



Paper 2

4 AI Programmes in Action

The Outcomes

Key Challenges and Solutions

Introduction

**AI in insurance is not a future state.
It is already being built, tested and deployed across core
business processes.**

In Paper 1, we shared what delivery professionals are seeing on the ground – the gap between ambition and reality, and the barriers shaping how AI is actually being adopted across the industry. For those who haven't read it, the conclusion was clear: the challenge is not what AI can do, but what organisations can operationalise, govern and trust.

This paper takes the next step.

Where Paper 1 focused on perspective, this paper focuses on practice. It looks at what is being built today – inside live programmes – and what it takes to move from promising pilots to measurable outcomes.

At Stellarmann, AI is not something we observe from the outside. It is embedded in the programmes we deliver with insurers and reinsurers across underwriting, claims, reinsurance and beyond.

The four programmes that follow are live. The problems were real. The constraints were material. And the outcomes – where achieved – are measurable.

Our Communities of Practice are grounded in those delivery realities. They exist to share what is working, what is not, and what changes when AI moves from concept to execution. This is what that looks like.

Top 5 AI Use Cases in Insurance

- Document Ingestion & Processing
- Claims Analysis & Automation
- Underwriting Decision Support
- Customer Service & Chatbots
- AI Governance, Risk & Compliance



Cleaner Decision Making: GenAI for Underwriting Performance

The Challenge

Underwriters were spending a disproportionate amount of time reviewing low-value or incomplete submissions, limiting their ability to focus on the risks that genuinely required judgement. As submission volumes increased, maintaining consistent risk selection became harder – forcing a trade-off between speed and quality.

The Constraint

Manual triage processes were inconsistent and time-intensive. Without a structured way to enrich, assess and prioritise submissions, underwriters were left to navigate volume without clear signals – creating inefficiency and variability in decision-making.

Our Solution

We implemented a GenAI-enabled solution and embedded it directly into underwriting workflows, shifting the approach from manual triage to structured, decision-supported assessment:

- ✦ Automated submission enrichment and scoring using GenAI
- ✦ Clear underwriting signals introduced – pursue, deprioritise, monitor
- ✦ AI embedded as a decision-support layer within existing workflows
- ✦ End-to-end programme delivery from discovery through to transition into business as usual

This moved AI from a standalone capability to a practical part of how underwriters assess and prioritise risk day to day.

Result

Significant reduction in low-value submission review time, improving underwriting focus and consistency

Impact

- Solved incomplete data using agentic AI and Cytora enrichment
- Processed 27,000 submissions in Q1 2026 at 10x lower cost (\$0.80 vs. \$8)
- Reduced time spent on low-value submissions, freeing underwriter capacity
- Improved consistency and quality of risk selection through data-driven workflows

AI creates the most value when it removes low-value effort, not when it replaces expertise. By filtering and structuring inputs, it allows underwriters to focus their judgement where it matters most.

Wordings Analyser: GenAI Contract Intelligence

The Challenge

Inefficient document ingestion and manual analysis of reinsurance contract wordings resulted in slow, inconsistent processing, limiting the ability to extract meaningful insights at scale. With large volumes of treaties to review, the risk of missed clauses or misunderstood terms drove both operational inefficiencies and potential exposure risk.

The Constraint

Contract review relied heavily on manual interpretation, making it difficult to maintain consistency across teams and develop a clear view of exposure at a portfolio level. Scaling this process without increasing risk or delay was a persistent challenge.

Our Solution

We supported the development of a GenAI-powered Wordings Analyser, transforming how contracts are reviewed and understood at both individual and portfolio level:

- ✦ Automated identification and highlighting of key clauses across contract wordings
- ✦ Flagging of potential risks and inconsistencies within treaty language
- ✦ Aggregation of insights across contracts to build portfolio-level visibility over time
- ✦ Embedding AI-driven analysis into the contract review process to support underwriting decisions

This shifted contract analysis from a manual, document-by-document exercise to a structured, insight-driven capability that scales with volume.

Result

Enhanced portfolio-level visibility to support more informed underwriting decisions

Impact

- Accelerated Review Time: Saves **6,800 hours annually** (equivalent to \$2.0M in Underwriting time) by streamlining the review process for influenced business.
- Automated Aggregation Analysis: Eliminates the manual effort of reading slips, saving approx. **11,000 human hours** (equivalent to \$3.4M in Underwriting time) for the in-force portfolio.

