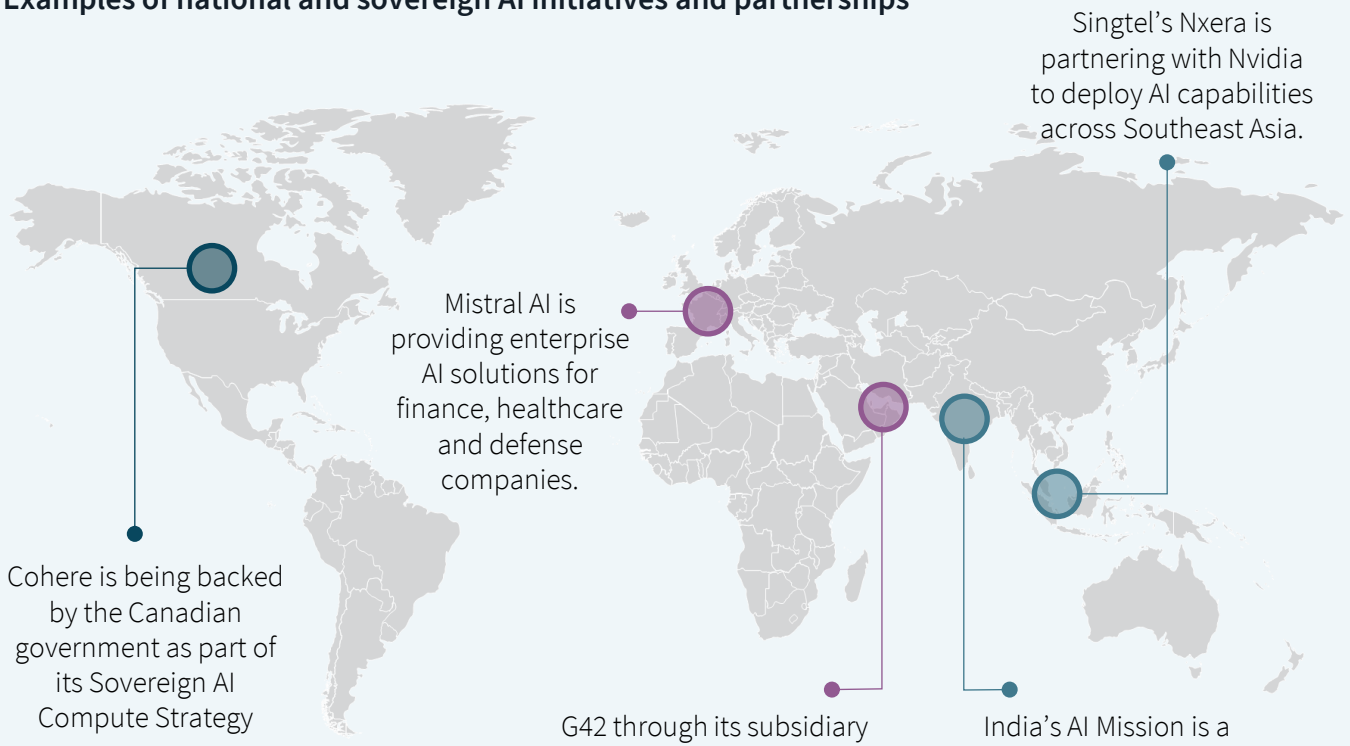
The sovereign AI infrastructure market represents an $8 billion CapEx opportunity by 2030, driven by regulatory mandates requiring local or domestic data processing. Unlike traditional infrastructure, data sovereignty requirements limit competition to only local providers, enabling up to 60% pricing premiums over standard market rates.

Key drivers include the EU's AI Act that creates compliance requirements that may indirectly drive domestic infrastructure, India's data protection laws mandating local processing, and national AI champions like France's Mistral AI.

Through data sovereignty regulations, countries are addressing defensive needs (protecting sensitive data from cross-border risks) and offensive goals (building independent AI capabilities). The shift toward localization and security is creating demand for AI facilities across the globe.

AI is now a matter of national strategic importance

Examples of national and sovereign AI initiatives and partnerships



Source: JLL Research

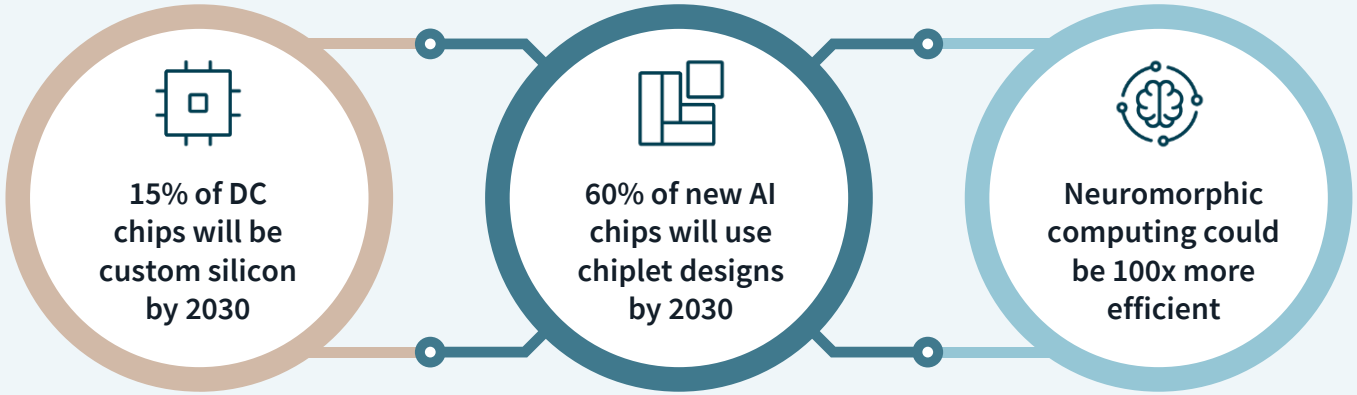
AI chips will grow to 50% of annual semiconductor spend by 2030

Data center semiconductors will undergo a dramatic transformation by 2030, as AI chips are projected to grow their total revenue share from 20% to 50%. This will be one of the most significant shifts in computing history.

This shift will create a $180 billion data center semiconductor sales market, with AI GPUs priced between $15,000 and $30,000 compared to $1,200 for traditional CPUs. Infrastructure implications include the tripling of average rack density to 45 kW with 80% liquid cooling adoption for new facilities. Custom silicon chips will capture an estimated 15% market share, with the hyperscalers developing their own processors.

Emerging technologies like neuromorphic computing for ultra-efficient inference tasks could reduce infrastructure demands and enable data centers to be more power-efficient.

Innovative semiconductor trends that could disrupt industry standards



Hyperscalers are creating their own custom chips to optimize performance for their specific workloads.

Shift from large single-block chip design to a modular approach that combines smaller specialized chiplets which can be optimized for a specific task.

In neuromorphic computing, processing and memory are integrated onto one chip, allowing for parallel calculations and up to 100x performance improvement.

Source: JLL Research

03

Energy and sustainability

Behind-the-meter generation and battery storage gain momentum in data center energy strategies

Data center operators are expected to increase behind-the-meter power arrangements and explore colocated battery storage as the average wait time for a grid connection in primary data center markets exceeds four years.

