

The AI-Powered Insurer

A Practical Guide to Harnessing the Power of AI and Generative AI for Insurance Firms.

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Why this report?

Imagine a world where your underwriting department completes complex risk assessments before you've finished your morning coffee, claims are processed in the blink of an eye, and every customer interaction feels intimate, personalized and effortless.

Sound like the distant future? Well, that future is knocking on our industry's door, right now.

Welcome to "The AI-Powered Insurer," a deep dive into how Generative Artificial Intelligence (AI) is set to revolutionize our insurance world. We have reached the point where this is not just another tech fad. It's a seismic shift projected to catapult the Generative AI market to a staggering valuation of \$8.1 billion by 2032, growing at an impressive compound annual growth rate (CAGR) of 33.1%.

We're witnessing a seismic transformation that you really can't afford to ignore.

You might be thinking, **"We're in the business of managing risk, not jumping into uncharted territory."** And you're right—our industry is inherently prudent.

However, please consider this: early adopters of Generative AI are already witnessing substantial enhancements in **customer service, underwriting, claims processing, and commercial management.**

Such is the impact of Generative AI, that there is a possibility its use (at least in some areas) becomes a competitive requirement.

With over **50% of claims processing projected to be automated by 2033**, using Generative AI allows you to rethink how you allocate your resources, and can allow you to focus on directing newly available capacity towards innovating, strategizing, and outpacing your competitors.

We know there's an elephant in the room. Yes, AI does come with its own set of challenges— concerns over data privacy, challenges related to regulatory compliance, ethical considerations, and the uncomfortable question of workforce displacement. It's understandable to feel a mix of both excitement and apprehension. Which is precisely why this report exists.

"The AI-Powered Insurer" isn't about selling you an AI-powered fantasy. We're telling you how it is, and want to help you comprehend and utilise AI in a way that is proactive, measured, and empowering.

We've meticulously analyzed over **269 AI and Generative AI firms**, and this report cuts through the hype to give you actionable insights that you can use. The aim of this report is to offer a balanced perspective—highlighting transformative opportunities while candidly discussing potential pitfalls.

Keep reading, to explore how Generative AI can:

Craft **personalized marketing campaigns** that boost customer engagement and enhance customer retention.

Automate claims processing to reduce costs and improve customer satisfaction.

Enhance **risk assessment and underwriting** through advanced data analytics.

Revolutionize **customer service** with AI-driven chatbots that handle inquiries 24/7.

However, we don't stop there. We dive into strategies to both understand and deal with the all-important risks associated with Generative AI:

Ensuring **regulatory compliance** in a landscape where legislation can struggle to keep pace with technology.

Upholding **ethical standards** to avoid biases and maintain customer trust.

Addressing the **talent gap** by upskilling your workforce and building new expertise.

This roadmap has been designed for senior leaders and executives who are ready to lead their organizations into the next era of insurance. Whether you're an AI enthusiast eager to harness new technologies, or a skeptic cautious about disrupting the status quo, this guide offers valuable insights tailored to your needs.

Let's dive in.



Sabine VanderLinden

CEO & Venture Partner
Alchemy Crew Ventures



Dr. George Shelton

Head of Venturing
Alchemy Crew Ventures



Executive Summary

The market for Generative AI surges:

Generative AI is projected to reach a market size of \$8.1 billion by 2032 at a CAGR of 33.1%, with the potential to revolutionise a range of industries, including insurance.

Adoption of Generative AI goes global:

While North America currently leads in adoption, the emerging APAC market is poised for significant growth of 27.6% GAGR by 2032.

Disruption of traditional operations begins:

Generative AI is already transforming how firms operate. We see evidence of Generative AI impacting departments including customer service, underwriting, claims processing, and commercial management. The combination of data-driven insights with new ways of improving operational efficiency represents a prospective paradigm shift in how businesses are structured and operate.

We explore a range of examples of Generative AI in insurance:

This report identifies short-term high-potential-value examples of the use of Generative AI in this space, including personalised and dynamic marketing campaigns, customer service chatbots, automated claims processing, and data analytics.

Generative AI starts redefining the dynamics of the workforce:

By 2033, it is projected that over 50% of claims processing will be automated. This shift in resource deployment positions human employees to engage in higher-value tasks that require uniquely human competencies, including the management and development of AI systems.

The disruptive potential of both AI and Generative AI is highly feted, but can this technology really transform the insurance industry to the degree that we are led to believe? And do the potential upsides related to early adoption outweigh the inherent risks of changing a highly humanised and undoubtedly complex status quo?

Explore the results of our monitoring and analysis of over 269 AI and Generative AI firms in this report. We look beyond the hype and examine the reality of the impact that artificial intelligence and Generative AI is having in the insurance space, as well as the risks and opportunities that it might represent, and how to recognise, mitigate, and manage these risks.

We start with a summary of the market, before reviewing a broad selection of extant literature, research and related thought leadership. We then explore the findings of our own original qualitative research, and analyse a selection of key startups in this space.

Finally, the reader is given a unique insight into Alchemy Crew's AI-powered insurance operating model. This contains a range of real-world case studies that cover how AI and generative AI is currently transforming our industry, along with practical next steps for how to be proactive in managing and using AI to add value for key stakeholders. We dive into realising a hypothetical AI-powered insurance firm of the future, and have compiled a list of key criteria that firms can use for selecting and partnering with the most useful and promising AI startups and scale-ups that are in the market.

