



AI is revolutionizing risk management

Transform your risk management strategy for the future by integrating AI



Risk management isn't just evolving—it's being reengineered. Artificial intelligence (AI), including generative AI (GenAI) and agentic AI, is the engine driving a seismic shift in how organizations anticipate, assess, and act on risk. The old playbook—manual processes, backward-looking assessments, and fragmented frameworks—is being replaced by intelligent systems that learn, adapt, and act in real time. According to the KPMG Future of Risk Survey, 400 executives rank AI and GenAI as by far the most popular type of technologies for managing additional risk responsibilities in the next three to five years.

Risk teams have been using AI, such as automation and advanced data analytics tools, for various tasks for many years. In fact, 98 percent of respondents to the KPMG Future of Risk Survey said that digital acceleration such as AI and advanced analytics has already improved their approach to risk identification, monitoring, and mitigation. Looking forward, today's risk leaders see massive potential in moving beyond the basic AI tools at their disposal to take advantage of the latest AI advancements, including GenAI, to surface deeper risk insights, automate workflows, and turbocharge risk managers' efficiency and productivity.

What separates the leaders from the laggards is how smartly, and boldly, they embrace and embed AI advances into their risk operations. Many are experimenting with "point-in-time" solutions—automating the edges or single step activities while leaving the core untouched. But the real opportunity lies in embedding connected AI solutions across the risk lifecycle, flipping the pyramid from production-heavy to decision-driven, and preparing for a future where agentic AI operates with minimal human oversight and humans spend more time on analyzing results, actively managing risk, and strategic imperatives.

How can risk functions move beyond incremental change and toward transformative reinvention? Let's unpack the current state of AI maturity, spotlight bold use cases, and examine how to move quickly toward the AI-powered future of risk.



Why risk leaders feel the heat—and how AI can lower the temperature

Risk leaders today are navigating a perfect storm. Regulatory scrutiny remains strong and expectations continue to elevate. Boards are demanding real-time data and sharper insights. The volume, velocity, and volatility of risks are accelerating while businesses race to innovate.

AI offers a way forward, but only for those willing to move beyond incremental fixes. The most urgent challenge? Balancing speed with safety while balancing AI capabilities with deep risk management expertise and appropriate oversight.



As organizations race to launch AI-powered products, they're hitting a wall of internal friction: new product approval reviews, model risk requirements, and compliance hurdles that slow innovation to a crawl. Ironically, AI is both the accelerator and the constraint.

This duality is reshaping the risk function. AI can dramatically reduce costs, automate compliance, and surface hidden insights. But it also introduces new risks that demand a new kind of oversight. Risk teams must now manage the risk of AI in and of itself.

The organizations pulling ahead are those that treat AI not as a bolt-on, but as a strategic capability. They're redesigning their operating models around the analytical risk management moments that matter and using AI automation—with a human-in-the-loop, by design—to speed up and strengthen data analysis and reallocate human capital to higher-value work. They're not just using AI—they're using it well. Importantly, AI is also leveling the playing field: It offers a powerful opportunity for smaller organizations to compete with larger ones by democratizing access to advanced analytics and decision-making tools that were once the domain of only the biggest players.

Manual mayhem to machine mastery: The state of AI adoption

Despite piecemeal AI adoption, risk management has long been a labor of spreadsheets, static reports, point-in-time assessments, and human bottlenecks. That era is ending, as risk teams turn to AI more holistically, allowing them to spend less time assembling reports and more time managing what matters, the risk at hand. Credit and fraud risk teams have been early adopters, using machine learning for decades to detect anomalies and automate decisions. Now, the rest of the risk landscape is catching up.

