KPMG

Intelligent Insurance – Malaysia Edition

A blueprint for creating value through AI-driven transformation

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Foreword

The insurance sector is undergoing a major transformation, with many insurers have already embarked on digital transformation journeys, showing strong commitment to placing technology and digital innovation at the heart of their modernization efforts. According to **KPMG's Insurance CEO Outlook,** 81% of industry leaders view artificial intelligence (AI) as their top investment focus, even in the face of economic uncertainty.

As AI continues gaining momentum, its transformational impact is becoming increasingly evident across the sector. Industry players are exploring innovative ways to harness AI's capabilities, from optimizing claims, real-time risk evaluations and decision-making, to delivering tailored services and enhancing cybersecurity. Its ability to manage complex, time-intensive tasks is setting a new era of efficiency and driving growth within Malaysia's insurance market.

However, despite the optimism, AI adoption in the industry is limited by challenges integrating legacy systems with new technologies and a gap between traditional carriers and insurtech. Concerns persist around the reliability of AI outputs, with ethical considerations and unclear regulatory frameworks are one of the key challenges cited by CEOs.

In this report, we explore both the opportunities and hurdles associated with AI in insurance. It introduces a practical framework to help organizations assess their current standing, define strategic priorities, and implement effective plans for scaling AI adoption. By leveraging these advancements, insurers can foster innovation, maintain a competitive edge, and better meet evolving customer expectations in an AI-driven future.

> According to KPMG's Insurance CEO Outlook, 81% of industry leaders view artificial intelligence (AI) as their top investment focus, even in the face of economic uncertainty. This show as AI as AI continues gaining momentum, its transformational impact is becoming increasingly evident across the sector.

Mok Wan Kong
Partner, Head of Insurance
KPMG in Malaysia

Foreword

Artificial intelligence (AI) is reshaping Malaysia's insurance sector, though adoption patterns differ between life and non-life segments owing to distinct operational requirements, regulatory environments, and product complexities.

Non-life insurers are utilizing AI for automated claims processing, fraud detection, dynamic pricing, and risk assessment, drawing on data from telematics, IoT devices, and weather analytics to improve operational efficiency and decision-making. Conversely, life insurers encounter greater challenges in AI integration, given the long-term nature of their products and stringent regulatory frameworks.

As of 2024, fewer than 50% of Malaysians held life or family takaful policies,[1] highlighting both market opportunities and difficulties in building trust and digital engagement. While several insurers are proactively investing in AI technologies, others remain cautious due to regulatory uncertainties, legacy IT infrastructure, and concerns regarding potential business model disruption, contributing to an expanding divide between early adopters and more conservative market participants.

Despite these hurdles, the insurance sector remains vital to Malaysia's economy, contributing over RM25 billion to the national GDP in 2023. With the Government's recent rollout of the National Guidelines on AI Governance & Ethics in September 2024 and the Digital Insurers and Takaful Operators (DITO) initiative outlined by Bank Negara Malaysia (BNM), the stage is set for more structured and responsible AI integration across the industry.

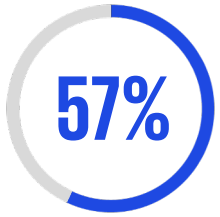
Building on this momentum, this KPMG report outlines practical steps for insurers to adopt AI effectively and overcome governance challenges, offering actionable guidance for organizations seeking to navigate the evolving landscape of Malaysia's insurance sector.

> Adoption patterns differ between life and non-life segments due to distinct operational requirements, regulatory environments, and product complexities. While non-life insurers are engaged in the AI space, as of 2024, fewer than 50% of Malaysians hold life or family takaful policies, highlighting both market opportunities and the challenges of building trust and digital engagement.

Alvin Gan,
Partner, Head of
Technology Consulting
KPMG in Malaysia

At a glance

AI is improving customer experience



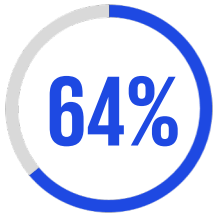
say AI is central to products and service offerings

Insurers have high expectations

believe that insurers that embrace AI will develop a competitive edge over those who do not

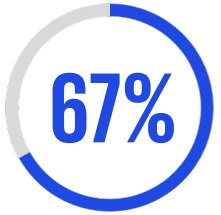
66% expect a moderate to very high ROI

But the pressure is on to prove ROI



face significant pressure from shareholders to show immediate ROI on AI investment

AI spending will increase significantly



will increase the percentage of global budget spent on AI

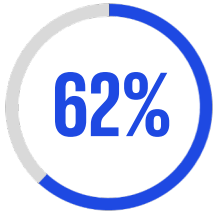
Of which

66% say up to 20 percent

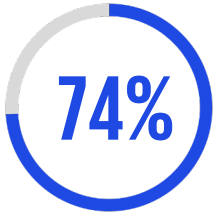
and

34% say 20 percent plus

AI goals are clear

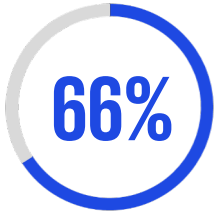


are seeking to improve efficiency

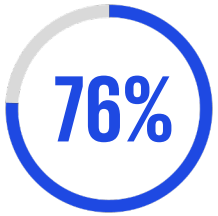


are seeking growth

The benefits are flowing through



have improved efficiency



have seen a moderate to very high ROI from their investments so far

Source: Intelligent insurance: A blueprint for creating value through AI-driven transformation, KPMG International, 2025

Introduction

of insurance executives are concerned that investments they make now maybe rendered obsolete in the near future

Source: 6. KPMG Malaysia, 2024, Artificial Intelligence in the Insurance Industry; 7. Ministry of Science, Technology and Innovation (MOSTI), Artificial Intelligence Roadmap 2021 – 2025; 8. MSIG, 2024, To Lead and To Lag: APAC Insurance's Conflicted AI Journey in 2024

The emergence of agentic, autonomous AI agents marks a transformative shift in how insurance companies in Malaysia operate, engage with customers, and manage risk. Unlike traditional AI, which primarily enhances efficiency through automation and analytics, these next-generation agents possess the ability to make independent decisions, execute complex tasks, and continuously learn from real-time interactions.

In the Malaysian insurance landscape, this evolution could lead to dynamic policy adjustments based on live risk data, instant claims processing without human intervention, and hyper-personalized customer service[6] that is context-aware and available 24/7. These capabilities align with Malaysia's broader push toward a digital economy, as reflected in initiatives like the National Guidelines on AI Governance & Ethics launched in 2024.[7]

Beyond operational efficiency, agentic AI has the potential to redefine business models by enabling insurers to proactively mitigate risk, dynamically optimize pricing, and deliver unprecedented levels of customer engagement. However, realizing this potential requires robust data infrastructure, real-time analytics, and strong ethical AI governance.

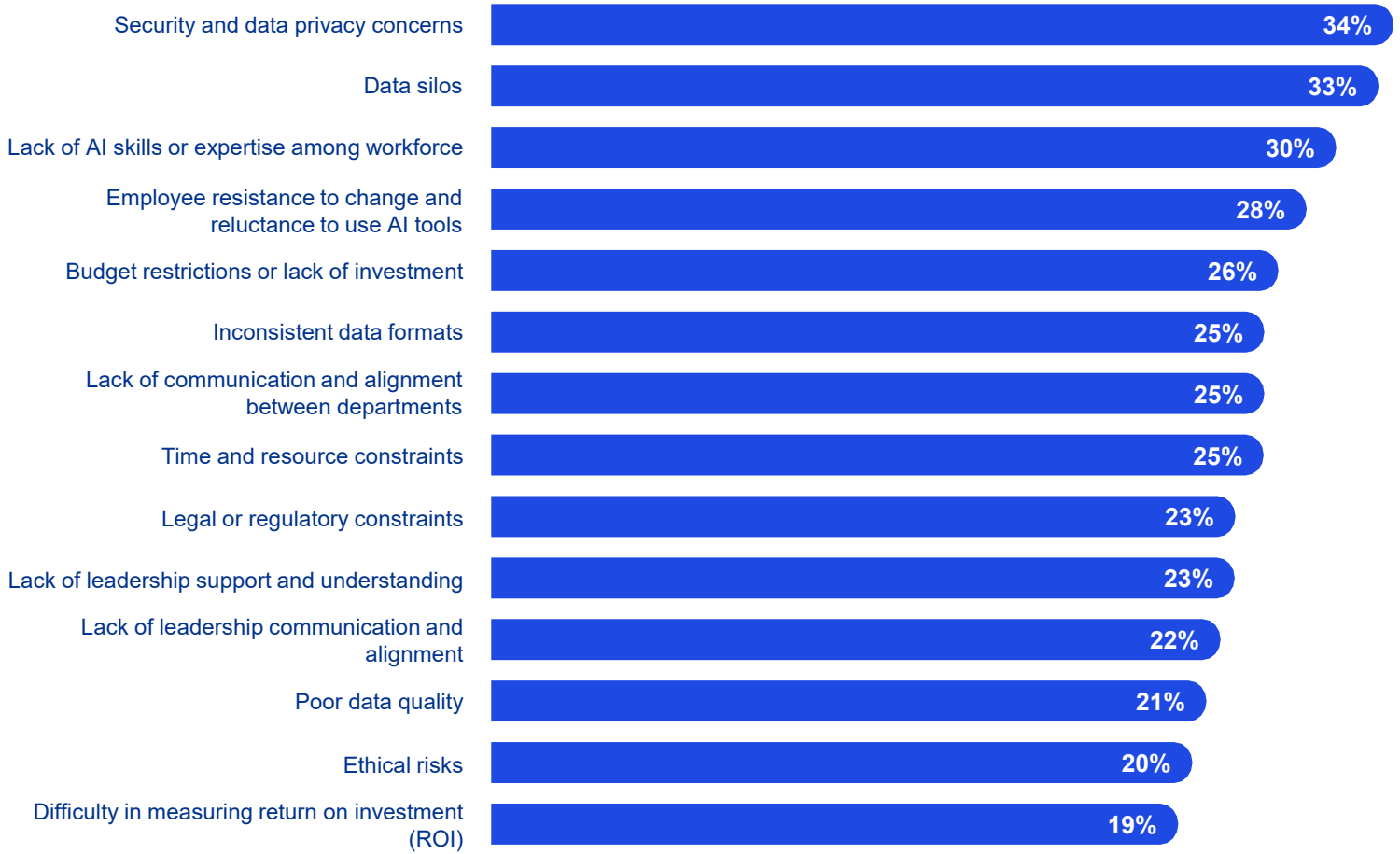
Despite these opportunities, many Malaysian insurers remain constrained by legacy systems,[8] siloed data, and rigid workflows that are ill-suited for the agility demanded by AI innovation. Data fragmentation across departments and outdated operating models hinder cross-functional collaboration and slow decision-making.

