



Welcome to the Decision Era:

How AI-enhanced
decisioning is
transforming
outcomes across
the policy lifecycle

Table of contents

Intro: Welcome to the Decision Era	3
1. The traditional challenges in insurance decisioning	6
Data fragmentation and manual processes	7
The impact of complexity on underwriting and claims	9
Rising demand for quicker, more informed decisions	9
2. AI's Role in transforming Insurance	11
From automation to decisions	12
Agentic AI and its emerging impact	13
Staying ahead with AI-enhanced efficiency	14
3. Revolutionizing underwriting with AI-enhanced decisioning	15
Smarter risk prioritization and selection	16
Faster decision-making through data consolidation	17
Transforming the policy lifecycle with AI	18
Enhancing human-AI collaboration	18
AI's transformative role in Insurance	19
4. The Future of AI in insurance decisioning	20
The road ahead: AI and the future of insurance	21
AI, compliance, and ethical decisioning	22
Embracing the AI Decision Era	23

Welcome to the Decision Era

From underwriting to disaster risk assessment, AI's growing capabilities are reshaping the way we approach complex decision-making in the insurance industry. This shift marks the beginning of what we call the "Decision Era," where technology empowers insurers to make smarter, faster, and more precise decisions across various forms of insurance, including auto, disaster, home, and life.

The rapid evolution of technology has redefined the insurance industry. Enterprises have made massive investments in building robust data strategies over the last few decades. However, simply having a data strategy is no longer sufficient. In the Decision Era, insurers must shift their focus from merely collecting and managing data to using it for effective decisioning. The new challenge is to transform raw data into actionable insights that drive smarter, faster, and more precise decisions.

This transformation requires a fundamental shift in mindset: companies must approach decision-making with a supply chain mindset, where data flows through various stages to become decisioning insights.

When we asked how he would describe the Decision Era of the insurance industry, Thierry Daucourt, Global Business Community Commercial Lines P&C at AXA, said the following:

"We see the end of the dinosaur era coming. Manual processes are becoming extinct and the progress [of] AI will do the rest. The Decision Era is based on historical data! Which increasingly becomes less relevant. Things like behavioral economics, ESG (environmental, social and governance), or the fact that more and more risks are becoming 'systemic' requires [a] deeper analysis, a better understanding of the industry, the location of risk, etc..."



- Thierry Daucourt,
Commercial Lines P&C, AXA

We agree—the future success of insurers will depend on their ability to not only gather data but also leverage it to make informed, real-time decisions that enhance both customer experience and business outcomes.



For decades, the challenges facing insurers have been how to manage vast amounts of fragmented data, evaluate increasingly complex risk profiles, and deliver timely, accurate quotes—all while maintaining profitability. Traditional methods of processing submissions and evaluating claims are becoming less effective as data volumes grow and market competition intensifies. Many insurers have been trapped in a cycle where decision-making is slow, prone to error, and dependent on manual review processes. These inefficiencies have resulted in missed opportunities, delayed responses, and, at times, suboptimal risk assessments.

AI is poised to change all of this. No longer limited to simple automation, AI technologies today are capable of understanding and processing unstructured data, interpreting complex patterns, and providing actionable insights that augment human expertise. This shift is not about replacing human judgment but enhancing it—**AI empowers underwriters, claims adjusters, and risk assessors** to make better decisions more efficiently, without sacrificing the nuance and expertise that are critical to the insurance process.

Parul Kaul-Green, Former Chief Digital Strategy Officer at Liberty Specialty Markets, had the following to say to Indico about our changing industry:

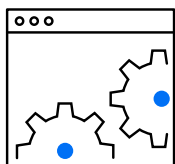
“The ‘Decision Era’ is a paradigm shift that’s redefining how we operate within the insurance industry. At its core, this new era integrates cutting-edge decision science with the power of data-driven insights and advanced analytics. Insurers are not just collecting data—they’re turbocharging it to make smarter, faster, and more accurate decisions across every facet of the business.”



– Parul Kaul-Green,

Former Chief Digital Strategy Officer, Liberty Specialty Markets

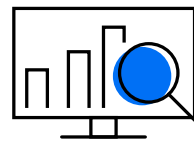
As strategic paradigms have shifted in the insurance industry, technology has evolved as well. We began in the Software Era, when software first revolutionized how companies operated, bringing efficiency and automation to previously manual processes. This was followed by the Cloud Era, where businesses moved their data to the cloud, enabling better storage, scalability, and access. Next was the Data Era, in which companies began to realize the true value of their data, using it to gain insights and drive business strategies. Now, we are in the Decision Era, where simply having data is no longer enough.



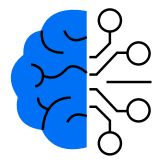
Software Era
Software
revolutionize
a business



Cloud Era
Data moved
to the cloud



Data Era
Companies
harnessed the
power of data

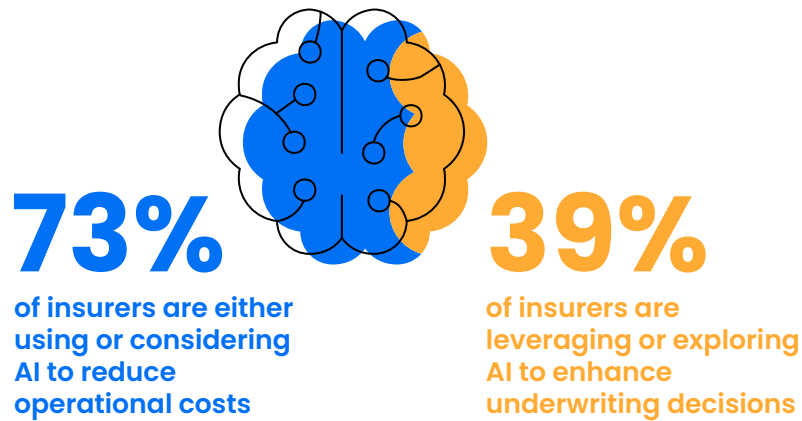


Decision Era
Making data
actionable
with AI.

