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Research - Data Center Series - 1/6

Data Center Development: High Demand for the Upcoming Digital Age

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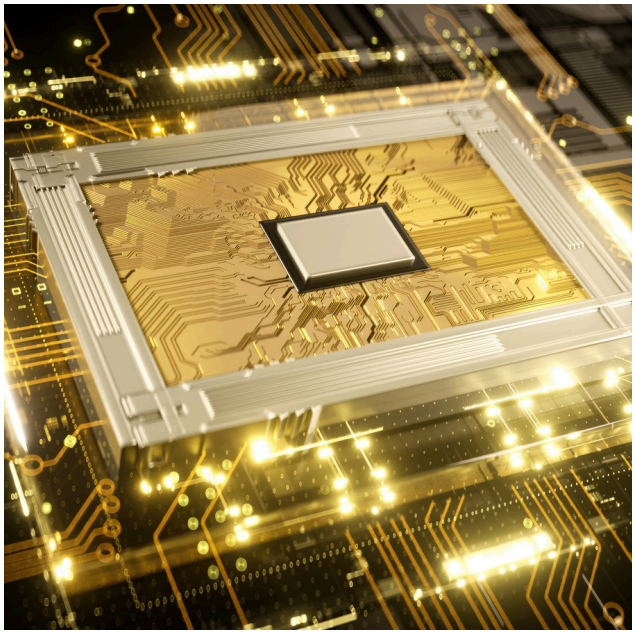
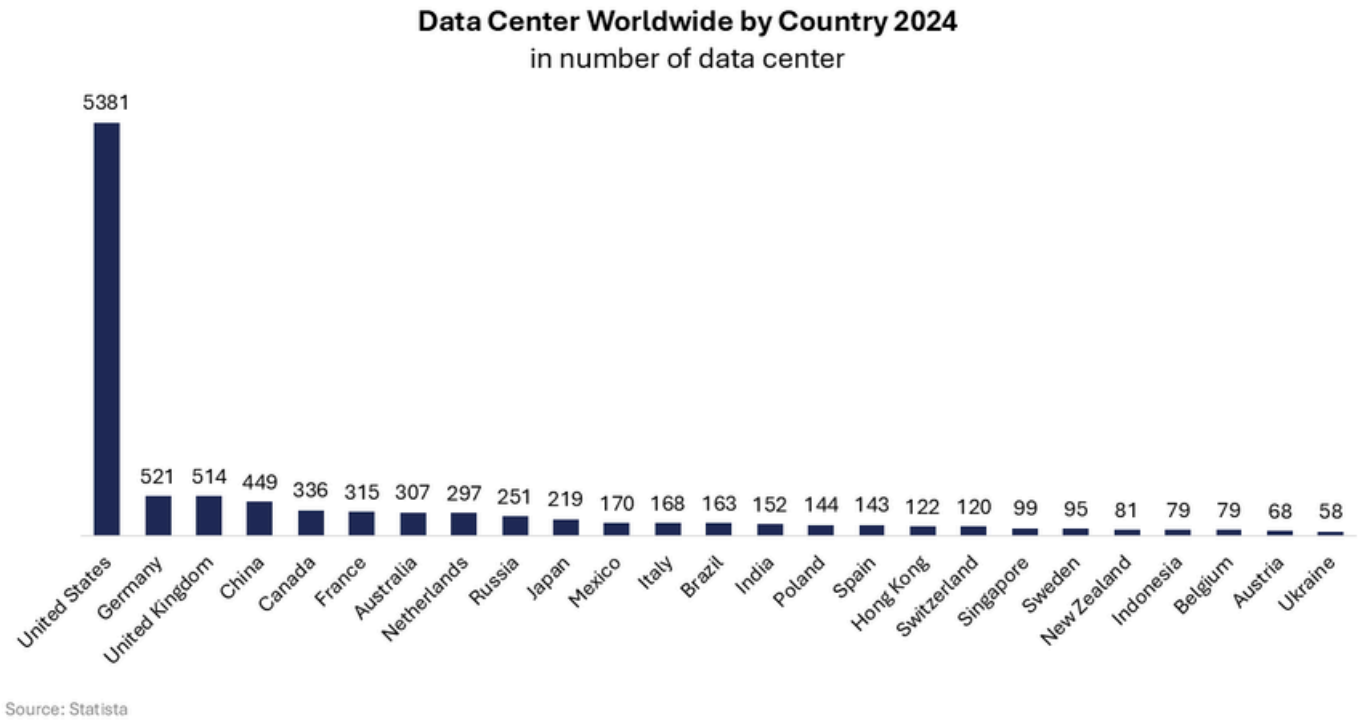


How Is the AI Boom Driving a Surge in Data Center Development?