Moreover, there is a palpable sense of caution among industry leaders. According to recent insights, **75% of insurance executives express concern that current AI investments may quickly become obsolete due to the rapid pace of technological change**. This uncertainty is compounded by indecision over whether to build in-house capabilities or rely on external vendors fearing that newer, more advanced solutions may soon emerge.

To move forward, Malaysian insurers must embrace a mindset of continuous innovation, invest in scalable and interoperable AI ecosystems, and foster a culture that balances technological advancement with ethical responsibility.

Figure 1: Data concerns and lack of skills emerge as top challenges

Percentage who say their organization has faced the following challenges when integrating AI



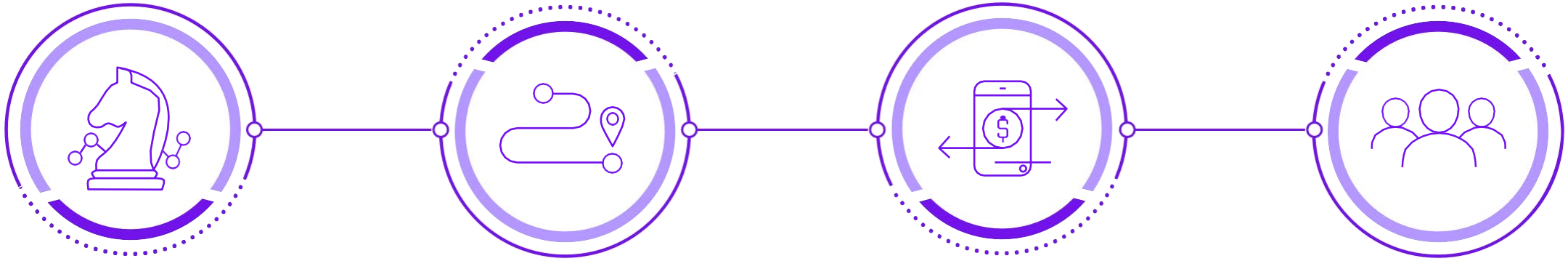
What challenges has your organization faced when integrating AI? (Maximum 5) n=183

Source: Intelligent insurance: A blueprint for creating value through AI-driven transformation, KPMG International, 2025

> One of the considerations or challenges has been that AI technologies are invariably different. So, trying to narrow down on which one we might want to use, or which two we might want to use in the future is more challenging than we expected.”

Director — Australia

Insurance executives worry about premature AI investments amid rapid technological change. Here are four key considerations to guide no-regrets actions, helping insurers build flexibility and responsiveness to adapt to an AI future:



Design an AI strategy that aligns with core competencies and unlocks value

Insurers should establish a bold vision for AI that aligns with their core strengths.

This vision should guide a disruptive transformation road map that redefines how AI drives growth and innovation while holding teams accountable for results. Aligning AI deployments with strategic goals — such as improving fraud detection, streamlining underwriting and enhancing customer personalization — can help maximize ROI.

Build trust into the transformation road map

AI in insurance introduces unique risks that can undermine trust, meaning proactive risk management is critical from the outset. Insurers should address data privacy and security challenges, helping ensure compliance with financial regulations while protecting sensitive customer information.

Combatting algorithmic bias and adopting explainable AI systems that regulators, customers and internal stakeholders can trust are critical.

Create sustainable technology and data infrastructure for AI adoption

Data is a critical strategic asset and the foundation for all AI initiatives. Insurers should build a robust data governance framework, focusing on quality, integration and security, while also creating a foundation for long-term scalability. This includes investing in enterprise-grade AI infrastructure that can support high volumes of transactions, complex risk models and real-time decision-making.

Build a culture that uses AI to uplift human potential

A multifaceted talent strategy that balances retention with upskilling should be a key priority. Academic institutions, fintech startups and innovation hubs can inject fresh perspectives and enhance workforce capabilities. Immersive AI training programs help to drive innovation in customer experiences and operational models, diversify hiring pipelines and enable transformative outcomes.

Research findings

Current state

As technology continues to evolve at an unprecedented rate, many insurance leaders question whether current regulatory frameworks and risk management strategies can adapt in time to meet the demands of this rapid innovation

Organizational models are in transition

Malaysian insurers are gradually shifting from traditional, siloed structures to more customer-centric and agile operating models.[9] However, progress remains uneven. While some leading insurers, especially those with digital-first strategies are piloting cross-functional teams and agile squads, a significant portion of the industry still operates under rigid, function-based hierarchies. This is particularly evident among legacy players, where transformation is often slowed by regulatory compliance demands[10] and legacy IT systems.[11]

Technology infrastructure in transition is evolving

The journey toward full digitalization in Malaysia's insurance sector is ongoing, with many insurers adopting partial cloud capabilities. However, only a minority have transitioned to fully cloud-native infrastructures,[12] limiting scalability and the rapid deployment of advanced technologies. The National AI Roadmap 2021–2025 has encouraged cloud adoption,[13] but uptake varies widely depending on company size and investment capacity.

Operating models inhibit consistent AI implementation

AI adoption in Malaysia’s insurance sector is often fragmented.[14] Only a small number of insurers have operating models that align AI initiatives with broader strategic goals. Cross-functional collaboration remains a challenge, with many organizations still struggling to integrate AI projects across underwriting, claims and customer service. This misalignment leads to inefficiencies and missed opportunities for value creation.

Source: 9. Tech: Digitally transforming the insurance industry, The Edge Malaysia, 2020; 10. Trust in resilience: MFRS 17: A catalyst for finance transformation, The Edge Malaysia, 2021; 11. Transforming Malaysia’s insurance landscape: Digital innovation for enhanced customer experience & operational agility, ASEAN Innovation Business Platform (AIBP), 2025; 12. Cloud and AI: Malaysia’s gateway to an intelligent future, Malaysia SME, 31 December 2024; 13. Artificial Intelligence Roadmap 2021 – 2025, Ministry of Science, Technology and Innovation (MOSTI), 2023; 14. Artificial Intelligence in the Insurance Industry, KPMG in Malaysia, 2024.

On-premises technology still dominates

Despite the push toward modernization, a majority of Malaysian insurers continue to rely on on-premises solutions. Custom-built AI tools are common, especially among larger insurers seeking control over proprietary data and algorithms. However, this approach often lacks the flexibility and interoperability needed to scale AI solutions across business units.

Links are being made to synergistic technologies

Encouragingly, local insurers are beginning to integrate AI with complementary technologies to assess customer risk profiles in real-time. By analyzing customer data, including lifestyle and medical history, these technologies can automate underwriting decisions and tailor policy offerings. This synergy also streamlines the agency recruitment process by leveraging big data to analyze large datasets,[15] enabling agency leaders to receive informed, real-time recommendations.

AI is impacting key functions

Even with limited deployment, AI is already delivering measurable benefits. Malaysian insurers report improvements in operational efficiency, IT performance and customer service.[16]

Staff education on AI

Talent remains a critical bottleneck. While 61% of insurance employees in Malaysia have received basic AI awareness training, only a fraction have undergone in-depth, role-specific upskilling. This gap underscores the need for more robust learning and development programs, especially as AI becomes more embedded in day-to-day operations.

Barriers to progress

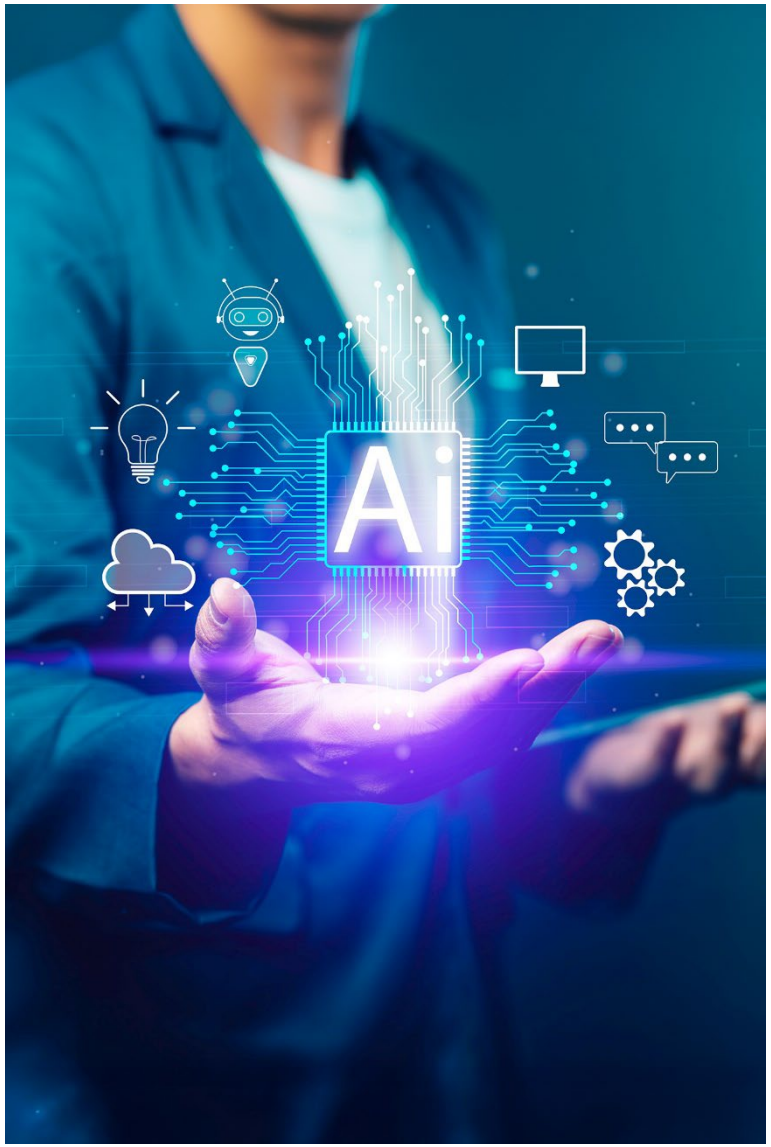
As technology continues to evolve at an unprecedented rate, many insurance leaders question whether current regulatory frameworks and risk management strategies can adapt in time to meet the demands of this rapid innovation.