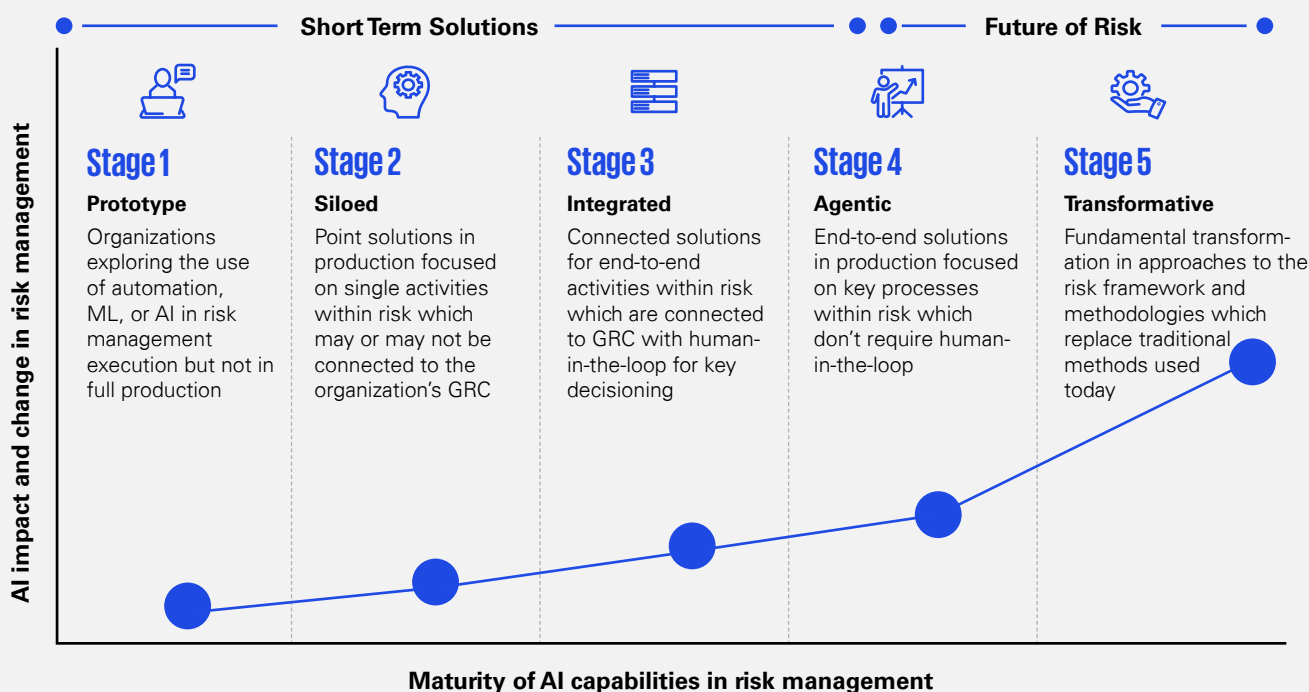
Still, most organizations remain stuck in the early stages of this transformation. Today, the majority of risk functions operate with siloed, point-in-time solutions that automate narrow tasks versus complete risk management workflows. These tools are often deployed to reduce the burden of highly manual, error-prone processes—like maintaining foundational risk data such as process, risk, and control inventories, monitoring for quality or duplication, and scanning for inconsistencies. It's a start, but it's not enough.

Meaningful opportunities lie ahead for those willing to lean into AI to help enhance centralization and automation across disconnected risk functions, such as enterprise risk management (ERM), third-party risk management (TPRM), regulatory reporting, Anti-Money Laundering (AML) and other compliance, and Know Your Customer (KYC) and client onboarding practices. As organizations mature their AI capabilities, AI becomes more integrated—connecting end-to-end risk activities and embedding intelligence into the core of governance, risk, and compliance (GRC) systems. This integration not only strengthens second line oversight but also accelerates first line activities that are traditionally time-consuming, enabling the first line to act with greater confidence and agility. As a result, organizations can reduce friction, make faster decisions, and increase speed to market. Next, agentic AI begins to take over entire workflows, acting autonomously with minimal human oversight. And with full AI transformation, the risk function itself is reimagined—traditional methods are replaced with AI-native strategies that are faster, more precise, and deeply data-driven.

The five stages of AI maturity in risk management

AI Impacts on Risk Management

Impact increases in risk management as AI capabilities mature, becoming transformative.



AI use cases through the risk management lifecycle

Yes, AI can clean up control inventories and flag duplicate risks. But that's just the start. The next frontier? Real-time risk sensing, predictive compliance, and AI-driven scenario planning. These aren't experiments—they're competitive advantages.

AI can deliver transformative value across all stages of the risk management lifecycle, from risk identification to risk review and reporting. Here are some not-so-obvious use cases your organization can start exploring right now:



Risk identification: AI can generate process flows, detect emerging risks, and recommend mappings to risk taxonomies, processes, and controls. This helps organizations identify risks more accurately and earlier.



Risk assessment: AI can recommend risk ratings, generate and monitor key risk indicators, and calculate residual risk. By making risk assessment more probabilistic, AI can enhance the precision and consistency of risk ratings.