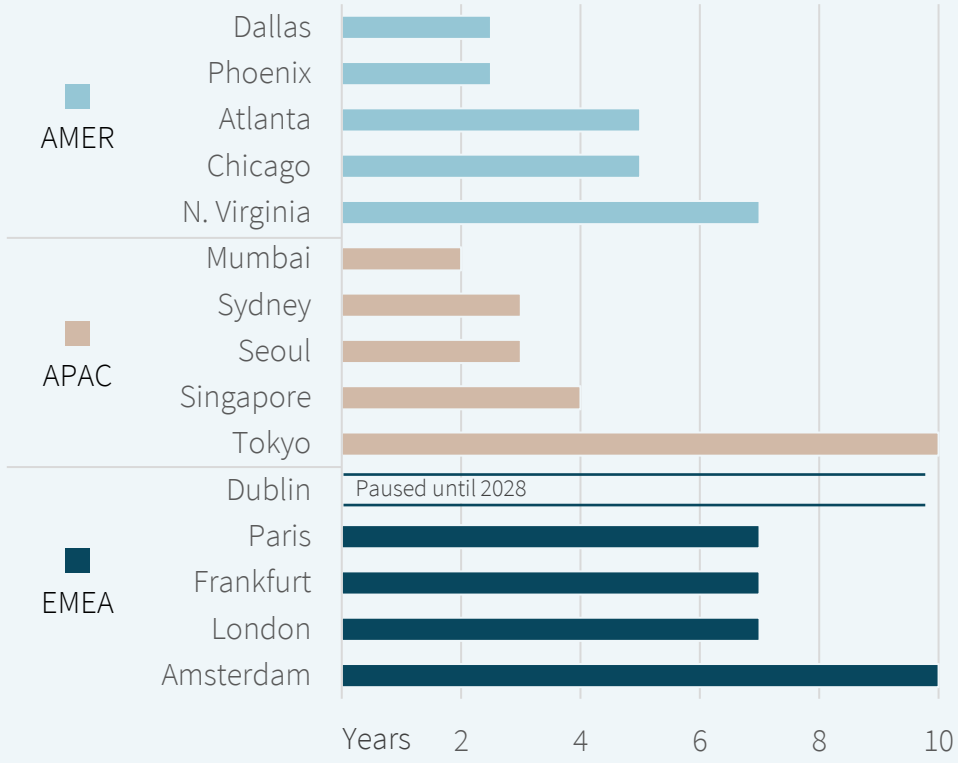
Natural gas is projected to play a major role in alleviating grid constraints in the U.S., both for temporary bridge power and increasingly for permanent on-site power generation. This can be evidenced by surging global turbine orders. However, it is worth noting that some of the largest data center tenants are averse to natural gas solutions as they are not viewed as sustainable.

Natural gas as a solution is less prominent in EMEA and APAC. In these regions, renewables such as solar and wind are seeing increased utilization. In EMEA for instance, projects combining renewables and private wire transmission can reduce the cost of power for tenants by 40% compared to the grid.

Due to utility interconnection delays, some data center operators are moving beyond power purchase agreements (PPAs) to directly fund their own energy generation. Additionally, a number of markets have implemented de facto ‘bring your own power’ mandates (Dublin, Texas, et al.), which is fueling this trend.

Grid delays push data centers toward self-generation, PPAs and private wire contracts to expedite projects

Average grid connection lead times for new 50 MW data centers (years)



Source: JLL Research

Regulatory compliance reshapes global data center sustainability in 2026

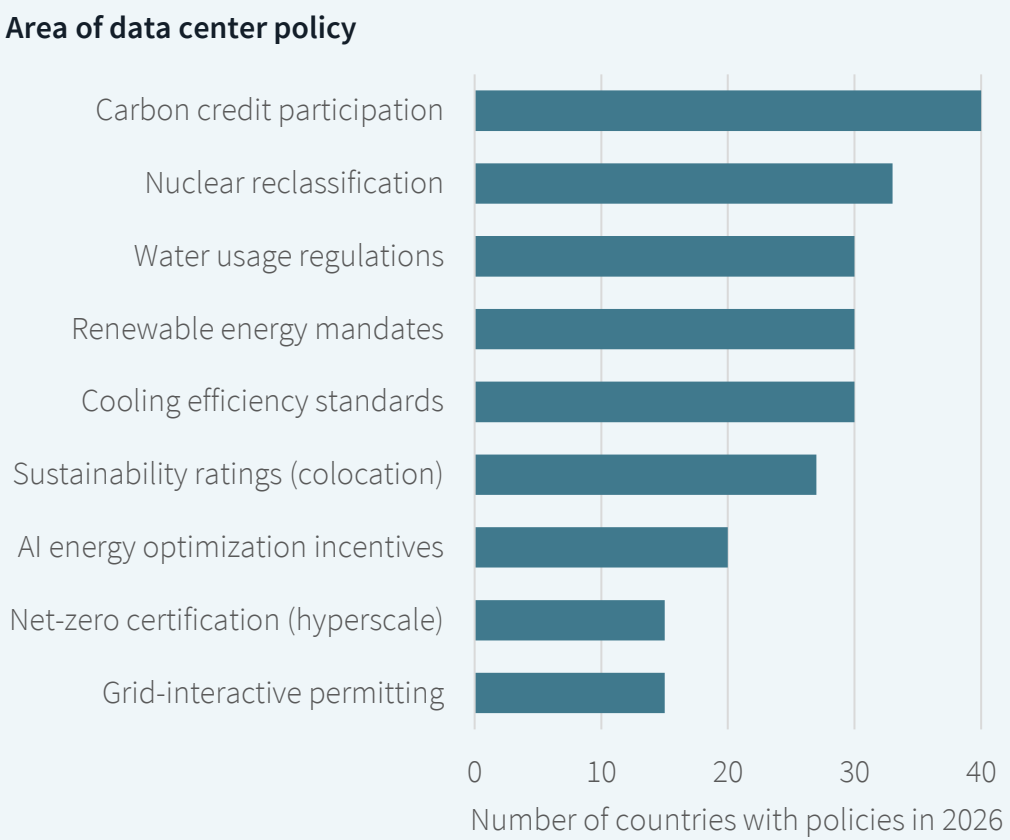
Data centers will face heightened scrutiny over their energy sourcing decisions in 2026 as mandatory renewable procurement gains momentum globally. Data center operators may need to reassess siting criteria, prioritizing access to compliant energy mixes to avoid regulatory or reputational risk.

Nuclear energy is expected to gain increasing recognition as a clean power source, presenting operators with new opportunities to balance stable power access and sustainability requirements. However, widespread deployment of this technology may be 10 years away.

The regulatory evolution is expanding beyond infrastructure efficiency to address the entire data center ecosystem. New policies are targeting the full resource life cycle, from mandating renewable energy to introducing firm regulations on water usage. For instance, Germany has a mandatory clean energy mix and Ireland is requiring operators to bring their own power.

Simultaneously, operational standards for cooling and incentives for AI-driven optimization are tightening, while mandatory ESG reporting and sustainability ratings create a new framework for accountability. This marks a decisive shift toward a holistically governed and sustainable digital infrastructure.

Energy and environmental policy widens worldwide



Source: JLL Research
Note: Figures represent baseline counts. The true country count is likely higher and expected to grow.

Data center operators are leveraging BESS to handle AI load spikes and accelerate grid connection timelines

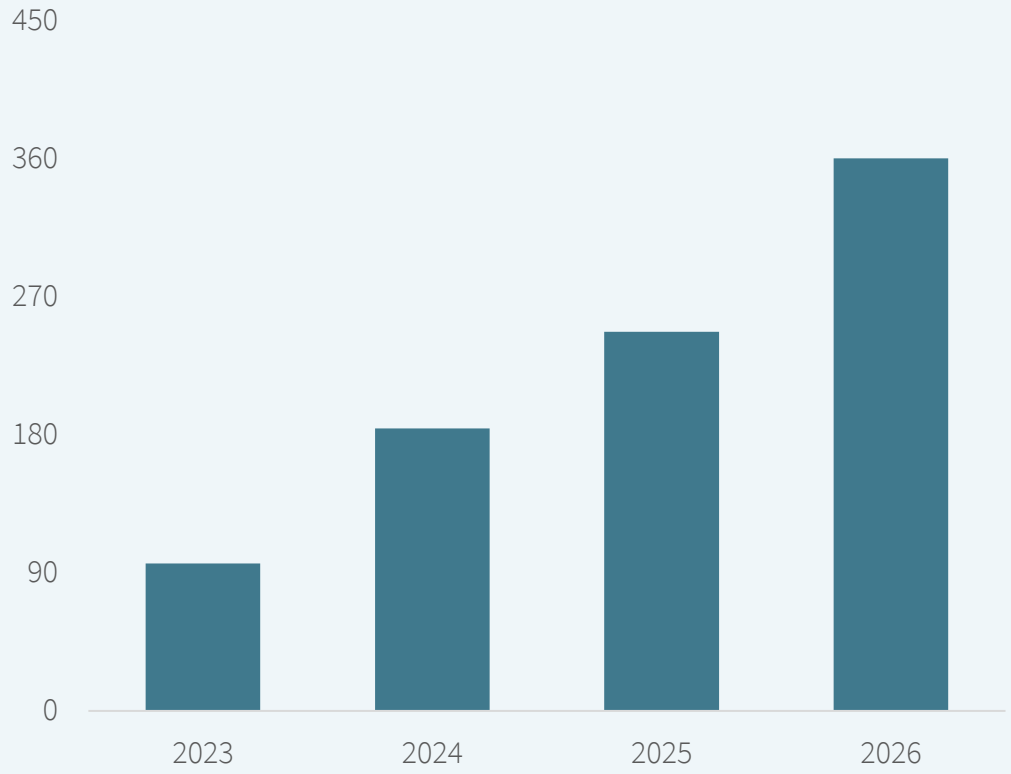
Data center operators are increasingly leveraging battery energy storage systems (BESS) amid technology advancements and rapid cost deflation. On-prem deployment strategies include utilization for instantaneous AI load spikes, firming up renewables for 24/7 clean power and positioning the technology as a dynamic grid asset to speed up interconnection timelines.

