State of AI Adoption in Insurance 2025

Uncover the trends shaping AI adoption in the insurance industry for 2025

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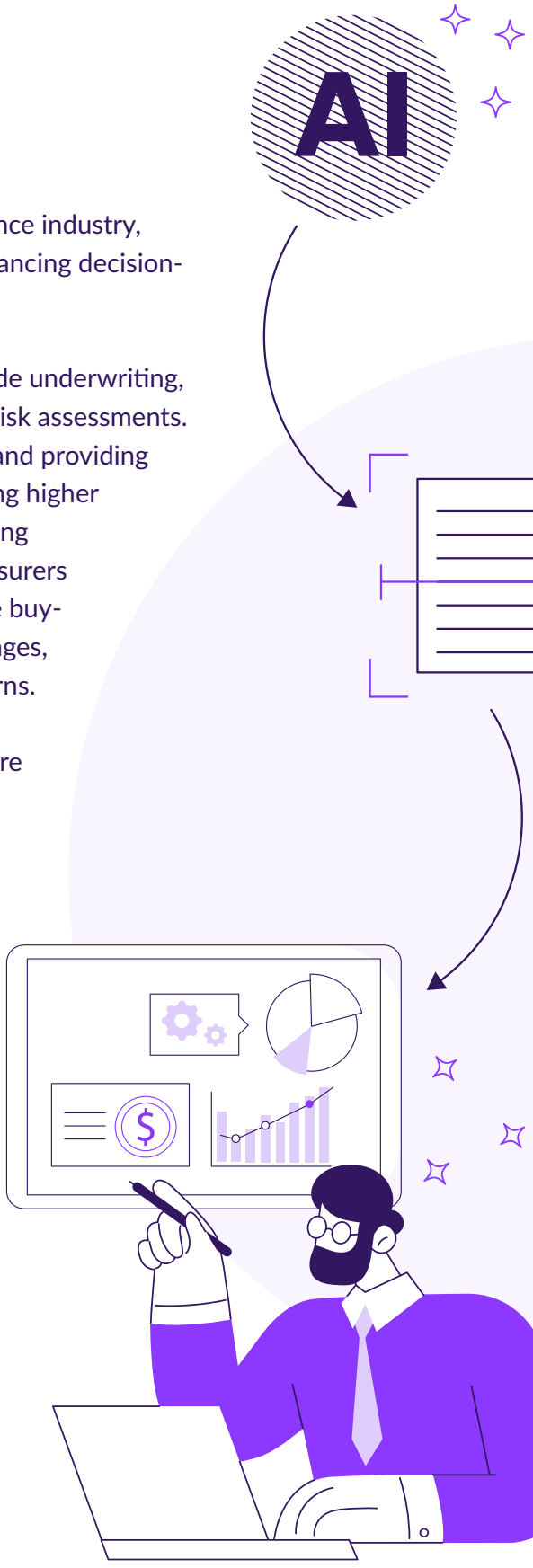


Artificial intelligence (AI) is rapidly transforming the insurance industry, driving measurable results by streamlining operations, enhancing decision-making, and improving the overall customer experience.

The most common AI adoption areas seeing benefits include underwriting, claims processing, fraud detection, customer service, and risk assessments. By automating tasks, extracting and indexing claims data, and providing real-time support to customer service teams, AI is delivering higher productivity levels, lowering costs, and providing time-saving advantages. Yet despite AI's global advancements, many insurers face challenges in adopting it, including securing corporate buy-in, addressing data quality issues, overcoming talent shortages, navigating regulatory hurdles, and managing ethical concerns. To fully unlock AI's transformative potential, insurers will need to invest the time in ensuring that these challenges are addressed.

There is also a growing divide between those who have been able to successfully integrate AI and those still in the early stages of exploration. Those lagging behind certainly risk missing out on the efficiency, innovation, and differentiation that AI offers, putting them at a competitive disadvantage.

At Roots, we wanted to provide a timely snapshot on where insurers stood in their AI journey, see emerging trends, and identify the challenges that need to be overcome as an industry.

To gain these insights, we surveyed over 240 insurance executives in late 2024. The findings within this report highlight priorities within insurance departments for 2025, their alignment to AI use cases, and where some of the biggest hurdles are.

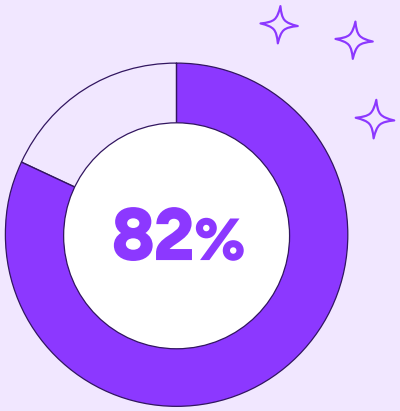
Key Findings

Insurance leaders are “all-in” on AI transformation

1

82% of survey respondents identified **“strategic corporate initiatives to improve financial/operational performance”** as a top driver for exploring AI-powered solutions in 2025.

This reflects the widespread recognition of AI’s transformative potential in driving business outcomes.



The primary driver for exploring AI-powered solutions is strategic corporate initiatives to enhance financial and operational performance.

2 Departmental priorities vary, but financial performance is key

Nearly three-quarters of underwriting **(75%)** and claims **(72%)** professionals identified priorities that directly contribute to financial performance, such as increasing premium growth and improving claims processing efficiency. Meanwhile, two-thirds of IT leaders **(65%)** are focused on introducing or scaling AI solutions across their organizations to support internal departments and meet broader business objectives.

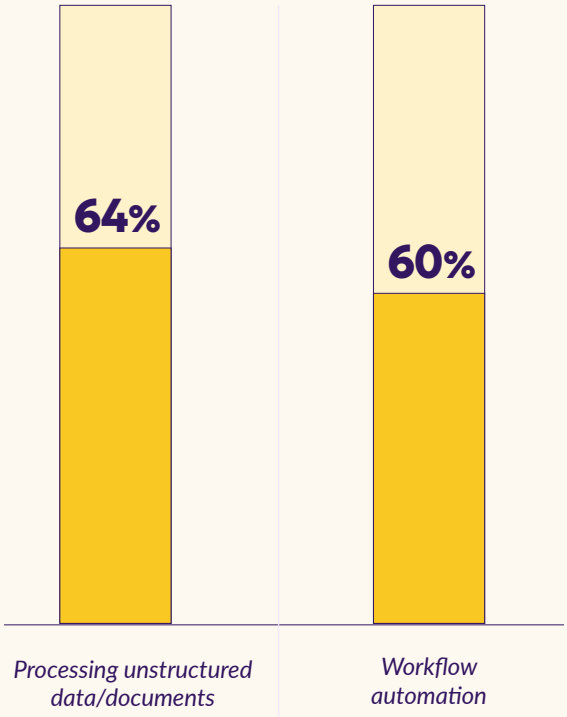
3 Clear guidance is needed to shorten the path to ROI

While **70%** of respondents are actively testing or exploring AI solutions, fewer than **22%** have advanced their AI projects from the testing phase to full production. This gap highlights the need for clearer strategies and guidance to accelerate AI implementation and deliver measurable returns on investment.

4 AI's impact on automating repetitive tasks offers tangible value

A significant majority of respondents identified "processing unstructured data/documents" **(64%)** and "workflow automation" **(60%)** as key use cases where AI is already driving substantial value.

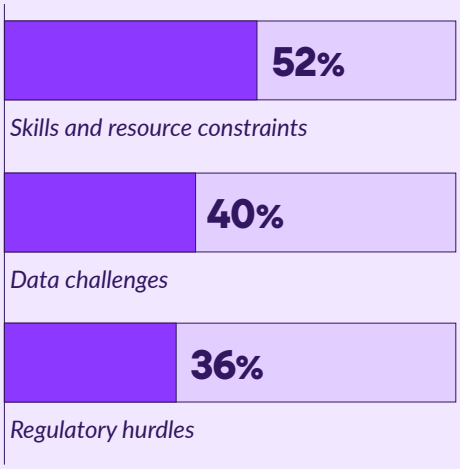
These areas represent clear opportunities for insurers to streamline operations and reduce manual work, leading to increased efficiency and cost savings.



5 Strategic partnerships can make success more attainable

The survey highlights several significant barriers to AI adoption, including skills and resource constraints **(52%)**, data challenges **(40%)**, and regulatory hurdles **(36%)**.

These challenges underscore the complexity of implementing AI successfully and emphasize the importance of forging strategic partnerships with external experts who can provide the necessary resources, guidance, and support for effective AI integration.



Survey Results

Top Adoption Drivers

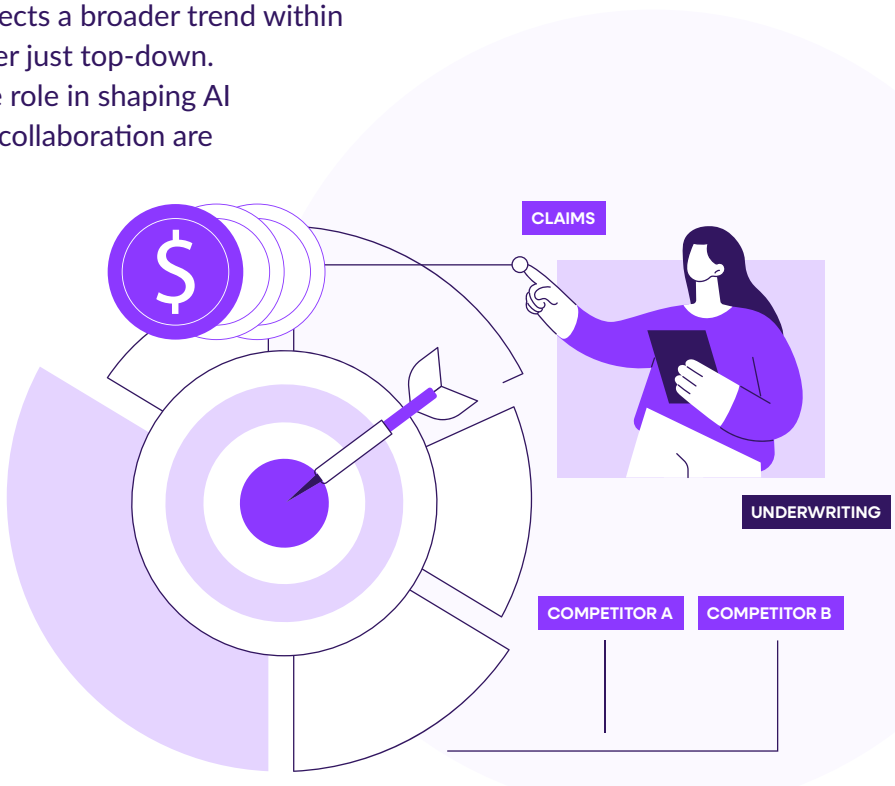
Company Leaders Have Made AI a Corporate Strategic Initiative

Corporate leaders in the insurance industry are under increasing pressure to streamline operations, reduce costs, and improve efficiency while also staying ahead of the competition. Given that over **80%** of our survey respondents identified AI as a top strategic initiative for 2025, it's clear that insurers have quickly recognized AI's transformative potential—not just to reshape existing business models, but to create entirely new opportunities for growth.

Interestingly, **61%** of respondents highlighted that "team members bringing ideas to them" is a significant driver of AI exploration. This reflects a broader trend within organizations where AI adoption is no longer just top-down. Employees at all levels are playing an active role in shaping AI strategies, recognizing that innovation and collaboration are key to leveraging AI's full potential.

As AI gains traction across insurance companies, there is a notable trend from being a "nice-to-have" innovation to an essential tool for staying competitive.

Our survey findings show that **44%** of respondents view the AI adoption of their competitors as a key factor influencing their own strategy.