Risk mitigation: AI tools support decision-making around risk response strategies and automate or optimize mitigation actions. For instance, they can identify issues and root causes, review and design control inventories, and monitor alerts more efficiently and precisely.



Risk monitoring: AI enables real-time or continuous monitoring of risk indicators, producing aggregated reporting and moving from point-in-time reporting to more dynamic, real-time capabilities.



Risk review and reporting: AI improves the efficiency and quality of risk reporting by automating the generation of reports, thematic analysis, and standardized risk and control report outputs.



Testing and validation: AI can automate control testing activities, validate control effectiveness, and detect anomalies across large data sets. By continuously learning from historical patterns and outcomes, AI enhances the accuracy, efficiency, and coverage of testing activities—reducing manual effort and enabling faster identification of control weaknesses.

Getting started: Operationalizing AI in your risk and resilience functions

AI isn't just a future vision—it's a present imperative. But embedding it into risk and resilience functions requires more than a tech upgrade. It demands a strategic shift in mindset, methods, and muscle. Here's how to get started:

▶ **Pinpoint the pressure points:** Start by mapping the risk management lifecycle. Where is human effort highest? Where are inconsistencies most common? Use this heat map to identify the best entry points for AI—typically in highly manual, repetitive tasks like control inventory management, issue identification, or risk scoring. *Tip: Ask the critical question, “Where do we still need humans in the loop?” and design around that.*

▶ **Get your data in shape:** Without good data, AI is just artificial noise. Clear data governance is the foundation of an effective AI-enabled risk management program, allowing risk teams to leverage AI to perform truly transformative end-to-end automation and make smarter, faster decisions. *Tip: Start by mapping your critical risk data sources and assigning clear ownership—because without structured, governed data, AI in risk management will amplify confusion instead of clarity.*

▶ **Pilot with purpose:** Don't try to boil the ocean. Choose one or two high-impact use cases and run parallel pilots. Compare AI-driven outcomes to traditional methods. If the results are as good, or better, then use that evidence to build internal confidence and regulatory credibility. *Tip: Learn from early adopters in credit and fraud risk. Their success with AI-powered decisioning has already earned regulatory comfort.*

▶ **Build a scalable architecture:** As pilots succeed, expand AI integration across risk and resilience frameworks. Connect point solutions into end-to-end workflows, align with your GRC systems, and ensure your data infrastructure can support real-time, intelligent decision-making. For success as you scale, you'll need an ecosystem view of your full AI environment and capabilities to ensure AI agents are integrated, workflows are resilient, and decision making is based on sound data. *Tip: Make sure strategy and actions steadily move you from siloed to agentic AI, where systems act autonomously and humans intervene only when needed.*



▶ **Modernize and stabilize your tech:** To effectively leverage AI tools for risk management, companies need a resilient architecture—a robust, flexible, and secure technology foundation that enables seamless integration of AI across business systems. A resilient architecture supports the scale, speed, and complexity of modern data and analytics, while ensuring continuity during disruptions and allowing for rapid adaptation to evolving risks and regulatory demands. *Tip: Start with the key components of a resilient architecture—modular system design, cloud-native infrastructure, strong data governance, and embedded cybersecurity.*

► **Bring regulators and third line constituents along:** Engage regulators early and often.

Transparency, explainability, and ethical AI use are no longer optional—they're expected. Develop trusted governance frameworks that show how AI decisions are made, monitored, and challenged. *Tip: The KPMG Trusted AI framework is a leading strategic foundation for embedding trust at every step of the AI lifecycle.*

► **Reskill for the AI era:** The risk team of the future won't look like the one you have today. The future risk-centric workforce will blend traditional expertise with digital fluency. You'll need fewer auditors and more AI strategists, big data scientists, model validators, and digital architects. Invest in continuous learning, especially in AI ethics, model risk, and data analytics. *Tip: Train your risk professionals to not only use AI, but also challenge it—from how AI models work, to where they can fail, to how to govern them.*

► **Invest in trust-building:** AI adoption in risk management isn't just a technology shift—it's a culture shift. It will only succeed if your risk professionals trust and embrace AI insights. Help overcome resistance or skepticism by quickly demonstrating how AI tools improve accuracy and results—or simply make your teams' daily work easier. You can also involve your risk managers in co-developing AI workflows with AI specialists. It should help them feel confident models are not only technically sound, but also align with their expertise and mesh with their processes. *Tip: Use targeted training programs for risk managers to build confidence and foster a culture that embraces AI, not fears it.*