This report aims to serve as a practical resource for a broad spectrum of stakeholders, including insurance professionals, managers, policy-makers, and innovators of all levels that are looking to leverage AI technology to evolve and grow.

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Chapter 1:

What is Generative AI?

Definition

Generative artificial intelligence (often abbreviated to 'Gen AI'), refers to “deep-learning models that can generate high-quality text, images, and other content based on the data that they were trained on.”¹

Two elements of this definition are notable. Namely the importance of the quality of the data on which the learning models are trained, as well as the accuracy and utility of the generated output, which is often something that could be produced by a human, but at a much slower speed .

Although Generative AI is not an entirely new technology, the introduction of generative adversarial networks (GANs) did not emerge until 2014. These machine learning algorithms elevated the utility of Generative AI by generating audio and visual output of a quality that was sufficiently convincing and useful.²

The well-publicised launch of ChatGPT in November 2022 brought Generative AI firmly into the public consciousness, and sparked heated debate around a range of different topics. These included the utility of Generative AI in the mainstream workplace, its impact upon staffing and the way in which human resources are deployed, and how governments might regulate the use of Generative AI to ensure that its use is ethical and that it is a positive force for good.

In the insurance industry specifically, Generative AI has the potential to transform operations, deepen customer relationships, and create new products and business models.³

¹ <https://research.ibm.com/blog/what-is-generative-AI>

² <https://www.techtarget.com/searchenterpriseai/definition/generative-AI>

³ <https://www.mckinsey.com/featured-insights/mckinsey-explainers/what-is-generative-ai>

Generative AI's potential impact upon business

Generative AI of sufficient quality can have a transformational impact upon productivity, by augmenting humans in their work.

It has been estimated that incorporating generative AI tools into private businesses and public sector organisations could increase global productivity by 1.5 percentage points over the next decade.⁴

Whilst this increase might seem modest, this would in fact translate to a 7% increase in global GDP, equating to almost \$7 trillion. Generative AI can have a practical impact on improving productivity by automating and speeding up routine tasks, catalysing innovation, personalising offers, streamlining customer services, and creating high volumes of content more efficiently.



By removing the quirks and inefficiencies of humans, and mitigating some of our limitations, Generative AI can perform certain tasks faster and more accurately than humans can under the same conditions. Herein lies a central duality inherent to Generative AI - whilst it might replicate a range of tasks that humans can do, it does not necessarily do this in the same way as a human might, which is important to understand. In order to effectively master Generative AI, it must first be sufficiently understood.

⁴ <https://www.goldmansachs.com/intelligence/pages/generative-ai-could-raise-global-gdp-by-7-percent.html>

Chapter 2:

Generative AI Market Overview

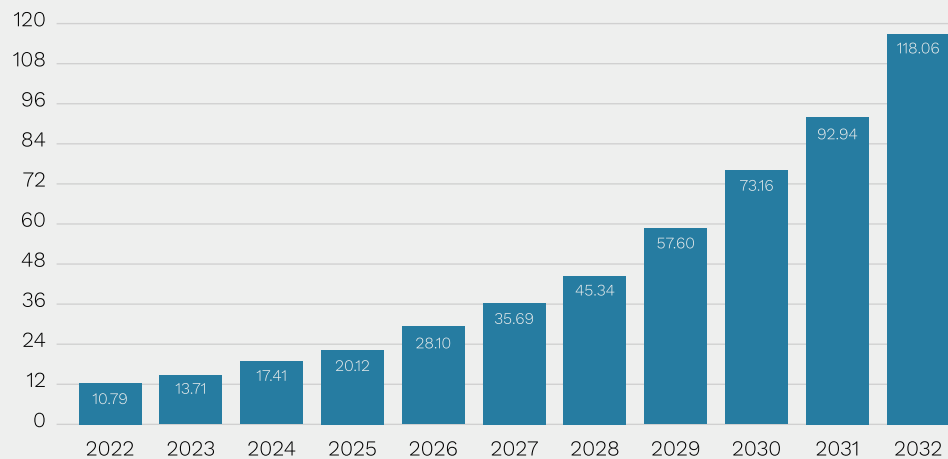
The market for Generative AI globally has witnessed consistent growth in recent years, and appears to be poised for further expansion. This growth is, in part, due to a culmination of factors that include advances in machine learning algorithms, computing power, and the availability of large-scale datasets.

Global market size

In 2022, the global Generative AI market was estimated to be approximately \$10.79 billion. This is projected to grow to the region of \$118.06 billion by 2032, at a compound annual growth rate (CAGR) of 27.02%. The Generative AI market in the United States was valued at \$2.7 billion in 2022, illustrating that demand for Generative AI is by no means restricted to America.



Figure 1: Generative AI market size (2023 to 2032; USD billions)



While North America did account for 41% of total global Generative AI revenue in 2022, the Asia Pacific market is forecast to grow at a CAGR of 27.6% between 2023 and 2032. The Media and Entertainment segment accounted for more than 34% of total Generative AI revenue in 2022, while the Business and Financial Services sector is expected to grow at the fastest rate – at a CAGR of 36.4% by 2032.⁵

Who is using Generative AI?

