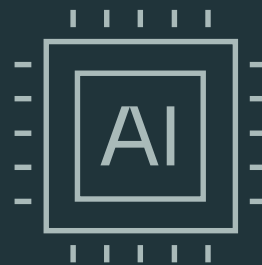


Actuarial workflows with Agentic AI

Insurance



Business challenge and opportunity

As highly specialized professionals, actuaries sit at the heart of risk management in the insurance industry, navigating complex evaluation processes to help ensure that policies are priced correctly and exposure to risk is understood, reported and managed accurately.

However, these high-cost resources – often earning 25% to 200% more than roles like underwriters¹ – are typically required to spend significant amounts of time on low-value, repetitive, unoptimized activities such as data cleansing, reconciliation, model orchestration and basic reporting. Slow, manual processes drive up operational costs and limit insight. End-to-end checks and balances to ensure accuracy and compliance extend reporting timescales over several weeks, and E2E processes have low auditability.

Actuarial skills are also in short supply in many markets, making it difficult for companies to recruit and retain the skills they need to manage and scale.

By using Agentic AI, insurers stand to increase revenue by gaining operational efficiencies, transforming actuarial workflows, reducing costs, and enabling actuaries to be redeployed to more strategic work like risk management and balance-sheet optimization. Agentic AI can also help embed risk management across real-time business processes, reacting dynamically to changes in market conditions and consumer behavior.

Technical challenges

Common hurdles for insurance companies seeking to deploy AI agents to work alongside actuaries include:

1. **Data needs to be extracted and transformed** from many sources and formats, given the large numbers of legacy policy administration and investment management systems. Processes may also depend on third-party data sources, complicating the transformation.
2. **Unique Subject Matter Expert (SME) judgements are required** due to poorly documented validation rules and tests that form part of data, assumption and modeling processes.
3. **Bottlenecks can occur during critical reporting periods** because of the many stages and hand-offs within the reporting process.
4. **Poorly documented legacy code** (e.g. SAS or SQL) makes embedded transformation and business logic difficult to validate and modernize.
5. **Adoption of new AI solutions often elicits skepticism**, requiring a cultural shift for those not skilled in developing AI solutions.
6. **Many firms use a range of different processes and modeling tools** aligned with different insurance product offerings that can make it difficult to scale traditional AI and automation approaches.
7. **Experts must adhere to complex regulatory processes** and internal and external guidance which often require application of unique actuarial judgement.

Our solution

Accelerate government services to promote business-friendly practices and foster economic growth. Using Agent AI you can enable:

- Build specialized AI agents to collaborate with actuaries in transforming data, building and validating risk models, underwriting, approvals, and regulatory filing quicker and with fewer errors.
- Increase confidence in regulatory compliance through traceable, explainable AI workflows backed by comprehensive audit logs of AI agent activity.
- Cut time-to-value through proven AI-enabled integration with market-leading, third-party actuarial systems such as FIS Prophet.
- Reduce unnecessary rework and manual errors with agents that automatically ingest, cleanse, enrich and validate data.
- Decrease risk through controls embedded in real-time business processes with automated triaging of issues to appropriate subject matter experts.
- Rapidly simulate “what-if” scenarios across economic and demographic variables for swift insights, such as sudden market changes that might devalue investments or a healthcare crisis causing increased mortality payouts.
- Support data-driven decision-making on policy pricing and risk management by translating technical results and model logic into plain language for various stakeholders.

Benefits you could achieve

Unlock the benefits of intelligent and automated end-to-end actuarial workflows. Kyndryl’s approach has the potential to deliver:

Talent optimization through efficient workflows:

AI agents handle complex, repetitive tasks, leaving actuaries free to focus on expert judgments on risk management and balance-sheet optimization.

Cost-conscious growth: Agents can take on lower-value and entry-level work while more senior and experienced actuaries supervise their activity, enabling firms to grow without increasing headcount.

Deeper business insights: Agents rapidly create reports and populate operational insights dashboards to give senior stakeholders real-time views of performance and risk.

Cost reductions and operational efficiencies: By using Agent AI, insurers stand to unlock significant operational efficiencies and enable teams to focus on growth initiatives.

Why Kyndryl?

With decades of mission-critical operations experience, we bring deep expertise in designing, building, and managing AI across complex IT estates.

The **Kyndryl Agent AI Framework** enables businesses to move beyond isolated pilots to integrated, intelligent systems. It combines secure, scalable agent orchestration with real-time observability and governance, powered by **Kyndryl Bridge**.

Through **Kyndryl Consult**, we align AI strategy with business outcomes. **Kyndryl Vital** provides proven user-centered design and rapid prototyping. And our trusted **delivery experts** ensure frictionless integration and help with reskilling and upskilling to build the foundation for success at scale.

We apply a forward-engineering approach — using insights from existing systems to design and deploy future-ready AI agents and architectures that are adaptive, resilient, and scalable. Our method is grounded in open ecosystems, data sovereignty, and transparent decision-making.

And with one of the broadest **alliance ecosystems** in the industry — across cloud, data, and AI — we bring the right partners and technologies together to design fit for purpose solutions and orchestrate AI at scale without disrupting the business.

With Kyndryl, AI becomes a core capability — not just a tool — driving productivity, innovation, and growth.

Accelerate your journey to AI-native

Our AI Benchmark Assessment provides a maturity snapshot and personalized roadmap for accelerating the value of AI in your organization.

[Take the assessment](#) →

What’s your enterprise vision for AI?

Let’s co-create it together.

[Talk to an expert](#) →

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¹ [Etched Actuarial](#)