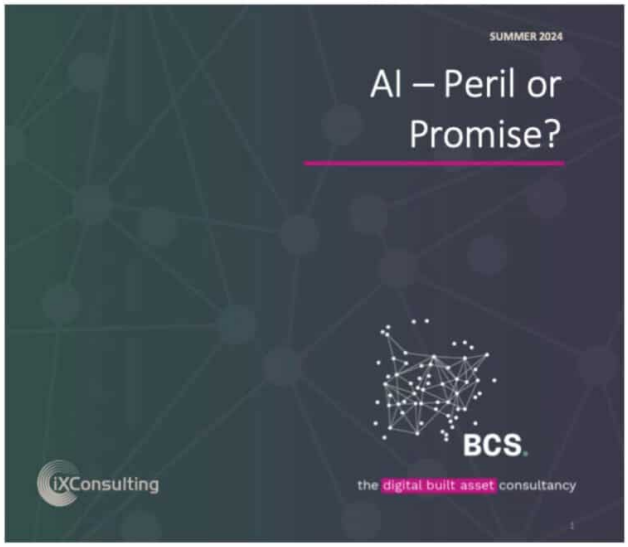
FMBusinessDaily

Latest BCS industry survey highlights key challenges around AI

2 years ago



The crucial specialist data centres facilities needed to support the growing proliferation of artificial intelligence (AI) within global industry are significantly impacting power and water usage, presenting the sector with both challenges and opportunities for sustainability and resource management.

This is according to the latest independent industry survey (number 28), commissioned by BCS, (Business Critical Solutions) the specialist services provider to the digital infrastructure industry, which captures the views of over 3000 senior data centre professionals across Europe, includingowners, operators, developers, consultants and end users.

Over four-fifths of survey respondents reported experiencing an uplift in demand as a direct result of AI over the past year. However, 85% believe that the pace of widespread adoption of AI is currently being restricted by the lack of available power and facilities tailored for AI workloads.

There is however positive news as the sector continues to use AI to benefit from greater efficiencies, cost savings, driving improvements in services with the expected impact of AI on the operational side for data centres expected to be very positive. Over 65% of respondents reported that their organizations are regularly using generative AI, nearly double the percentage from their 2023 survey and around 90% of respondents expect their data centres to be more efficient as a direct result of AI applications.

James Hart, CEO at BCS, said: “There is real concern that the pace of AI adoption may be restricted by the ability of the market to deliver sufficient supply of data centres to house it.

“AI data centres are power-intensive by nature, primarily due to the high computational demands of AI workloadsand the energy consumption is driven not only by the need to power the servers but also by the

cooling systems required to maintain optimal operating temperatures. The environmental impact of this power usage is significant with many data centres are still reliant on non-renewable energy sources despite efforts to transition to renewables, with the pace of AI advancement often outstrips these sustainability initiatives. In addition to power usage, AI data centres also have a substantial impact on water resources used for cooling.

'The interplay between AI data centres and resource usage necessitates innovative approaches to mitigate environmental impacts. AI itself can be leveraged to enhance the efficiency of data centres with algorithms tooptimise energy use by predicting cooling needs, managing workloads more efficiently, and reducing idle times for servers. Predictive maintenance powered by AI can also prevent equipment failures, thereby reducing the need for excessive cooling.

"In conclusion, while AI data centres are indispensable for the continued advancement of artificial intelligence, their impact on power and water usage poses significant environmental challenges. Addressing these issues requires a multifaceted approach that includes transitioning to renewable energy, adopting innovative cooling technologies, and leveraging AI for operational efficiency. As the demand for AI capabilities continues to grow, so too must our efforts to ensure that this growth is sustainable and responsible, balancing technological progress with environmental stewardship."

To download the full report please use this link https://bcsconsultancy.com/insights/thought-leadership/ai-peril-or-promise/