Technology evolution

Insurers that embrace AI-driven decision-making will gain a competitive edge. By adopting AI to handle large datasets, such as analyzing satellite imagery for property damage after a natural disaster or using predictive algorithms to calculate life insurance premiums, companies can reduce operational costs, streamline processes, and improve their ability to meet client needs in real time.

To illustrate this point, according to [Goldman Sachs' Insurance Survey 2024](#), 73% of insurers are either using or considering AI to reduce operational costs, while 39% are leveraging or exploring AI to enhance underwriting decisions. This statistic highlights AI's broad applications, moving beyond automating back-office tasks to fundamentally transforming risk assessments and operational efficiency.



This eBook will explore how AI is revolutionizing decision-making [across the policy lifecycle](#), from underwriting commercial property insurance policies to settling workers comp disputes, assessing disaster risks, and automating parts of the claims handling process. We'll highlight the ways that AI enables insurers to operate more efficiently, making data-driven decisions that enhance customer satisfaction and optimize business growth.

And in the Decision Era, agility and intelligence are everything. Those who can harness the power of AI to deliver decision-ready claims will not only gain a competitive edge but also reshape the future of insurance. The question is no longer whether AI will impact the insurance industry—it already has. The question is: How will you respond?

Chapter 1:

The traditional challenges in insurance decisioning



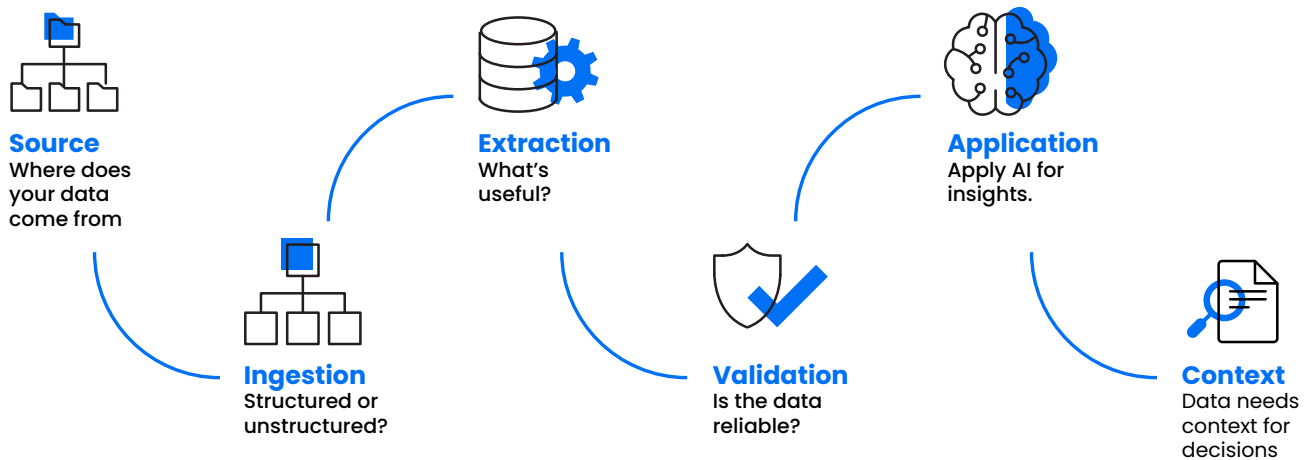


Data fragmentation and manual processes

In the insurance industry, **data fragmentation** is one of the most persistent challenges. Traditional insurers rely on data from multiple sources—third-party vendors, internal systems, customer records, external databases, and more. These data sources often exist in silos, meaning they are disconnected from one another and stored in different formats. For **underwriters** and **claims adjusters**, this creates significant inefficiencies, as they must spend time gathering and consolidating information before they can make decisions.

Manual processes compound this issue. Despite the rise of digital transformation initiatives across various industries, many insurance companies still rely heavily on manual workflows. Underwriters might be forced to sift through piles of documents to assess a single claim or pull data from multiple sources manually to evaluate one risk. This not only slows down the process but also leaves room for human error, which can result in inaccurate assessments and potentially costly mistakes.

Beyond inefficiencies, these manual processes create bottlenecks. Time is often wasted tracking down missing data or correcting errors introduced by manual entry. As a result, insurance companies may miss out on high-value opportunities or face delays in providing services, frustrating customers and eroding their trust in the insurer's ability to deliver.