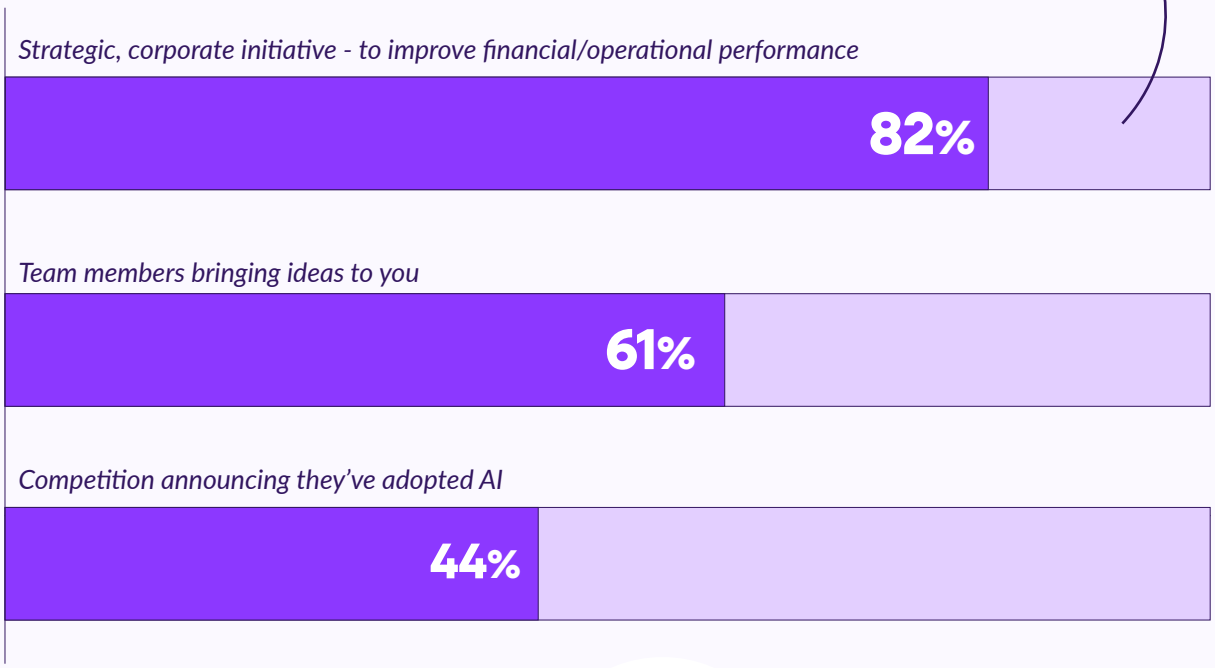


This number is only expected to grow as more insurers embrace AI, intensifying the pressure on those who have not yet adopted it. Insurers who fail to act risk falling behind, while those who do can differentiate themselves by offering faster, smarter, and more innovative solutions.

Having the Competitive Edge

The combination of AI-enhanced efficiency and a customer-first approach can differentiate your company, positioning it as a leader in delivering value and exceeding expectations.

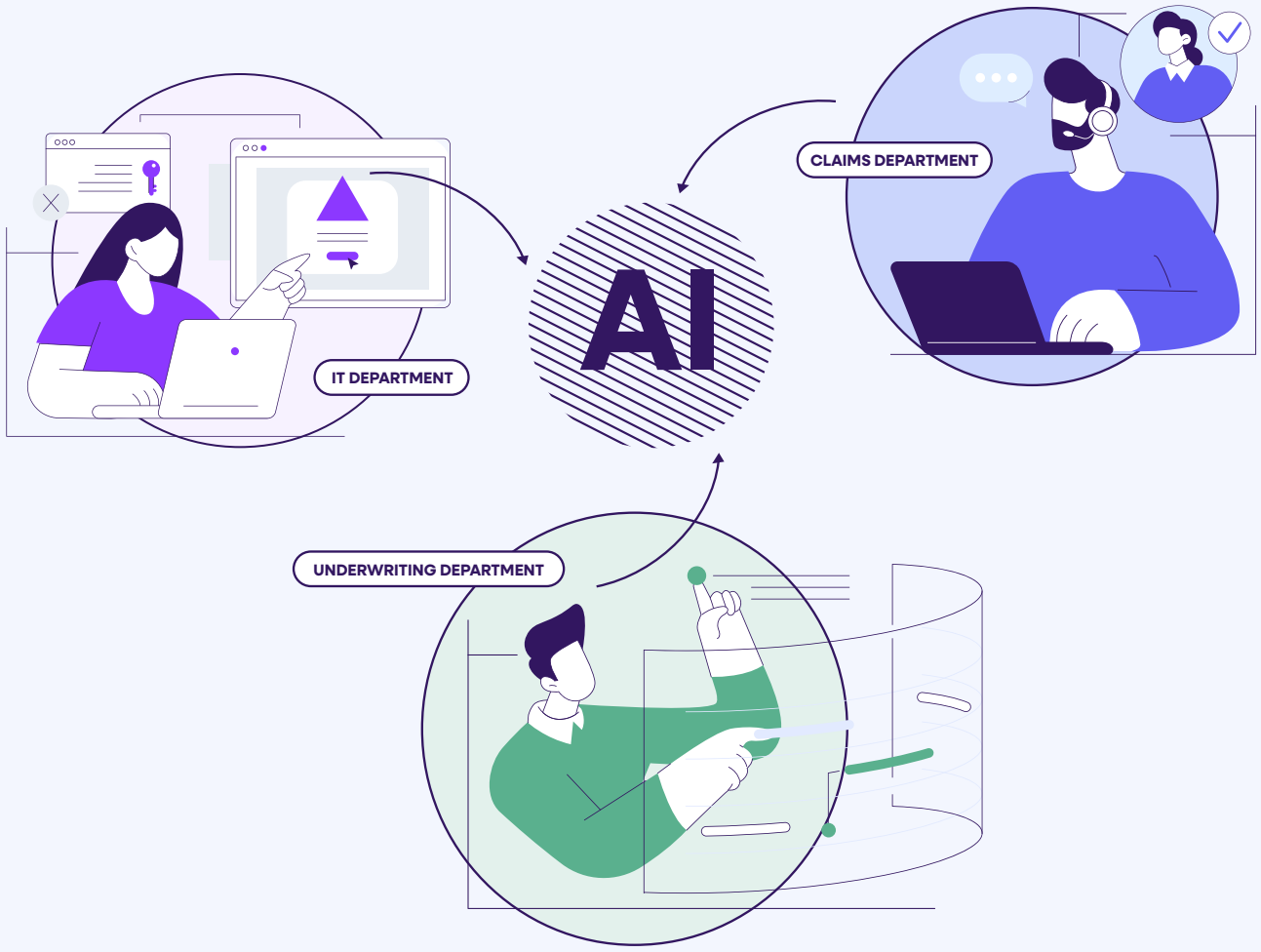
What were your top 3 drivers for exploring AI?



Business Line Alignment

AI Alignment to Top 2025 Priorities

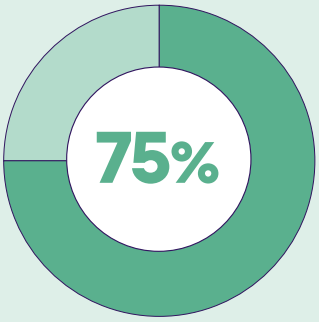
We surveyed professionals across **claims**, **underwriting**, and **IT** to identify their department's top priorities for 2025. By understanding the specific goals and challenges in each department, we could validate if there were clear opportunities that exist today where AI can drive efficiency, improve decision-making, and enhance overall business performance.



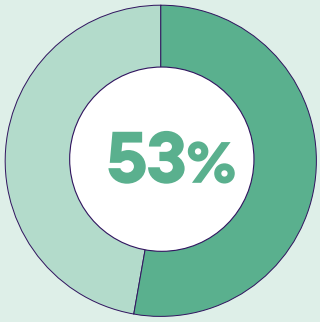
Underwriting Top Priorities

The top priority for underwriting professionals is driving premium growth, with **75%** of respondents identifying it as a key focus for 2025. AI can play a significant role here by enhancing risk assessment models.

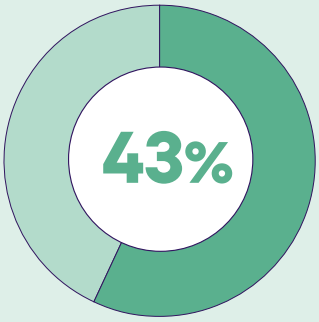
With AI-powered solutions, underwriters can process large datasets from multiple sources, uncovering insights and patterns that may not be immediately visible to the human eye.



Increasing premium growth



Increasing speed to quote



Lowering loss ratio

This results in more precise risk profiling, enabling underwriters to make better-targeted pricing decisions. More accurate pricing leads to optimized premiums, which can directly support premium growth and drive business success.

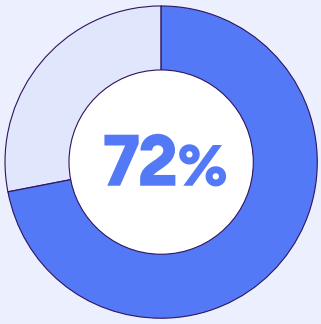
For increasing speed to quote **(53%)**, AI can automate many of the manual tasks involved in the quoting process, such as data gathering, risk evaluation, and document processing. By leveraging machine learning algorithms and natural language processing, AI can quickly analyze an applicant's data and deliver all the data needed for human underwriters to deliver quotes quickly. This faster turnaround not only improves operational efficiency but also enhances the customer experience by providing timely quotes, helping insurers stay competitive.

When it comes to lowering loss ratios **(43%)**, AI can be invaluable in improving risk management. AI models can predict potential risks more accurately by analyzing historical data, market trends, and other variables that impact risk levels. By identifying high-risk policies early in the underwriting process, insurers can take proactive measures to mitigate losses, whether through more accurate pricing or more targeted coverage.

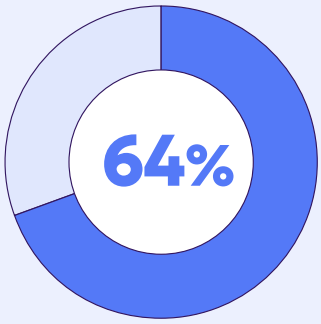
Claims Management Top Priorities

Claims professionals highlighted their top priorities for 2025 as improving claims processing efficiency **(72%)**, reducing claims cycle times **(64%)**, and increasing customer satisfaction **(45%)**. These priorities directly align with AI's potential to drive improvements in these areas.

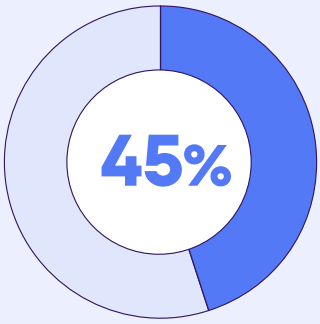
AI can streamline claims processing by automating routine tasks, reducing manual errors, and speeding up decision-making, which contributes to improved operational efficiency.



Improving claims processing efficiency



Reducing claims cycle times

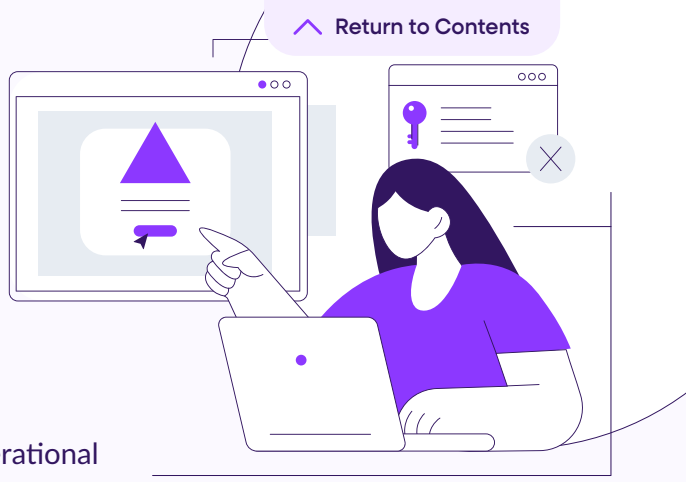


Increasing customer satisfaction

AI's ability to quickly analyze large volumes of data also supports faster claims resolution and helps shorten cycle times.

In terms of customer satisfaction, AI can help by automating repetitive administrative tasks like data entry or document verification, allowing claims teams and adjusters to focus more on high-value, customer-facing activities such as resolving complex claims, offering personalized support, or providing proactive updates.

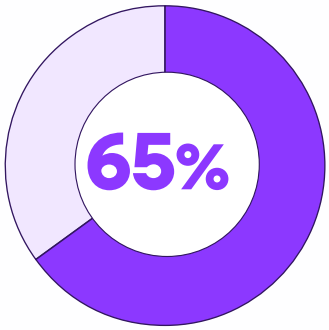
This shift from manual to automated tasks creates a more customer-centric environment, ultimately improving relationships, responsiveness, and satisfaction.



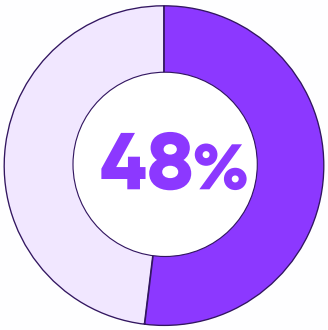
IT Department Top Priorities

IT professionals identified their top three priorities for 2025 as introducing or scaling AI across the business **(65%)**, reducing operational costs **(48%)**, and modernizing the tech stack **(45%)**.

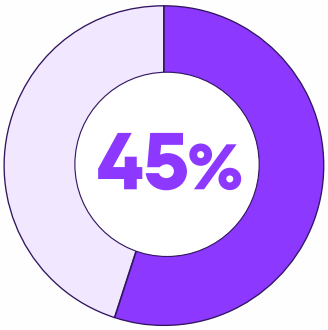
These objectives are closely tied to AI's potential to enhance both IT operations and other business departments, like claims and underwriting.