At the time of writing, we see evidence of modest proliferation of Generative AI tools in the workplace, with approximately one in four US companies reporting to use them.⁶

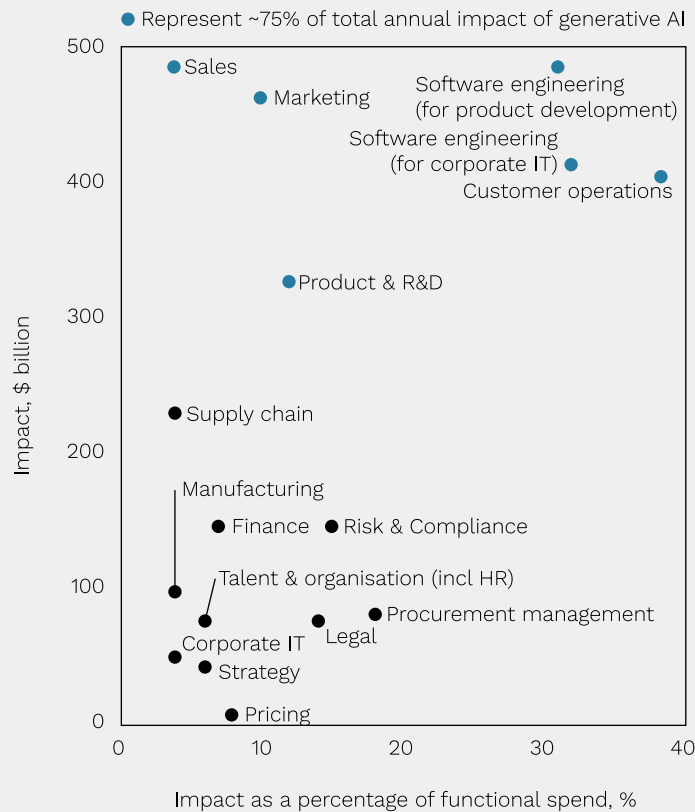
⁵ <https://www.precedenceresearch.com/generative-ai-market>

⁶ <https://www.altmansolon.com/news-and-events/altman-solon-survey-nearly-a-quarter-of-tech-firms-report-using-generative-ai-for-software-development-with-significant-growth-across-business-functions-over-n>

Specific examples of their use in professional settings include sector leaders such as consulting firm McKinsey, who reported in June 2023 that almost half of their 30,000 employees were using ChatGPT and other Generative AI tools every day. A report by Gartner reported that AI tools are predicted to aid in the discovery of as much as 30% of all new pharmaceuticals by 2025.⁷

While multiple industries, including finance, healthcare, retail, entertainment, and manufacturing are already actively embracing Generative AI technologies, analysts at McKinsey believe that banking, high technology, and life sciences are among the industries that could see the biggest immediate impact from its adoption:⁸

Figure 2: Generative AI impact as a proportion of revenues



⁷ <https://www.gartner.com/en/topics/generative-ai>

⁸ <https://www.mckinsey.com/capabilities/mckinsey-digital/our-insights/The-economic-potential-of-generative-AI-The-next-productivity-frontier#business-value>

Investment landscape

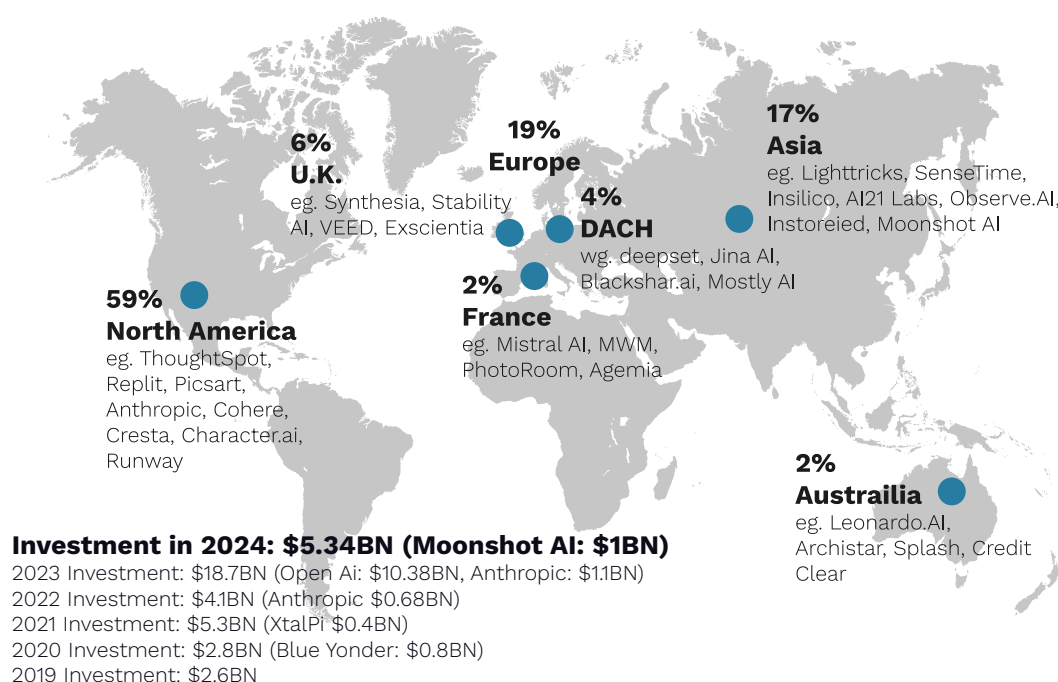
Investment into Generative AI is predicted to grow rapidly. As of March 2023, Microsoft had invested approximately \$13 billion in ChatGPT creator OpenAI, while Chinese search engine Baidu set aside 1 billion Yuan (\$140 million) to invest into AI technology last year. In addition, professional services firm PwC has announced plans to invest over \$1 billion into the space.⁹ AI startups and scale-ups have been hot property in the investment world, finding themselves the subject of major interest

and receiving significant funding, a trend predicted to continue.