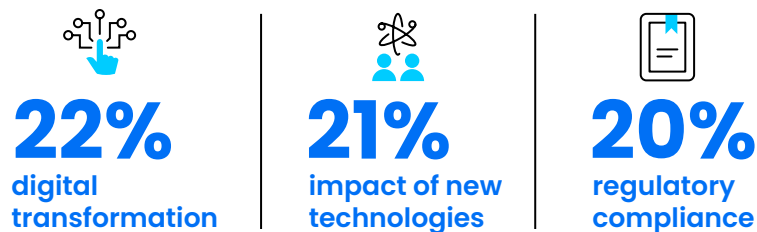


The insurance decision supply chain

The insurance decision supply chain provides a modern approach to this challenge, offering a structured flow for data processing and analysis that reduces inefficiencies at each stage. Key stages in the supply chain include:

- **Source: Where does your data come from?** In the insurance industry, data may be pulled from brokers, third-party vendors, and internal records such as loss runs, SOVs, and historical claims data.
- **Ingestion: Is the data structured or unstructured?** Insurers deal with a mix of both structured data, like policyholder details or actuarial tables, and unstructured data, such as customer emails or loss documents. Ingesting all of these data types into a unified system is crucial for efficient processing.
- **Extraction: What's useful?** After ingestion, AI tools can extract relevant information from unstructured and structured data alike. For example, extracting crucial information from SOVs helps underwriters evaluate risk more efficiently without manual data entry.
- **Validation: Is the data reliable?** After extraction, AI validates the data by cross-referencing it with internal records or external sources, ensuring accuracy and reducing the chances of human error.
- **Application: Apply AI for insights.** Once validated, the data is applied using AI models to provide actionable insights. For example, risk assessors can leverage AI to quickly evaluate claims, enabling faster and more informed decisions.
- **Context: Data needs context for decisions.** Data on its own doesn't drive value without context. AI-powered models give data context by identifying trends, flagging anomalies, and providing insights that help underwriters and adjusters make data-driven decisions that are both accurate and timely.

[PwC's insurance 2025 and beyond report](#) found that the top three challenges insurance companies expect to face in the next 5 years are **digital transformation (22%)**, **impact of new technologies (21%)**, and **regulatory compliance (20%)**. To tackle these challenges, insurers are increasingly turning to AI and a supply chain mentality to streamline decision-making across various sectors, including auto and life insurance.



The top three challenges insurance companies expect to face in the next 5 years

That's because modern AI tools are designed to process large amounts of data quickly and efficiently. [AI models can handle unstructured data](#) (e.g., emails, loss runs, and SOVs) and structured data (e.g., policyholder information, actuarial tables). By integrating these systems into the insurance decision supply chain, insurers can develop a unified view of their data, which empowers faster and more accurate decision-making. The shift from manual data processing to [AI-powered solutions](#) is key to overcoming traditional barriers, ultimately enabling insurers to drive better business outcomes and maintain a competitive edge.



The impact of complexity on underwriting and

The complexity of the risks that insurers face today is far greater than it was even a decade ago. Modern risks span multiple dimensions, from increasingly complex geopolitical concerns to environmental changes, advancements in technology, and evolving policyholder behaviors. Additionally, [the sheer volume of data](#) that insurers must analyze has grown exponentially.

Traditional systems are simply not equipped to handle these complexities. When faced with massive amounts of data, manual processes and rule-based systems can only scratch the surface, often missing key patterns and correlations that could influence decision-making.

In underwriting, [insurers may struggle to properly assess the risks](#) they are underwriting, leading to either overly conservative decisions—where they reject potentially profitable risks—or overly aggressive decisions, where they accept risks that should have been priced higher or even declined. In claims processing, these inefficiencies lead to delayed settlements, frustrated customers, and a loss of trust.

As [Kelly Cusick](#), Managing Director at Deloitte, explained on Indico's Unstructured Unlocked podcast:

"You as a human can only synthesize so much information at any one time. So, if you have better tools and models that can do that for you, then [they're] providing you guidance... It's saving time from having to poke around a website, and then go do a search, and do a bunch of pivot tables on your own data."



- Kelly Cusick
Managing Director, Deloitte

Clearly, insurers need better tooling for decision-making than traditional systems can provide. For example, an insurer might take weeks to process a claim, gathering data from different departments and external vendors before making a decision. This not only delays claims resolution but also leaves customers dissatisfied. In a world where customers expect quick, efficient service, delays of this nature can damage an insurer's reputation and result in lost business.

The rising demand for faster, more informed decisions is driven by both internal and external pressures. Regulatory bodies are also pushing for more transparency and accuracy in decision-making. [AI's ability to analyze large data sets](#) quickly and provide actionable insights enables insurers to meet these growing demands and stay ahead of the curve.



Rising demand for quicker, more informed

In the highly competitive insurance market, speed in decision-making has become a critical differentiator for insurers. In commercial insurance, where businesses require quick, tailored coverage solutions—such as for large fleets of vehicles, extensive property portfolios, or professional liability protection—the carrier that responds first often wins the business. It's no longer just about delivering a positive customer experience; it's about enabling the carrier to secure the deal through timely, accurate decisions, particularly in underwriting.

This is where the supply chain mentality comes in for insurers. At each step—whether it's underwriting, policy issuance, or claims evaluation—data needs to be ingested, extracted, validated, and applied efficiently. Automation and AI provide the technological backbone for this approach, ensuring a more streamlined and responsive decision-making process.

For example, in commercial insurance, **speed and precision** are particularly important. When a large company requests coverage for a new project or a renewal for an extensive property portfolio, the ability to generate a fast, accurate quote can be the deciding factor in whether the insurer wins the contract. This is especially true when multiple carriers are competing for the same business.