Introducing or scaling AI across the business



Reducing operational cost



Modernizing the tech stack

IT teams play a pivotal role in ensuring smooth AI adoption and integration, supporting business transformation by automating routine tasks, improving decision-making, and optimizing processes across the organization. IT departments are also key to supporting the infrastructure and systems needed to scale AI solutions and ensure they are properly integrated, allowing different departments to fully benefit from the technology.

Embracing AI

Positive Outlook on AI Adoption Across Business Lines

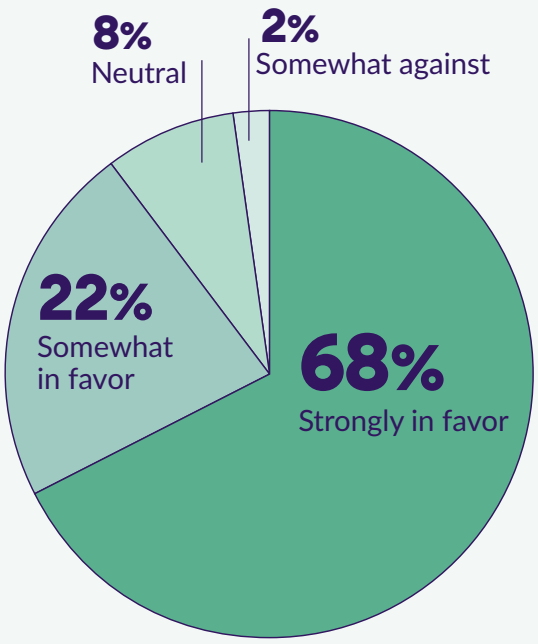
When asked about their feelings on AI adoption, a combined **90%** of survey respondents expressed optimism about the role of AI in the industry. Specifically, **68%** of respondents were "strongly in favor" of using AI, demonstrating a high level of confidence in its potential to transform business operations.

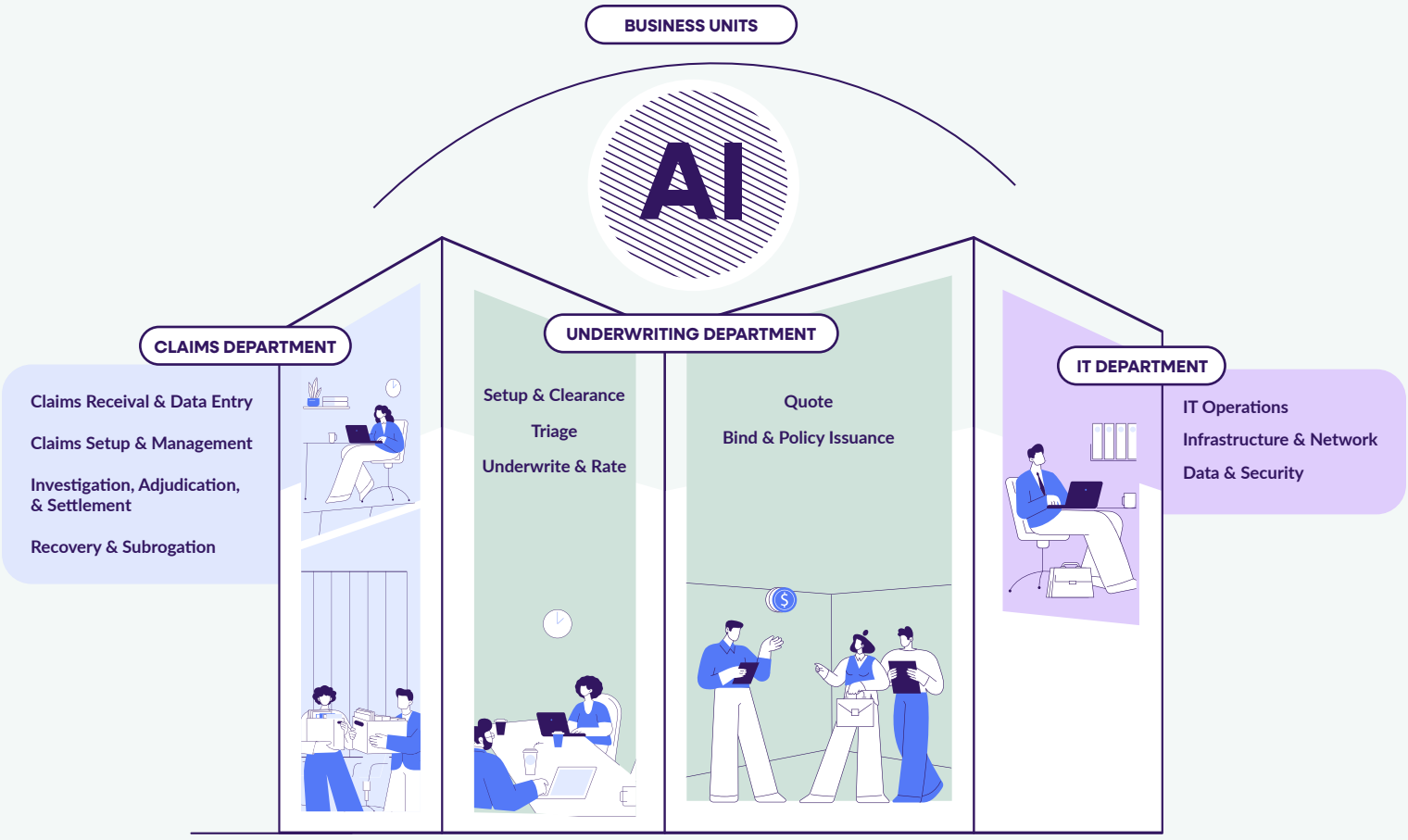
An additional **22%** were "somewhat in favor," indicating that while they may not be fully committed, they still see value in exploring AI's capabilities. Only **8%** remained neutral, reflecting some uncertainty or hesitation, while a small minority of **2%** expressed opposition to adopting AI.

These results suggest that a significant majority of insurers are enthusiastic about AI's potential, recognizing its ability to enhance efficiency, streamline processes, and improve decision-making. This strong support provides a solid foundation for further AI integration within the industry, given that the majority of professionals are confident in its capacity to drive innovation and deliver competitive advantages.

However, the **8%** who are neutral and the **2%** who are opposed underscore the need for a thoughtful approach to address concerns and communicate AI's value proposition across the broader industry.

How do you feel about the use of AI to meet your top priorities?





While the overall optimism surrounding AI is high, it's important to balance this enthusiasm with realistic expectations. AI adoption requires careful planning, understanding, and measurable outcomes to ensure that organizations are achieving meaningful results. AI, though transformative, is not a one-size-fits-all solution, and insurers should approach it with a clear focus on defined goals and KPIs to track success.

By setting realistic, tangible expectations, insurers can avoid the pitfalls of hype and ensure long-term value from their AI investments.

To maintain and build on the positive momentum, insurers need a strategic, focused approach—one that begins by understanding the AI adoption priorities of each business unit and identifying the most relevant use cases. By concentrating on areas with the highest potential for impact, insurers can set the stage for quick wins and rapid returns on investment. This targeted approach also ensures that AI delivers tangible benefits while fostering long-term success across the organization.

Adoption Maturity Stages

90%+ of Insurance Leaders Know What They Want (But Need Guidance on How to Deploy)

The survey results highlighted that there is a wide spectrum of adoption maturity stages, indicating that while AI is increasingly being embraced, the level of progress varies significantly across organizations. Bridging the gap between AI exploration and practical implementation is an industry-wide challenge.

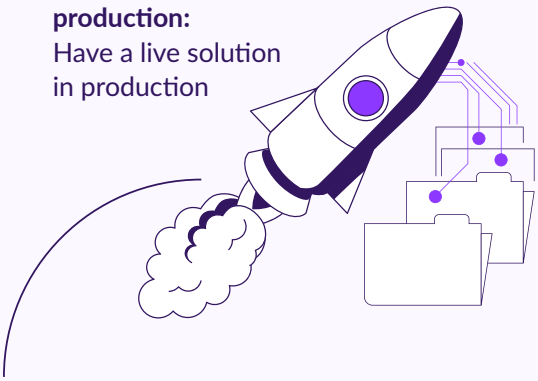
While there's a clear recognition of AI's potential, the industry is still learning how to navigate common hurdles, including determining the most effective use cases relevant for their organization.

Overall, the survey reveals that AI adoption within the insurance industry is progressing steadily. While a significant portion of insurers are actively testing or using AI, many are still in the early stages of exploring the technology or have yet to engage with it. To maximize the impact of AI, insurers will need to focus on building internal expertise, testing targeted use cases, and scaling successful pilots.

Where are you on your AI journey?

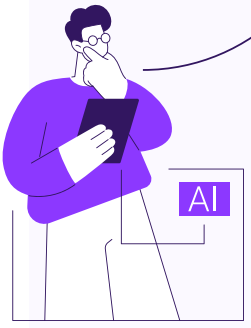
22%

Running in production: Have a live solution in production



25%

Testing: Have identified discrete use cases, running small tests



45%

Exploring: Meeting vendors, understanding capabilities

8%

Not using: Not exploring AI

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22%

Running in Production:
A notable **22%** of insurers report having AI solutions live and running in production. This indicates a relatively advanced stage of adoption, where AI is no longer in the conceptual or pilot phase but is actively contributing to business operations.

These companies have successfully integrated AI into their processes, likely seeing tangible benefits such as enhanced operational efficiency, improved decision-making, and a competitive edge. Their experience can serve as valuable insight for others looking to move beyond pilot projects and toward full-scale implementation.

25%

Testing:
25% of respondents are in the testing phase, where they have identified discrete use cases for AI and are running small-scale trials. This group is taking a cautious and measured approach, experimenting with AI in controlled environments to assess its feasibility and impact. This stage allows them to refine AI models, build internal expertise, and establish foundational knowledge in AI applications.

Testing is crucial for gathering data, identifying potential pitfalls, and optimizing AI solutions before wider deployment. This stage also allows companies to demonstrate the technology's value through clear, measurable results, helping to validate AI's ROI and gain confidence within the organization.

45%

Exploring:
The largest group, **45%**, is still in the exploration phase, actively meeting with vendors, evaluating AI capabilities, and assessing potential use cases. These insurers are in early stages, learning about potential use cases, and evaluating the technology's relevance to their business needs. While they may not yet be engaged in testing or production, their interest in exploring AI suggests a growing awareness of its transformative potential.

This stage provides an opportunity for organizations to build foundational knowledge, establish AI strategies, and align internal teams around the technology's possibilities.

8%

Not Using, Not Exploring:
Finally, 8% of insurers have yet to engage with AI in any capacity. These organizations may be hesitant due to concerns around implementation complexity, cost, or uncertainty of the technology's value. While this group represents a minority, their reluctance highlights the need for continued education and awareness-building around AI's benefits.

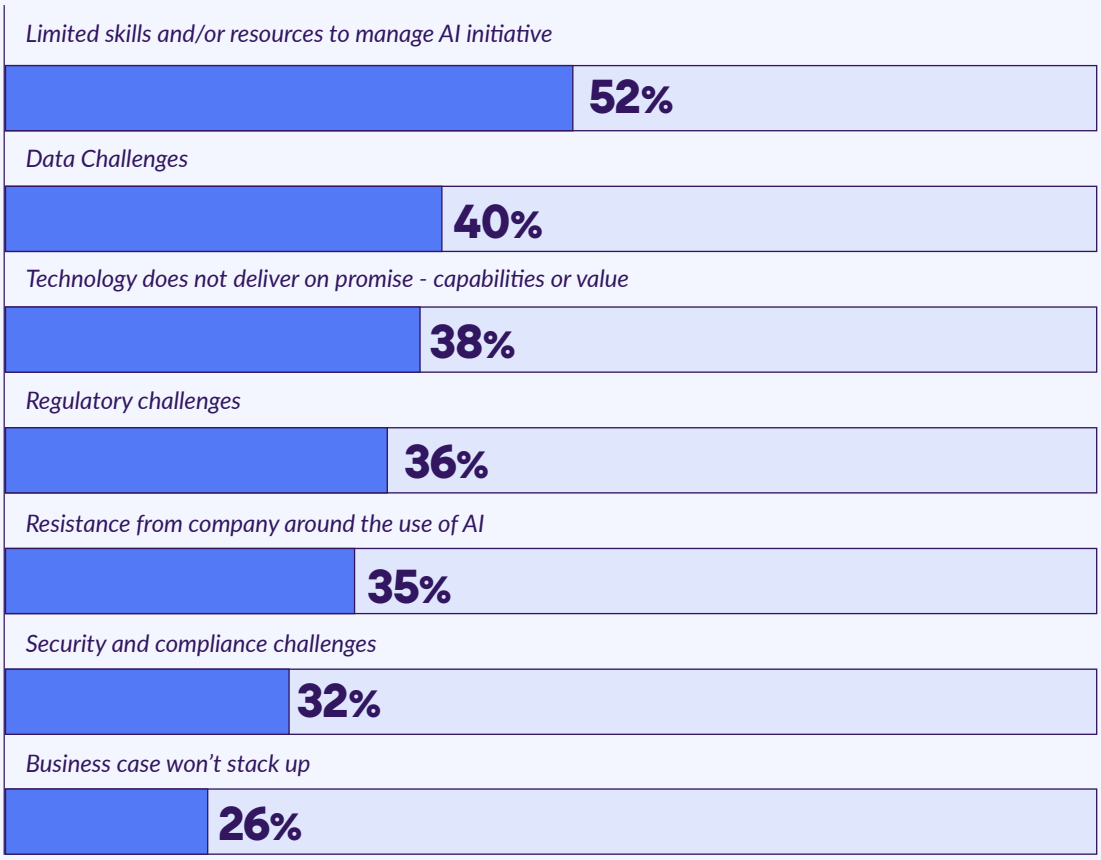
Overcoming skepticism, building awareness of AI's benefits, and demonstrating real-world success stories will be essential for driving broader industry adoption.