The financial viability of BESS is set to expand significantly, with the global average price expected to fall below $90 per kWh in 2026. This price point will not only allow BESS to cost-effectively handle short-duration outages by supplementing diesel generators, but it will also empower developers to offer this technology solution as a grid-response asset to utility partners in exchange for accelerated project timelines.

The rapid scaling of the BESS market is expected to create a more stable, renewable-friendly grid that will de-risk data center site selection overall. This market maturity will redefine development strategy, a trend evidenced by forward-looking project pipelines where colocated BESS is already a foundational component of gigawatt campuses.

The global BESS market continues to scale amid technology advancements and rapid cost deflation

Global BESS gross capacity (GWh)



Sources: JLL Research, BloombergNEF

Solar-plus-storage will become a key component of global data center energy strategies by 2030

Data centers worldwide are facing mounting pressure from the rising cost of grid electricity, often exceeding $100 per MWh, and tightening carbon compliance requirements. This economic and regulatory squeeze will accelerate the pivot toward renewables as the primary energy source for hyperscale and colocation facilities. Notably, the four primary hyperscalers are fully matching their U.S. data center portfolios with renewable energy.

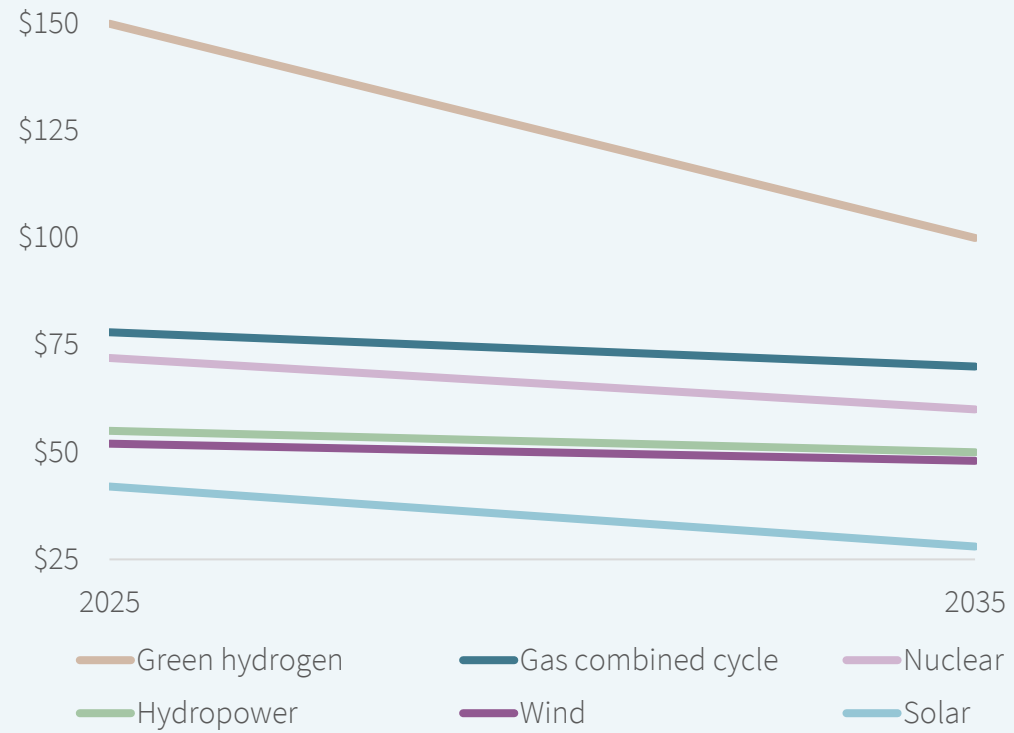
Renewables are expected to outcompete fossil fuels on cost across all major regions. Onshore wind will likely stabilize at $25 to $40 per MWh, while offshore wind remains competitive at $60 to $80 per MWh.

Solar procurement models must evolve to counter near-term price volatility caused by new supply-side policies. Despite this pressure, the levelized cost of energy (LCOE) for solar is projected to fall below $30 per MWh by 2035 due to declining balance-of-system costs and ongoing efficiency gains.

As a result of the attractive cost profile and sustainability benefits, solar-plus-storage will become a key component of global data center energy strategies by 2030. While some of this energy harvesting will be colocated with data center facilities, much of the energy infrastructure will be installed off-site.

Declining renewable costs will accelerate the transition to sustainable data center energy models

Global LCOE benchmark ($/MWh)



Sources: JLL Research, BloombergNEF, IEA, IRENA, NREL, NEI, Hydrogen Council

Despite its intermittent nature, solar will remain a key source of sustainable energy for the data center sector

Solar will account for nearly half of global renewable energy capacity in 2026, and despite its intermittent properties, solar will remain a key source of sustainable energy for the data center sector for years to come.

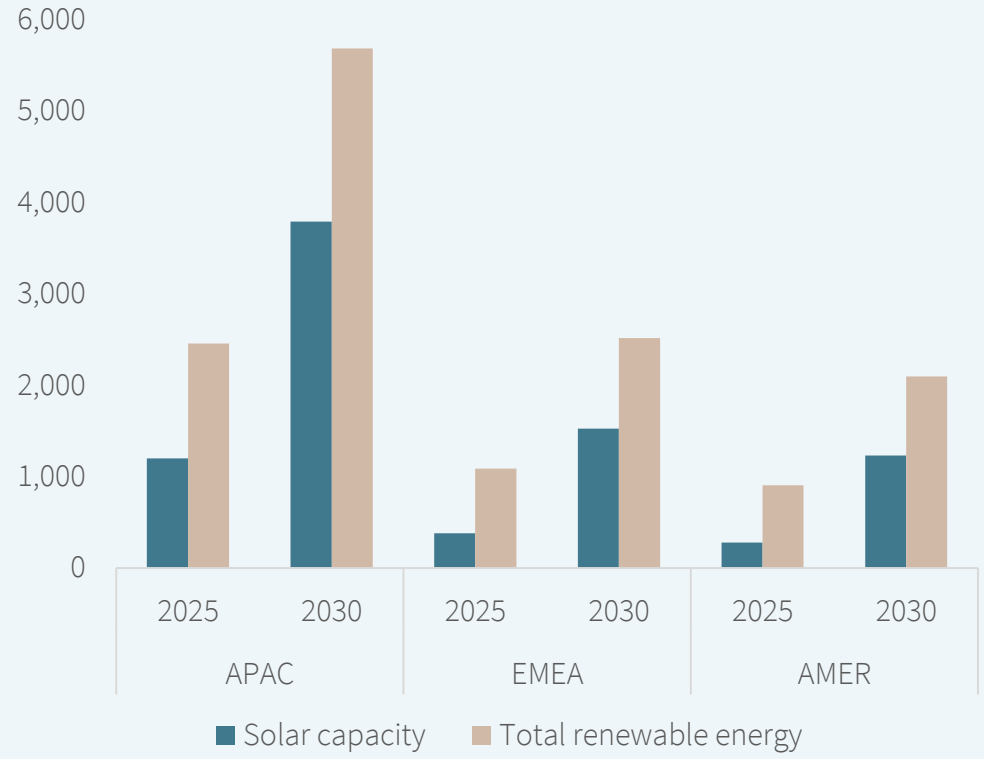
Global renewable capacity is projected to exceed 10,000 GW by 2030, with solar representing 64% of that total. This scale matters as it defines where data center operators can secure long-term, high-volume PPAs and on-site generation opportunities.