Angel and seed deals have grown significantly, with 168 deals and \$3.2 billion invested in 2022 compared with just 64 deals and \$1.7 billion invested in 2019.¹⁰

Venture capital firms increased their positions in Generative AI from \$1.7 billion across 64 deals in 2019 to a substantial \$17.4 billion across 170 deals between Q1 and Q3 2023. This is despite a backdrop of an increased cost of capital, and challenging economic headwinds.¹¹

Figure 3: Global equity funding and deals for Generative AI



Source: Alchemy Crew Ventures Research. Data as of 08 Apr 2024.

Our research indicates that approximately \$44.9 billion has been invested into the Generative AI space across 970 startups, as of April 8, 2024. 2024 Investment reached \$5.34 billion by the end of Q1 2024 alone, with Moonshot AI securing \$1 billion of that funding.

This follows 2023's \$10.3 billion investment into Open AI, with AI firms Inflection and Anthropic also receiving substantial inward investment that year. From a geographic base point of view, North America dominates the AI landscape, hosting 59% of startups, followed by Europe at 19%, Asia at 17%, and then Australia at 2%.

Key drivers

Several forces underpin the drive in adoption of Generative AI, with many of them related to its utility. Firstly, we now have Generative AI that is sufficiently developed to be practically useful to individuals and organisations. Early teething problems have been resolved, and Generative AI is at the point where it is no longer 'more trouble than it's worth'.

The exponential proliferation of digital data that can be used to train Generative AI models has been a critical part of their development, as well as continuous advances in machine learning algorithms. Technical advances in Generative adversarial networks (GANs) and variational autoencoders (VAEs), coupled with increases in computing power facilitated by GPUs (Graphics Processing Units) and Cloud computing, has enabled Generative AI to be useful enough for conventional people (non specialists), to enter the mainstream.

At the same time, companies face familiar pressures that Generative AI can now help with, including enhancing customer experience, improving their marketing, and boosting operational efficiencies.¹²

⁹ <https://www.allianzgi.com/en/home/insights/outlook-and-commentary/rise-of-generative-ai>

¹⁰ <https://www.cbinsights.com/research/report/generative-ai-bible/>

¹¹ <https://www.forbes.com/sites/columbiabusinessschool/2023/01/17/generative-ai-the-new-frontier-for-vc-investment/>

¹² <https://c3.ai/generative-ai-enterprise-old/key-considerations-for-adopting-generative-ai-in-the-enterprise/>

Challenges and limitations

It is easy to see why so many organisations and individuals might be excited about AI - at its core, it has the ability to mimic cognitive labour, which is a change that no previous technology has been able to do before (without intrinsic human intervention).

However, the development of Generative AI and its inclusion into the mainstream has created a range of challenges that are still in the process of being fully addressed.

Taking centre stage are concerns about data privacy and the ethics of using AI to generate content and automate tasks that were once completed by humans. Examples of this include the creation of celebrity image and audio likenesses by AI without the individual's permission, and the creation of 'deepfake' videos to influence behaviour in critical moments like national elections.



In addition there remain challenges regarding the potential that Generative AI models have to repeat and amplify cultural, racial, and sexist biases that might be present in the training data. The development of AI is, in some respects, forcing us to take a long, hard look at systemic human bias that is often baked-in to existing systems.¹³

¹³ <https://www.aljazeera.com/news/2024/4/9/why-google-gemini-wont-show-you-white-people>

These issues have resulted in interest in regulation from a range of stakeholders, including policymakers and regulatory bodies around the world. As Generative AI continues to proliferate the mainstream, we predict that regulatory scrutiny is only likely to increase, especially given the current lack of a common global framework.¹⁴

However, In April 2024 we saw the signing of a deal between the US and UK governments to work together on testing the safety of advanced AI models - the first international bilateral deal of its kind (in formal terms, a ‘memorandum of understanding’).¹⁵

“Bias in AI models is one of the biggest potential pitfalls that the insurance industry must anticipate, especially in the context of regulation and legislation. Algorithms may inadvertently learn biases present in historical data, potentially leading to unfair pricing or coverage decisions.

This is especially important in the context of the EU AI Act, as this was a key input for their AI Systems Regulatory Framework, going from high risk to minimal risk. In the upcoming years, insurance organizations must be aware and hyper-vigilant about this risk, taking it into account when designing or implementing their AI use cases internally.”