Barriers to AI Adoption

Breaking Through Obstacles is Key to Long-Term Success

As insurers look to implement AI, they face several significant barriers that can impede progress and reduce the potential value of these technologies. Our survey shed light on the most critical challenges seen as potential barriers to AI adoption, with the top three being: skills and resources **(52%)**, data challenges **(40%)**, and a fear that the technology will not deliver on promise of capabilities or value **(38%)**.

What do you believe the three critical barriers to AI adoption could be?

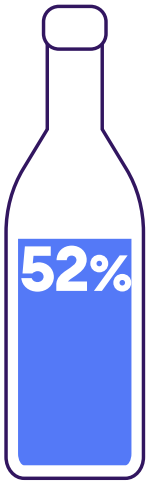


Skills and Resource Constraints: A Major Bottleneck

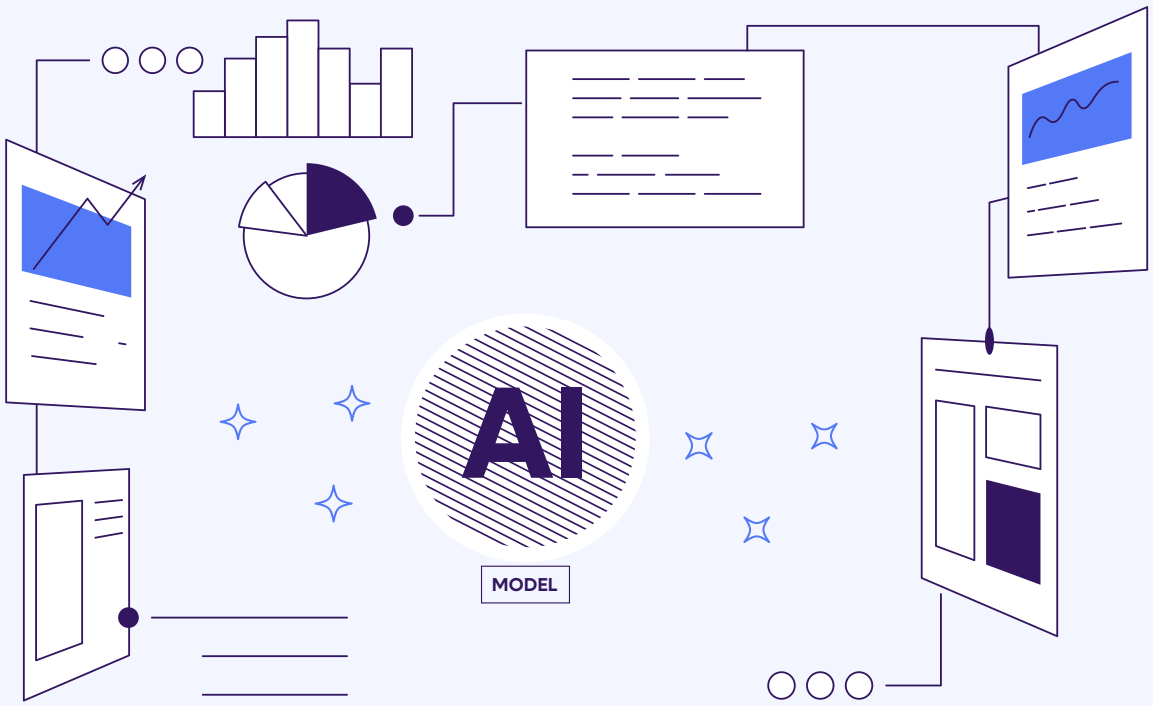
The most commonly cited barrier to AI adoption **(52%)** is the lack of sufficient skills and resources within the organization to manage AI initiatives effectively. Implementing AI requires a combination of specialized talent and subject matter experts familiar with the insurance industry.

Many insurers simply don't have the necessary internal expertise, nor large budget, to develop, integrate, and maintain their own AI-built systems.

This challenge underscores the importance of strategic partnerships with AI vendors, like Roots, who can provide the expertise and resources needed to ensure successful implementation. AI-solution partners bring not only the necessary technical expertise, but also pre-built models tailored to the insurance industry—which helps bypass the resource-intensive process of developing AI capabilities from scratch, ensures accuracy, and thus provides high value.



Limited skills and/or resources to manage AI initiative

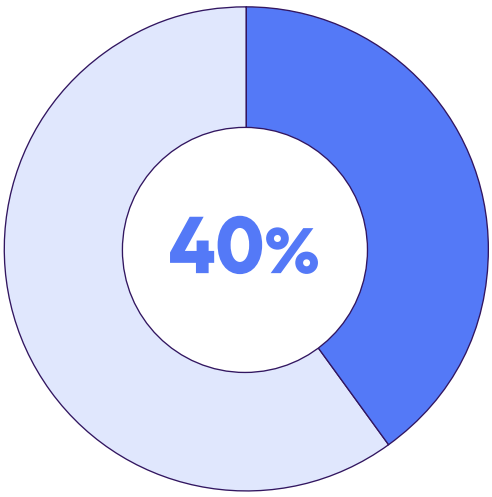


Data Challenges:
The Foundation for AI Success

Data challenges were cited by **40%** of survey respondents as a major barrier to AI adoption. AI models are only as effective as the data they are trained on, and in the insurance industry, data is often fragmented, siloed, or of insufficient quality.

Insurers typically rely on diverse data sources, from underwriting to claims management, and ensuring that data is accessible, clean, and structured for AI consumption is a significant hurdle.

Leveraging pre-configured data models built for the insurance industry can help overcome common data challenges, reducing the time and effort during implementation.



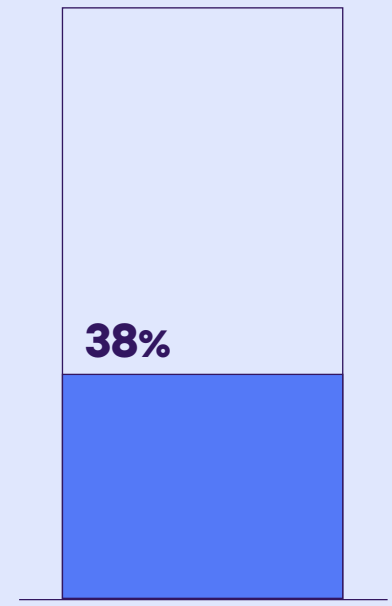
Data challenges are a major barrier for AI adoption

Fear of AI Technology Failing to Deliver on Promises: Bridging the Trust Gap

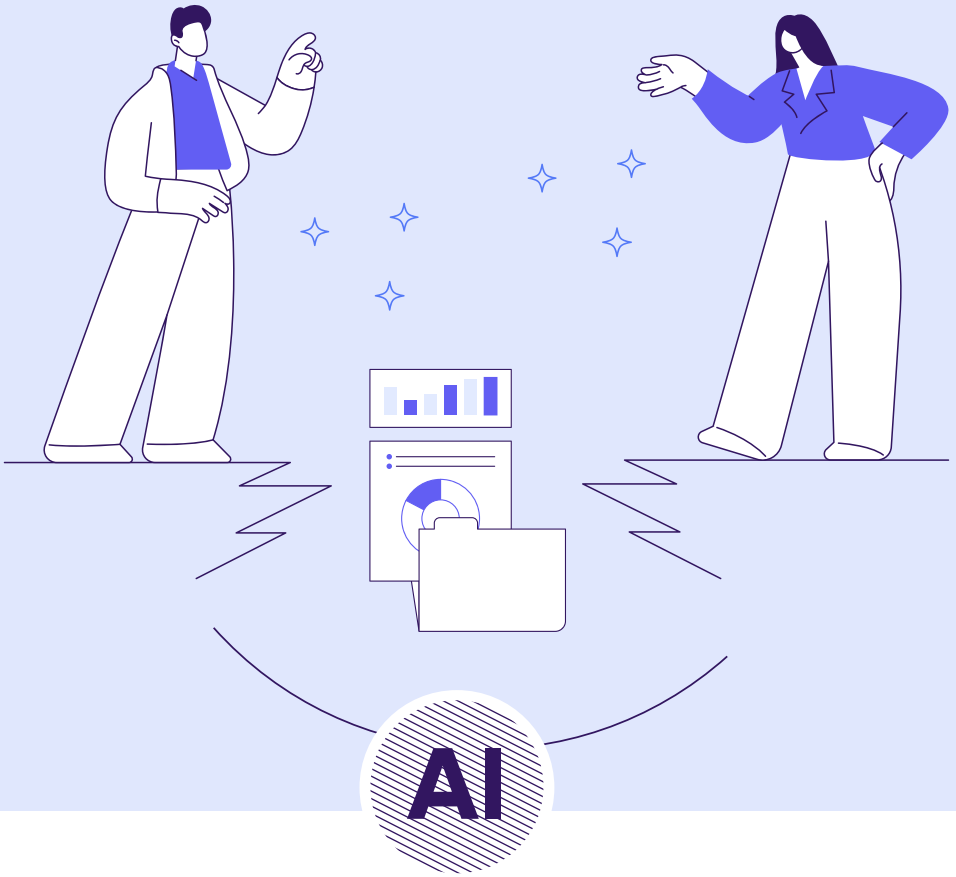
A significant concern cited by **38%** of survey respondents is that AI technologies may not live up to their promises in terms of capabilities or value. This fear likely stems from past experiences with technology that failed to meet expectations, leading to skepticism about the real-world impact of AI.

Insurers can consider Proof of Value projects to determine the effectiveness of AI in driving tangible business outcomes. Demonstrating measurable improvements in operational efficiency, customer satisfaction, and claims processing times can help alleviate doubts about AI's potential.

Creating value with AI doesn't have to be a zero-sum game. For instance, your goal with deploying AI might have been to quote 10 times faster, but even if you only achieve 5 times faster, the 3x improvement in accuracy is still a strong outcome. This shows that, unlike traditional software projects, AI-driven value creation is multidimensional, offering multiple ways to deliver meaningful results even if all initial goals aren't fully met.



Technology does not deliver on promise - capabilities or value



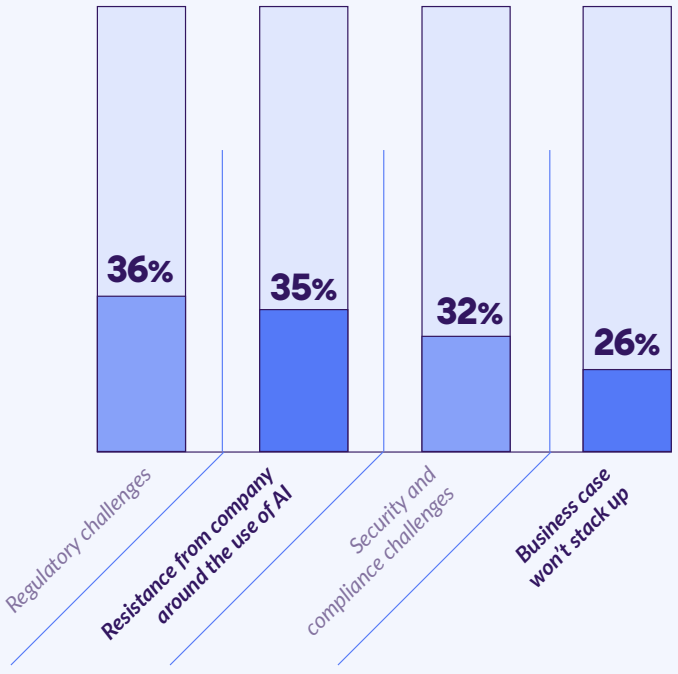
Other Barriers: Overcoming Resistance and Business Case Concerns

Beyond skills, data, and technology concerns, insurers also face barriers such as resistance from internal stakeholders **(35%)** and concerns over whether the business case will stack up **(26%).** These challenges often arise from a lack of understanding of AI's potential or fear of disruption to existing processes.

