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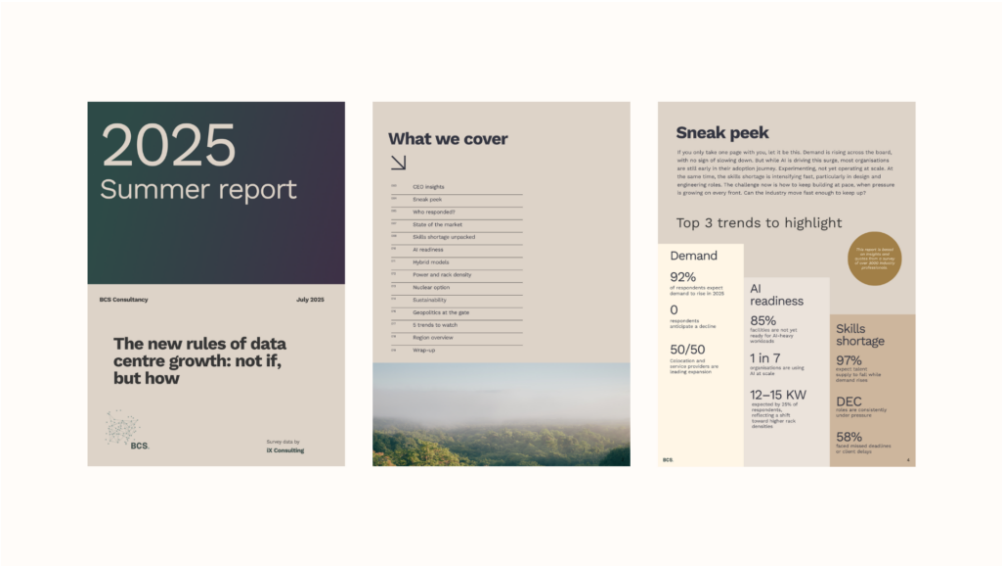
The new rules of data centre growth: Not if, but how

2 months ago



New industry report highlights a sector undergoing radical transformation

It's no secret that AI, energy availability and talent shortages are reshaping how the data centre industry builds and operates. As demand continues to grow, expectations are shifting, and the pressure to deliver smarter, more sustainable infrastructure is mounting.

BCS, the global data centre consultancy, has compiled an insightful new industry report based on responses from over 3000 professionals across 41 countries. The goal? To understand what's really happening in the market, and how we might answer some of its biggest challenges.

The report explores seven key themes and presents robust data behind each one, and this article offers a brief overview of what you can expect inside.

AI readiness

The report suggests that most data centre facilities aren't yet ready for AI-heavy workloads with 85% of the 3000 respondents agreeing and just 1 in 7 organisations saying they are using AI at scale. However, 79% are increasing their infrastructure to facilitate AI readiness.

James Hart, CEO at BCS, said: "We're entering a pivotal moment for the data centre industry. As AI moves from buzzword to backbone, it's reshaping not just what we build, but where, how, and why we build it. The infrastructure that powered the last decade of digital growth isn't enough for what comes next. From compute-heavy model training to real-time inference at the edge, new demands are emerging that call for fresh thinking, faster decisions and more flexible, sustainable decisions, and more flexible, sustainable solutions."

Demand and Skills Shortage

None of the respondents felt that here would be a decline in demand with a huge 92% feeling strongly that it would continue to rise. This is against the background of the ongoing issue around resources and a significant 87% of respondents say the supply of skilled professionals is falling as demand continues to rise. Design, build, and operations roles are all under strain, with labour costs, project delays, and burnout already impacting delivery with 58% reporting missing deadlines as a result.

Power – is nuclear the answer?

With AI workloads driving up power demand, the report highlights how the industry is exploring every possible energy source, including nuclear. 75% of respondents support nuclear power as part of the data centre energy mix, but there's realism too: 70% say small modular reactors (SMRs) won't be ready this decade; and 60% worry that public opinion could hold progress back.

Alongside this, 91% of respondents expect at least 90% of their power to come from renewable sources within the next decade. And it's not just down to ESG pressure – 68% say global events like energy price spikes, war, and supply risks have pushed them to accelerate the shift, signalling a clear realignment of long-term energy strategy, with sustainability, cost stability, and energy independence now top priorities.

Conclusion

"This report reflects what we see on the ground every day: a market shifting fast, driven by AI, sustainability, and changing demand models. It also highlights where opportunity is opening up: beyond Tier 1 markets, beyond legacy systems, and beyond conventional assumptions.

"Demand is rising across the board, with no sign of slowing down. But while AI is driving this surge, most organisations are still early in their adoption journey. Experimenting, not yet operating at scale. At the same time, the skills shortage is intensifying fast, particularly in design and engineering roles. The challenge now is how to keep building at pace, when pressure is growing on every front. It's our industry, and our responsibility, to lead this change and rethink how and where we build, to create facilities that are as intelligent and adaptive as the workloads they support," concludes James Hart.