For traditional insurers, the challenge is clear: adapt or risk being outpaced by more agile competitors, particularly insurtech companies that leverage AI to quickly deliver real-time quotes and underwriting decisions. By adopting a supply chain framework, insurers can modernize their processes and increase their chances of winning business through **faster decision-making**, rather than merely focusing on customer satisfaction.

Decision-ready claims processing also offers a significant advantage. In commercial insurance, where claims can be complex and involve multiple assets, employees, or locations, delays can frustrate business clients and drive up **operational costs**. AI-enabled decision-making allows insurers to streamline the claims process, ensuring faster validation and resolution of claims.

For instance, **AI can quickly assess claims data** from accident reports, financial statements, or medical records, providing a more precise and timely decision on whether to approve or deny a claim. This reduces the risk of manual errors and enhances operational efficiency, strengthening client relationships by allowing businesses to recover from losses more quickly.

As insurtech companies continue to disrupt traditional insurance models with faster and more agile approaches, it's imperative for legacy insurers to adapt. Those who embrace AI and treat decision-making as a data-driven supply chain will be better equipped to compete in an increasingly fast-paced market, securing more business and improving overall operational outcomes.

Chapter 2:

AI’s role in transforming insurance

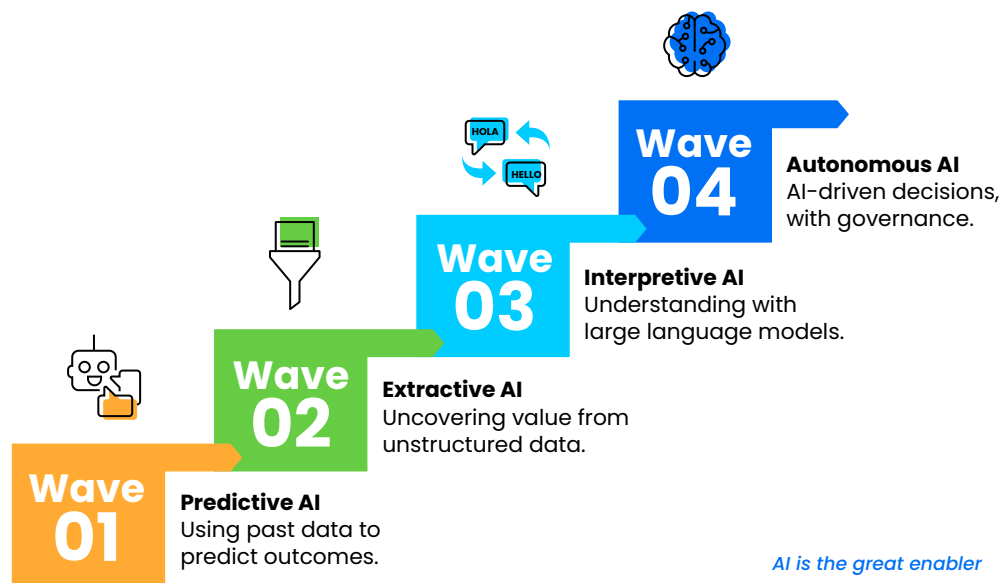




From automation to decisions

In its early stages, the insurance industry focused primarily on automation to improve efficiency. **Robotic process automation (RPA) and intelligent document processing (IDP)** were used to automate repetitive tasks, such as data entry, file management, and processing claims submissions. While these tools helped reduce the workload for insurance professionals, they were limited to predefined rules and could not make decisions beyond those rules.

For example, on an episode of Indico's Unstructured Unlocked podcast, **James Wright**, Head of Technology at Beazley Digital, described a key example of AI's impact at his own company: "The challenge we've got is how do we embed that type of technology into some processes that are not yet fully digitized? ...We've begun piloting a large language model to help extract information with greater confidence... providing what we think is about a 20% uplift above an older model." And insurers across the globe are achieving similar efficiency gains through AI alongside Beazley.

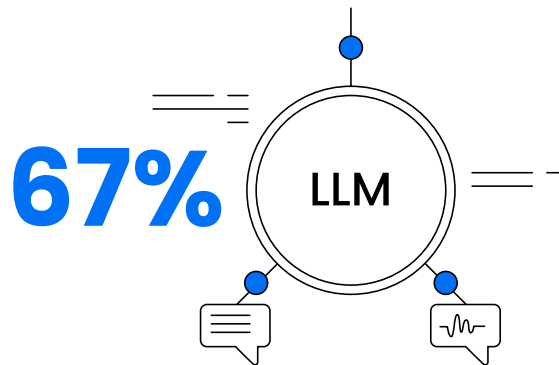


But today, AI is now shifting the focus from mere automation to dynamic decision-making. Agentic AI and generative AI (gen AI), two advanced subsets of artificial intelligence, are revolutionizing how decisions are made in real time. Unlike traditional AI models that rely heavily on pre-programmed rules, agentic AI models can autonomously navigate complex environments, make decisions, and even interact with external systems to achieve set goals. Gen AI, on the other hand, enhances decisioning by generating new data and insights based on existing information, allowing for more creative problem-solving and scenario generation.