To overcome resistance, insurers should focus on educating key stakeholders about the benefits of AI and how it can enhance rather than replace their roles. Engaging stakeholders early in the process, including through AI training sessions and interactive demos, can foster greater buy-in and reduce reluctance.

Presenting a clear ROI based on pilot results and tangible outcomes can also help build confidence and make a compelling case for AI investments.

A successful adoption of AI in insurance highly depends on choosing the right technology, building strong partnerships, and ensuring alignment with business goals. With the right strategy and support, insurers can transform their operations, improve customer experiences, and achieve long-term business success through AI.



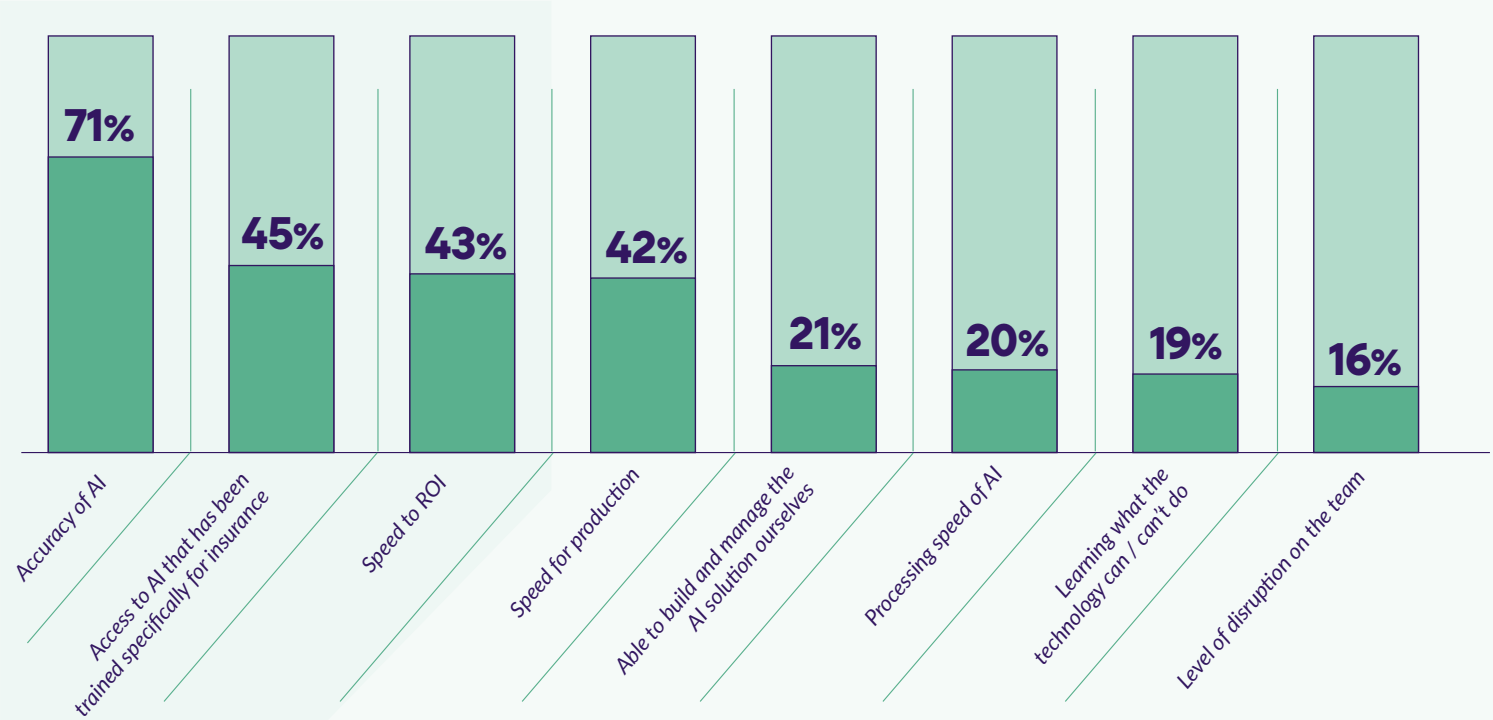
Key Success Factors

Essential Elements for AI Integration Success

For AI to truly deliver on its potential, insurers must focus on the key factors that contribute to the successful implementation and scaling of AI solutions. Our survey highlighted several critical success factors that insurers prioritize when adopting AI.

It's worth noting that deploying AI is just the first step—about 20% of the way on your journey. The key to driving real results lies in addressing model drift through Human-in-the-Loop (HITL) approaches, keeping models up-to-date using a range of machine learning techniques like RAG, PEFT, LoRA, and traditional fine-tuning, and seamlessly integrating AI into workflows. This ensures that AI usage becomes a necessity, not a choice.

What are the top 3 critical success factors for your AI initiative?



Accuracy of AI Models: The Cornerstone of AI Success

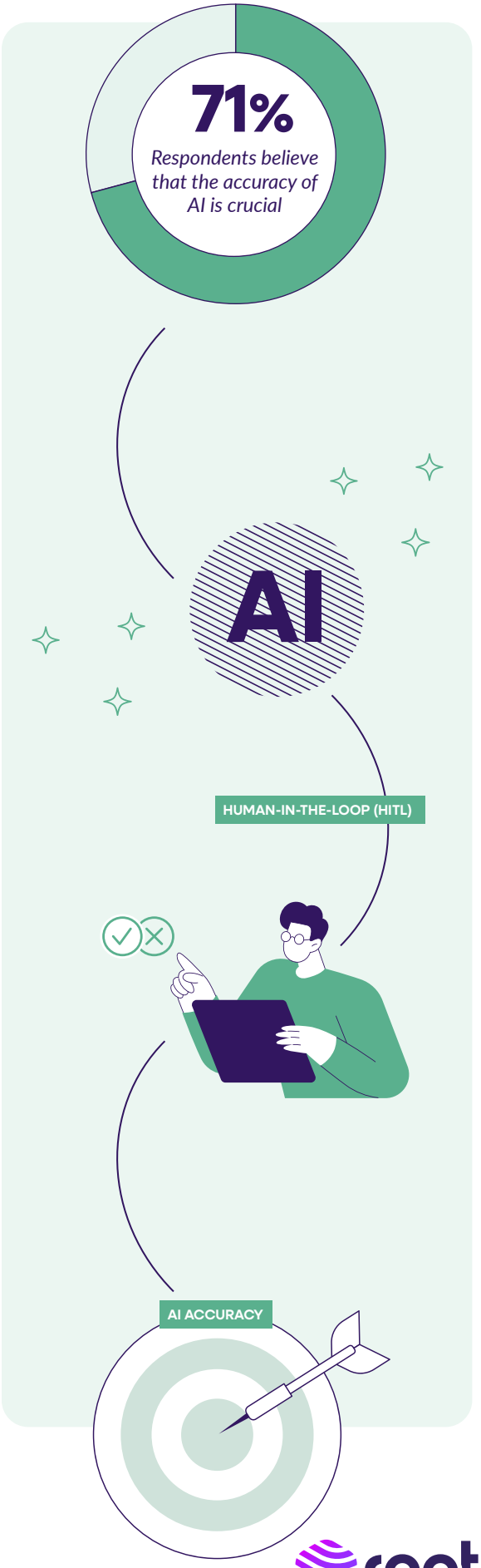
The top priority for **71%** of survey respondents is the accuracy of AI models—a critical factor that cannot be overstated in the insurance industry. AI's ability to process and analyze data is what drives its value. Inaccurate predictions can lead to costly errors, poor decision-making, damaged customer relationships, and regulatory compliance issues.

For AI to be effective in the insurance sector, it must deliver high-quality, precise outputs that can be relied upon for mission-critical decisions. Insurers need AI models that are fine-tuned to work with insurance-specific data, such as claims history, policy details, and customer behavior patterns.

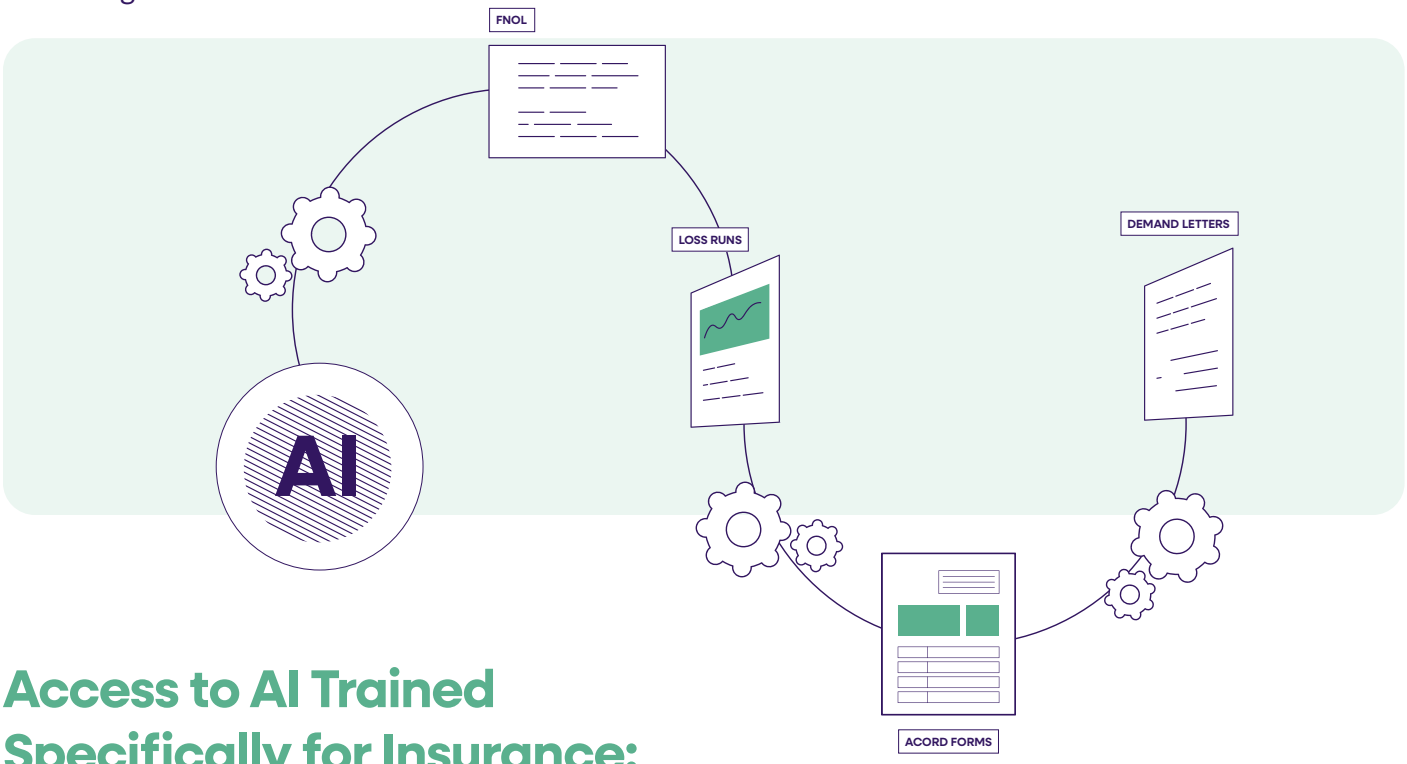
This is why domain expertise is so important—AI models must understand the nuances of the insurance landscape to deliver relevant and actionable insights. Ensuring that AI models are specifically designed to handle the complexities of insurance data is essential for maximizing their potential.

While AI's accuracy is paramount, human oversight remains an essential component in the overall success of AI implementations in insurance. AI should not be seen as a replacement for human expertise, but rather as a way to augment human decision-making. The concept of Human-in-the-Loop (HITL) is integral to ensuring that AI delivers on its promise of accuracy and reliability.

While AI can process and analyze large datasets at incredible speeds, it still requires human judgment to navigate the more subjective, complex aspects of decision-making. For example, when assessing claims, AI can quickly evaluate historical data and identify patterns, but the final decision on certain complex claims—such as determining the legitimacy of a claim in cases involving ambiguous circumstances—may still require the nuanced judgment of an experienced claims adjuster.



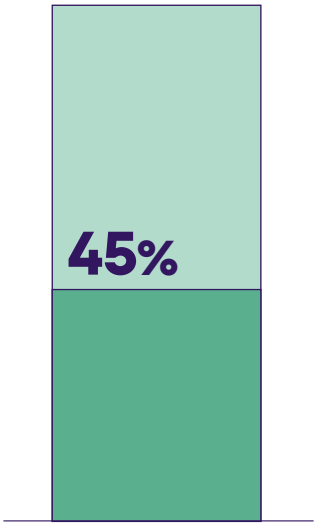
Incorporating HITL into AI systems also helps mitigate risks related to accuracy. AI models are only as good as the data they are trained on, and even the most advanced algorithms models can make mistakes—especially in situations where data is incomplete or unstructured. With a human in the loop, insurers can catch errors early, refine AI outputs, and continuously improve model accuracy over time. This iterative feedback loop between humans and AI helps improve both the system's performance and its alignment with business goals.