APAC will dominate this landscape over the next few years. Solar capacity is projected to expand to nearly 4,000 GW by 2030, with China accounting for approximately 80% of this growth. For operators, this offers unmatched access to solar energy, but it will require navigating near-term price volatility originating from China's industrial policy. This adds a new layer of complexity to meeting carbon compliance goals and achieving cost security at scale in the region.

Solar capacity in EMEA and AMER is projected to grow steadily through 2030 but on a smaller scale. Supply additions in each of these regions will likely represent 50% of APAC's volume.

APAC will lead global solar capacity expansion through 2030 with an estimated 4,000 GW of additional supply

Renewable energy capacity (GW)



Sources: JLL Research, IRENA, AET, StrategicEnergy, Statista

04

Development trends

57% of projects experienced a delay of three months or more in 2025

Global data center equipment lead times have stabilized year-over-year. However, they remain elevated compared to pre-2020 levels. For instance, in the U.S., the average equipment lead time of 42 weeks is 83% above 2019 levels.

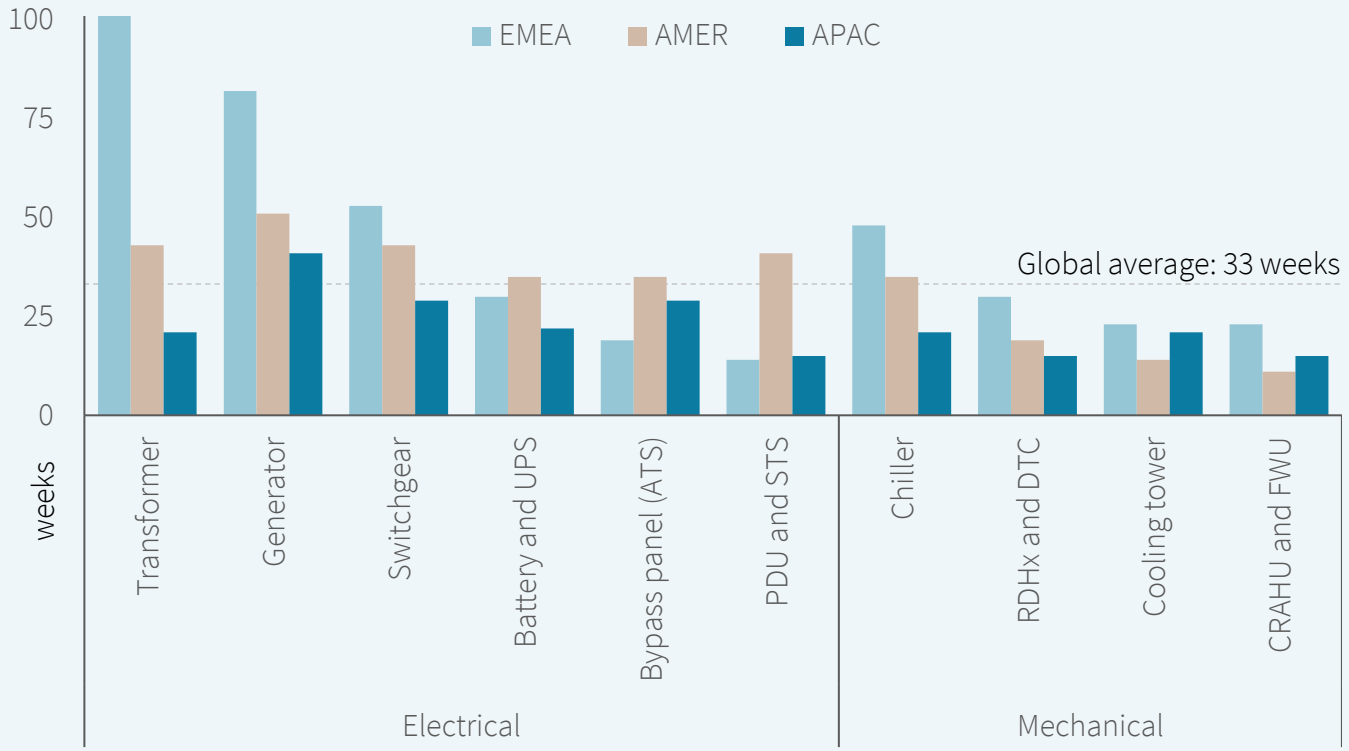
While equipment manufacturers have been adding production capacity, keeping pace with the rapid expansion of the sector has proved challenging.

The average build time globally for a 50 MW data center is 18 months. Developers are preordering select materials as much as 24 months in advance to avoid project delays. Despite this, 57% of data center projects experienced a construction delay of three months or more in 2025.

To alleviate supply chain challenges, developers and operators of scale are holding 6 to 12 months of strategic inventory for critical components.

The average lead time for data center equipment is 33 weeks, a 50% increase compared to pre-2020 levels due to rapid sector expansion

2026 regional lead times for data center equipment (weeks)



Source: JLL Research

Data center construction costs have been increasing at a 7% CAGR

The industry is expanding at a relentless pace, resulting in extended lead times, limited availability of skilled trades and escalating development costs.

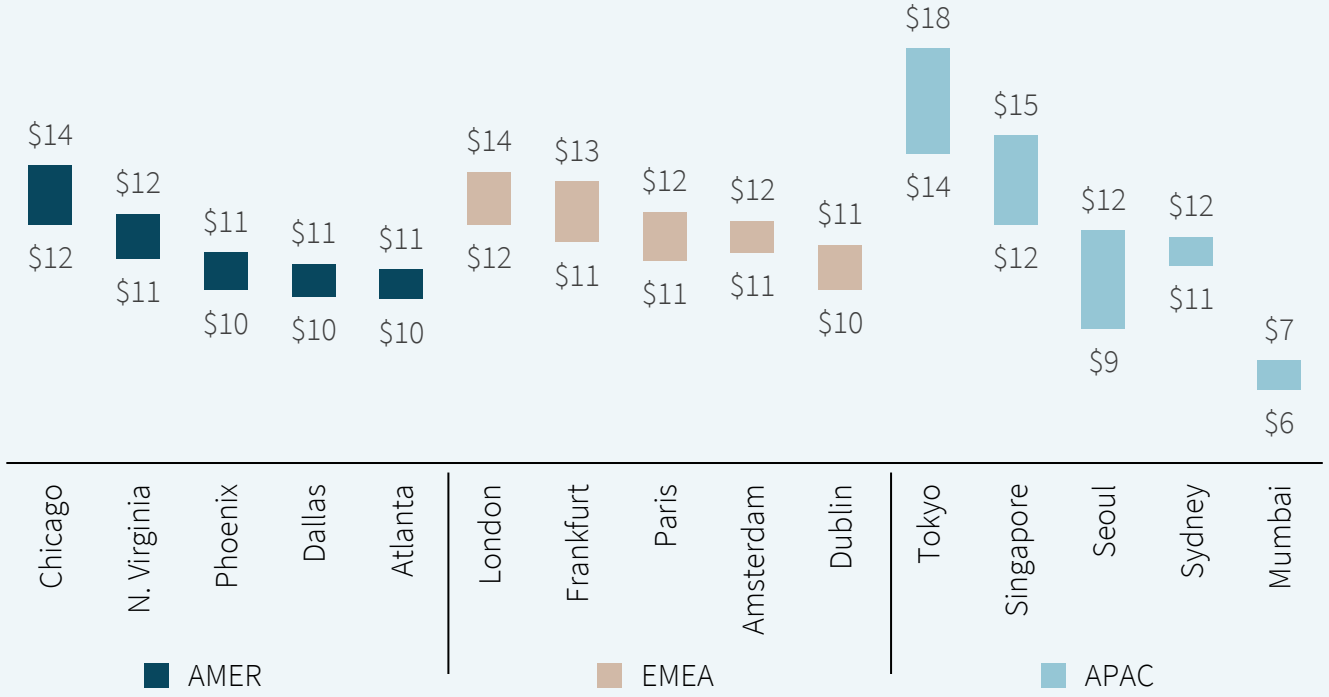
Between 2020 and 2025, the average global data center construction cost increased from $7.7 to $10.7 million per MW, equating to 7% CAGR. For 2026, JLL is forecasting the average global cost will increase 6% to $11.3 million per MW.