Building trust is a major concern—and priority

Trust in AI remains a significant hurdle for insurers. Forty-six percent of leaders have reservations about whether AI can be trusted while only 25 percent fully trust AI within their organizations. Eighty-two percent recognize the importance of establishing robust frameworks, policies and processes for regulatory compliance to ensure responsible AI implementation.

The AI vision is still being formed

While AI is a growing priority, alignment to a clear, strategic vision remains incomplete. Sixty-two percent of insurers are only partially aligned to an AI vision, and just 19 percent have a fully integrated plan linking AI to goals at all levels.



Source:
15. Leading the industry with emerging AI tech, The Star, 28 February 2024; 16. Automation: Streamlining insurance workflow with AI, The Edge Malaysia, 2024.

Data readiness remains a challenge

Data management continues to be a critical barrier to scaling AI in insurance. Seventy-two percent of insurers identify data as their primary challenge, with only 34 percent achieving system-level data integration. Furthermore, just 13 percent have a data warehouse with real-time updates, and only 7 percent have fully automated data integration, highlighting significant gaps in data readiness for AI initiatives.

There is a conflict with sustainability commitments

The energy demands of AI are creating tension with insurers' sustainability goals. Seventy-two percent struggle to balance AI's increased energy usage with sustainability commitments, and 75 percent view meeting sustainability objectives as a higher strategic imperative than implementing AI. However, 79 percent have plans to mitigate AI's energy demands, signaling awareness and a proactive approach to addressing it.

The rapid evolution of technology fuels inertia

The rapid pace of AI development is creating uncertainty among insurers, with 75 percent preferring to wait for the AI landscape to stabilize before making significant investments. Additionally, 58 percent feel overwhelmed by the volume of AI-related information and hype, and 56 percent express concerns about the level of control AI technology providers might exert over their business.

Moving forward

These statistics highlight the complex challenges insurers face as they navigate AI adoption. Despite efforts to implement AI, the fragmented strategies and limited readiness illustrates the need for a more structured approach.

Our research reveals that many respondents believe they are further along in their AI journey than their actual maturity levels indicate. This disconnect arises from being in the early stages of implementation, where initial gains mask the broader transformative potential of AI across the industry. To help insurers accurately assess their position in the AI development cycle and effectively prioritize initiatives, we introduce the three phases of the AI Value framework: Enable people, Embed AI in work and Evolve the enterprise to help insurers move from foundational capabilities to enterprise-wide transformation and ecosystem innovation.

By addressing these barriers progressively, insurers can unlock AI's transformative potential while mitigating risks. This framework helps ensure that AI becomes a sustainable and strategic enabler for long-term growth, competitiveness and resilience.

Building the intelligent insurer

Insurers have steadily transformed their operations with technologies like digital platforms, cloud computing and agile methodologies, integrating AI with new technologies like robotics and IoT. Now, new AI technologies and increased regulatory scrutiny are further transforming the industry. These trends demand that insurers navigate an environment where investing in technological innovation while maintaining compliance is critical.

Successfully implementing AI in an organization involves a strategic approach to building capability across foundational, functional and enterprise layers. Establishing a transformation management office is also crucial for aligning AI strategy, value orchestration and project delivery across all layers. The body coordinates initiatives, establishes standards and best practices, and facilitates cross-functional collaboration to drive accountability and enterprise-wide value.

Enterprise

This layer orchestrates transformational change of the whole enterprise, starting with how AI can adjust strategy, business models and key objectives for the enterprise. It defines enterprise-wide operating model shifts, workforce evolution and risks and controls. This layer prioritizes AI transformation initiatives into a roadmap and runs a transformation office to help manage funding, track benefits and adjust priorities dynamically to help maximize the value delivered.

Functions

This layer drives AI-enabled transformation across business functions, prioritizing customer-facing value streams and end-to-end enabling processes and workflows, which enhance the flow of value such as underwriting, claims processing, fraud detection and customer engagement. AI applications, agents and robotics are embedded in the workflows. Functional operating model changes are delivered to realize potential benefits.

Foundations

This layer establishes the AI-first technology stack, including infrastructure, cloud and choices on chips. High-quality enterprise data needs to be curated, and diverse models are likely to be deployed to handle domain-specific AI. An increased focus on cybersecurity for AI is needed as well as a plan for other emerging technology, such as quantum.

Our survey found that the path to value in AI is uneven across the organization, with innovation in some areas being easier or more worthwhile to pursue than in others. For example, some areas of the same organization will focus on foundational efficiencies (the first phase), other functions or value streams may be scaling AI for growth (the second phase), and a few may even be exploring transformative opportunities within ecosystems (the third phase). In fact, while no insurer we surveyed has fully achieved the third phase maturity, 13 percent of sector leaders report undertaking activities that demonstrate third phase characteristics.

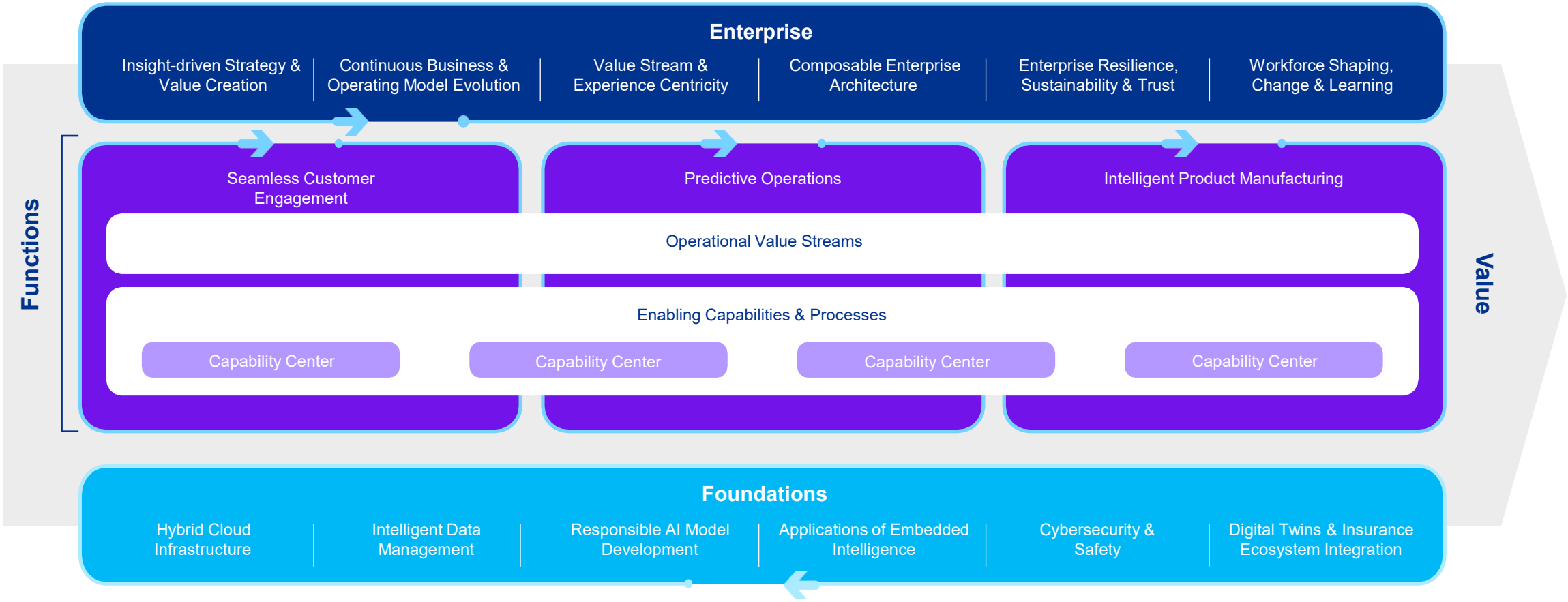
As insurers progress through the three phases, their operating models will undergo a profound transformation, reshaping how they design products, engage with customers and position themselves in the broader ecosystem. They will shift from offering standardized products developed through lengthy and rigid approval processes to creating highly personalized, dynamic coverage tailored to individual customer needs in real time. AI will help insurers analyze vast amounts of customer data, such as lifestyle preferences, behaviors and risk profiles, allowing them to design and adjust products on demand, improving relevance and responsiveness. This flexibility will replace the traditional one-size-fits-all approach, delivering superior customer value and fostering loyalty.