Maarten Callaert
Co-Founder and COO, Paperbox

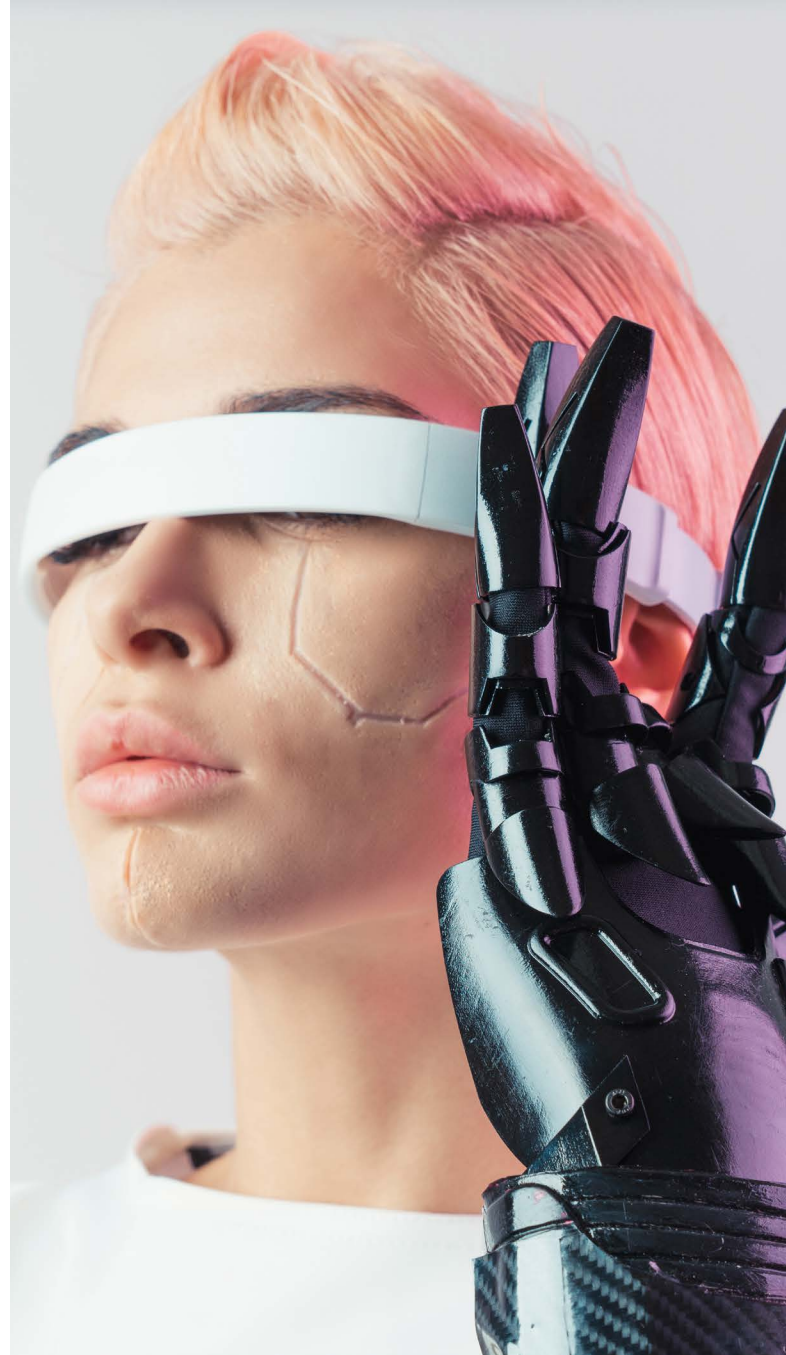
¹⁴ <https://www.taylorwessing.com/en/interface/2023/ai---are-we-getting-the-balance-between-regulation-and-innovation-right/ai-regulation-around-the-world>

¹⁵ <https://www.gov.uk/government/news/uk-united-states-announce-partnership-on-science-of-ai-safety>

A further practical challenge related to developing AI is a lack of skills availability. The implementation and management of Generative AI systems requires specialised expertise, and at present, there is a shortage of professionals with these relevant skills.¹⁶

Finally, there are risks associated with ‘AI washing’ whereby organisations provide misleading information about the capabilities, limitations, or risks associated with their AI (or use of AI), because they know that the buzz around AI’s use is attractive to both investors and potential industry partners.

Examples of this include the Canadian investment firm Delphia, who claimed to have built an AI to predict upcoming companies and industry trends, despite not having such capabilities, and the renowned (now defunct) German firm Wirecard, whose claim to have advanced proprietary AI throughout their fintech products and services, despite this not being the case.



¹⁶ <https://fact.technology/learn/generative-ai-advantages-limitations-and-challenges/>

Chapter 3:

The Potential of Generative AI in Insurance

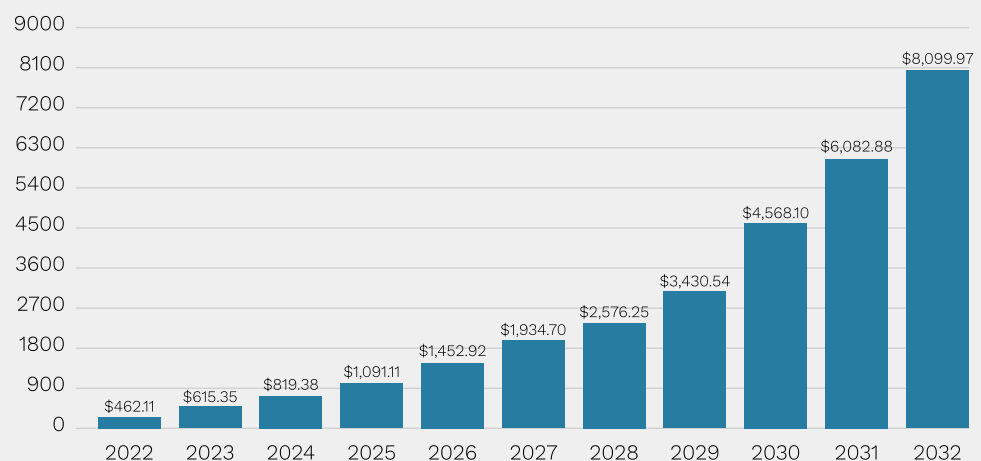
Organisations operating in the insurance space are increasingly recognizing that Generative AI has the potential to positively transform their historic industry. Whilst insurance is steeped in tradition, innovation continues to evolve both product and service offerings, and Generative AI is undoubtedly at the vanguard of insurance innovation. We are seeing evidence of a range of firms exploring how Generative AI might improve claims processing, customer service, risk analysis, marketing, and compliance, among other things.