Access to AI Trained Specifically for Insurance: The Power of Vertical Solutions

The second most important success factor identified by **45%** of our survey respondents is access to AI that has been specifically trained for insurance. This preference emphasizes the need for vertical solutions—AI systems designed with a deep understanding of the insurance industry's complexities. Pre-trained, industry-specific AI models are much more likely to deliver accurate, reliable results in a shorter timeframe than generalized AI models, such as OpenAI.

Vertical solutions, such as AI systems trained on insurance data, offer an accelerated path to deployment. They are pre-configured to address common industry challenges, such as underwriting, claims management, and fraud detection, reducing the need for lengthy customization and fine-tuning. Insurers that choose AI systems tailored to their sector can see faster returns on investment (ROI) and quicker time to production because the AI models are already aligned with business needs.

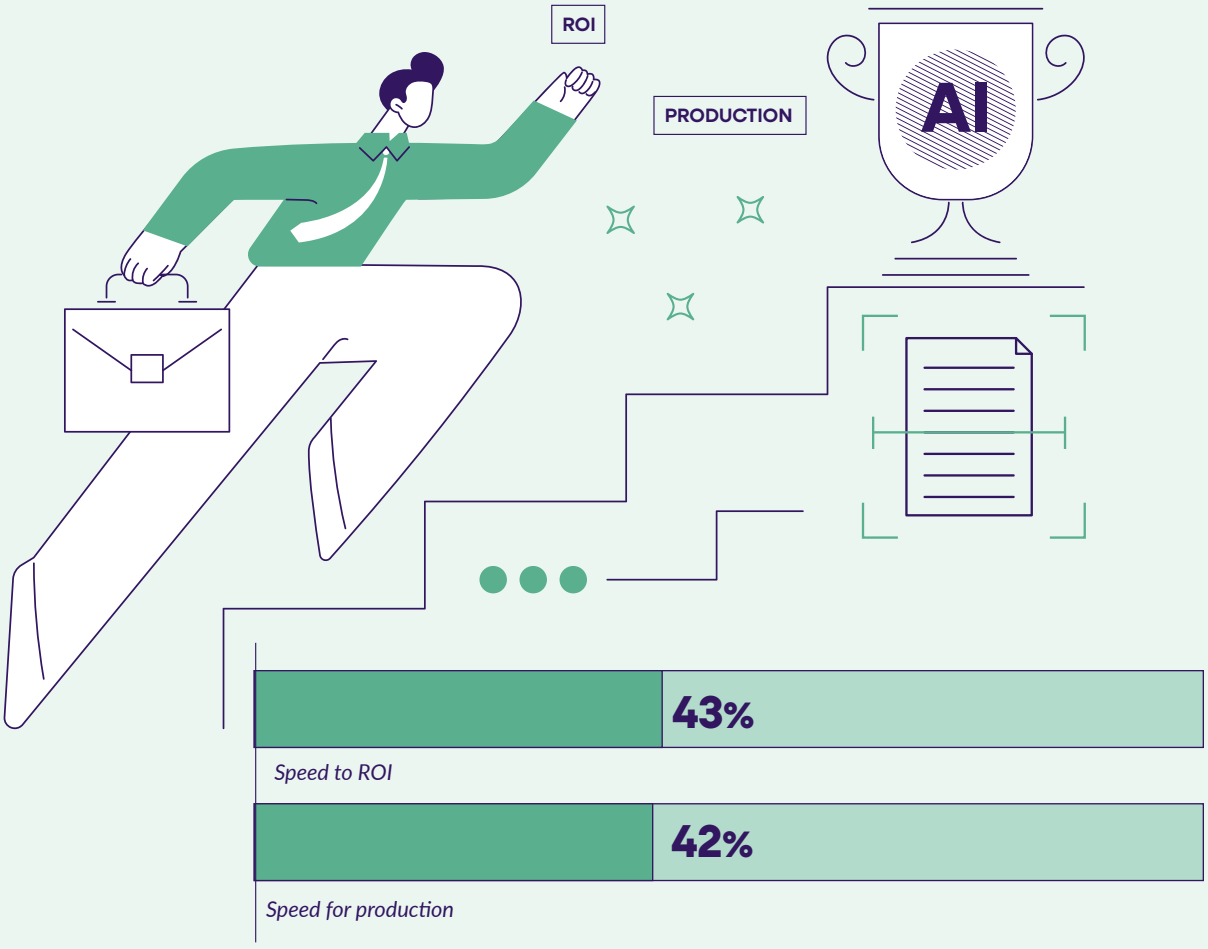


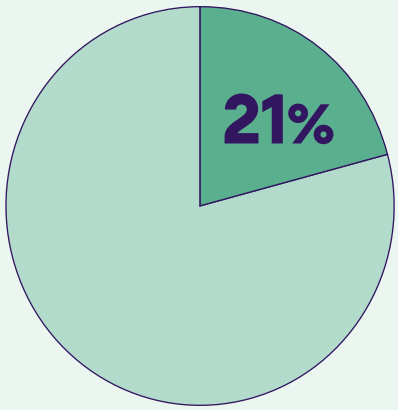
Access to AI that has been trained specifically for insurance

Speed to ROI and Speed to Production: The Drive for Tangible Value

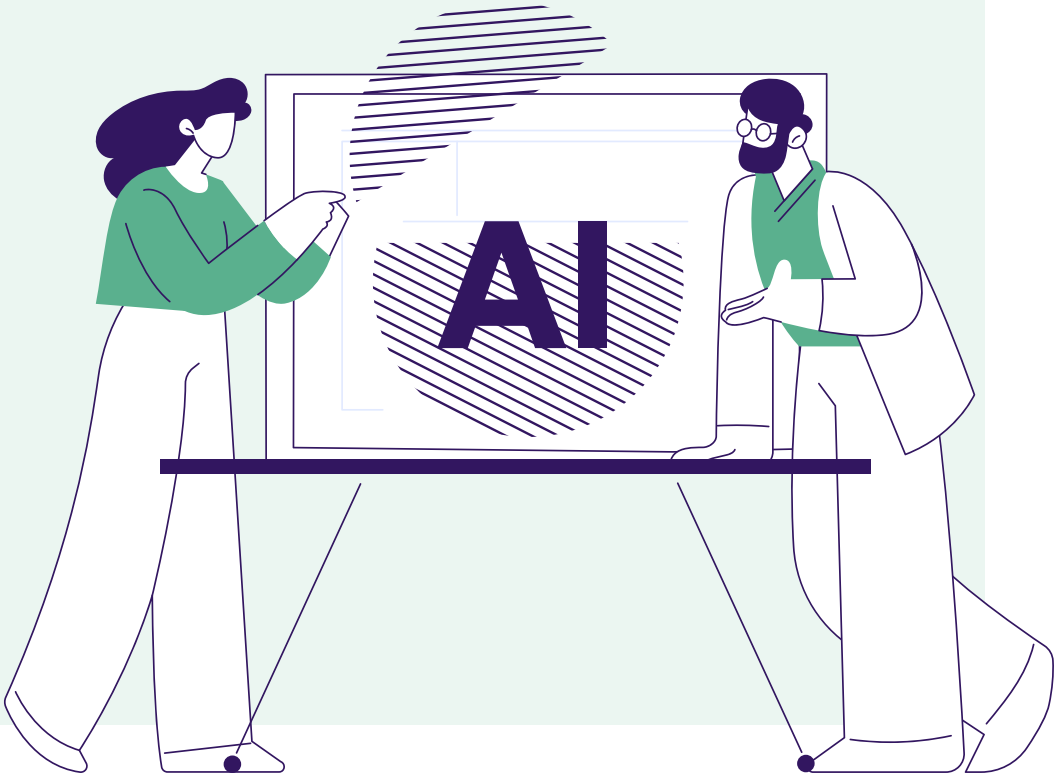
Both speed to ROI **(43%)** and speed to production **(42%)** rank as top priorities for surveyed respondents who are seeking to implement AI. The desire for rapid results reflects the industry's need to stay competitive in a fast-evolving market. Insurers are under pressure to demonstrate value quickly to stakeholders, whether that means improving operational efficiency, reducing costs, or enhancing customer experiences.

Time-to-ROI and speed-to-production go hand-in-hand. The faster AI can be integrated into existing business processes and yield tangible results, the quicker insurers can justify their investments and begin scaling AI initiatives. Pre-built models can often provide the fastest implementation timelines with the highest accuracy rates compared to building AI solutions from scratch.





Desire to build and manage AI solution in-house



Building and Managing AI In-House: A Minority Preference

Interestingly, when we dove deeper into our data, **21%** of the IT professionals expressed a desire to build and manage an AI solution in-house, such as leveraging public models like OpenAI. This indicates a yearning for control over the AI-models.

This approach may only be feasible for the largest of enterprise insurers as it requires significant costly resources, including dedicated AI development teams including AI engineers and developers, infrastructure, and in-house ongoing maintenance to ensure accuracy levels are maintained.

For the majority of insurers, however, leveraging pre-trained, insurance-specific models from established AI vendors, means insurers can avoid the time and costly resource drain of developing AI in-house.

This strategy accelerates the deployment of AI and enables insurers to focus on their core business functions while still reaping the benefits of advanced AI technologies.

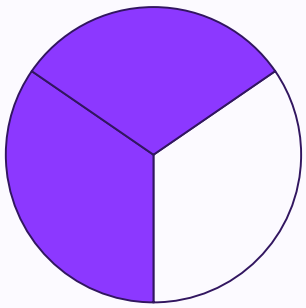
Trending Use Cases

Trending Use Cases

Streamlining Operations and Enhancing Decision-Making Across Departments

We asked respondents to identify their **top three AI use cases by department**, and the results underscore a strong focus on leveraging AI to streamline operations and enhance decision-making.

Combined, the data reveals that **two-thirds** of respondents see a need to prioritize AI initiatives aimed at eliminating repetitive, high-volume tasks—this could enable their teams to dedicate more time to higher-value activities, thereby improving overall business efficiency.



2/3

Prioritize AI initiatives to eliminate repetitive, high-volume tasks

Claims Management

Underwriting

AI Priorities and Use Cases

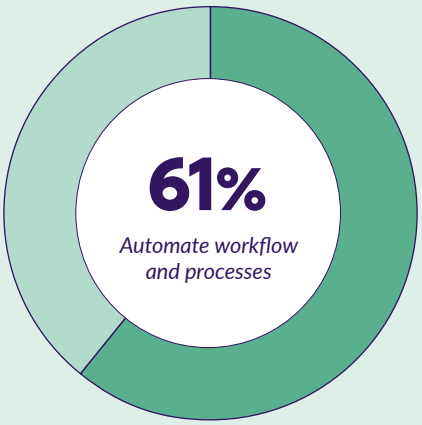
Underwriting departments are increasingly looking to leverage AI, especially during the new business underwriting process. “New business” in underwriting refers to policies that are new to the company, and the process spans from the initial quote request to the receipt of the quote decision.

Currently, there is a heavy reliance on unstructured data during the quoting phase. Once a quote is provided and a binding order is received, significant workflow and structured data processing are required.

It’s no surprise, then, that the top AI use cases in underwriting include:

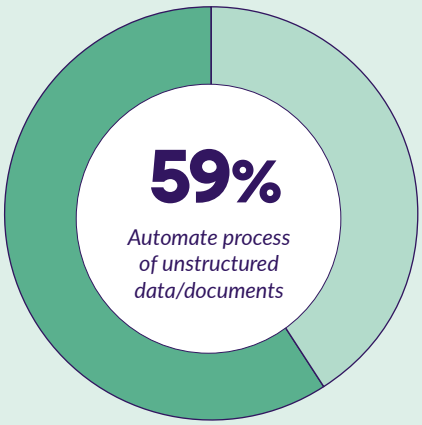
1 Workflow/process automation (61%)

AI can automate key workflows, such as policy submission, document review, and data entry. By automating these repetitive and manual tasks, underwriting teams can improve speed, reduce human error, and allow underwriters to focus on more complex tasks, such as evaluating risks and making critical decisions.



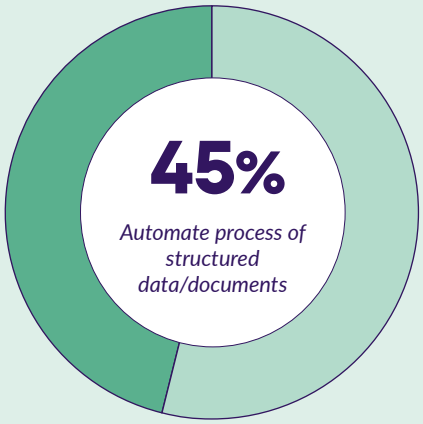
2 Processing unstructured data/ documents (59%)

Unstructured data includes documents like emails, PDFs, and scanned images, which often contain important information but are difficult to process manually. AI can extract valuable insights from these sources—such as policyholder details, medical histories, and financial information—making it easier for underwriters to assess risk and provide timely quotes.