Simultaneously, insurers will evolve from being primarily product providers working through distribution partners, such as brokers and agents, to becoming integral players in larger, connected ecosystems. In this new role, they can collaborate seamlessly with ecosystem partners across industries — healthcare, mobility, retail and beyond — co-creating solutions that address comprehensive customer needs.

of insurance executives say organizations in their industry that embrace AI will develop a competitive edge over those who do not.

Blueprint for intelligent insurance

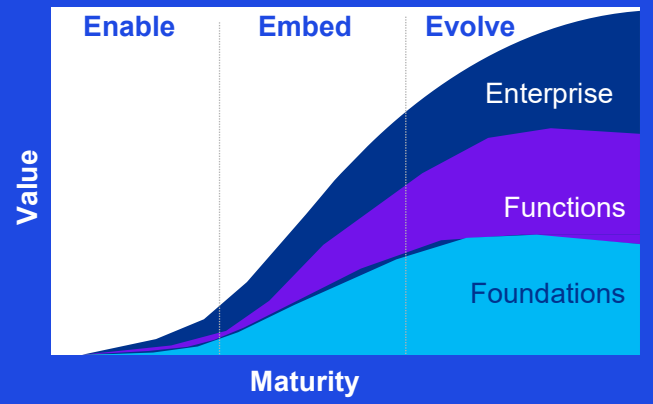
This blueprint outlines some of the key, high-level capabilities for an AI-powered, customer-centric insurer. The intelligent insurer leverages advanced technologies, personalized experiences, data-driven insights and automated operations to enhance efficiency, innovation and resilience. Focused on embedding intelligence across value streams and processes, it ensures seamless customer interactions, robust risk management, intelligent product manufacturing and future-ready adaptability to thrive in the intelligent economy.



The journey to become an intelligent insurer

Effective AI-enabled transformation goes beyond technology implementation. By examining leading practice, we have identified that insurers can increase capability and value across three phases of AI transformation.

This provides a structured yet flexible framework for navigating the complexities of AI adoption. It balances the need for short-term efficiency gains with the imperative to prepare for future growth and innovation. It helps insurers prioritize their efforts, allocate resources effectively, build capability and align their AI initiatives with short-term goals and long-term strategic objectives.



Enable

The Enable phase focuses on enabling people and building AI foundations. Organizations appoint a responsible executive, create an AI strategy, identify high-value use cases, boost AI literacy, align with regulations and establish ethical guardrails. AI pilots are launched across functions, while cloud platforms and pre-trained models are leveraged with minimal customization.

Embed

The Embed phase delivers greater value by integrating AI into workflows. A senior leader drives enterprise- wide workforce redesign, re-skilling and change, embedding AI into operating models with a focus on ethics, trust and security. AI agents and diverse models are deployed, supported by cloud and legacy tech modernization, while enterprise-wide data enhances operations.

Evolve

The Evolve phase evolves business models and ecosystems, using AI and frontier technologies like quantum computing and blockchain to solve large sector-wide challenges. AI can orchestrate seamless value across enterprises and partners. Emphasizing ethics and trust with real-time security, this phase uplifts human potential with broad and deep workforce training, fostering a creative, innovative and value-driven future.

A company may have a portfolio of initiatives aimed at any level (of the operating model) within each phase. The ratio of effort and investment across the phases will vary as the organization matures. Initially, most resources will focus on phase one, with a small effort to explore enterprise-wide transformation. Over time, as foundational efficiencies are realized, more effort is invested in phase two, while, with an eye on the future, long-term investments in phase three start to lay the groundwork for transformative innovation. This dynamic balancing act ensures insurers can achieve immediate results while setting themselves up in the right way for future success.

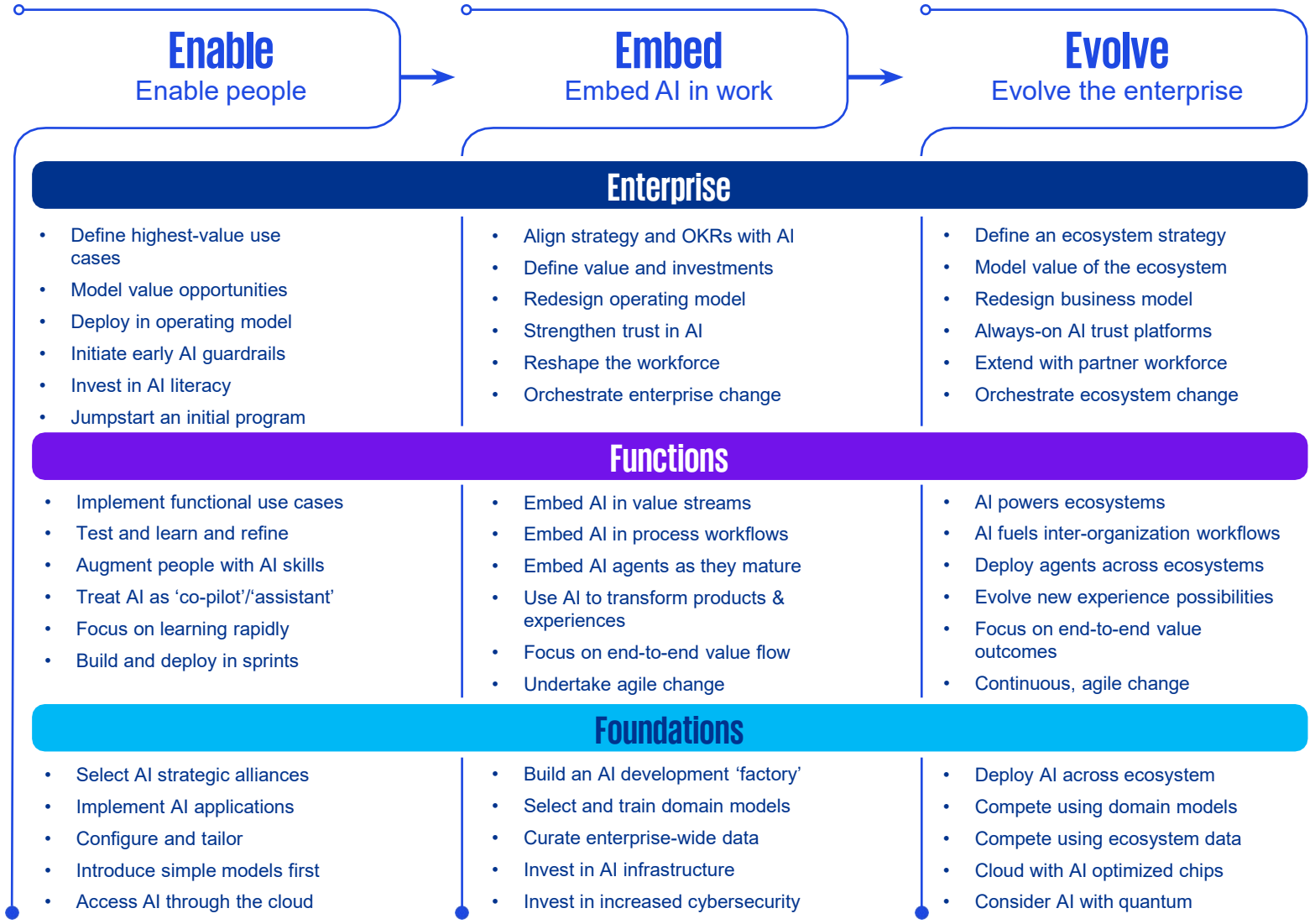
Phases of the AI journey

Focusing on maturity across the three phases — Enable, Embed and Evolve — is critical for sustained value creation. It requires increasing the maturity of the capabilities that are vital to the foundations, functions and enterprise layers simultaneously.

At the enterprise layer, increased AI maturity involves orchestrating AI across functions to enable enterprise-wide innovation and strategic alignment. Without a balanced focus on all three layers, organizations risk missing opportunities for transformation.

At the functions layer, AI should be embedded into key value streams, optimizing specific processes and creating improved outcomes, such as more compelling products and services, and more engaging, end-to-end employee and customer experiences.

At the foundations layer organizations should build up the new AI-first technology stack, through a process of technology modernization. Infrastructure, data, models and applications can all become optimized for delivery of AI.



Enable people with AI

> “There are frequent changes. So, we end up approaching this through an investment lens. This is going to get the ROI, so that’s where we’ve got to go. Instead of a future-based thing, where we’re saying this is what our company will look like and so let’s get pulled into that future, it’s more like, let’s place our bets.”

Director of AI Strategy — US

The Enable phase is about enabling people and establishing the foundations for AI adoption. At the enterprise level, this includes appointing a responsible executive, developing an AI strategy, identifying high-value use cases, increasing AI literacy, aligning with regulations and introducing ethical guardrails. At the function level, businesses pilot AI solutions across various areas, building skills, fostering innovation and learning from these initial implementations. At the foundation level, organizations leverage cloud platforms and pre-trained AI models from strategic providers with limited customization. This phase focuses on creating awareness, experimentation and alignment to ensure the organization is prepared for broader AI integration.

Budget reduction is a major focus. The emphasis is on improving the productivity of the knowledge worker by outsourcing back-office functions to tools like robotic process automation. That will improve accuracy while reducing manual effort, enabling employees to focus on negotiating with suppliers and cutting costs.

With AI the key objective, the first phase is to identify low-hanging fruit where AI can deliver quick, measurable wins by automating routine tasks, streamlining workflows and reducing manual labor. In addition to chatbots, insurers are using AI to digitize and process paperwork, including policy applications. Insurers are also automating simple processes; in fact, AI’s ability to streamline claims processing while improving accuracy is one of the most immediate and tangible benefits for the industry.[17] This can reduce settlement time from days or weeks to hours.

17. AI ushers in a new era of fraud detection, FT Adviser, 23 January 2024.

To guide clients' AI strategy and investments, KPMG in the US analyzed vast amounts of data to quantify the Gen AI opportunity. The analysis calculated the potential value at stake from fully deploying and adopting Gen AI across all potential uses within companies.