Speed to power is the primary criteria driving site selection, followed by community support, latency and proximity to customers. However, as project sizes get larger, variations in construction costs may weigh more heavily in location decisions.

Note: the figures in the chart only include the cost to construct the shell and core. Tenants are typically responsible for the tech fit-out which can cost as much as $25 million per MW for AI infrastructure.

Construction costs are relatively uniform across AMER and EMEA, with significant variation in APAC between developed and emerging markets

2026 average data center construction costs in the largest global markets ($ millions per MW)



Source: JLL Research

Note: Average build costs for the shell and core of a single-tenant 50 MW air-cooled data center. Land acquisition and active IT equipment costs are excluded. Liquid-cooled facilities have a 10% cost premium. Add 20% to construction costs for multistory facilities in AMER.

Annual global sales of modular systems and micro data centers could reach $48 billion by 2030

By 2030, annual sales of modular systems and micro data centers could reach $48 billion, marking a shift in the industry from build-to-suit development to assemble-at-scale. This represents a 35% revenue CAGR over five years.

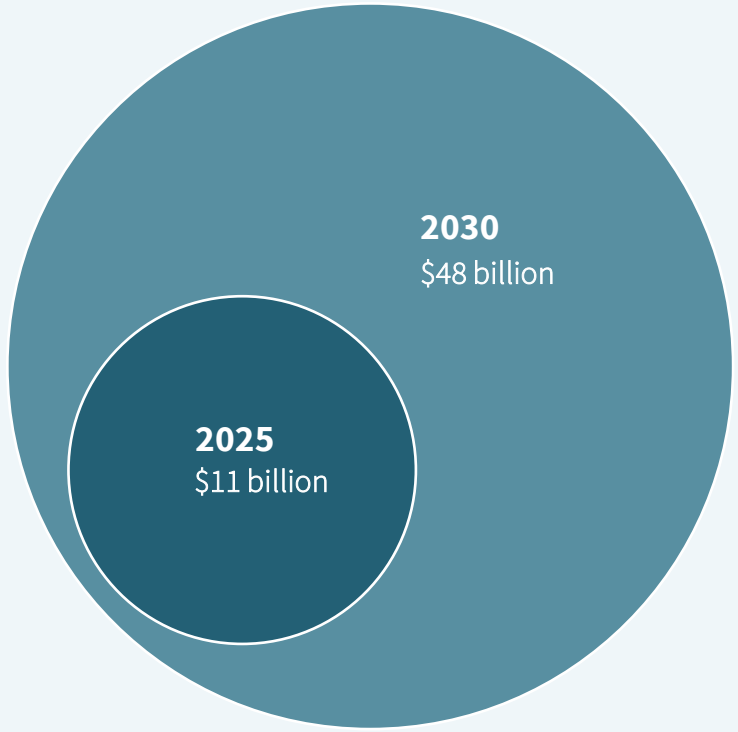
Prefabricated modules can incorporate one function (such as power skids), or they can include all data center systems (i.e., micro data centers). Modular systems have several advantages over on-site construction, including faster install schedules and reduced costs due to construction efficiencies.

The modular market is undergoing rapid transformation. Up to 70% of AI facilities could use liquid-cooled modules by 2027 and hyperscale campuses may achieve sub-12-month deployments by 2030. Modular designs could evolve beyond containerized units to sophisticated scalable mega-modules of 10 MW or more. Modular technology will also support geographic expansion. By 2028, more than 15,000 micro data centers may be operational worldwide, with significant deployments in Africa and Southeast Asia.

The modular industry will likely undergo significant consolidation over the next few years with five major players remaining. New regional assembly hubs could reduce logistics costs by 40% and enabling eight-week delivery cycles.

Development will shift from build-to-suit to assemble-at-scale due to increased modular implementation

Market size of modular data centers



Source: JLL Research

Due to continual upgrades, data centers rarely reach obsolescence

Data centers are experiencing managed evolution through systematic upgrades rather than wholesale replacement, with operators preferring phased retrofits over full rebuilds. This extends the asset's life cycle and supports higher density demands.

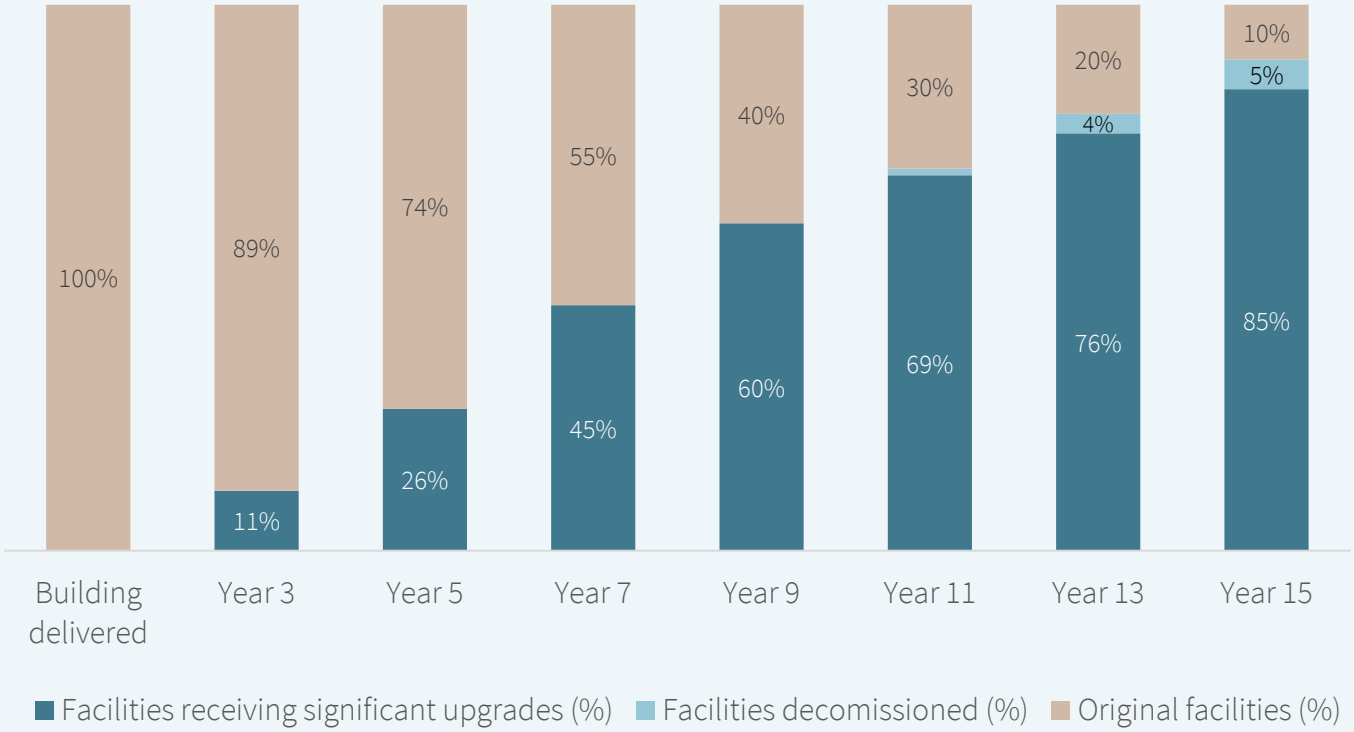
After 10 years of operation, 65% of data centers will have received significant renovations, and after 15 years of service, nearly all buildings will have gone through at least one refresh cycle. Cooling and power upgrades will be the most common retrofits.

