

## Al for Construction: Reality or a Pipe Dream?

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The construction industry, traditionally slow to adopt new technologies, is experiencing a significant transformation through AI and robotics. A prime example of this evolution is the recent partnership between ABB Robotics and construction technology firm AUAR to build "Construction," a groundbreaking climate-neutral research facility in Belgium.

This pioneering project harnesses AUAR's micro-factory technology and is assembled using an automated construction process powered by ABB robots. The robots employ vision and AI capabilities to boost speed, flexibility, and precision in the modular assembly process.

"This collaboration represents a significant step forward in sustainable construction practices," said a spokesperson for the project. "By combining robotics with advanced AI systems, we're not only improving efficiency but also reducing the environmental impact of construction."

AUAR's automated construction system has shown promising results in other projects, with some reports suggesting their micro-factories could potentially build a new home every 12 hours. The company has already begun shipping its robotic micro-factories to the US to build sustainable, affordable homes across the Midwest.

Despite these advancements, the construction industry faces unique challenges in Al adoption. The physical nature of construction work, regulatory complexity, and fragmented workflows can make implementation difficult. However, success stories like the ABB-AUAR partnership demonstrate that with the right approach, Al can transform construction processes.

As the industry continues to evolve, experts suggest that construction companies should start with targeted AI applications in planning, design, and project management before moving to more advanced robotics solutions. The key is finding the right balance between technological innovation and practical implementation in an industry that has historically valued tradition and proven methods.



## Why it matters

The construction industry is one of the largest global sectors but has historically lagged in productivity improvements. Al and robotics could address critical challenges including labor shortages, safety concerns, and environmental impact. For consumers, this could eventually translate to more affordable housing and infrastructure built more quickly and sustainably.

- ABB Robotics and construction technology Company AUAR to build groundbreaking climate-neutral research facility
- Micro-Factories Could Build a New Home Every 12 Hours