Ongoing Advancement of AI and Data Centres

DeepSeek caused quite a stir when it launched recently, due specifically to the low costs associated with its development and the fact that it could compete with AI giants such as OpenAI in terms of computing power. The launch also called into the question the immense spending on AI development, with Alphabet for example planning to invest \$65bn in AI in 2025 alone. However, just as quickly as DeepSeek emerged, a much larger player has re-entered the Generative AI arena. Grok-3 is the latest version of the Grok AI model, developed by Elon Musk and his xAI team in 2024. Testing in three key industry benchmarks—Math, Science, and Coding —showed that Grok-3 surpassed all current competitors, including OpenAI's GPT-4.0 and Microsoft's offerings. The point here, is the rapid progress made by Grok and xAI, which have caught up with companies like OpenAI that have been refining AI models for over a decade. Founded in late 2023, Musk's company has already released three versions of Grok, with the latest iteration trained on 200,000 NVIDIA Graphics Processing Units (GPUs). Nevertheless, by the end of 2025, both OpenAI and Google, which developed the Gemini AI model, plan to launch newer and improved versions of their AI systems, highlighting the importance of speed in AI development.



AI Benchmarks

Source - Seaspray Private

The growth and development of AI models is closely linked with the expansion of data centres. AI systems require extensive computational data for learning and training, meaning that greater data availability and superior chips lead to faster model training. Consequently, countries with abundant data centres stand to gain as technology continues to evolve. Unsurprisingly, the United States is at the forefront of active data centres, and the scale of the difference is remarkable. Currently, the US has over 5,300 active data centres, significantly ahead of Germany's 521 and the UK's 514. China, the home of DeepSeek and a nation striving to compete with the US in AI computational strength, lags far behind in data centre storage, with a gap of nearly 5,000 centres.



Data Centres Online - 2024



USA Germany UK China Canada France Australia Netherlands Russia Japan Source - Seaspray Private

The rapid advancement of AI has led to an unprecedented boom in the tech sector over recent years, contributing to the S&P 500 achieving consecutive 20% year-to-date returns. So far in 2025, the S&P 500 Information Technology sector has only increased by 2.3%, making it the second lowest sector in terms of growth. For comparison, from January 1, 2024, to February 21, the IT sector experienced an 8.3% gain. In contrast, the Materials sector has seen the highest growth in 2025, rising by 9.3%. This increase is largely attributed to the rise in prices for gold and other fundamental materials, influenced by global geopolitics and market volatility.



S&P 500 Sectors - YTD



Source - Seaspray Private