AI and technology

AI in Construction

Signal vs Noise

Few subjects generate more noise in construction boardrooms than AI. Vendors promise transformation, headlines predict disruption, and most leaders are left unsure what is real. This briefing separates what AI can genuinely do today in a compliance-heavy, document-heavy industry from what remains overstated.

Aldbry Intelligence Briefing

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AT A GLANCE

- The strongest near-term case for AI in construction is not on site. It is in the documents, records and reports that surround the work.
- Claims that AI will run projects or replace professional judgement are noise. In regulated, safety-critical work, qualified people remain accountable.
- The Construction Leadership Council estimates a 5% SME workforce efficiency gain, worth £2.2 billion, from digital tools that reduce the admin burden. The value sits in the least glamorous layer.

Why the conversation is so confused

Construction leaders are not short of opinions on AI. They are short of clarity. The confusion comes from three directions.

Relabelling.
Established software is being rebadged as AI, making it hard to tell genuine capability from marketing.

The demonstration gap.
General-purpose tools are shown performing tasks that bear little resemblance to a live project. What works in a demo does not always survive a principal contractor's audit, a CDM file or a Friday afternoon on site.

Extremes.
Commentary swings between "AI will change everything" and "it is not ready for our industry". Both lead to poor decisions.

The result is that many firms either stand still or experiment without direction. Neither is a strategy.

The signal: the document layer

Construction runs on information that is largely unstructured: RAMS and method statements, site diaries, inspection and test records, subcontractor insurances and certifications, NEC4 correspondence, progress reports, O&M manuals and handover packs. Much of it is written, read, retyped and checked by hand.

Current AI is genuinely capable at a specific set of tasks on exactly this kind of material. It can read and extract information from documents, draft from established templates and existing records, summarise long material, compare documents against each other, and flag gaps or inconsistencies for a person to review.

Set that capability against where the industry's time actually goes. UK construction workers spend around 90 hours a year each on paperwork, at a cost of around £1,500 per employee (Re-flow / YouGov). Only around 35% of site managers' time is spent on direct supervision, with the rest absorbed by admin, paperwork, calls and travel (industry productivity research).

90 hrs

Spent on paperwork per construction employee, per year

Source: Re-flow / YouGov

35%

Share of site managers' time spent on direct supervision

Source: industry productivity research

This is the signal. The overlap between what AI does well and where the administrative burden sits is unusually close. It is also why the Construction Leadership Council's £2.2 billion efficiency estimate is framed around reducing the admin burden, not around futuristic technology.

The noise: what is overstated

"AI will run your projects."

Programme, commercial and safety decisions depend on judgement, context and accountability. AI can inform those decisions. It does not own them.

"AI replaces competent people."

UK construction regulation places duties on people and organisations, from CDM 2015 dutyholders to the accountable persons under the Building Safety Act 2022. AI can draft and check; competent people review and sign off. Any proposal that blurs that line is a liability, not an efficiency.

"Buy the tool and the savings follow."

Access to AI is now widespread and inexpensive. Owning a tool is not the same as getting value from it. Results depend on where and how it is embedded in the work.

"The headline technologies come first."

Robotics, autonomous plant and fully automated design attract attention, and some have long-term potential. For most UK contractors, they are not where the near-term return sits.

"You need perfect data first."

Data quality matters, but waiting for a flawless information environment before acting is its own form of noise. It delays value that is available now.

The risks that deserve serious attention

Dismissing hype is not the same as dismissing risk. Four risks warrant board-level attention.

Accuracy. AI can produce output that is fluent, confident and wrong. In a method statement, an inspection record or a contractual notice, that is a safety and legal matter, not a typo.

Confidentiality. Tender pricing, client information and personal data in site records all require control. Staff experimenting with public AI tools on company documents, without guidance, can create exposure the business has not assessed.

Assurance. As tier-one contractors demand more detailed evidence, more frequent reporting and tighter audit trails (Construction News, 2026), any AI-assisted process must strengthen the audit trail, not obscure it.

Inconsistency. Unmanaged individual use tends to produce documents of variable quality and format, undermining the consistency clients and auditors expect.

None of these is a reason to avoid AI. All of them are reasons to adopt it deliberately.

What separates value from disappointment

Across the industry, a clear pattern is emerging between firms that get real value from AI and those left disappointed.

Firms that succeed start from a business problem, not a technology. They know where their hours and margin are being lost. They treat AI as one component within a controlled workflow, with human review built in rather than bolted on. And they apply genuine construction knowledge: understanding what a good RAMS, a sound inspection record or a defensible NEC4 notice looks like matters more than understanding the model underneath.

Firms that struggle tend to start with a tool, run generic pilots disconnected from how their sites actually operate, and expect software alone to change working habits.

The deciding factor is rarely the technology. It is knowing where AI belongs in a firm's workflows and, just as importantly, where it does not.

The strategic picture

Put the evidence together and the case is clear. UK construction productivity has grown by less than 0.5% a year since 1997, against 2.8% for the wider economy (ONS). The industry will require more than 251,500 additional workers by 2029 (CITB). And demands for evidence and reporting continue to rise.

£2.2bn

Potential savings from a 5% SME workforce efficiency gain, using digital tools to reduce the admin burden

Source: Construction Leadership Council

Applied to the document layer, AI is one of the few levers that adds capacity without competing for scarce labour. Firms that adopt it carefully now will bid, report and deliver with a structural advantage. Those waiting for the noise to settle risk finding the gap has already opened. Those rushing in without controls risk something worse.

THE NEXT STEP

Get a clear answer for your firm.

Aldbry's view of AI is deliberately unglamorous. We have built a proprietary system for removing the admin, documentation and compliance burden in UK construction and engineering, with AI applied at the right layer and competent-person sign-off intact. It is shaped by people who have delivered major UK schemes.

The AI Opportunity Audit gives you an honest assessment: which of your processes are ready for AI now, which need work first, and which should stay exactly as they are. It is a fixed-fee engagement, and it starts with a 30-minute call, where we talk through your firm and confirm the audit is the right first step.

Book a call to get started | About the audit

Visit aldbry.com or email info@aldbry.com

Sources: Construction Leadership Council (CLC); Re-flow / YouGov national study on construction paperwork; industry productivity research on site manager time; Construction News (2026); Office for National Statistics (ONS), construction productivity; CITB, construction workforce outlook to 2029.