3 Processing structured data/ documents (45%)

Structured data, such as numerical data in databases or spreadsheets (e.g., financial information, policy details), requires systematic processing for analysis. AI can automate the extraction and processing of this data, ensuring quicker and more accurate evaluations of policies, risks, and premiums, as well as supporting better decision-making based on historical trends and predictive models.



4 Risk assessment and/or scoring (40%)

AI can analyze vast amounts of data—both structured and unstructured—to assess the risks associated with insuring a policyholder. By leveraging predictive modeling and machine learning, AI can help underwriters make more informed, data-driven decisions, ultimately improving the accuracy of risk assessments and minimizing potential losses.

5 Premium determination (15%)

AI can assist in calculating premiums more accurately by considering a wide range of factors, including historical data, risk profiles, and market trends. This ensures that premiums are competitive while still adequately reflecting the risk level of the policyholder.

These insights reveal a clear focus on improving underwriting accuracy and efficiency, with AI enabling faster and more precise risk assessments.

Real Examples

How AI Can Support Underwriting in Driving New Business

Area	How AI Helps
Submission Intake and Data Extraction	AI can accurately "pull" key application data points—e.g., coverage requests, statements of value (SOV) and endorsements—to automatically pass extracted data to the underwriting platform.
Submissions Triage	AI can automatically assign submissions based on predefined carrier rules, ensuring efficient workflow and optimal resource utilization.
Request Documents from Brokers	AI can identify missing items based-on custom configured rules and request the missing application documents from brokers and agents, to ensure all necessary information is collected and reduce back-and-forth communication.
Extract Loss Histories	AI can analyze Loss Runs and get claim dates, types, descriptions, costs paid, claim status, payroll history, and vehicle count extracts from detailed loss runs and exposure data reports.
Analyze Risk Thresholds	AI can classify submission risks and match them to predefined thresholds, flag for further review, or even decline uninsurable risks based on predefined business rules.
Premium Audits	AI can request, collect, and extract data automatically from employer payroll records, job classifications, 1099 reports, tax forms, and other relevant premium data to increase the accuracy of and accelerate auditor workflows.

AI Priorities and Use Cases

The results show that claims management are focused on addressing unstructured data and automating workflows through key processes, including first notice of loss, establishing claim reserves, settling claims, and considering recovery, salvage, and loss mitigation.

The top use cases identified by claims management professionals were:

1 Processing unstructured data/ documents (66%)

The world of claims handling is full of unstructured data sources that must be processed.

Common tasks include claim intake and classification, fraud detection, and loss run analysis. AI also automates the analysis of unstructured information such as accident reports and medical records, as well as the assessment of claim severity.

These automated processes increase efficiency, accuracy, turnaround time, and, ultimately, customer happiness.

Process unstructed data/documents

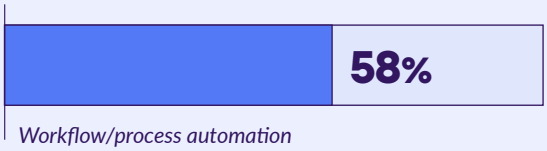
Observed Business Benefits

98% classification and extraction accuracy rates
95% improvement in mailroom SLA processing time
90%+ reduction in manual doc processing time

2 Workflow/process automation (58%)

Successful claim processing requires the capacity to manage large amounts of work as efficiently as possible. AI can help to simplify claims verification and validation, as well as guarantee that claims are routed to the proper professionals and the right systems are updated.

In complex scenarios, business rules can be configured to automate workflows, prioritize claims based on severity and risk, and update Claims Management Systems and CRM systems to improve productivity, decrease errors, and increase employee satisfaction.



Workflow/process automation

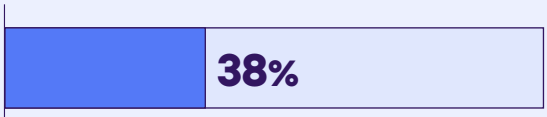
Observed Business Benefits

70%+ straight-through processing rates
3% improvement in underwriting loss ratios

3 Processing structured data/ documents (38%)

Data is the foundation of claims handling and underwriting processes. AI contributes to insurance claims handling by processing structured data, validating claims against policy details in systems of record, and accurately calculating and processing claim payments.

It can also assist with regulatory compliance and even analyze data to detect fraud by recognizing patterns and comparing them to historical data. These operations help increase overall efficiency, accuracy, and speed of claims processing.



Processing structured data/documents

Observed Business Benefits

95% reduction in manual effort for Accounts Payable

4 Straight-through Processing (STP) (30%)

Respondents are also seeking to leverage AI to automate key stages of the claims process, from First Notice of Loss (FNOL) to subrogation.

This automation can significantly increases STP rates and overall operational efficiency.

5 Identify and Mitigate Potential Fraudulent Activities (30%)

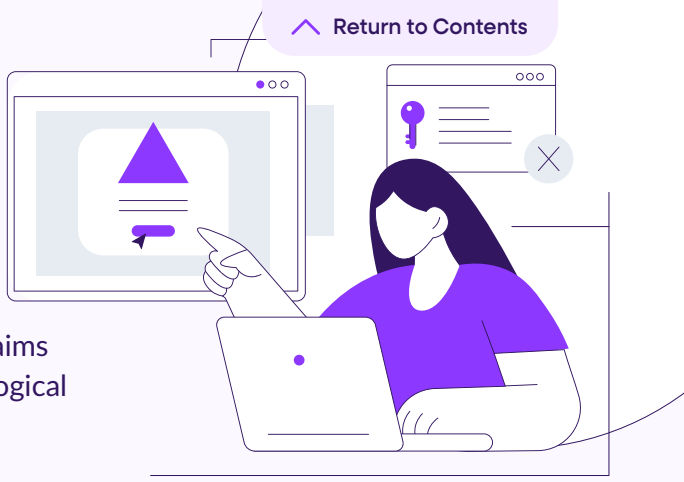
AI can help claims professionals identify and mitigate potential fraudulent activities by analyzing large amounts of data, detecting patterns, and flagging suspicious claims in real-time. AI agents can process both structured and unstructured data from claims, such as medical records, policy details, and past claims history, to spot inconsistencies that could indicate fraud.

Overall, within claims management, by eliminating the need for manual intervention in straightforward claims, AI can accelerate processing times even further. Moreover, its ability to quickly identify anomalies in claim patterns can serve as an early warning system for fraudulent activity, ultimately saving insurers from significant losses.

By automating these tasks, AI not only boosts operational efficiency but also frees up claims professionals to focus on more complex, high-value activities, improving overall business productivity.

Real Examples
How AI Is Streamlining Claims Handling Today

Area	How AI Helps
Claims Indexing	AI can automatically read, understand, and classify demand letters, medical records, police reports, ACORD forms, and other documents to reduce manual effort, speed processing, and improve data consistency and accessibility.
FNOL/FROI Setup	AI can streamline First Notice of Loss (FNOL) and First Report of Injury (FROI) processing via automated data capture, coverage verification, duplicate claim lookup, and immediate claim creation in systems of record.
Identify Legal Demands	AI can find and track time-sensitive requests buried with multiple-page demand packages documents to ensure prompt action from adjusters to help prevent missed deadlines and improve overall compliance.
Send out EOBs	AI can distribute explanations of benefits (EOBs) and policy ID information to claimants, streamlining communication and accurate delivery of important information.
Calculate Reserves	AI can analyze claim data to calculate and set initial reserve estimates, minimizing subjectivity, and improving consistency across the process. It can also flag and assign potential high-value claims to more seasoned adjusters.
Identify Subrogation Opportunities	AI can analyze claims data to improve recovery rates by identifying accounts for recovery or subrogation.



IT

AI Priorities and Use Cases

The IT department plays a crucial role in supporting both the claims and underwriting processes by providing the necessary technological infrastructure and AI-driven solutions.

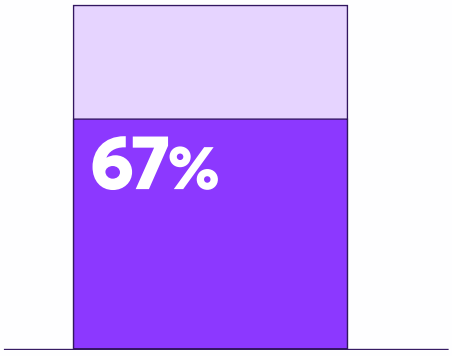
As underwriting teams focus on new business, from quote requests to policy issuance, and claims teams prioritize improving efficiency and customer service, both departments will increasingly turn to IT for innovative solutions to enhance their operations. This growing demand from underwriting and claims is shaping IT's AI priorities and driving the focus on technologies that can handle large volumes of data and streamline complex workflows.

AI is becoming a key tool in supporting both claims and underwriting by automating repetitive tasks, improving data processing, and enhancing decision-making capabilities. In particular, IT is prioritizing AI solutions for processing both structured and unstructured data and automating workflows across departments.

The leading use cases for AI that IT professionals are exploring are:

1 Processing unstructured data/ documents (67%)

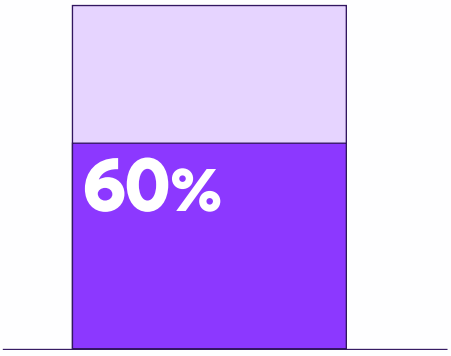
AI enables the extraction and analysis of critical data from sources like claim forms, policy documents, and customer communications.



Automate process of unstructured data/documents

2 Workflow/process automation (60%)

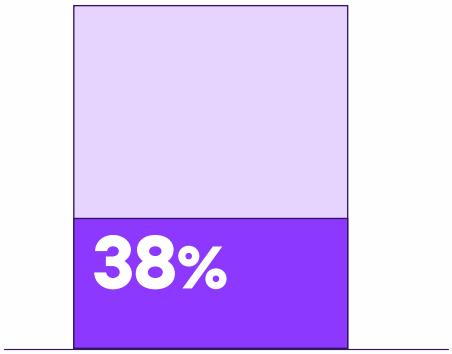
AI streamlines key processes like claims triage, underwriting risk assessments, and customer interactions, allowing for faster, more accurate decision-making.



Automate workflows and processes

3 Processing structured data/ documents (38%)

IT professionals are seeking to enhance data management and analysis capabilities. AI-driven tools can automate the extraction and processing of structured data from sources such as forms, spreadsheets, and databases, allowing for quicker analysis and more accurate decision-making.



Automate process of structured data/documents

4 Risk Assessment and/or Scoring (24%)

Leveraging AI for risk assessment and scoring can support getting advanced analytics to enhance decision-making. AI-powered systems can analyze vast amounts of data from various sources, such as historical claims, customer profiles, and external factors, to accurately assess risk and assign appropriate scores.

5 Customer/Agent/Broker Support (23%)

AI for customer, broker, and agent support can enhance service delivery and communication efficiency in claims and underwriting. AI-driven solutions, such as chatbots and virtual assistants, can provide real-time assistance, answering common questions, guiding customers through claims processes, and helping brokers and agents with policy details or underwriting inquiries.

This highlights IT's role in enabling operational efficiencies that empower other departments, such as underwriting and claims, to work more effectively.

Real Examples
How IT can scale AI to Operations

Area	How AI Helps
Mailroom Classification	AI can automatically monitor multiple digital channels for new mail, classify the content automatically, and route based on business rules to claims, underwriting, or servicing departments, enabling faster processing with reduced manual effort for faster response times.
COI Creation	AI can generate Certificates of Insurance and instantly distribute them to policyholders, boosting customer satisfaction while significantly reducing manual servicing effort.
Compliance Reporting	AI can automatically create and distribute Medicare and state reports as needed, improving efficiency and staying compliant.
Financial Processing	AI can help with collections/recoveries by identifying accounts and tracking the recovery status.