“AI unlocks value when it turns unstructured information into usable insight. In environments like reinsurance, where complexity sits within documents, the ability to scale understanding - not just processing - is a significant advantage.”

Dataiku Centre for Excellence

The Challenge

This London market client needed to establish a consistent, scalable approach to data science and machine learning across the organisation. Existing analysis and modelling approaches were fragmented, making it difficult to standardise delivery, manage environments, and ensure production-grade reliability in a regulated setting.

The Constraint

Without a centralised platform or consistent ways of working, model development and deployment lacked control, repeatability and scalability. This created risk in a regulated environment and limited the organisation's ability to embed AI and data science meaningfully across functions.

Our Solution

We established a Dataiku Centre of Excellence, embedding a structured, platform-led approach to AI and data science delivery across the organisation:

- ✦ Positioned Dataiku as the core platform for analysis, modelling and reporting
- ✦ Enabled controlled model development, deployment and lifecycle management in a production-ready environment
- ✦ Introduced monitoring capability for environment and resource governance
- ✦ Embedded the platform into day-to-day ways of working across multiple use cases (Wayfinder, Ceded Re, Portfolio Optimisation, Finance)
- ✦ Supported adoption through structured training, governance frameworks and community development

This shifted the organisation from fragmented experimentation to a scalable, governed model for delivering AI and data science at enterprise level.

Result

Scalable, governed AI/ML platform enabling faster, more consistent delivery of data-driven insight

Impact

- Reduced time to deliver analysis and reporting across key workflows (e.g. Wayfinder, Ceded Re, Portfolio Optimisation, Finance), improving speed and consistency of insight
- Established a scalable, governed AI/ML platform enabling controlled model development and deployment across the organisation
- Recognised by Dataiku for innovative governance of AI/ML delivery in a regulated environment
- Increased adoption through structured enablement, creating a growing, self-sustaining user community across multiple functions

AI does not scale without a platform. Establishing the right foundations - tools, governance and ways of working - is what enables organisations to move from isolated use cases to sustainable, enterprise-wide capability.



MGA Mission: AI-Enabled Delivery and Decision Intelligence

The Challenge

A London Market insurer needed to rapidly stand up a scalable Managing General Agent (MGA) platform—without compromising underwriting quality, governance or speed in a complex, fast-moving environment.

The Constraint

Delivering at pace risked introducing friction, inconsistent decision-making and gaps in governance. Traditional delivery approaches struggled to balance speed with the level of control and traceability required in a regulated MGA environment.

Our Solution

We are leading the end-to-end delivery of the MGA Mission, embedding AI-enabled practices into both governance and day-to-day delivery from the outset. This included:

- ✦ AI-assisted decision intelligence to capture, structure and track decisions and actions in real time
- ✦ Data-driven prioritisation to continually optimise backlog and delivery focus
- ✦ Designing technology-led underwriting workflows as part of the wider platform

AI is not treated as an add-on, but as a core enabler of how the programme is managed and decisions are made.

Result

Accelerating MGA platform delivery with improved decision quality and reduced coordination overhead

Impact

- Faster, more informed decision-making across the programme
- Reduced coordination overhead through automated capture of actions and decisions
- Improved traceability and governance across delivery
- A future-ready MGA platform aligned to data- and AI-driven underwriting, designed for scale



AI delivers value beyond underwriting models. When embedded into delivery itself, it can materially improve how programmes are governed, coordinated and scaled – particularly in complex, regulated environments.

Final Thoughts

The programmes in this paper reflect where AI in insurance really stands today – not as a concept, but as something being delivered, tested and relied on in live environments.

What connects them is not the technology itself, but the conditions required to make it work. Clear data foundations. Governance designed in from the outset. Confidence in outcomes. The ability to scale beyond pilot. And, ultimately, trust from the people using it.

These were the same themes surfaced in Paper 1. What becomes clear here is that they are not theoretical barriers — they are practical constraints that shape every stage of delivery.

For organisations prepared to address them directly, the opportunity is significant. Not just to deploy AI, but to embed it in a way that improves decision-making, strengthens control, and creates measurable value.

For those who do not, the risk is familiar: promising pilots that never translate into operational impact.