Global generative AI insurance market size and growth

The global Generative AI in insurance market is expected to grow at a CAGR of 33.1% between 2023 and 2032 to reach a value of approximately \$8.1 billion.

Figure 4: Global generative AI in insurance market, 2023 - 2032



Source: Precedence Research

Regional market analysis

North America dominates the global generative AI in insurance market

The US market, renowned for its enthusiasm when it comes to tech, has led spending and investment into Generative AI compared to other geographies.

Insurers in North America are using Generative AI in particular for:

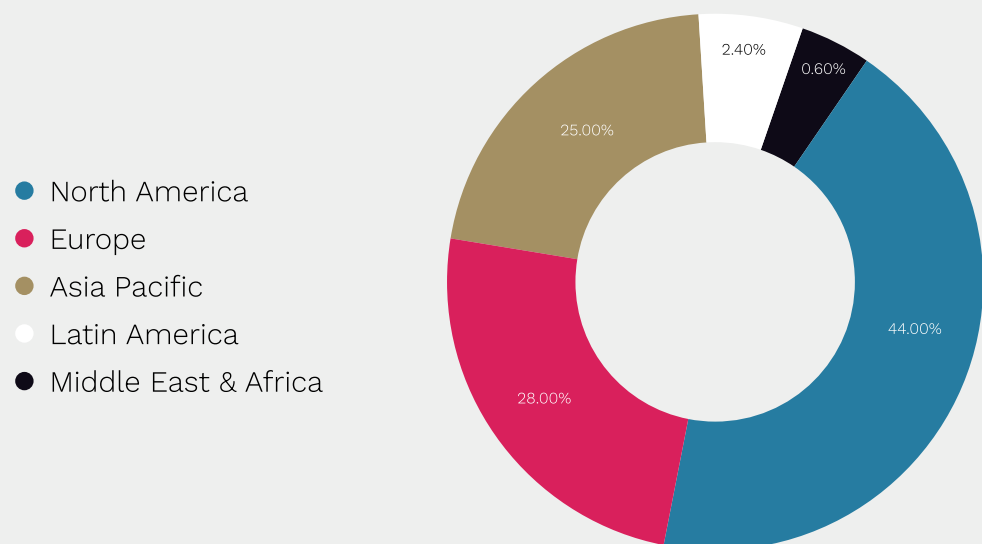
- Underwriting automation
- Fraud detection
- Claims administration
- Risk assessment

Europe is the second biggest region when it comes to Generative AI use in insurance, with the UK, Germany, France, and Switzerland leading adoption and integration. Within Europe, insurers are using Generative AI specifically to help:

- Customise pricing
- Automate customer service
- Detect fraud
- Increase operational effectiveness

Commentary from some analysts suggests that Europe's traditional regulatory focus on data security and legal compliance might be limiting Generative AI usage in this region, when compared with North America.¹⁷

Figure 5: Generative AI in insurance market share by region, 2022



Source: Precedence Research

¹⁷ <https://marketresearch.biz/report/generative-ai-in-insurance-market/>

Generative AI's practical impact on insurance

Generative AI appears to be poised to herald a significant revolution in the insurance industry by creating smarter and more efficient products and services. Property and casualty insurance is expected to be the most significantly transformed by this tech, followed closely by health insurance.

The most valuable and practical short term applications for Generative AI within the next three years include its ability to:

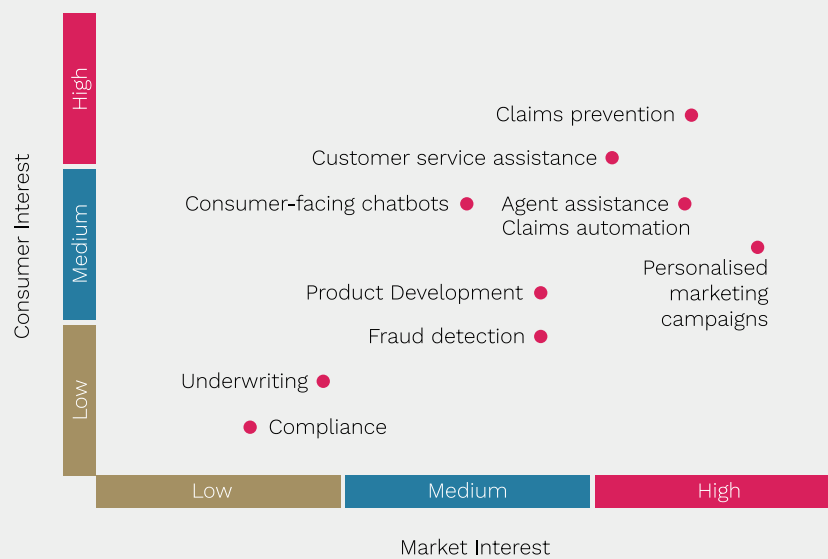
- Help create personalised marketing campaigns and higher quality customer service chatbots
- Reduce (and prevent) fraudulent claims
- Automate claims processing
- Assist in the development of new products
- Train and upskill employees



However, we must note that Generative AI is not without its sceptics, both among customers and industry providers. While many observers tout the significant potential for the use of Generative AI's in underwriting and compliance, others claim that the technology is currently “not suitable” for these purposes:¹⁸

¹⁸ <https://www.businessinsider.com/chatgpt-and-generative-ai-insurance-whats-next-how-to-prepare-2023-june?r=US&IR=T>

Figure 6: Insurance and consumer interest in generative AI applications



Source: Insider Intelligence

Sprout.ai, an insurance claims automation provider with an interest in Generative AI, partnered with YouGov to engage with a range of individuals (4442) in the UK and USA and explore their sentiment towards AI in insurance.¹⁹ Their research highlighted a range of significant challenges that exist related to AI from the customer perspective. Firstly, there is no doubt that an insurer's overt use of AI affects who customers choose.