Over

17 million companies globally were assessed.

After looking in depth at

7,000 companies employing

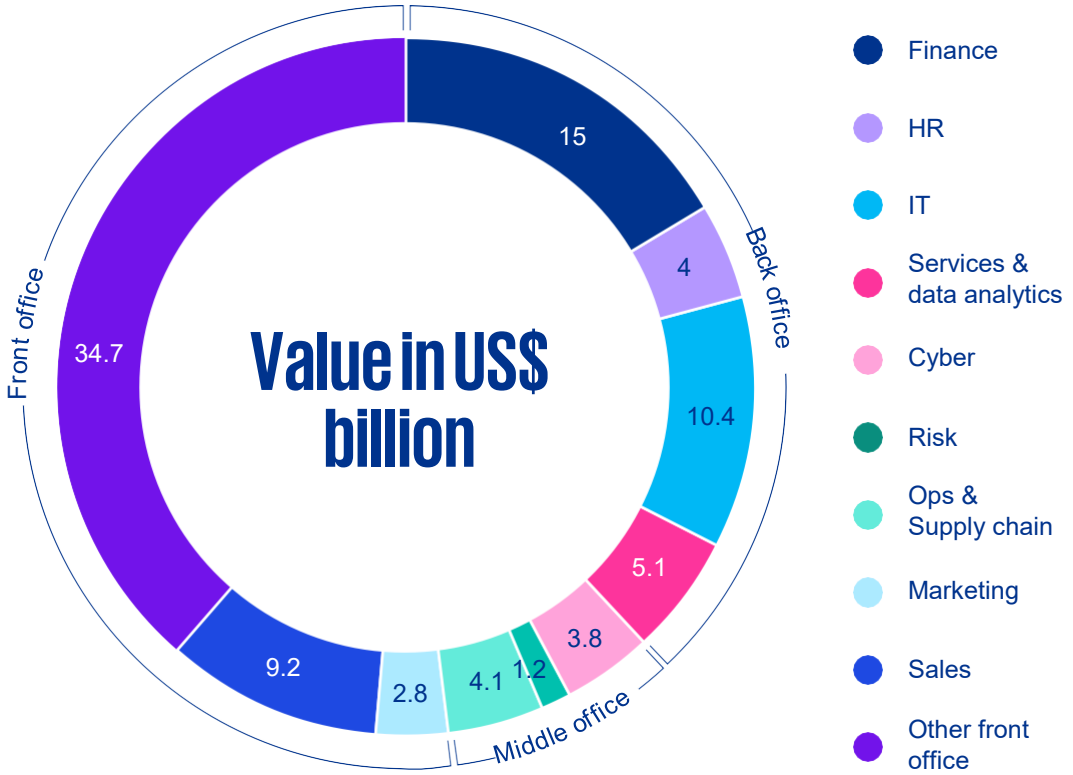
72 million

people and pressure-testing results with

500 clients,

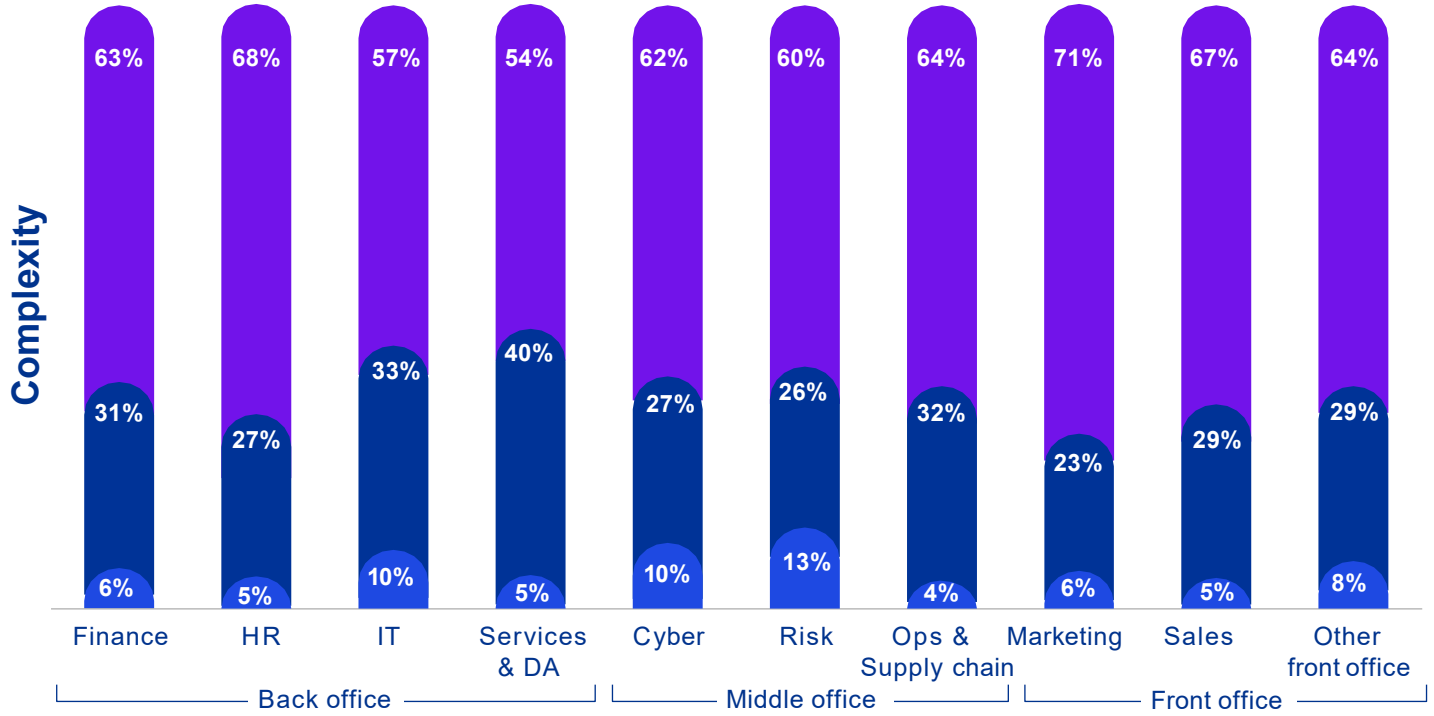
the results equate to 4–18 percent EBITDA improvement in labor productivity alone. Our calculations and methodologies show the potential value opportunity within the insurance sector in the chart to the right.

Figure 2a: Gen AI opportunity by function: Insurance



Source: Quantifying the GenAI opportunity, KPMG in the US, February 2025

Figure 2b: Gen AI opportunity, task complexity breakdown: Insurance



Low complexity

Based on tasks that are relatively simple and can be effectively augmented using readily available Gen AI tools such as Copilot, ChatGPT and other out-of-the-box technologies.

Medium complexity

Based on tasks that have potential for Gen AI augmentation but may necessitate the development of more integrated and customized solutions.

High complexity

Based on tasks that have potential for Gen AI augmentation but will likely require the creation of integrated and sophisticated solutions, as well as comprehensive governance and change management to enable adoption.

Source: Quantifying the GenAI opportunity, KPMG in the US, February 2025

Top 10 areas of opportunity: Insurance

01 Virtual insurance advisors

02 Customer relationship management

03 Regulatory compliance risk analysis

04 Performance optimization

05 Data analysis

06 Claims processing automation

07 Sales enablement

08 Financial forecasting

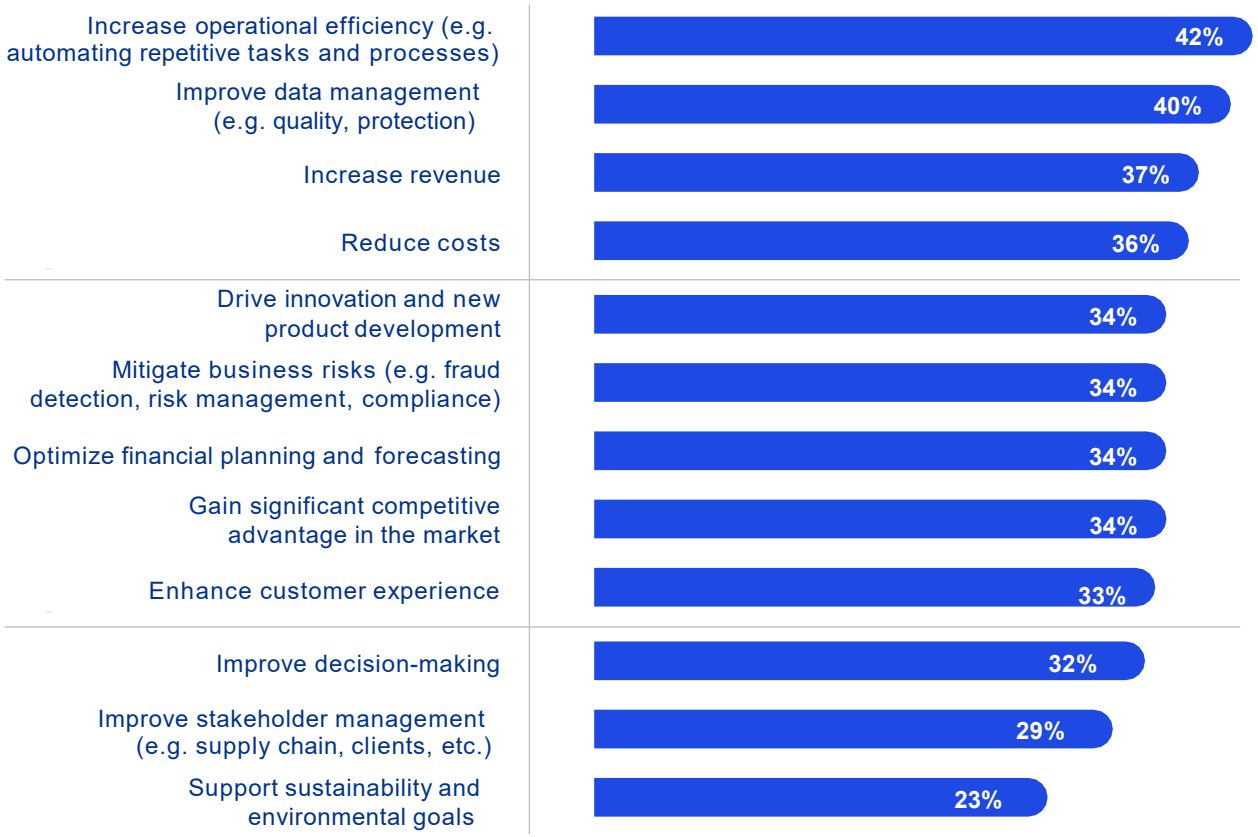
09 Investment portfolio management

10 Product performance analytics

Source: Quantifying the GenAI opportunity, KPMG in the US, February 2025

Figure 3: Leadership goals for AI adoption focus heavily on operational gains rather than strategic value