GPUs, CPUs and networking infrastructure are typically owned by the tenant, not the landlord, and are upgraded on an accelerated schedule (roughly five years) separate from the building shell and core.

APAC leads in selective asset retirement for pre-2015 facilities, while North America and EMEA focus on systematic retrofitting of existing sites.

Only a small percentage of data centers are demolished, most facilities receive frequent CapEx over their life cycle to remain contemporary

Illustrative data center life cycle



Sources: JLL Research, IDC and Gartner

Data centers face a universal community ‘acceptance paradox’ requiring a strategic response to improve development outcomes

Data centers face a universal acceptance paradox where high abstract support (93%) contrasts sharply with local resistance (only 35% support), creating a 58-point perception gap that will translate into continued blocked projects globally.

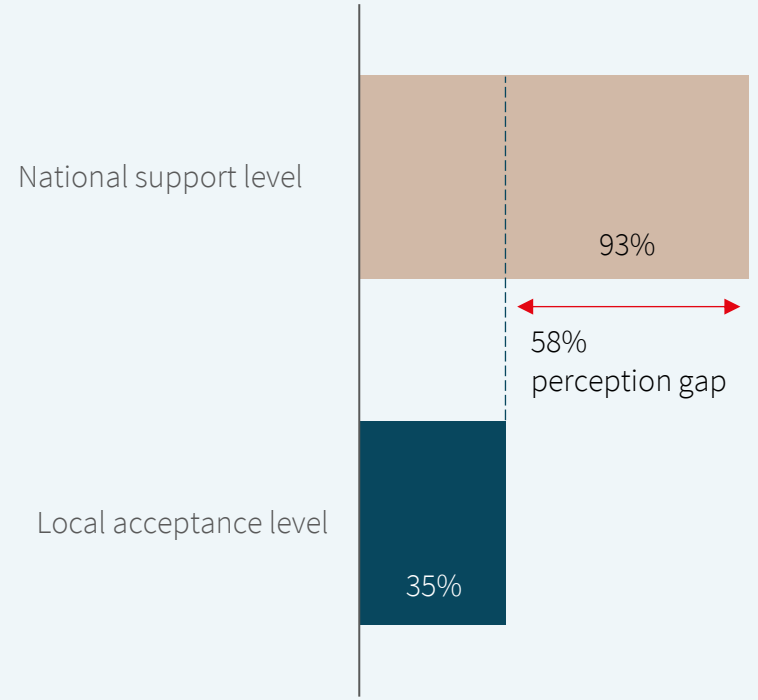
This resistance has resulted in a significant number of delayed or canceled projects globally, with the emergence of many organized activist groups. Data centers also suffer from an awareness deficit, where only 52% of the public can correctly define what a data center is, creating a fundamental misunderstanding about their purpose and operations.

It is currently industry practice to begin community consultation 6 to 18 months into the development process after key decisions are made, contributing to reactive rather than collaborative relationships. To close the acceptance gap, the industry must shift from reactive consultation to proactive co-creation. This can be accomplished with up to 24-month predevelopment engagement timelines and benefit-sharing agreements.

There are regional variations in industry perception. EMEA has seen improved sentiment through the reclassification of data centers as critical infrastructure and streamlined national planning processes. Meanwhile, AMER continues to face increasing community resistance in certain markets and APAC is experiencing mixed reception, with notable activism in key development areas.

An industry shift is required from reactive consultation to proactive co-creation

Data center community acceptance paradox



Sources: JLL Research, Hosting Advice, Neterra Cloud

05

Capital markets

Up to $3 trillion will be required to support 100 GW of new supply coming online between 2026 and 2030

The global data center sector is estimated to grow at a 14% CAGR over the next five years, which could result in 100 GW of new capacity coming online including hyperscale, colocation and on-prem facilities. This equates to $1.2 trillion in real estate asset value creation and a need for roughly $870 billion of new debt financing.

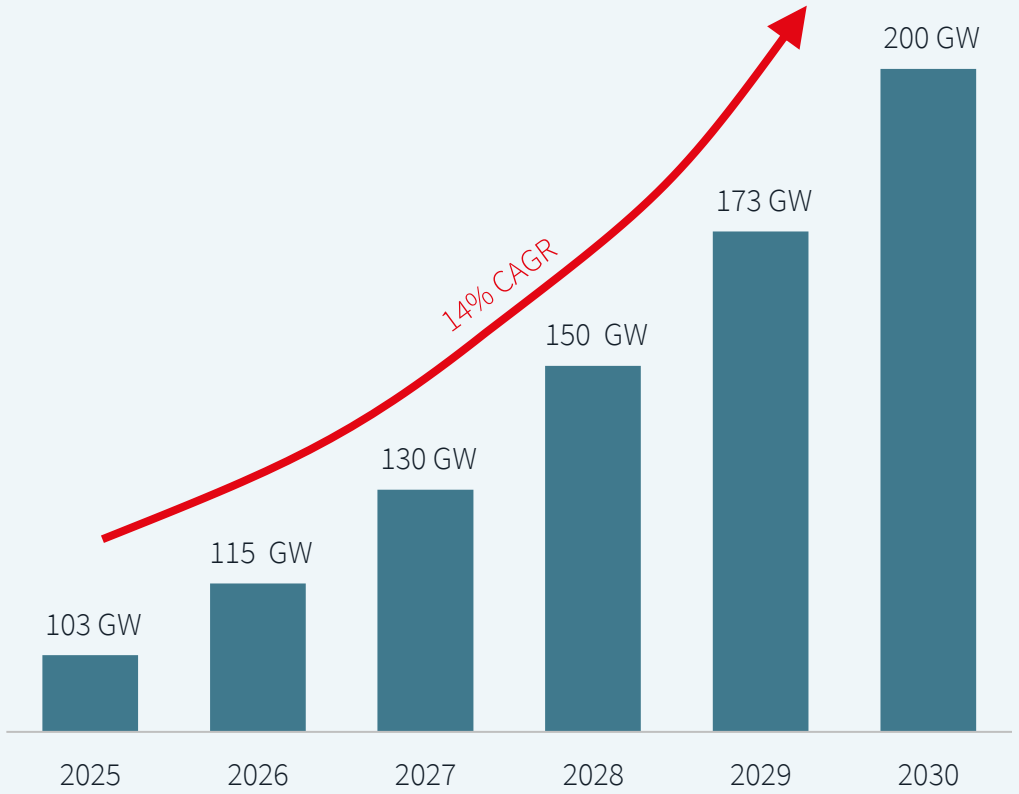
The figures above do not include the $1 to $2 trillion that tenants will spend to fit out their space with GPUs and networking infrastructure, meaning that total data center expenditures over the next five years could approach $3 trillion. Taken all together, it is safe to say that we are in the midst of an infrastructure investment supercycle.

New data center projects are getting larger and more expensive to build. As a result, the sector continues to consolidate due to the immense development costs coupled with the increasing sophistication required to build and operate modern data centers.

These expanding barriers to entry are removing some of the speculation from the development queue and accelerating viable projects backed by credible companies. For these groups, debt markets will remain open for business.

The sector is engaged in an infrastructure investment supercycle driven by new technology and use cases

Existing global data center capacity (GW)



Source: JLL Research

Growing interest in core opportunities as the sector matures and early investors prepare to exit positions

There will continue to be significant capital raising for data center investment funds in 2026. The majority of these funds remain opportunistic, where development profit margins can approach 50%.