36% of their respondents said that they would not select an insurer using AI, 33% were indifferent, and 9% would opt for an insurer that used AI. Clearly, there is convincing to do, when it comes to customers. Customers cited mistrust in the technology's decision making, concern at the loss of human interaction, and worries about transparency and data privacy.

¹⁹ <https://sprout.ai/research-reports/ai-and-claims-processing-what-customers-really-think/>

These concerns should be addressed in order to build trust and showcase the potential benefits for customers of using AI. It also highlights the delicate balance that exists in managing customer relationships - what might seem like a win-win for tech savvy insurers is not necessarily a view that is instantly reflected back by customers and the consumer market.



Generative AI in insurance: most valuable use cases

In this section, we dive into how Generative AI can be used to help solve practical challenges in the insurance space. Being a historic, complex, and diverse market, a range of issues have always existed for providers, including managing customer experience, driving process efficiency, and using data to improve decision-making and reduce risk. Generative AI can help to address some of these, if handled effectively.

Whilst there appears to be no universal consensus regarding the exact nature of how large a role Generative AI will play in the future of insurance, we hope to give you a flavour of how it is already being used in this section.

Marketing

Using 360-degree customer profiles to segment and target customers is now common practice in many industries, from conventional retail to consumer banking. Those firms at the leading edge are using Generative AI to utilise customer data and automate the creation of highly personalised omni-channel campaigns. These campaigns include customers' preferred channels, times when they are most responsive, and dynamic omnichannel management to ensure that the right messaging reaches them at the times when they are most likely to be responsive.

One illustration of this is discount sensitivity, which tends to vary substantially between customers. Some customers typically respond well to discounted promotions, whilst others are prepared to pay more for better service and more consistent pricing. Generative AI can help insurance marketers to create campaigns which target and then differentiate-between separate groups. Those who are highly discount sensitive can then be presented with discreet offers, while others can be treated differently. This can optimise service and greatly boost efficiency and efficacy.

A further example of Generative AI's utility is in messaging. Marketers have historically pored over copy, and fretted over comms plans, to ensure that the right message is delivered in the right place at the right time and to the right person. Generative AI can help with each of these specific steps.

“Early AI adopters have already begun to pull away in the insurance space with their marketing, building content that illustrates the firm’s expertise. Using AI to understand the full range of client journeys beyond a few landing pages and lead capture pages is the new normal and a mid-size firm can now build at scale.

The peril is that AI will remove the authenticity of this content, so firms must focus on subject matter experts and differentiate in a market where price and coverage are commodities.”



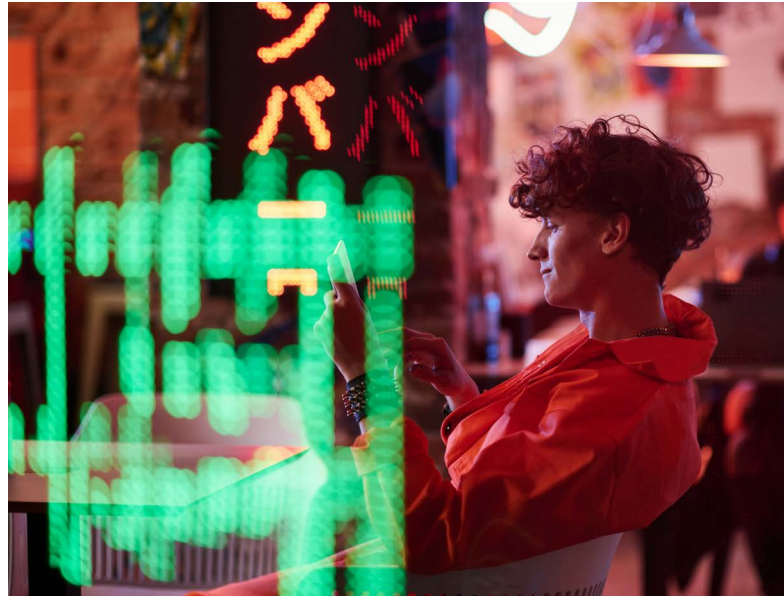
Jeff Coyle
Co-Founder and Chief Strategy Officer, MarketMuse

It can assist marketers with exploring, testing, refining what messaging works on an individual level. This is typically achieved through combining Generative AI with customer relationship management (CRM) technology. A number of CRM and marketing technology (martech) platforms incorporate Generative AI tools within their wider offering.

Personalization

Insurance is a space that has traditionally struggled to build particularly strong customer relationships. AI algorithms can leverage customer data and behavioural cues to provide personalised recommendations and offers, and tailor the overall customer experience to specific personal tastes. This can become particularly effective when human agents collaborate with AI systems. For example, using an AI-powered chatbot to answer common customer questions about policy coverage and terms, which in-turn frees-up customer support agents to spend more time on more urgent or complex inquiries, and build deeper organisation-customer bonds.