Percentage who say their organization wants to achieve the following through using AI



Which of the following goals does your organization want to achieve through using AI? (Maximum 5) n=183

Source: Intelligent insurance: A blueprint for creating value through AI-driven transformation, KPMG International, 2025

AI use cases in the first phase

Claims processing automation: Claims processing has long been a pain point for both insurers and customers. AI-driven systems can improve processing time, reduce operational costs and increase customer satisfaction. At an industry leader based in the US, for example, machine learning algorithms can analyze photos of vehicle damage or natural disasters and immediately assess repair costs.

Underwriting efficiency and precision: Traditionally, underwriting has been a highly manual process that relies heavily on historical data and actuarial science. AI is transforming this process by introducing predictive modeling and machine learning algorithms that can assess risk with far greater precision and speed. These technologies allow underwriters to analyze a broader range of data points in real time, including social media activity, environmental data and even satellite imagery.

Fraud detection: According to Insurance Europe, fraud costs insurers some US$14 billion a year — it is a pressing and insidious problem. AI algorithms can analyze vast amounts of data to identify potential fraudulent claims faster and more accurately than manual processes, reducing fraud-related losses and boosting overall profitability.

First phase - Case Study

Case study
Zurich Malaysia

Backed by the global Zurich Insurance Group, Zurich Malaysia serves a diverse customer base through over 1,500 employees nationwide. The company is recognized for its digital innovation, customer-centric services, and strong presence in both conventional and Islamic insurance sectors, driving sustainable protection for Malaysians.

Current AI usage

Accelerating operational efficiency and customer responsiveness

Zurich Malaysia has integrated AI across its operations to enhance customer experience and operational efficiency.[18] Key implementations include:

- MyZurich & MyZurichLife: AI-powered platforms offering real-time access to policy details, claims submission, and personalized recommendations.
- E-Reinstatement: A fully digital, AI-enhanced process for policy reinstatement, including automated health declarations and real-time notifications.
- Chatbots & predictive analytics: Used to streamline customer service and anticipate policyholder needs, improving engagement and retention.

Challenges

Balancing innovation with human expertise and ethical AI use

Despite its progress, Zurich Malaysia faces several challenges:

- Legacy system integration: Aligning new AI tools with existing infrastructure requires significant reengineering.
- Data governance: Ensuring data quality and compliance with regulatory standards like BNM's Risk Management in Technology (RMiT) guidelines.
- Workforce readiness: Upskilling employees to work alongside AI tools and fostering a culture of digital adoption.

Organization's AI outlook

Transforming insurance through agentic and Generative AI

Zurich Malaysia is committed to scaling AI responsibly. The company plans to:

- Expand AI use in underwriting, fraud detection, and customer journey personalization.
- Strengthen cloud infrastructure and data governance frameworks.
- Continue investing in employee training and cross-functional AI teams to drive innovation.

18. Zurich Malaysia revolutionizes digital transformation, setting new standards in customer experience, Zurich Malaysia, 25 April 2025.

Embedding AI in the flow of work

> Customers are being provided with more personalized, more precisely priced products, which satisfy their needs better than in the past. Personalization is a major part of customer benefits, leading to customer satisfaction, customer loyalty and willingness to buy our products rather than competitors.

Chief Information Officer, Large Insurance Company, UK

The Embed phase integrates AI into end-to-end workflows, products, services and value streams, transforming how work is performed across the enterprise and delivering greater value. AI enables large teams to handle complex tasks and enhances efficiency. A senior leader oversees enterprise-wide change, setting strategic goals and embedding AI into operating models, robotics and wearable devices. This phase emphasizes ethics, inclusion, safety, security and trust.
AI agents, along with diverse models (large, small, open, closed and domain-specific), are embedded into workflows, supported by data from various sources. Infrastructure combines cloud resources with on-premises GPUs, with a strong focus on security.

While many processes may still be in the first phase, insurers can begin to explore how AI can be used for value creation. In this phase, AI is not just a tool for cost savings; it becomes central to driving business growth, improving the customer experience, generating new revenue streams and improving the productivity of entire teams.

As AI becomes more deeply integrated into core functions, insurance operating models are being redesigned to streamline end-to-end workflows and enhance customer outcomes. This transformation shifts the focus from traditional, product-centric structures (e.g. auto, home or life insurance) to value streams that cut across products and functions and address the holistic needs of the customer.

Figure 4: Operational gains, data management and improving revenue and customer experience top the list of goals for AI transformation

Percentage who say their organization wants to achieve the following, in the second phase through using AI (top 5)

Which of the following goals does your organization want to achieve through using AI? (Maximum 5)
Growth AI maturity (n=153)

Source: Intelligent insurance: A blueprint for creating value through AI-driven transformation, KPMG International, 2025

These value streams cut across functions, such as marketing, underwriting and customer service, to focus on holistic customer outcomes. With advanced analytics and machine learning, insurers can analyze vast amounts of customer data to understand individual preferences, behaviors and risk profiles. This enables the creation of tailored policies that meet specific customer needs, replacing traditional one-size-fits-all offerings.

Shared data platforms and AI-driven insights that strengthen collaboration between business units make this possible, while AI-powered tools empower employees to take on higher-value advisory roles. Key metrics of success shift from cost reduction alone to include measures of customer satisfaction, cross-sell effectiveness and speed-to-market for new services.

AI use cases in the second phase

AI-enhanced customer journeys: AI can be used to analyze customer behavior and predict needs, allowing insurers to offer personalized products and services at the right moment. For example, using machine learning models, insurers can anticipate life events like marriage or home purchases and proactively offer relevant insurance products to customers.

Dynamic risk modeling: In this phase, AI enables real-time risk assessment by incorporating dynamic data sources, such as Internet-of-things (IoT) data or behavioral insights, to provide more precise risk modeling and pricing.

Data privacy: Advanced AI algorithms can detect and classify personal data in real time, ensuring that it is securely stored and accessed only by authorized personnel. AI-driven tools can also monitor for unusual activity, flagging potential breaches or compliance risks early.

Autonomous customer engagement: Agentic AI in a redesigned value chain enables the creation of tailored property and casualty (P&C) insurance products during customer interactions, replacing standard, limited options with highly personalized coverage. An AI-powered agent or avatar, trained in regulations and company policies, configures bespoke insurance solutions based on the customer's needs and risk profile, seamlessly integrating risk acceptance, compliance and pricing models in real time.

Barriers to realizing value

To unlock AI's full potential, insurers should address critical foundational activities early on, as failing to do so can stall progress through the phases of adoption. Key barriers include an incomplete vision for the future operating model, outdated foundational and technology infrastructure, and inadequate governance frameworks to mitigate risks and uphold ethical standards. Equally vital is securing the buy-in of leaders and employees by demonstrating AI's transformative potential — not just for the organization, but for their personal growth and success. These foundational elements are essential to sustaining momentum and achieving meaningful value creation. Specific areas for focus include:

Managing strategy implementation

As insurers move toward and through the second phase, the barriers to realizing AI's value are no longer about isolated pilots but instead how to scale AI across the organization. This requires a profound transformation of capabilities, structures and leadership. Insurers, traditionally organized around products like auto, health or property insurance, should transition to value streams that focus on comprehensive customer journeys, such as family protection or business risk management. This shift disrupts legacy structures and necessitates new workflows that span departments, fostering end-to-end integration.

Compounding this challenge is the need for expertise in AI orchestration, data integration and customer-centric design. Change management becomes critical, as insurers should not only implement new technologies but also drive cultural acceptance of new operating models. Poorly managed transitions risk low adoption, employee dissatisfaction and stalled transformation efforts, undermining the potential of AI at scale.

Managing the risk

As AI is scaled across insurers, the risks grow exponentially, encompassing not only technological challenges but also organizational and reputational vulnerabilities. Executives must grapple with the known and unknown risks that AI introduces, such as biases in underwriting algorithms, inaccuracies in claims automation and vulnerabilities in cybersecurity. Insurers face significant regulatory and compliance challenges, particularly in areas like data privacy, ethical decision- making and the transparency of AI models. Regulators increasingly demand explainability and fairness in AI systems, especially in sensitive processes like pricing and claims adjudication. As the consequences of missteps could damage customer trust and invite regulatory scrutiny, overcoming these risks requires robust governance frameworks and proactive engagement with regulators to help ensure compliance and build trust.

Leaders of the future will need to be able to understand both the pitch of how great AI is, but also how it needs a robust risk and control management around it."

Director — Australia

Upskilling the workforce

Leadership plays a pivotal role in this transformation. Traditional, risk-averse leadership styles in insurance may struggle to support the cross-functional collaboration and experimentation AI demands. Leaders must champion the move to value streams, empower and trust teams to innovate and foster a culture of adaptability and continuous learning. Without transformational leadership, scaling AI can falter, leaving the organization stuck in fragmented silos.