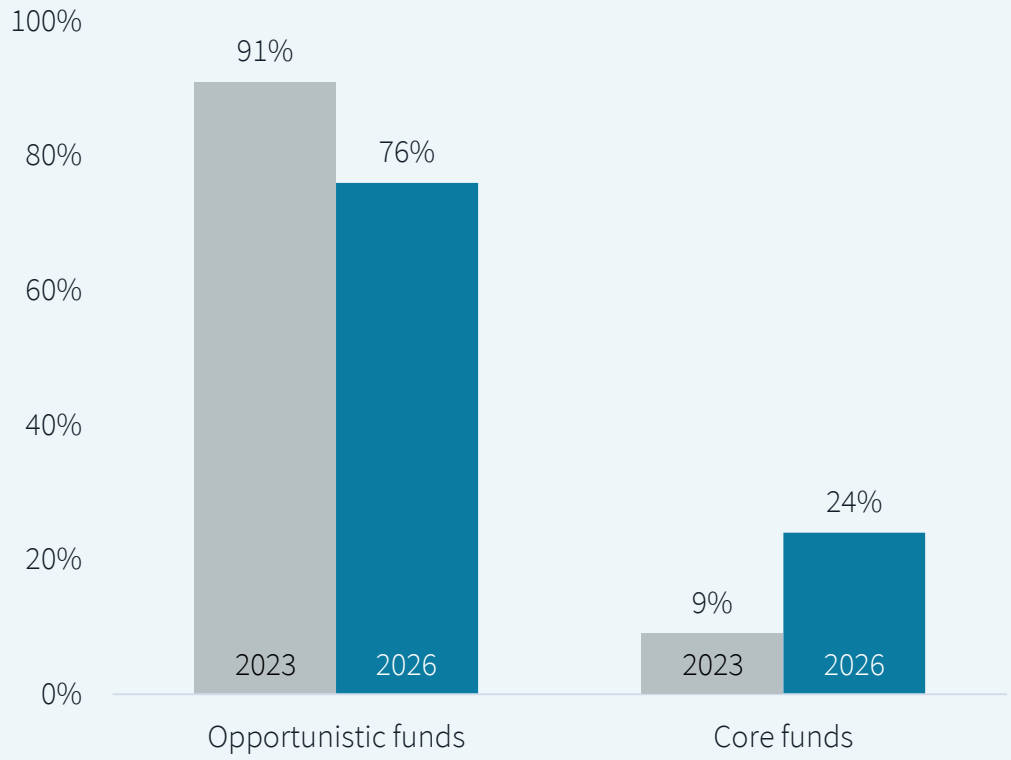
However, core strategies now account for about a quarter of fundraising activity, up from less than 10% a few years ago. This is a significant shift in capital formation and a trend likely to continue toward 2030 as the sector matures, early investors prepare to exit positions and developers look to unlock capital for new projects.

Global data center core fund capital formation could top $50 billion in 2026, with strategies targeting returns of 10% or more. Core funds range from $500 million to north of $4 billion and can be separated into two primary strategies: forward takeouts and stabilized cash-flowing assets.

These funds are likely to focus on mature markets, and the deployment of capital could take the form of partial interest transactions, single asset trades, portfolios or even platforms. A gradual increase in core investment volumes is likely in 2026 followed by a continuation of the trend toward 2030.

Core fund capital formation could top $50 billion in 2026 targeting stabilized assets in mature markets

Global data center fundraising (% of total)



Source: JLL Research

The U.S. has been dominating ABS/CMBS originations, but look for a gradual uptick in EMEA and APAC in 2026

Additional liquidity diversification will be required to finance the rapid expansion of the data center sector. Traditional banks do not have enough capital to solely fund this growth indefinitely.

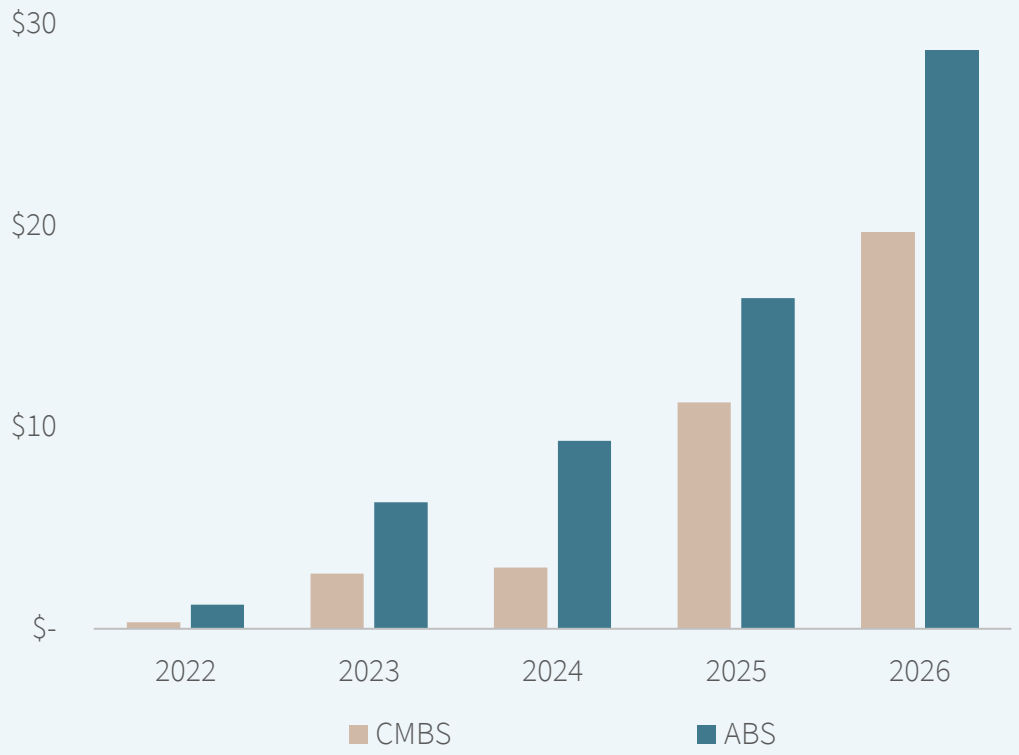
ABS and CMBS securities are quickly becoming a solution. Issuance volumes have been roughly doubling every year since 2020. In 2026, we could see data center ABS and CMBS originations reach $50 billion.

To date, the majority of data center ABS and CMBS issuance has been in the U.S., but volumes are expected to increase in EMEA and APAC over the next couple of years. Originations in these new markets will focus on the next generation of facilities with the proper financial structures in place, including tenants that can be rated by the major agencies and parent guarantees.

ABS and CMBS markets present a solution for both existing data center owners and investors eager to gain exposure to the sector. They allow developers to retain ownership and operational control while simultaneously offering exposure to a wider group of investors via securities at an attainable price point. The growth in ABS/CMBS issuance is one reason why investment sales have remained modest in recent years despite significant sector expansion.

ABS/CMBS issuance could reach $50 billion in 2026, providing much-needed liquidity diversification

Global data center ABS/CMBS issuance ($ billions)



Sources: JLL Research, Green Street

More than $300 billion of global data center M&A since 2020, driven largely by platform acquisitions

Since 2020, more than $300 billion of capital has flowed into the data center sector via global M&A. Most of this investment volume has been the result of platform acquisitions, but the numbers also include minority equity investments, joint ventures and acquisitions of data centers.

In 2025, a consortium led by BlackRock announced plans to acquire Aligned Data Centers for $40 billion. At the time of the agreement, Aligned's portfolio included 50 locations totaling 5 GW.

