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XYZ Reality Harnesses AR to Boost Efficiency in Data Center Construction



The iMasons Legacy Podcast
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Building with AR

David Mitchell likes to say that he learned to walk on a construction site. His résumé caps the point with leadership roles on The Shard and Battersea Power Station in London and several hyperscale data centers throughout Europe.

Today, he's channeling that experience into [XYZ Reality's](#) all-in-one construction delivery platform, which combines [engineering grade augmented reality™](#) with real-time project controls to transform how mission-critical infrastructure projects are planned, built and delivered.

"I became obsessed with the notion of paperless construction," said Mitchell, Founder and Chief Executive Officer of [XYZ Reality](#).

The obsession started while working on his capstone projects. His trigger? Seeing how translating two-dimensional paper drawings into the real-world built environment often led to errors – and how correcting those errors to achieve perfection costs time.

Mitchell's search for a solution coincided with the industrywide adoption of building information modeling, known as BIM. The 3D digital modeling brings architectural plans to life with detailed information about project status, materials and schedules.

"I thought, 'If only I could take this high-fidelity 3D model and position it out on site to millimeter precision, I wouldn't need any drawings,'" said Mitchell. "What else could happen if I had a live, dynamic interface with the performance spec of what I'm building?"



David Mitchell, Founder and CEO of XYZ Reality

From London's most iconic landmarks to Europe's hyperscale data centers — David Mitchell now leads the charge into engineering-grade AR with XYZ Reality.



Precision Holograms

Within a few years, construction managers started to wear hard hats with safety goggles that [cast holograms of the BIM on the real world](#). The visual provides the wearer with a 5-millimeter-precision view of alignment between actual construction and the digital model.

All the data collected by the high-tech hard hat, called the Atom™, is streamed to the cloud via Wi-Fi and constantly updates XYZ Reality's own construction delivery platform that provides deskbound management teams visibility to the field from anywhere in the world.

"You see all the activity out on site happening as a mirror world reflection on a digital model from your laptop and your decisionmakers can remotely interact and give instructions," Mitchell said.

The real-time visibility increases transparency and brings objectivity to the relationships among project team members, which translates to a shift in work culture that emphasizes execution, according to the company.

"We've seen data centers delivered on time if not faster than expected," Mitchell said. "We've also seen trade contractors deliver [five times faster with half the labor](#)."



Photo courtesy of XYZ Reality

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— David Mitchell,
Founder and CEO of XYZ Reality



Photo courtesy of XYZ Reality



People Drive Innovation and Innovation Drives Efficiency

XYZ Reality's story resonates across the three pillars of the [Infrastructure Masons](#) (iMasons) platform - People, Innovation and Efficiency, noted [Santiago Suinaga](#), Chief Executive Officer of iMasons, a global professional association that unites the builders of the digital age.

"We say, 'People drive innovation, and innovation drives efficiency.' XYZ Reality has a fitting approach," he said, adding that "the result is reduced time to market, and time to market is a major constraint for deployments."

For Mitchell, the success of XYZ Reality, which has been used on more than \$14 billion worth of mission-critical projects including

several hyperscale data centers totaling over 1.4 GW of capacity, comes down to passion, perseverance and a relentless focus on precision.

Mitchell was a builder for decades before he dove into digital technology. Once he locked in on the potential to solve problems in the construction industry with digital tools, he built a team to turn his vision into reality.

"There's a whole graveyard of AR devices out there where precision and performance were underestimated," Mitchell said. "They were like, 'We built this AR tech, now let's find a market that works for it.' Whereas I identified a problem, and I solved it with AR."

Mitchell and XYZ Reality's can-do problem-solving spirit resonates with iMasons' initiatives to drive progress and transform the digital infrastructure industry through innovation, efficiency and collaboration, noted [Rudolf Gordon-Seymour](#), Regional Director of Europe, Middle East and Africa for iMasons.

"XYZ Reality is helping our industry bring greater efficiency to the design and construction of data centers with unmatched accuracy and speed," he said. "Implementation of technology like augmented reality and AI is at the core of building a greater digital future."

"We say, 'People drive innovation, and innovation drives efficiency.' XYZ Reality has a fitting approach"

— Santiago Suinaga,
CEO of iMasons





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