For example, in **underwriting**, traditional automation tools might streamline the process of extracting and collecting data but would still require human intervention to assess risk. AI, however, can analyze the data in real-time, assess the risk, and even suggest pricing based on the findings. This represents a significant evolution in how insurance companies approach decision-making—moving from simply automating tasks to **enabling machines to make decisions autonomously**, or at the very least, assist in decision-making with greater accuracy and speed.

The insurance industry is now shifting from process automation (handling tasks like policy renewals or document management) to **AI-driven decisions** (determining risk profiles, pricing policies, or predicting fraud). This transition empowers insurers to focus less on routine operational tasks and more on value-added services.

The industry is rapidly embracing these changes, as highlighted by a **Conning survey** which found that 67% of insurance companies are already piloting large language models (LLMs) to handle tasks like natural language processing and decision-making. These advanced AI systems are helping to streamline processes in underwriting and beyond, further reducing manual intervention and optimizing operational workflows.



Moreover, by delivering decision-ready risk, decision-ready claims, and other insights, AI enables insurers to make more accurate and data-driven decisions, which can improve loss ratios, drive premium growth, and reduce underwriting and claims-related risks. The ability to assess risks and claims with greater precision means insurers can optimize their portfolios, adjust pricing strategies in real-time, and respond more effectively to market changes, ultimately improving both profitability and customer satisfaction.



Agentic AI and Its emerging impact

Agentic AI, a term used to describe advanced forms of artificial intelligence capable of making autonomous decisions in real-time, is quickly emerging as a game changer in the insurance industry. Unlike traditional AI models, which require supervision or operate within predefined boundaries, Agentic AI can process complex, dynamic information and make decisions autonomously.

As AI continues to evolve, we are witnessing its progression through various stages, from predictive models that analyze past data to interpretive AI capable of understanding complex unstructured data. Now, the industry is moving toward a new wave—autonomous, or agentic, AI—that not only interprets information but makes decisions with built-in governance. This transition is allowing insurers to embrace AI as a tool for driving faster, smarter decisions, without sacrificing oversight or regulatory compliance. By leveraging autonomous AI, insurers can deliver real-time insights that support a wide range of decision-making processes, from underwriting to claims management.

In insurance, this is particularly valuable in scenarios that require real-time responses. For example, in the underwriting process, Agentic AI can instantly assess incoming submissions, **flagging high-risk applications**, and prioritizing those that are likely to be profitable. In claims processing, Agentic AI can **identify potential fraud** or inconsistencies in a claim, triggering an investigation before significant resources are committed to it.

As the insurance industry becomes more data-driven, Agentic AI is poised to play an even more prominent role. Insurers will increasingly rely on these systems to handle complex decision-making processes, ensuring that they can keep up with the demands of a rapidly changing risk landscape.



Staying ahead with AI-enhanced efficiency

For insurers, AI enhances operational efficiency by automating repetitive tasks, streamlining data processing, and providing real-time insights that enable faster decision-making. Insurers that leverage AI can significantly reduce decision latency—the time it takes to gather, analyze, and act on information—allowing them to deliver services more quickly and accurately.

For example, consider the process of issuing a new policy. Traditionally, this would involve a lengthy back-and-forth between the applicant, the underwriter, and various data sources to assess risk and determine pricing. With AI, much of this process can be automated. AI systems can instantly analyze the applicant's data, cross-reference it with external sources, and provide a **risk assessment** and policy recommendation in real time. This drastically reduces the time it takes to finalize policies, positioning insurers to respond faster than competitors and win more business.

But AI's role as a competitive differentiator is not limited to operational efficiency—it directly impacts market success through **premium growth**. Insurers that adopt AI are better equipped to assess risks accurately, price policies more competitively, and respond to market conditions with agility. In highly competitive segments such as auto, disaster, and commercial insurance, speed in underwriting decisions can be the determining factor in securing or losing high-value clients.

One of the key ways AI drives success is through improved risk assessment. AI-powered systems can analyze large datasets to identify subtle risk factors that traditional methods might overlook. For example, AI can analyze driving patterns for commercial auto insurance or construction history for builder's risk insurance to more accurately assess the chances of something going wrong. This allows insurers to price policies more precisely, improving profitability while **reducing risk** for high-exposure clients.

Moreover, AI can help insurers **offer tailored solutions** for complex, large-scale needs in industries like disaster recovery or commercial real estate. This ability to quickly adjust policies or pricing in response to evolving risk factors gives carriers a significant edge in securing contracts.

In summary, AI adoption is a critical factor in driving both efficiency gains and market competitiveness. By improving risk assessment, responding faster to opportunities, and enabling innovation, AI helps insurers secure new business, grow their premium base, and strengthen their position in a competitive marketplace.

Chapter 3:

Revolutionizing underwriting with AI-enhanced decisioning





Smarter risk prioritization and

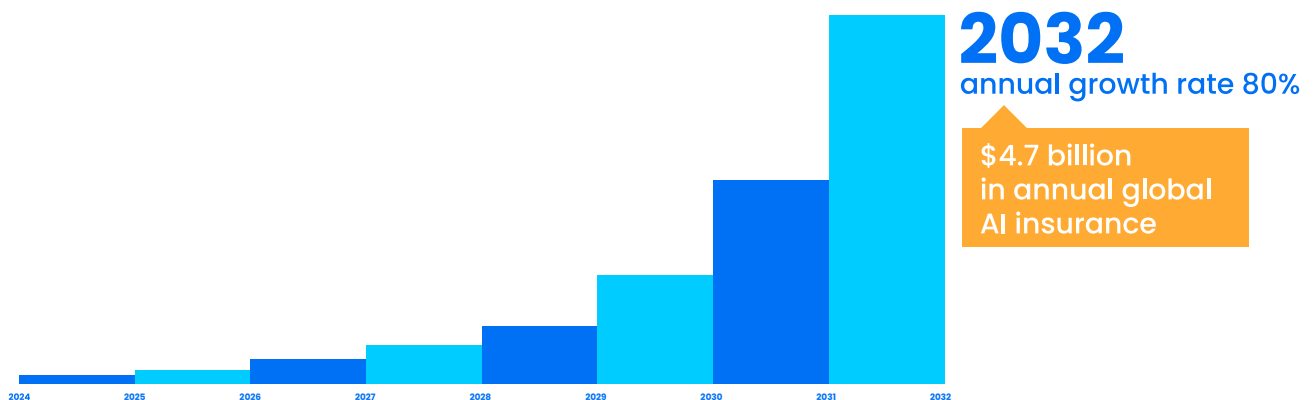
Underwriting has always been the core of the insurance industry, and AI is revolutionizing [how insurers approach risk assessment and selection](#). Traditionally, underwriters relied on historical data and actuarial tables, but this approach limited their ability to [assess risks comprehensively](#). AI changes the dynamic by analyzing vast amounts of data from diverse sources, including non-traditional ones like social media activity, satellite imagery, and weather patterns.

Parul Kaul-Green, Former Chief Digital Strategy Officer at Liberty Specialty Markets, believes that AI is changing underwriting completely in this area:

“AI is revolutionising every stage of the policy lifecycle. In underwriting, insurers are leveraging machine learning algorithms for triage, risk assessment and risk segmentation; natural Language Processing (NLP) to extract insights from unstructured data, computer vision for automated property monitoring and engineering assessment, and predictive models that factor in emerging risks and market trends. These [changes] are resulting in more accurate pricing, reduced loss ratios, and the ability to underwrite complex risks.”



– Parul Kaul-Green,
Former Chief Digital Strategy Officer, Liberty Specialty Markets



By analyzing these diverse data points, AI helps underwriters identify patterns and trends that may not be obvious to humans. [AI can prioritize high-value submissions](#) based on real-time data, such as recent natural disasters or economic conditions. This capability allows insurers to make smarter decisions about which risks to accept, improving both profitability and customer satisfaction. As a testament to AI's untapped potential for growth, [Deloitte projects](#) that by 2032, insurers could be writing around \$4.7 billion in annual global AI insurance premiums (at a compounded annual growth rate of around 80%).

We also asked Thierry Daucourt, Global Business Community Commercial Lines P&C at AXA, what his thoughts are on how AI is reshaping the way decisions are made at various stages of the policy lifecycle. Here's what he had to say:

"We make smarter, faster, and better-informed underwriting decisions. [AI] replaces the trainee or assistant underwriter that each senior underwriter has. Basically, it is now the virtual assistant underwriter that brings up on the screen the information needed for the underwriter going through the underwriting process. It speeds up the whole process because all the triage, based on defined rules, [can be finished] in seconds!"



- Thierry Daucourt,
Commercial Lines P&C, AXA

Moreover, predictive analytics powered by AI goes beyond historical data. AI uses real-time inputs to predict future risks more accurately, allowing insurers to adjust pricing strategies. For example, AI can predict which customers are more likely to file claims, helping insurers assess risk and optimize premium pricing to safeguard profitability.



Faster decision-making through data consolidation

Another key challenge in underwriting is the sheer volume of data that needs to be processed. Insurers often struggle to gather all the necessary information in a timely manner, resulting in delays and inefficiencies. AI helps solve this issue by consolidating data from multiple sources— internal systems, third-party vendors, and customer submissions—into a unified view. This gives underwriters a comprehensive picture of each submission, enabling them to make faster and more informed decisions.

Michael Duncan, former Zurich Insurance Group executive, envisions a future where insurers have access to all the data they need to provide accurate quotes instantly. On [an episode of the Unstructured Unlocked podcast](#), he noted,

"The ultimate future is [that] insurers will have all the data. Somebody will ask for a quote for property insurance, and it'll be, you know, 'Chris Wells Enterprises' who now has the... biggest IT company in the US, and they will have access to that data... Insurers will know exactly what customers that they want to go after. They would have... already been using really sophisticated pricing algorithms that don't even exist today... That future is probably 20 years away, maybe longer."



- Michael Duncan,
Former Executive, Zurich Insurance Group

Data consolidation also improves accuracy. By aggregating up-to-date and relevant information, AI reduces the risk of errors and omissions, leading to better risk assessments. Furthermore, AI systems enhance transparency and auditability, providing clear explanations for decisions and helping insurers meet regulatory requirements. This transparency is critical in maintaining trust with both customers and regulators.



Transforming the policy lifecycle with

AI's impact is not limited to underwriting; **AI-based automation** transforms the entire policy lifecycle, from submission to claims. Traditionally, each stage of this process was manual, leading to time lags, inefficiencies, and human error. AI automates many of these tasks, enabling real-time decision-making, reducing costs, and enhancing customer satisfaction.

For example, AI can streamline the submission phase by automatically reviewing and triaging incoming applications. This ensures that high-priority submissions are addressed first, improving both the speed and quality of underwriting. AI tools also analyze data in real time during underwriting, providing underwriters with deeper insights into risk profiles, making it easier to identify opportunities and threats.