Unsurprisingly, venture capital investment in AI is on the rise. The global AI market is expected to reach nearly $2 trillion by 2030, with the world's largest and most competitive economies pouring resources into accelerating their bids on the digital frontier. The United States leads the AI startup scene, recording more than $80 billion in venture capital investment for 2024. China follows closely with nearly $38 billion, while the UK and Germany lead Europe with $6.5 billion and $3.7 billion, respectively. As of March 2024, there are approximately 11,800 data centers worldwide. The United States has the most data centers, followed by Germany, the United Kingdom, China, and Canada (CBRE).



"AS OF MARCH 2024, THERE ARE AROUND 11,800 DATA CENTERS WORLDWIDE. THE UNITED STATES HAS THE MOST DATA CENTERS, FOLLOWED BY GERMANY, THE UNITED KINGDOM, CHINA, AND CANADA."

The four largest data center hubs by inventory in each global region:

North America

- Dallas-Ft. Worth
- N. Virgina
- Silicon Valley
- Chicago

Asia-Pacific

- Singapore
- Sydney
- Hong Kong
- Tokyo

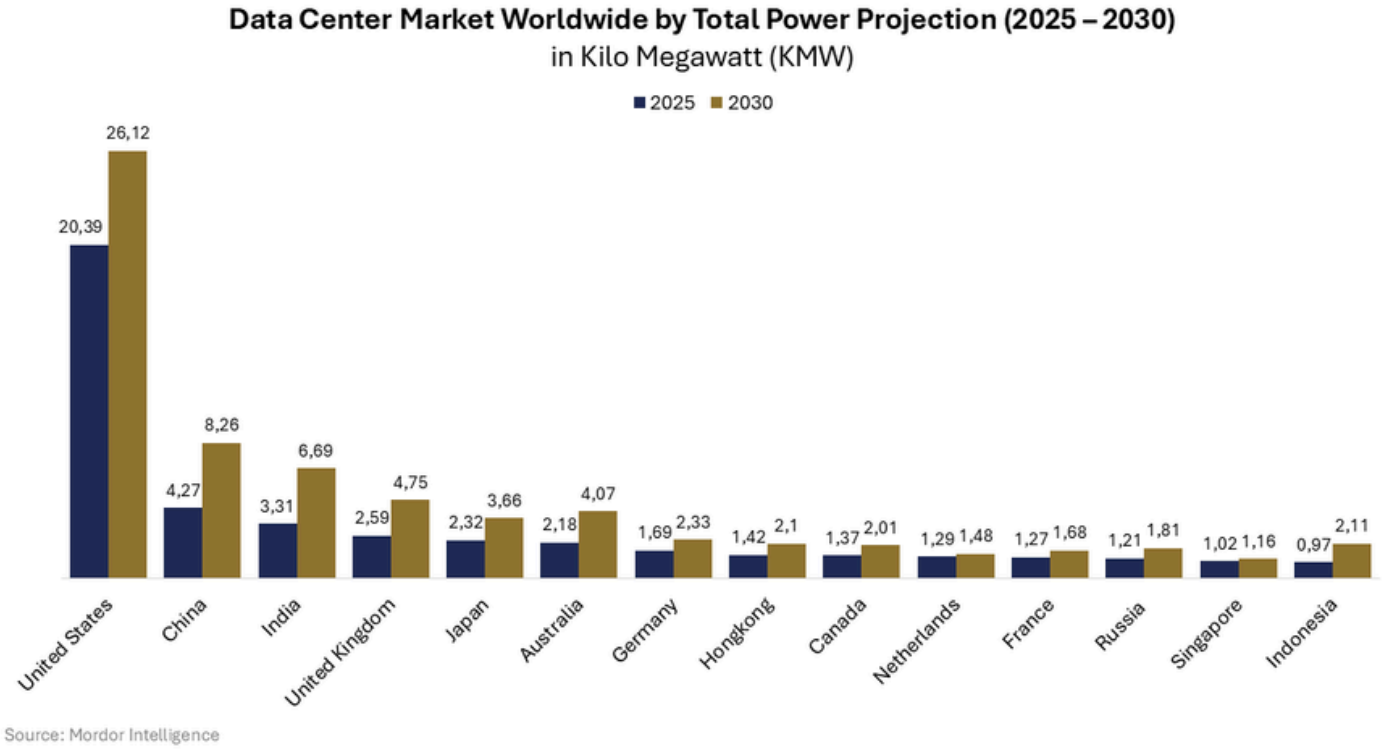
Europe

- London
- Frankfurt
- Amsterdam
- Paris

Latin America

- Querétaro
- Bogotá
- Sáo Paulo
- Santiago

Source: FDI Intelligence



* Total power projection in the data center market refers to the estimated amount of power capacity (in megawatts, MW) that will be required or deployed across a given region or globally over a specified period. It is a key metric for assessing market growth, infrastructure investment, and sustainability strategies.