► **Govern the new risks:** Biased algorithms. Privacy violations. Inaccurate outputs. Compromised models. AI is powerful, but without governance, it's just another risk. Build controls to monitor these risks just as rigorously as you would any other, ensure human oversight where it matters most, and design escalation paths when AI goes off-script. *Tip: Take a look at the KPMG AI Risk and Controls Guide to start designing practical controls to manage your organization's AI risks.*

Conclusion: AI is a catalyst for risk transformation

AI is not just a tool for risk management; it is a catalyst for transformation. By moving from siloed solutions to integrated and agentic AI, risk teams can move from hindsight to foresight—spotting emerging threats, modeling complex scenarios, and responding

in real time. Risk professionals will act more like AI strategists, overseeing intelligent systems, not just checking boxes.

In just a few years, the risk function will look radically different. In fact, the change is already underway. Are you on your way yet?



KPMG can help you navigate the AI revolution

From back-office operations to customer experiences, AI is transforming risk management by driving operational efficiencies, scalability, and performance. At KPMG LLP, we help you harness the power of AI to transform how you manage risk, driving resilience, efficiency, and business performance. We are uniquely positioned to help modernize how you manage risk, offering:

- Deep industry expertise in enterprise risk, financial and operational risk, cybersecurity, regulatory compliance, resilience, data, AI and system implementation skills
- A holistic risk management approach that combines AI with traditional practices with market leading capabilities
- An ecosystem of advanced technology solutions, such as KPMG Risk Intelligence
- Unwavering commitment to compliance, governance, and ethical AI use
- Advanced data analytics capabilities that uncover insights and assess risks
- Tailored solutions designed to meet your specific needs
- Global resources and end-to-end services that cover the entire risk modernization lifecycle

By teaming with us, you'll gain access to our deep experience, industry-leading tools, and innovative solutions empowering you to stay ahead of emerging risks and capitalize on new opportunities.

We are leaders in AI

Qualifiers

KPMG Advisory GPT

Advisory GPT is a generative AI platform that allows KPMG Advisory personnel to harness the power of the GPT models. Advisory GPT enables conversational querying against a large language model, empowering more users to utilize powerful AI with secure access to confidential information.

KPMG Workbench

KPMG has collaborated with Microsoft to build KPMG Workbench on Microsoft Azure AI Foundry services, allowing for interoperable, agent-to-agent communications. In addition, it brings together capabilities from across the KPMG ecosystem of alliance partners, such as ServiceNow, Salesforce and Workday, so clients accessing it can choose the model or AI agent that fits their task.

Alliance with Microsoft

In addition to building and deploying KPMG Workbench, KPMG and Microsoft entered a multi-year collaboration to put employees and clients at the forefront of the AI revolution. This \$28M commitment in Microsoft Cloud and AI Services will unlock potential growth for KPMG of over \$12B. Through this global collaboration expansion, KPMG will receive early access to Copilot and favored pricing, free training of over 5000 people and demo licensing and joint investment partners.

KPMG Ignite Platform

Our integrated AI platform and suite of AI-powered solutions can accelerate AI's value release by combining our industry and domain knowledge with our technical experience. This platform brings together machine learning, deep learning, natural language processing, and OCR capabilities.

Generative AI Rollouts

KPMG was the first professional services firm to deploy Generative AI capabilities, leading 11 engagements and incorporating it within our own services. We offer a growing portfolio of over 600 AI-powered enablers allowing us to expedite the development and implementation of AI solutions for our clients, including secure and safe Gen AI-powered apps such as AdvisoryGPT.

Awards & Certifications

IDC MarketScape: KPMG recognized as a Worldwide leader in Artificial Intelligence and Intelligent Automation services

KPMG named leader in **The Forrester Wave: AI Consultancies**

KPMG named leader in **The Forrester Wave: Data Management Service Providers**

Leader in the **Gartner Magic Quadrant for Service Providers for 5 consecutive years**

ALM Pacesetter: KPMG recognized as a leader in **Cybersecurity**

KPMG is the first organization in the world to achieve **BSI/ISO 42001* certification for AI Management Systems.**

Recent Patents



Systems and Method for Implementing a Responsible Artificial Intelligence (AI) Common Controls Framework



System and Method for Capturing, Managing and Enriching Prompts in a Data Processing Environment



System and Method for Generation of Process Graphs from Multi-media Narratives

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