Once a policy is in place, AI continues to add value. Routine **policy management** tasks like policy renewals, updates, and customer communications can be automated, allowing insurers to operate more efficiently. For instance, when an **insurance policy** is up for renewal, AI can assess the customer's risk profile and automatically generate an updated quote, freeing human employees to focus on more strategic activities.



Enhancing human-AI

The introduction of AI into the insurance lifecycle has raised concerns about the role of human employees. However, **AI is not about replacing humans but rather augmenting their capabilities.** While AI excels at data analysis, pattern recognition, and speed, it cannot replicate the nuanced decision-making that requires emotional intelligence, empathy, and deep expertise.

For example, an AI system might flag a claim as high-risk based on statistical data, but a human adjuster can evaluate contextual factors that make the claim valid. The collaboration between AI and human expertise leads to better decision-ready risk evaluation, combining computational power with judgment. This partnership allows underwriters to focus on complex risk scenarios and adjusters to handle high-stakes claims, vastly improving overall processing speed.

Furthermore, AI-driven systems enable real-time insights that support decision-making. Underwriters can rely on AI to surface relevant data points, helping them price policies more accurately, while claims adjusters can use AI to detect fraud early, preventing costly payouts. This collaboration improves not only efficiency but also the quality of decisions.

Parul Kaul-Green, Former Chief Digital Strategy Officer at Liberty Specialty Markets, aptly summarized the human employee-AI dynamic, and outlined a solution as well:

“Insurers face several common hurdles when adopting AI... Organizational resistance often arises as employees fear change and the potential impact on their roles. To overcome these barriers, insurers can implement data lake architecture and API modernization to achieve a unified data view. Promoting innovation through AI literacy programs and cross-functional teams can empower employees and reduce resistance.”



– Parul Kaul-Green,

Former Chief Digital Strategy Officer, Liberty Specialty Markets



AI's Transformative role in insurance

AI is reshaping the insurance industry by enhancing decision-making at every stage of the policy lifecycle. From smarter risk selection to faster claims processing, AI helps insurers operate more efficiently, reduce costs, and improve customer satisfaction. But most importantly, AI serves as a powerful tool that complements human expertise, allowing professionals to focus on the strategic, high-value aspects of their work. By embracing AI, insurers can deliver better service, make more informed decisions, and stay competitive in an increasingly data-driven world.

Chapter 4:

The future of AI in insurance decisioning



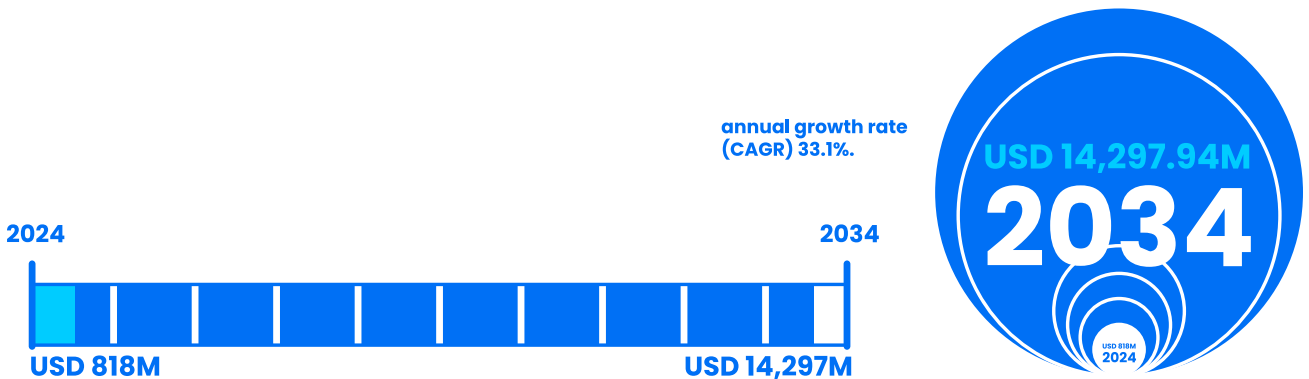


The road ahead: AI and the future of

The future of insurance is inextricably linked to the advancement of AI technologies. As AI continues to evolve, it will not only become more sophisticated but also more deeply integrated into every aspect of the insurance business. Insurers that embrace AI now will be better positioned to lead the industry into this new era, while those that lag behind may find it increasingly difficult to compete.

One of the most promising developments in AI is the rise of agentic AI and generative AI, both of which are set to transform decision-making in insurance. Agentic AI enables autonomous real-time decisions by processing complex data streams, such as instantly assessing claims or underwriting submissions. Generative AI creates predictive models by analyzing existing data, like **telematics** or satellite imagery, and offers real-time recommendations for pricing and risk assessment. Together, these AI advancements provide insurers with more decision-ready claims, helping them meet evolving customer demands and navigate a changing risk environment.

And the growth is projected to be significant—according to **Precedence Research**, the **global generative AI in insurance market size is valued at USD 818.78 million in 2024 and is expected to reach USD 14,297.94 million by 2034, growing at a compounded annual growth rate (CAGR) of 33.1%.** We believe that these projections only further highlight the increasing role generative AI will play in transforming insurance practices and enhancing decision-making processes for insurers.



