European Construction Industry Federation

Building Solutions together: our mission, your future

POSITION SUMMARY

Brussels, 20/10/2025

Artificial Intelligence in the European construction industry: Strategic adoption, responsible use, sectoral Leadership

1. Construction is a public good industry

Construction is not just an economic activity—it shapes the very environments in which European citizens live, work, learn, and travel. As such, construction holds **almost public responsibilities**. Built assets have long-term social, environmental, and cultural impacts. Artificial Intelligence (AI) must be integrated in a way that preserves the **dignity, safety, and public trust** associated with the profession.

2. A sector of strategic economic importance

With over 12 million workers and 9% of EU GDP, construction is a **pillar of European resilience and competitiveness**. Its transformation is critical to delivering the **European Green Deal, REPowerEU**, and the **Digital Decade** objectives. AI must be seen not as a marginal innovation but as a **core enabler** of future-proofing the industry and its clients.

3. AI will enhance – and not replace - human responsibility

In construction, AI must serve as a **professional assistant**, not a decision-maker. Engineers, architects, and contractors retain **legal and ethical accountability**. AI can support tasks like specification drafting, defect detection, and design optimisation, but it cannot assume responsibility for public safety. Human oversight must remain paramount.

4. The sector demands a technology-neutral regulatory approach

AI is a tool, not a stakeholder. Regulation should target **use and outcomes**, not underlying algorithms or software architecture. The EU's commitment to **technology-neutrality** aligns well with construction's emphasis on **verified outcomes, certified professionals, and traceable decision-making**.

5. Construction must shape AI, and not just adopt it

As a safety-critical and highly complex sector, construction is uniquely positioned to **stress-test and influence** AI systems. Use cases in design, scheduling, robotics, and quality control require **robust, interpretable, and context-aware AI tools**. Construction should help guide AI's evolution in Europe—not by building foundational models, but by shaping their application and growing local, engineering AI businesses.

6. AI must be equitably accessible to SMEs

Over 90% of construction firms are SMEs. Their ability to benefit from AI depends on **open-access platforms**, **affordable cloud tools**, and **interoperable systems** (e.g., BIM standards like IFC and ISO 19650). Public policy must prioritise **SME inclusion** through funding, vouchers, education, and regulatory simplicity.

7. Data is a strategic resource: It must be unlockable

AI cannot thrive without high-quality, accessible data. Construction actors require **machine-readable public data** (e.g., zoning, permits, regulations, cadastral records) and common environments for knowledge acquisition. The EU's **sectoral data spaces** initiative should include construction explicitly, supporting **interoperability, cross project and cross-border collaboration**.

8. Responsible AI demands skilled professionals

AI integration must be accompanied by **AI literacy and upskilling** at all levels. Engineers, site managers, and procurement officials must understand what AI can and cannot do.

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Sectoral bodies should develop **codes of practice, ethical guidelines**, and training frameworks—primarily for users, but also for collaboration with the ICT sector.

9. Public Procurement is a key enabler

Procurement frameworks must evolve to **recognise AI-generated deliverables**, where verified by professionals. They should encourage **innovation, safety, and AI-readiness**, rather than entrenching legacy systems. Procurement should also be used as a **policy lever to support SMEs** and drive real-world piloting of AI systems in public works.

10. From strategic adoption to sectoral leadership

The real risk is not overuse of AI—but **underuse**. The construction sector must move from cautious experimentation to **active, responsible, and strategic use** of AI. By engaging with AI developers, clarifying responsibilities, and upholding its professional standards, the sector can lead the **digital transformation of Europe's built environment**.

CONCLUSIONS

Construction is where AI must prove itself—through reliability, transparency, and respect for human responsibility. The FIEC position paper calls on regulators, industry leaders, SMEs, and public clients to embrace this transformation with clarity and ambition. Construction will not become an AI laboratory—but it must be one of its **most discerning and impactful users**.

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