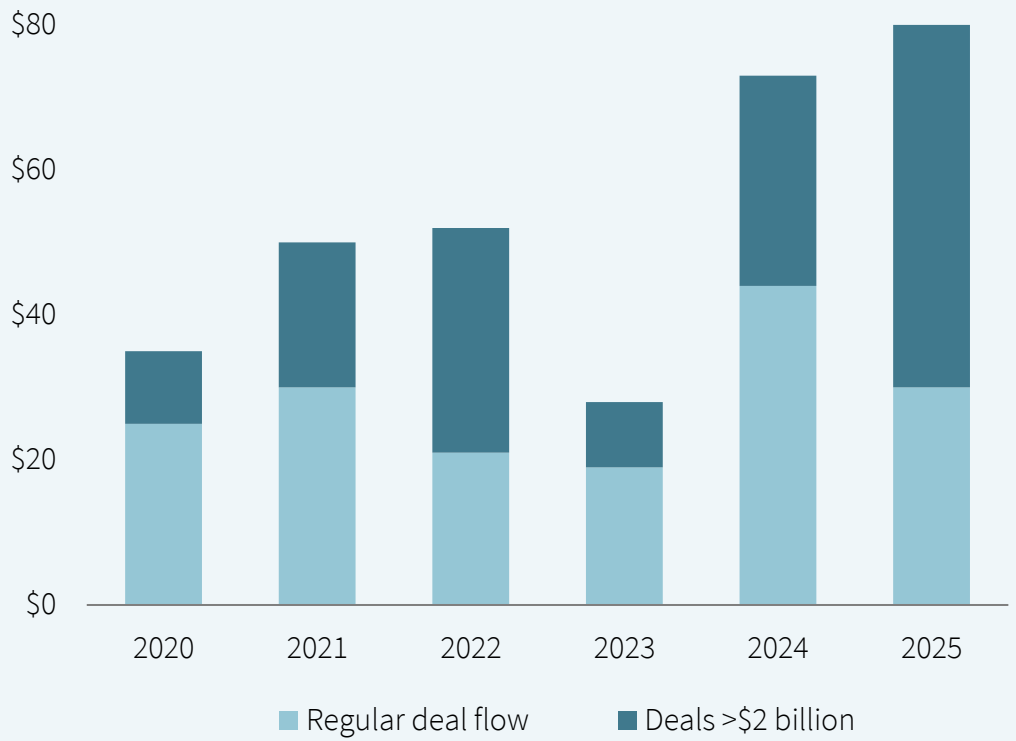
The Aligned sale reflects a wave of consolidation in the industry in recent years. Project values now regularly exceed $1 billion and, as a result, firms with the deepest pockets and impressive project resumes are gaining market share.

However, a continuation of megadeals is unlikely. At this point in the cycle, the largest fund managers have established positions with operators, and nearly all the large platforms have aligned with a global capital partner.

Instead, the next few years will likely be defined by recapitalizations and JV creation at the PropCo level. Developers will need additional capital to fund new developments. And separately, investors who established positions early in the cycle will be looking to exit, generating an increase in core trades.

Looking forward, investment strategies are likely to shift to recaps and PropCo JVs as the sector matures

Global M&A, JV and equity investment deal volume ($ billion)



Sources: JLL Research, Synergy Research

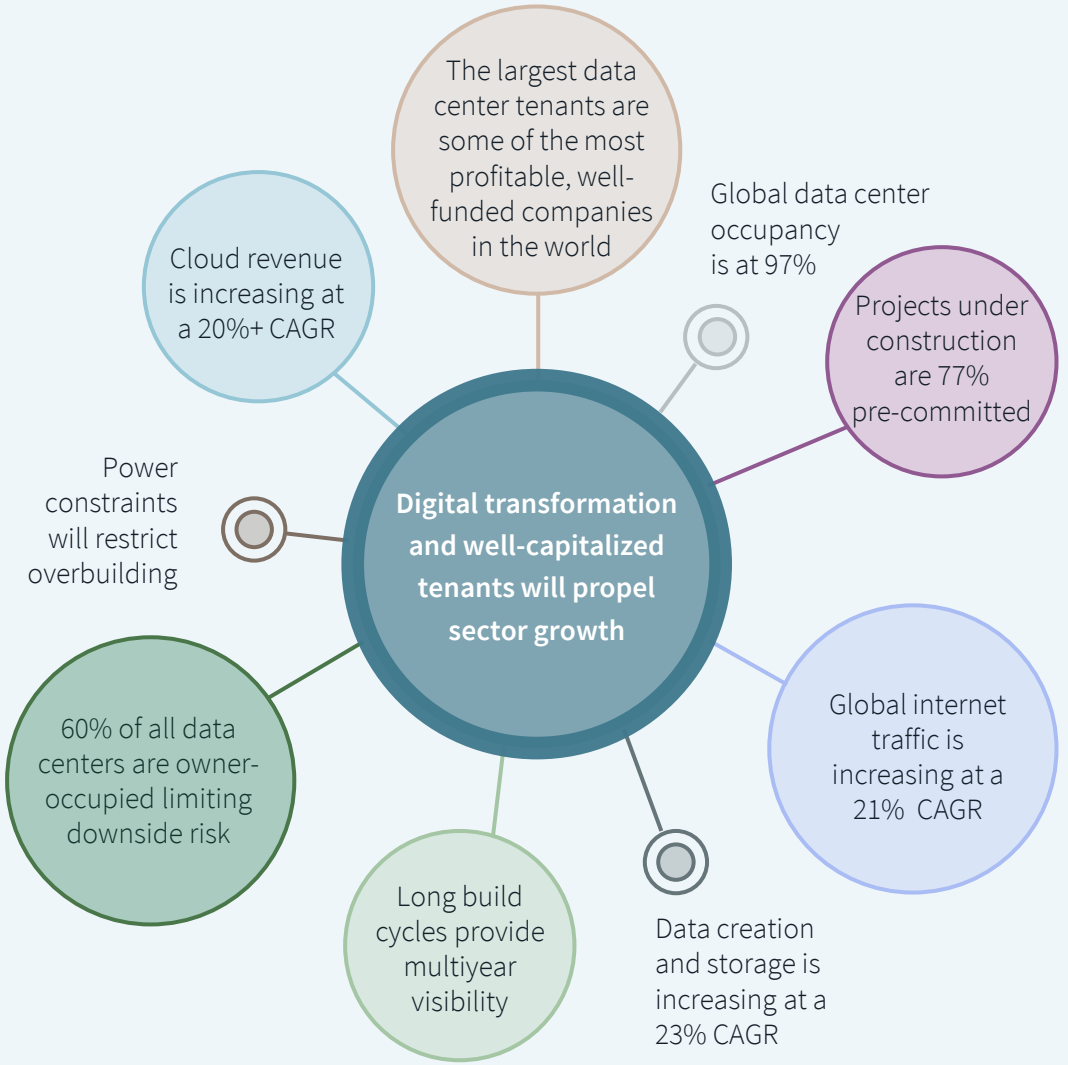
Property metrics do not point to a bubble: 97% global occupancy, while construction is 77% precommitted

There are increasing questions about whether a bubble is forming around AI and data centers. First, it is important to separate stock valuations from commercial real estate markets. These are two entirely different asset classes.

As it relates to real estate, data center market fundamentals remain quite healthy. Global data center occupancy was 97% at the end of 2025 and 77% of all data center capacity under construction is committed to tenants. These metrics are hardly a sign of froth or overbuilding. Additionally, power constraints and long project lead times will help keep the sector in balance.

Hyperscalers occupy more than 50% of all global data center space. These companies are some of the most profitable enterprises in the world, with strong balance sheets and stellar credit ratings. Their leases are often for 10 years or more, with backstops providing security to landlords in case of default.

The opportunity AI presents to society is immense, and utilization will continue to increase. It is also important to remember that data center demand extends well beyond AI. Data creation and storage, internet traffic and cloud revenue all have long-standing CAGRs above 20%. These demand drivers will continue to underpin growth, driven by well-capitalized tenants and solid supply metrics.



06

Final thoughts

Competitive advantage in this next era will go to those who act decisively and maintain flexibility

The data center sector currently sits at the beginning of one of the largest infrastructure investment supercycles seen in the modern era. The interconnected nature of data centers means the AI-fueled expansion is reshaping a number of sectors including power, technology and real estate.

The transition from AI training to inference will redistribute workloads from centralized clusters to distributed regional hubs, fundamentally altering capacity planning and geographic deployment strategies.

Energy infrastructure has emerged as the critical bottleneck constraining expansion. Grid limitations now threaten to curtail growth trajectories, making behind-the-meter generation and integrated battery storage solutions essential pathways for sustainable scaling.

Investors and developers must balance speed to market with capital efficiency while navigating supply chain constraints and evolving demand patterns. Industry leaders must transform these converging forces into competitive advantages. The winners of this generational investment supercycle will be those who can anticipate demand inflection points while maintaining flexibility to adapt as AI models and use cases evolve.

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