* 1 MW of power typically supports 100,000 to 200,000 square feet of data center space, depending on efficiency.

"DATA CENTER DEMAND IS GROWING AT AN EXPONENTIAL RATE, WITH DATA CREATION EXPECTED TO INCREASE AT A 23% CAGR THROUGH 2030."

Data Center "Squeeze"

The increasing consumption of AI is driving what experts call a global "data center squeeze"—a growing shortage of land, power, and infrastructure needed to support the rapid expansion of data centers worldwide. This term reflects the challenge of existing data centers struggling to keep pace with current and future data demands driven by the scaling of AI models.

As a result, new data centers and more power-efficient technologies will likely be in high demand to alleviate this squeeze. Additionally, other critical pieces of physical infrastructure, such as power lines and undersea cables—essential to the modern digital economy—will need to be developed and modernized to meet the needs of each regional hub.

Real estate development in the data center sector has promising prospects, driven by increasing demand, revenue, and investment. Vacancy rates remain low, particularly in traditional markets—those with the highest data center inventory—due to supply constraints and project completion delays (CBRE). However, it is important to note that this growing investment opportunity faces two common global supply challenges: limited land availability and constrained energy supply.

Shift toward Secondary Markets

Traditional hubs (such as those mentioned above) face significant challenges in developing new data centers, primarily due to land and resource scarcity, high costs, insufficient energy capacity, zoning laws, sustainability concerns, and regulatory roadblocks. For example, in 2019, Amsterdam implemented a data center moratorium, temporarily halting construction in its municipalities due to the industry's strain on power infrastructure and urban planning. Similarly, Singapore imposed a moratorium from 2019 to 2022, permitting only new projects that met strict power-efficiency requirements. However, this restriction has since been lifted.

As a result, investment has shifted away from traditional hubs toward alternative locations. Developers are actively seeking areas that offer both land availability and access to affordable electricity. Tech firms and property developers are rapidly expanding into these alternative or secondary markets, which are typically located on the outskirts of major hubs, where populations are lower and land is more accessible. Notable examples include Aragón in Spain, Northumberland in the UK, the Rust Belt states in the U.S., Osaka in Japan, Melbourne in Australia, and Montreal in Canada.

Major cloud service providers, such as AWS and Microsoft Azure, are expanding in both traditional hubs and secondary markets. In 2024, AWS announced a substantial $15 billion investment in Japan to expand data center facilities in Tokyo and Osaka. Meanwhile, Microsoft Azure has significantly expanded its cloud infrastructure in Madrid and is developing data center campuses in Aragón.

Ample opportunities for energy efficient technologies

As the data center squeeze intensifies, companies are investing in power-efficient technologies to optimize energy use and reduce environmental impact. These technologies include advanced cooling systems, AI & Machine Learning for Power Optimization, modular designs for data centers, renewable energy & on-site power generation, as well as high-efficiency chips & processors.

References

Damicis, Jim. 2025. "Investment in Data Centers Creates Real Estate Opportunities." Camoin Associates. https://camoinassociates.com/resources/growth-investment-in-data-centers-market-creates-real-estate-opportunities/.

Haranas, Mark. 2024. "AWS Pours $15B Into Japan As AI Race With Microsoft, Google Continues." CRN. https://www.crn.com/news/cloud/2024/aws-pours-15b-in-japan-as-ai-race-with-microsoft-google-continues?utm_source=chatgpt.com.

Irwin, Alex. 2024. "Your source for foreign direct investment information - fDiIntelligence.com." fDi Intelligence – Your source for foreign direct investment information - fDiIntelligence.com. https://www.fdiintelligence.com/content/a45ee258-748d-5e70-8823-95a1489c49ed.

Minnix, John. 2025. "126 Data Center Stats (Updated March 2025)." Brightlio. https://brightlio.com/data-center-stats/.

"North America Data Center Trends H1 2024." 2024. CBRE. https://www.cbre.com/insights/reports/north-america-data-center-trends-h1-2024.

Swinhoe, Dan. 2025. "Microsoft to build another data center campus in Zaragoza, Spain." DCD. https://www.datacenterdynamics.com/en/news/microsoft-to-build-another-data-center-campus-in-zaragoza-spain/.

Zhang, Mary. 2024. "Microsoft Azure's Data Center Locations: Regions and Availability Zones." Dgtl Infra. https://dgtlinfra.com/microsoft-azure-data-center-locations/?utm_source=chatgpt.com.

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