Recommendations & Best Practices

Recommendations & Best Practices

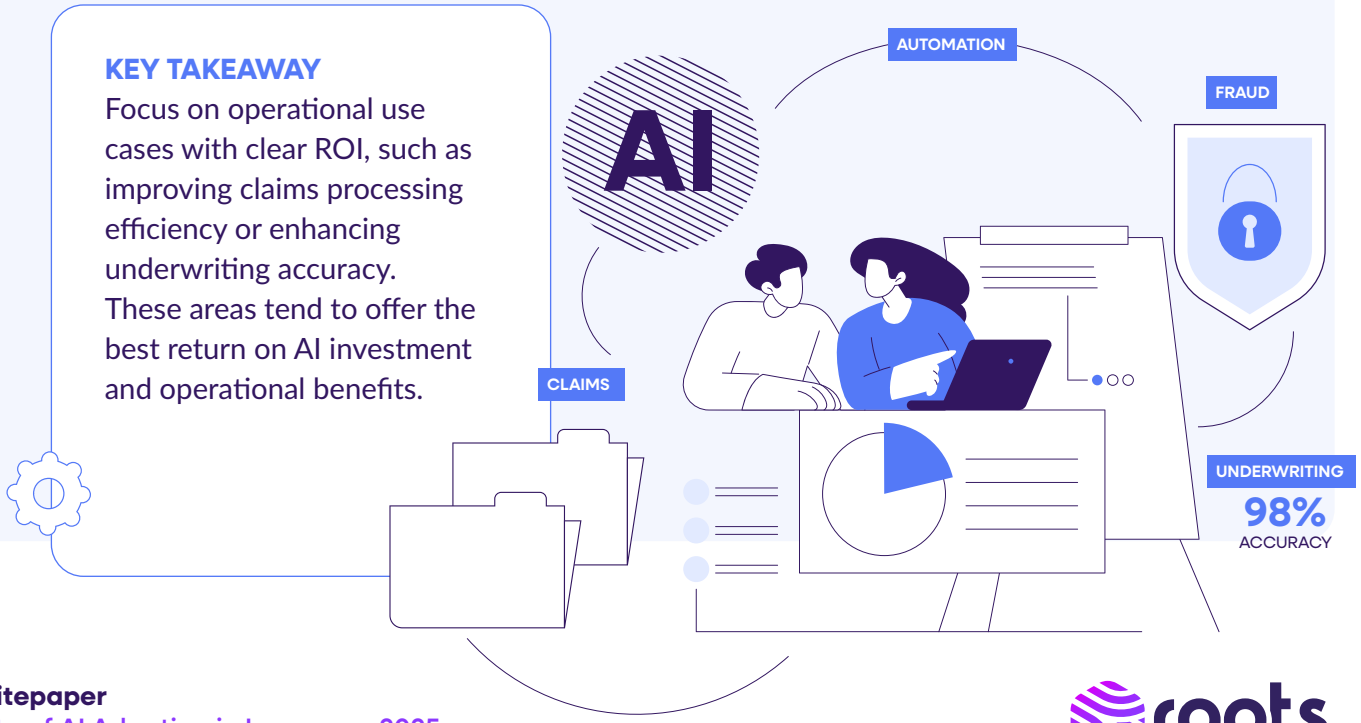
1 Clear Business Case and Define Objectives

It is crucial to clearly define business objectives before diving into AI adoption. AI can be a powerful tool, but it's vital to ensure that its implementation aligns with your organization's overall strategy and goals. Start by identifying specific business problems that AI can solve—whether that's automating claims processing, improving underwriting accuracy, or detecting fraud.

Define measurable goals upfront across the following dimensions to track the effectiveness of AI over time: financial (ROI, growth, and cost savings), accuracy (ensuring reliable and correct outcomes), servicing (speed, such as reduced processing times and improved efficiency), customer value proposition (enhancing the value delivered to customers), and market perception (shaping how the market and your customers view the AI's impact). By establishing clear metrics in these areas, you'll be able to assess AI performance and incorporate feedback for continuous improvement.

KEY TAKEAWAY

Focus on operational use cases with clear ROI, such as improving claims processing efficiency or enhancing underwriting accuracy. These areas tend to offer the best return on AI investment and operational benefits.



2 Focus on Quality Data and Address Data Challenges Early

Data quality is the foundation of AI success. Poor data quality or inconsistent data can undermine the accuracy of AI models and hinder their ability to generate valuable insights. Addressing data challenges early on is crucial to ensure smooth AI implementation.

Invest in data governance and ensure data is well-organized, clean, and relevant. This includes resolving issues with unstructured data and integrating multiple data sources into a unified system.

KEY TAKEAWAY

To minimize errors and increase AI's effectiveness, ensure that data is organized in a manner that suits the AI system. Consider integrating pre-trained, domain-specific models that understand the unique context of the insurance industry. This can streamline AI processes, minimize manual work, and accelerate time to value.

3 Leverage Pre-Trained, Industry-Specific Models

Use pre-trained, domain-specific AI models rather than building AI solutions from scratch. Insurance is a complex industry with highly specialized needs, and pre-trained models like InsurGPT are designed specifically for insurance, helping insurers accelerate deployment, improve accuracy, and realize a faster return on investment.

This approach saves time, valuable resources, and ensures high accuracy compared to custom-building models from the ground up.

KEY TAKEAWAY

Opt for vertical AI vendors with significant domain expertise rather than generic horizontal solutions (e.g., Meta, OpenAI). Generic solutions often require additional customization, increasing complexity, and can lead to very costly manual rework, which ultimately impacts ROI.

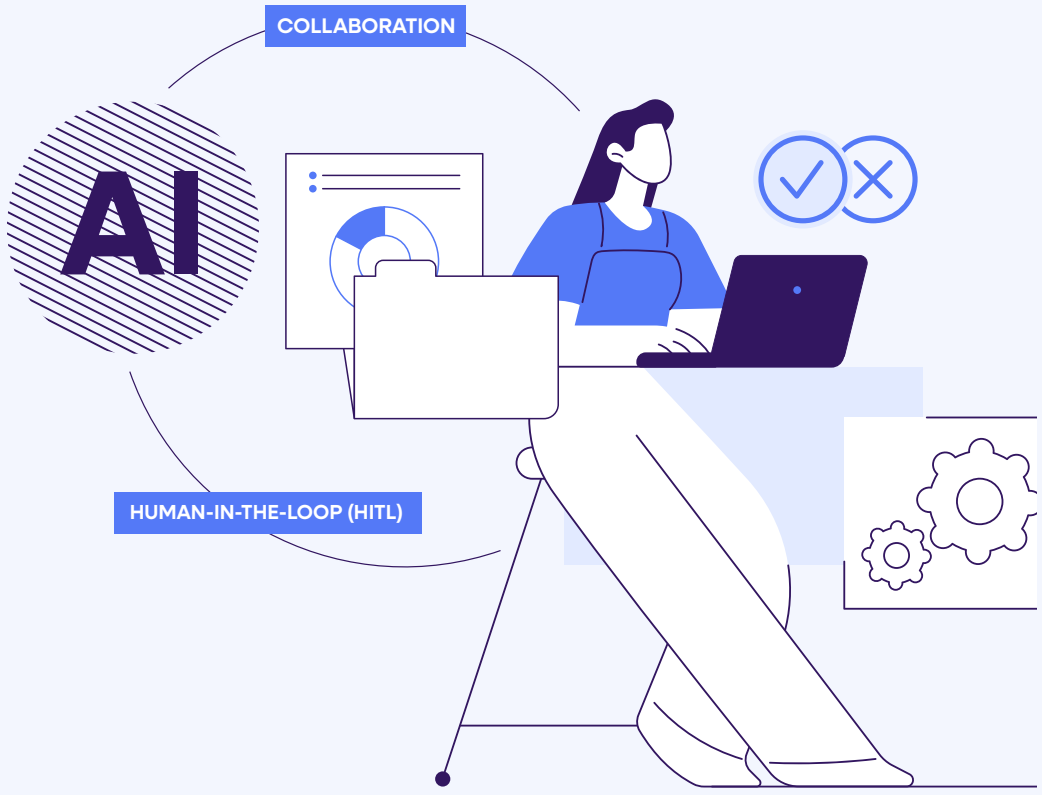
4 Implement Human-In-The-Loop (HITL) Systems

While AI can handle repetitive tasks and analyze large datasets, it's essential to maintain human oversight to ensure that AI outputs are correctly interpreted and applied in the real world. Implement HITL workflows where human experts review AI-generated decisions, especially in cases that require complex judgment or ethical considerations.

This approach ensures that AI recommendations are always contextualized by human understanding and expertise.

KEY TAKEAWAY

Focus on "Agentic AI"—AI platforms that collaborate with humans. This approach drives significant cost savings and accuracy improvements while freeing up human experts to focus on higher-value activities.



5 Promote Collaboration Across Teams and Ensure Cross-Functional Buy-In

Fostering cross-functional collaboration between AI teams, business units, and IT departments is crucial to ensuring that AI solutions address real-world needs and are integrated effectively into operations.

Bring together stakeholders from claims, underwriting, IT, and operations to form a cross-functional team that works closely together to define AI use cases, assess progress, and refine models. This ensures that AI tools are deployed in ways that genuinely improve business processes.

KEY TAKEAWAY

Strategic collaboration with vendors and industry experts is key. Gain insights into best practices, available solutions, and potential pitfalls to ensure a smoother transition from exploration to full-scale AI implementation.

6 Use Proof of Values for Quick Validation

When dealing with internal teams and vendor engagements, begin with Proof of Value exercises to ensure that the AI technique is appropriate for your specific use case and data.

AI evaluation initiatives may suffer from "POC purgatory," in which only a tiny percentage advance to production due to a lack of verified business outcomes. Set a timeline and bypass purgatory. A good vendor should be able to move quickly and provide measurable outcomes for a given use case.

KEY TAKEAWAY

Push for 1-2 week-long Proof of Value exercises that produce results that can be compared to "ground truth" information to determine accuracy and gaps. The added benefit is you can compare the performance of internal teams to that of the vendors.

7 Continuously Monitor, Refine, and Evolve AI Systems

AI is not a one-time implementation but requires ongoing monitoring and optimization. Develop a feedback loop for continuous monitoring of AI to optimize for accuracy and performance and also correct for model drift. Regularly evaluate AI systems to ensure that they're improving decision-making and driving the desired business outcomes.

KEY TAKEAWAY

Be proactive in monitoring and refining AI to stay ahead of evolving business needs and market dynamics. This ensures AI platforms continue to provide value and remain aligned with organizational goals and meet regulatory requirements.

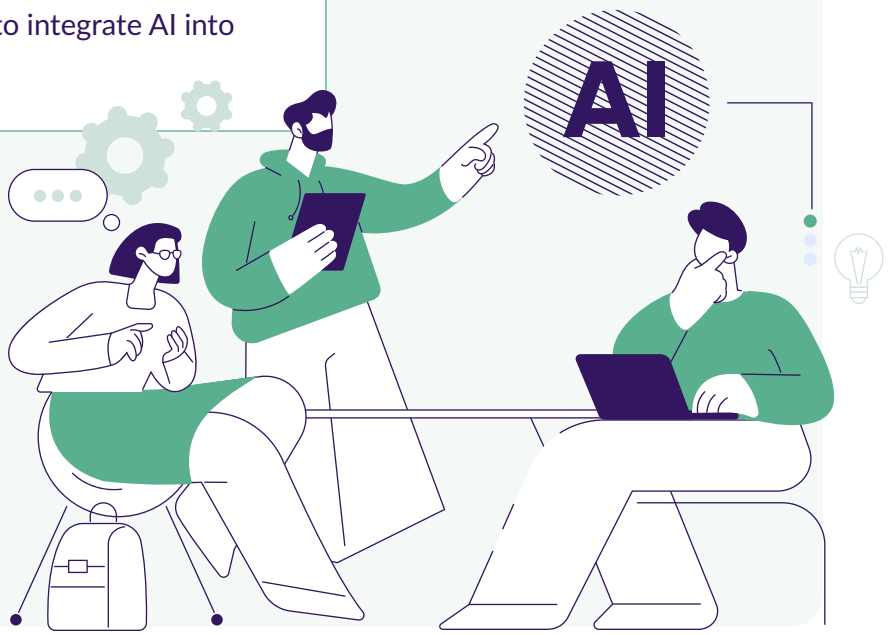
8 Organizational Commitment and Strategic Investment

A successful AI adoption strategy requires more than just technology—it requires a commitment to workforce training, culture change, and ongoing strategic investment.

Ensure your teams are well-equipped to leverage AI's full potential by fostering a culture that embraces digital transformation and upskilling staff to work alongside AI.

KEY TAKEAWAY

Investment in workforce training and organizational change is crucial to achieving AI adoption success. Insurers must ensure employees are equipped to integrate AI into their daily workflows.



AI adoption in insurance offers tremendous opportunities, but successful implementation requires a thoughtful, strategic approach. By taking our recommendations into account, insurers can start the path to maximize the potential of AI, improve operational efficiencies, and deliver enhanced value to both customers and the organization.

roots

About Roots

Roots is a leading provider of AI-powered solutions for the insurance industry.
The company's agentic AI platform enables insurers to transform their operations with unmatched accuracy and speed. Roots' pre-trained, insurance-specific AI, InsurGPT™, delivers rapid time-to-value, measured in weeks, not months. Used by three of the top five P&C carriers and three of the top ten brokers, Roots enables brands to liberate their teams from complex workflows, allowing them to focus on what truly matters – delighting customers with superior service and care.