The specialized skills required for AI are in high demand but short supply. Without capabilities such as model development, prompt engineering and solution architecting, AI investments are bound to remain fragmented, with their full potential unrealized. Insurers will likely need a structured development program to equip employees with these skills as roles evolve to include oversight, customer advisory and strategic decision-making. Upskilling programs, clear career pathways and active employee engagement can relieve uncertainty and fears about job security.

The technology evolution

Scaling AI in insurance requires significant investment in advanced technologies, including machine learning platforms, predictive analytics and scalable cloud-based infrastructures. These investments often compete with existing IT priorities, creating delays and challenges in aligning budgets with AI roadmaps. Legacy systems further exacerbate the problem, as they struggle to support real-time data integration and the complex processing demands of AI. At the same time, as AI becomes deeply embedded in processes, transparency and accountability become critical. Without robust frameworks for explainability and trust, both internal stakeholders and external regulators may resist further adoption. Insurers should prioritize these investments to ensure their technology stack can support enterprise-scale AI while maintaining confidence among employees, customers and regulators.

Data quality [is a challenge]. High-quality data is the foundation for AI applications, but the processes of data collection — cleaning and labeling are complex. There may be issues with incomplete or inaccurate data. Technical integration, while integrating new AI technologies with existing systems and business processes is a complex process; it requires solving compatibility and interface issues.

Chief Technology Officer — China

Second phase – Case Study

Case study

AIA Malaysia

This leading insurer specializes in life, health, accident, employee benefits, and retirement solutions. Serving over 5 million customers and supported by 17,000+ Life Planners, AIA Malaysia is part of the AIA Group and manages over RM66 billion in assets. The company is a key player in Malaysia's insurance sector, driving digital innovation to help people live Healthier, Longer, Better Lives.

Current AI usage

Empowering human connections through intelligent automation

AIA Malaysia, one of the country's largest life insurers, has been at the forefront of digital transformation, integrating AI to enhance both customer experience and internal operations.[19] AIA Malaysia has implemented AI across several key areas:

- Customer experience: AI is used to streamline customer interactions and personalize services. Their digital platforms leverage data analytics to provide tailored health and wealth solutions.
- Agency recruitment: AIA introduced an AI Recruiter platform that conducts virtual interviews, schedules appointments, and evaluates candidates for its agency force. This innovation supports their AIA Elite Academy, aimed at building a high-quality team of Life Planners.
- Operational efficiency: AI tools are used to automate routine tasks, analyze customer data, and support decision-making processes, improving both speed and accuracy in service delivery.

Challenges

Bridging tradition and transformation

Despite its progress, AIA Malaysia faces several challenges:

- Cultural resistance: Some insurance professionals initially viewed AI as a threat to job security, requiring internal education and change management.
- Balancing human touch: AIA emphasizes that AI is an enabler, not a replacer. The goal is to support Life Planners, not replace them, ensuring that human empathy remains central to customer interactions.

Organization's AI outlook

AI for purposeful growth and personalization

AIA Malaysia plans to continue investing in AI and data analytics to:

- Enhance personalized engagement
- Improve recruitment and training
- Expand digital health and wealth solutions

The company aligns its strategy with evolving consumer expectations and Malaysia's broader digital economy goals.

19.Leading the industry with emerging AI tech, The Star, 28 February 2024.

The third phase: Evolve

Evolving your ecosystem

The Evolve phase transforms enterprises to adapt to market disruptions, forming new business models and ecosystems to solve larger, industry-wide problems. Companies establish ecosystems with customers, suppliers and governments, orchestrated by AI to deliver seamless value. As costs come down, existing markets will grow and new ones will emerge.

> The third phase gives the biggest payoff. As AI enables costs to come down, some markets will grow, some decline and new ones emerge. Invest in areas of price elasticity — things we can do more of with AI as costs decline. Your competitors may focus more on what is disappearing and risk being replaced. ”

Erik Brynjolfsson — Professor and Senior Fellow at the Stanford Institute for Human-Centered AI

AI integrates with frontier technologies like quantum computing, blockchain and advanced visualization, driving breakthroughs in innovation in products and services and involving close collaboration with customers, key alliances and partners. Ethics, safety and trust are paramount, with real-time monitoring and security updates helping ensure platform integrity. This phase emphasizes uplifting human potential, improving experiences, and providing robust training and support to help the workforce transition into a creative, imaginative future of value creation and collaboration.

In the third phase, organizations use predictive insights to continuously optimize for better, more sustainable outcomes. AI agents, no longer inhibited by silos and organized along value streams, can enable embedded intelligence in core processes, improving customer experiences and product value.

As such it represents a transformative shift in the insurance industry, redefining its core purpose and operating models. Traditionally, insurance has been built around resolution — responding to claims and mitigating losses after risks materialize. However, AI's full potential in this wave will fundamentally alter this paradigm, enabling insurers to transition from reactive resolution to proactive prevention.

With advanced AI capabilities such as predictive analytics, real-time monitoring and autonomous decision-making, insurers will anticipate risks before they occur, working alongside customers to prevent losses entirely. For example, instead of merely processing claims for water damage, insurers will leverage internet-enabled devices (IoT) and AI to detect and mitigate leaks before they escalate into significant issues, creating a more valuable and proactive relationship with policyholders.

Self-driving cars, for example, will likely change the nature of auto insurance as the risk no longer resides with the human driver. Insurers may offer new products to cover the risks of self-driving cars, such as cyber liability and technology errors. Insurance may not only use AI, but insure the risks of using AI.

It is only by successfully navigating these phases that insurers can evolve into ecosystem enablers, embedding themselves into customers' daily lives and collaborating with partners across industries to create holistic solutions.

AI use cases in the third phase

AI-driven ecosystem platforms: Insurers can create platforms that connect various stakeholders within the insurance value chain. For example, insurers could offer digitally connected home insurance products that link policyholders with home security providers, emergency responders and repair services — in real time.

Predictive maintenance and risk prevention: AI can move insurers from a reactive to a preventive model. IoT data and AI reduce claims by transforming risk management into a predictive and autonomous process, enabling greater safety and risk prevention.

New product categories: AI opens new possibilities for product innovation. Insurers could offer microinsurance products or pay-per-use policies tailored to specific, short-term needs, such as coverage for individual travel days or temporary workers.

Key considerations

The research reveals that there are four key actions executives need to take if they are to create value in an AI-driven enterprise.

1 Design an AI strategy that aligns with core competencies and unlocks value

Leaders must craft a vision that aligns core competencies — product innovation, customer success, data management and ecosystem partnerships — with AI capabilities, while ensuring accountability for execution and outcomes. Leadership accountability is critical to ensure that the vision translates into measurable impact. Leaders should actively engage with ecosystem players, fostering collaboration to strengthen AI strategies. By uniting teams across engineering, product and data science, and focusing on market leadership and customer experience innovation, leaders can drive alignment and ensure measurable impact from AI initiatives.

> “In addition to implementing AI to support various business processes […] we also rolled out AI and data training academies for our employees to educate and create a cultural shift towards using the technology in a mindful, responsible and knowledgeable way.”
>
> **Chief Information Officer**, Large Insurance Company, UK

Key actions

- **Define a unified AI vision and strategy**

  Insurers must articulate a clear, organization-wide vision for AI, tied to specific, actionable outcomes. This ensures all teams understand how AI initiatives contribute to customer-centric goals, such as tailored policy offerings or faster claims resolution.

- **Establish cross-functional collaboration**

  Breaking down silos between underwriting, claims and product teams is essential for aligning AI with innovation goals. Cross-functional teams focused on value streams enable insurers to develop AI solutions that enhance operational efficiency and customer satisfaction.

- **Implement measurable objectives and key results (OKRs)**

  Insurers should adopt performance measurement frameworks that include objectives and key results to track AI’s success. Key performance metrics should link to strategic business outcomes such as customer retention, underwriting efficiency or claims satisfaction, ensuring progress remains aligned with organizational goals.

2 Build trust into your roadmap

As insurers advance through the three phases of AI adoption, the risks and potential for reputational damage grow exponentially. Governance, ethics and compliance are critical to maintaining stakeholder trust and ensuring AI unlocks its transformative potential.

> There's the whole thing around governance and regulations that is yet to come. And for any serious business that wants to invest in this technology and start developing this technology, they need to put aside some of that money and start getting involved working with the government and AI groups, to help form some of these regulations and to understand the ethics around it.

Chief Technology Officer — UK

Key actions

- **Establish robust AI governance frameworks**

  Insurers should implement comprehensive AI governance structures that set clear standards for accountability, transparency and compliance. These frameworks should define roles and responsibilities, establish protocols for monitoring AI performance and proactively address risks such as algorithmic accountability and ethical considerations.

- **Embed ethical and bias-detection mechanisms**

  Ensuring fairness and mitigating bias in AI systems is essential. Insurers should develop tools to continuously audit AI models for unintended biases, especially in sensitive areas like underwriting and claims adjudication. This requires diverse, representative datasets and regular model testing, with independent oversight from ethics boards to enhance credibility and compliance.

- **Prioritize privacy by design**

  Given the vast amount of customer data insurers manage, integrating privacy considerations into every stage of AI development is crucial. Adopting a "privacy by design" approach can ensure compliance with regulations like GDPR while building customer trust. This includes implementing encryption, anonymization and secure data-sharing practices as standard.

- **Invest in security and resilience**

  AI systems in insurance are attractive targets for cyberattacks, such as model poisoning or adversarial attacks. Insurers should invest in advanced security measures, including real-time anomaly detection, regular defense updates and staff training to address emerging threats. Resilience ensures AI systems can operate reliably even during disruptions.

