Brysa Identifies Five Engineering Realities Stalling GenAI Adoption, Releases Framework for Moving Pilots to Production

Consultancy reports 65% of companies now use Generative AI but a small fraction reach production

LONDON, UNITED KINGDOM, May 7, 2026 /EINPresswire.com/ -- Brysa, a UK-based AI and data consultancy, has published an operationalisation framework for engineering firms attempting to move Generative AI initiatives from pilot to production, citing what it calls a widening gap between experimentation and measurable industrial deployment.

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> *Satish Thiagarajan, founder and CEO of Brysa*

Drawing on engagements with engineering and industrial clients, Brysa reports that 65% of companies are now using GenAI in at least one function, yet only a small percentage of initiatives progress beyond pilot stage. The consultancy attributes the gap not to a shortage of use cases but to the absence of operational rigour, with most prototypes built in innovation labs disconnected from the realities of industrial systems and regulatory frameworks.

"Engineering firms aren't short on GenAI ideas. They're short on the architecture and governance that make those ideas deployable," said Satish Thiagarajan, founder of Brysa. "We're seeing companies invest heavily in compelling demos that collapse the moment they meet a live plant environment, an audit team, or a compliance framework. The firms that operationalise GenAI in 2026 will be the ones that treat it as engineering, not innovation theatre."

The framework identifies five structural realities that slow GenAI adoption in engineering: fragmented operational data locked in legacy SCADA, PLC, and OT systems; the absence of a standardised AI architecture or industrial MLOps practice; tight capex controls that conflict with GPU and inference costs; security and compliance barriers rooted in safety-critical IP and emissions data; and tool sprawl, where individual business units adopt standalone copilots without shared governance.

Brysa argues that pilots most commonly fail for four reasons. First, they are designed without production constraints such as cybersecurity standards for OT/IT systems or integration with ERP

and supplier ecosystems. Second, they lack the architectural backbone of APIs, model lineage, monitoring, and access controls needed to scale. Third, they begin without defined ROI or ownership from engineering and operations teams. Fourth, they lack continuous evaluation loops to manage hallucination risk, model drift tied to changing asset conditions, and the accuracy thresholds required for regulatory reporting.

The operationalisation framework sets out four steps for engineering firms: institutionalising GenAI capability through structured enablement and sandbox environments rather than ad-hoc tool rollout; designing a production-ready architecture with reusable services across model orchestration, retrieval, guardrails, observability, and integration; building governed, repeatable AI workflows with standardised prompts, human-in-the-loop controls, and automated evaluation; and strengthening responsible AI, security, and compliance through audit trails, model lineage, and alignment with industry codes and safety requirements.

"The engineering firms getting this right are treating GenAI like any other industrial system," Thiagarajan added. "They're asking how it integrates with SCADA. How it gets audited. Who owns the KPIs. The ones that aren't asking those questions are the ones still showing slide decks of pilots that never went live."

The framework is intended to help engineering leaders assess current GenAI initiatives against production readiness criteria and identify where governance, architecture, or change management gaps are blocking deployment.

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