As AI continues to advance, we can also expect to see **more sophisticated fraud detection systems.** Today's AI models can already detect anomalies in claims data that may indicate fraud, but future AI systems will be even more adept at identifying fraudulent activity in real time. For example, AI could analyze patterns in a customer's social media activity, financial transactions, and online behavior to detect signs of fraud before a claim is even submitted. This proactive approach to fraud prevention will help insurers reduce losses and improve their bottom line.

However, as AI becomes more powerful, it will also raise new ethical and regulatory challenges. Insurers will need to keep their AI systems transparent, accountable, and fair, particularly when making decisions that impact clients' businesses. For example, if an AI system denies a claim or raises a customer's premium, the insurer must be able to explain how the decision was made and ensure that it was based on accurate data and free from bias. In order for **AI to drive digital transformation** ethically, insurers must stay vigilant on the regulatory front.



AI, Compliance, and Ethical Decisioning

As [insurers continue leveraging AI more](#) and more for decision-ready claims, ethical considerations are paramount. We must ensure that AI operates transparently and fairly, especially when decisions significantly impact customers' lives. Maintaining customer trust is critical—[AI-driven digital transformation](#) cannot be deemed successful if customers don't believe that they are being treated fairly. Transparency is crucial, as insurers need to be able to explain how AI-driven decisions are made, particularly when claims are denied or premiums are adjusted.

[Ethical decisioning](#) also means preventing bias in AI systems. Historical data may contain biases related to gender, race, or socioeconomic status, which can be perpetuated in AI models. Insurers must monitor their systems and take corrective actions to avoid biased outcomes. Additionally, [compliance with data privacy regulations](#) such as GDPR and CCPA is essential. As AI handles vast amounts of personal data, insurers must protect customers' rights to access, correct, or delete their information and guarantee that their data is handled ethically and securely.

Furthermore, [AI's growing role in insurance](#) brings new societal and regulatory questions. Another challenge facing the insurance industry is the looming talent shortage, which compounds the need for AI adoption. [As Tom Wilde, CEO of Indico](#), noted in a panel discussion in July of 2024,

"71% of property-casualty insurers expect to increase their staff in the next 12 months." However, the industry also faces an aging workforce, with "50% of the insurance workforce expected to reach retirement age over the next 15 years,"



– Tom Wilde,
CEO, Indico

according to the Chamber of Commerce. Efficient knowledge transfer and AI-based training systems will be crucial to ensure that the next generation of underwriters is prepared to meet increasing and changing labor demands.

To foster safe, secure, and scalable AI, insurers must adopt robust frameworks that focus on governance, monitoring, and scalability of AI systems. Safe AI means building safeguards that ensure decisions are made accurately and without harm to customers. We must also protect AI systems and data from breaches while providing insurers with the scalability they need to handle increasing volumes of data and decisioning without sacrificing AI performance. If we can continue to uphold these three key principles, insurers will be able to confidently leverage AI to drive business outcomes while maintaining ethical standards and regulatory compliance.

While AI offers immense potential for improving efficiency, accuracy, and customer experience in the insurance industry, it also raises important ethical and regulatory challenges. Insurers must make sure that their AI systems are transparent, free from bias, and compliant with data privacy regulations. By doing so, they can build lasting trust with customers and regulators, positioning themselves for success in an AI-driven future.

Embracing the AI Decision Era

The insurance industry is on the cusp of a new era—one defined by the transformative power of AI. As AI continues to evolve, it will play an increasingly important role in shaping how insurers assess risk, process claims, and deliver services to customers.

By embracing AI for decision-ready risk evaluation, insurers can unlock new efficiencies, improve accuracy, and deliver faster, more personalized services to their customers. Those who are willing to invest in AI today will gain a competitive edge in the future, as they will be able to offer more innovative products, respond to market changes more quickly, and provide better customer experiences.

However, the road to AI adoption is not without challenges. Insurers must overcome technical, organizational, and regulatory hurdles to fully realize the potential of AI. We asked the Global Business Community Commercial Lines P&C at AXA, Thierry Daucourt, what the most common hurdles to AI adoption are, and what strategies can help overcome those barriers. Here was his answer:

“AI is a bit like self-driving cars. The promise that... cars are self-driving [has been around] since more than 5 years [ago]. Yet, depending on what you define to be self-driving, they are not... yet! You need to embark the people on this transformational journey. So, looking in the mirror to see if [they’re following you] is important. Otherwise you might end up [at your destination]... But alone!”

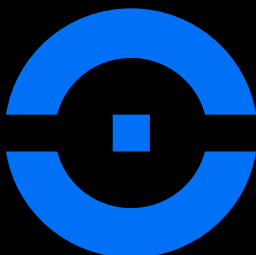


– Thierry Daucourt,
Commercial Lines P&C, AXA

By taking a strategic approach to AI integration and fostering collaboration between humans and AI, insurers can successfully navigate these challenges and position themselves for long-term success.

The Decision Era is here. Insurers that embrace AI now will not only stay ahead of the competition but also help shape the future of the insurance industry.

Are you ready to enter the decision era?



Indico is dedicated to providing AI-powered intelligent document processing tools for insurance companies that streamline processes, improve customer experience, and lower labor costs. Our AI solutions are regulation compliant and simple to implement.

If you want to see what our Intelligent Intake solution can do for your insurance agency, [schedule a demo](#) today.