3 Create sustainable technology and data infrastructure for AI adoption

Insurers should adopt disciplined investment strategies in technology and data management to balance experimentation with scalable returns. “No-regret” foundational investments will provide the infrastructure for long-term innovation, regardless of how AI evolves.

> I think the challenge is investments in infrastructure, and the impact of having to re-architect our cloud environment every year or so to keep up with these massive shifts or when new aspects of AI technology come out. That’s a risk because it’s so expensive. We need to be able to anticipate whether we are built for the future.”

Director of AI Strategy — US

Key actions

- **Invest in scalable and flexible infrastructure**

  Insurers should build a cloud-native infrastructure capable of supporting AI’s dynamic needs. Platforms for machine learning operations enable efficient deployment and lifecycle management, ensuring flexibility as AI initiatives grow.

- **Establish comprehensive data management practices**

  High-quality, unified data is essential for effective AI. Insurers should invest in advanced data platforms that consolidate siloed datasets into a single source of truth. Tools for data quality, lineage and security ensure AI models are reliable and adaptable to evolving business needs.

- **Focus on modular and interoperable solutions**

  Future-proofing technology stacks with modular AI systems ensures integration with existing tools and emerging innovations. Open APIs and vendor-agnostic solutions allow insurers to experiment without locking into restrictive ecosystems.

- **Create a balanced investment portfolio**

  Insurers should pair foundational investments, like governance frameworks and infrastructure, with controlled experimentation in emerging AI technologies such as generative AI or real- time risk assessment tools. This dual strategy can ensure immediate value while staying adaptable to future advancements.

4 Build a culture that uses AI to uplift human potential

Human expertise remains indispensable alongside AI-driven automation. Attracting top talent in AI and machine learning is one of the most pressing challenges for the insurance sector, given the increasing global demand for these specialists. To meet this challenge, companies should not only recruit the best but also focus on upskilling and reskilling their existing workforce. Investing in robust learning and development programs ensures employees stay ahead of the curve as technology evolves. Such efforts are critical to building internal expertise and fostering a workforce capable of adapting to new AI capabilities.

> There is an issue with trying to get more people to use [AI]. We have a challenge of finding good people with the right skill sets to help improve and build our models better. ”

Chief Technology Officer — Japan

Key actions

- **Foster transformational leadership**

  Leadership should champion AI by fostering trust, transparency and collaboration. Leaders should actively communicate AI's role as an enabler of growth and innovation, empowering teams to experiment and embrace change.

- **Build an AI-literate workforce**

  Insurers should create tailored learning programs to equip employees with the skills needed to thrive in an AI-driven environment. Training should extend beyond technical teams, ensuring all employees understand AI's implications for their roles.

- **Address cultural resistance through change management**

  Overcoming cultural resistance requires clear communication, active employee engagement and support systems. Insurers should address fears of job displacement by demonstrating how AI augments roles, builds skills and improves efficiency, fostering buy-in through co-created solutions.

- **Redefine roles and career pathways**

  AI will likely reshape roles within insurance, shifting employees toward higher-value activities like customer engagement and strategic decision-making. Insurers should clearly map these new career opportunities and establish roles like AI ethics officers or value-stream leaders to align human expertise with AI capabilities.

Methodology

To gain a broad understanding of how leaders are navigating the opportunities and challenges of implementing AI, KPMG International conducted a robust research program involving multiple methodologies.

This included in-depth interviews with eight AI experts spanning technology, government regulation and industry, as well as discussions with sector-specific KPMG specialists. Qualitative research was conducted to uncover nuanced, industry-specific challenges and opportunities, such as insights from several industry
experts, including Erik Brynjolfsson of Stanford University, a renowned authority on AI and digital transformation.

The research was further strengthened by a quantitative survey of 1,390 decision-makers across key global markets, including 183 respondents from the insurance sector. These leaders shared their experiences and perspectives on overcoming barriers to AI adoption, from dismantling legacy systems to addressing organizational inertia. In parallel, an 18-month research project evaluated the realistic value at stake for fully deploying and adopting generative AI. Together, these inputs offer a clear roadmap for organizations to unlock AI's potential and drive meaningful, enterprise-wide change.

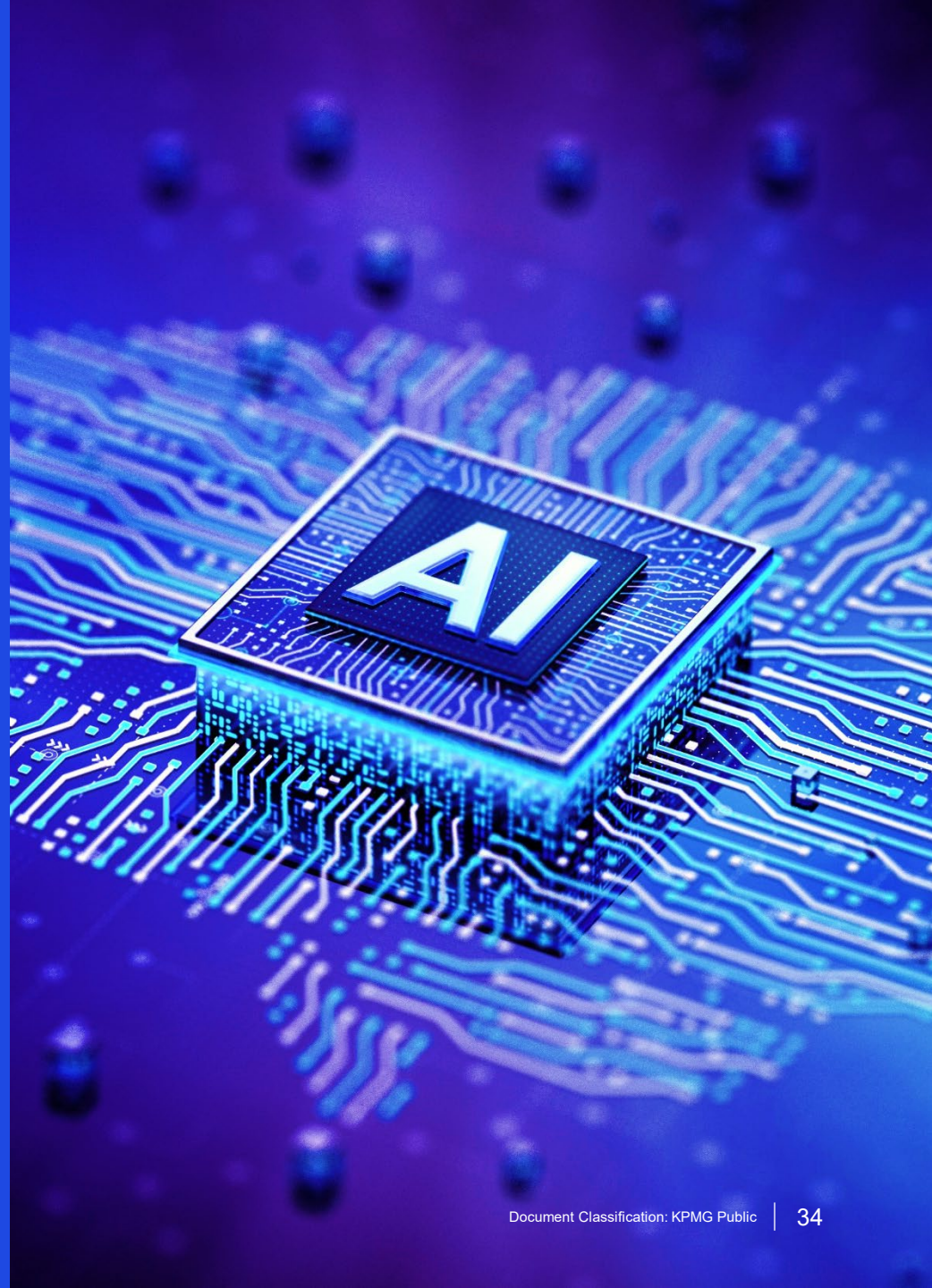
The research was further strengthened by a quantitative survey of

1,390

decision-makers across key global markets, including 183 respondents from the insurance sector.

KPMG: Guiding your AI transformation with experience and trust

With over 150 years of experience in data, industry insights, technology and regulatory expertise, KPMG is uniquely positioned to help you uncover AI opportunities, work through critical business challenges and unlock new revenue streams. From strategy to implementation, we guide you in taking small, impactful steps to tackle even the most complex problems — all underpinned by trust. We've invested in an AI-enabled platform for organizational change. It brings together the best of our thinking, frameworks, strategies and tools. So, you can change smarter and move faster — eliminating inefficiencies and building trust and confidence, at every step.



Wherever you are on your AI journey, KPMG can help:

Develop a transformational AI strategy

Define your AI goals, identify opportunities and risks, and create a tailored strategy and execution plan. Build a business case with clear metrics to secure investments and ensure measurable success by scaling AI for enterprise-wide impact and building lasting capabilities.

Ensure AI trust and compliance

Scaling AI introduces complexities and risks. KPMG Trusted AI teams can help ensure your AI solutions are ethical, secure and compliant. Our Trusted AI Framework, built on 10 ethical pillars, empowers organizations to boldly deploy AI responsibly, transparently and with confidence.

Empower your workforce with AI

KPMG AI-enabled Workforce solutions deliver personalized adoption and upskilling experiences, helping your team embrace generative AI and infuse it into everyday work.

Build a sustainable AI technology infrastructure

Leverage KPMG professionals' experience to integrate AI frameworks, platforms and accelerators, helping you ensure your technology infrastructure is ready to scale AI initiatives.

We help clients harness the power and potential of AI. From strategy to implementation. Small steps to solving seemingly impenetrable problems. Underpinned by trust.

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Reach out to KPMG's team of professionals to discover how your organization can effectively leverage on AI to orchestrate the modern insurance operating model.

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