Firms can also train Generative AI to make automated personalised product recommendations based on existing policy preferences and claims history. Automating simple tasks can help to improve the speed and responsiveness of customer service, ultimately reducing customer churn and building loyalty.



Claims

Claims processing has typically been one of the greatest costs in conventional consumer-facing insurance - characterised by necessary but cumbersome stages that require significant human oversight and regular approval. Generative AI can streamline the processing of claims, automate basic inquiries, speed-up claim settlements, and reduce processing times. It can also automate data entry and analysis and create automated messages for customers that are making a claim.

A sophisticated example of AI impacting claims and reducing claims costs for carriers, is in damage assessment in the automotive industry. After an accident, a customer remotely uploads images of their damaged vehicle. Generative AI can then evaluate the damage, estimate repair costs, and expedite the claim, in a way which is drastically faster than before. In this way, agents can assume a supervisory role, rather than a granular processing role, and focus their energy on managing the process in a way that best serves the customer.

detecting suspicious claims activities, shortening investigative cycles, and avoiding paying out on fraudulent claims. We are also seeing what AI can do to significantly improve recovery.”



Robert Morton
*Head Of Corporate Communications,
Shift Technology*

Fraud detection

Insurance fraud represents a major problem in the global insurance industry, costing the non-life sector over \$40 billion per year in the US alone.²⁰

Generative AI is able to create fraud detection models that can predict the statistical likelihood of fraud in new claims, flagging potential fraud that can be investigated further by experienced trained employees. Not only can this reduce the number of fraudulent claims, it can also save firms time and money investigating invalid claims. All of which reduces costs, and results in lower premiums for responsible policyholders.

²⁰ <https://www.fbi.gov/stats-services/publications/insurance-fraud>

Business insights and market intelligence

Generative AI can collect, clean, organise, and importantly, interpret and analyse large datasets related to an insurance company's productivity and sales metrics. This processing can help to synthesise and summarise these findings into usable reports and helpful dashboards, as well as making recommendations for improvements. Certain stages, especially relating to processing data, can be performed far more rapidly by AI of sufficient ability, and help professionals to work more efficiently, and use their time differently.

Risk assessment

A complex space that is rich in data, such as risk assessment, is an area where using AI has substantial potential. Generative AI can help firms to explore and utilise vast datasets, including internal customer data, to look for previously unseen risk patterns. By incorporating multiple different data sources into an assessment, such as flood data, weather data, claims data, crime data, and other external data sources, Generative AI is able to provide a more accurate assessment of potential risks. This in turn can lead to an increase in a firm's ability to extend coverage to a wider range of potential customers, or to raise and lower premiums in a more targeted way (e.g. in certain geographies).

Generative AI technology can also assist in simulating scenarios and identifying potential claims before they are likely to occur. This can allow companies to be more proactive in deterring claims and mitigating negative outcomes for multiple stakeholders in a range of different areas.

Underwriting

It has been estimated that up to 40% of underwriters' time is spent on non-core and administrative tasks, resulting in industry-wide productivity losses worth approximately \$160 billion.²¹ By using AI to automate non-core tasks, underwriters can focus on their most important tasks, and leverage this time and additional tools to improve their accuracy.

An additional prospective application of Generative AI for underwriters is the creation of personalised insurance policies for customers, with increasingly optimised pricing. This can be made possible by training Generative AI on diverse and comprehensive datasets, including personal risk profiles and customer applications.²² While trained human underwriters would still be required to review and potentially revise Generative AI recommendations, this efficiency boost could be an effective way of reducing the burden of repetitive work, freeing up more time for more valuable analysis.

“The “black box” nature of AI can lead to biases and unexpected outcomes in decision-making, increasing rather than mitigating risk. Ensuring AI systems are transparent, explainable, and continuously monitored is key to effective risk management.”



Pranay Jain
CEO and Co-Founder, Enterprise Bot

Understanding risk related to generative AI in insurance

While generative AI has the potential to address a number of longstanding challenges in the sector, it also brings with it a variety of significant new challenges. Prudent firms that position themselves to harness Generative AI's power whilst simultaneously recognising and mitigating its risks are most likely to tread this delicate path effectively.

Firms at every stage of the insurance value chain should seek to thoroughly understand and assess these potential risks.

²¹ <https://www.accenture.com/gb-en/insightsnew/insurance/ai-transforming-claims-underwriting>

²² <https://aisera.com/blog/chatgpt-generative-ai-in-insurance/>

Model robustness and DEI considerations

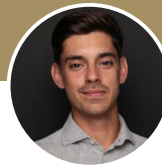
Generative AI models are only as accurate as the data used to train them. If that data is incomplete or inherently biased, it can lead to discriminatory or otherwise flawed outcomes. Regulators in multiple jurisdictions are already asking questions about the potential for AI models within insurance to exhibit damaging bias towards multiple groups.²³ Deeper questions about systemic bias and inequality must be asked, so as not to perpetuate or accentuate unfair discrimination.

Transparency

Whilst predicting regulatory sentiment towards insurance firms using Generative AI in the future is impossible, we have spoken to a range of industry experts (in certain key jurisdictions – among them China, the United States, and the European Union) to gauge their predictions.

“Generative AI is a gamechanger, but it brings new challenges with regard to transparency that the industry may struggle to manoeuvre. This will bear out differently in every sector.

For example, in auto or home coverage, it might not be easy to explain how certain rates are calculated if this is done using a Large Language Model. Within health insurance, providers must navigate the challenge of working with AI solutions that process and store data outside of the provider’s ecosystem.”



Viktor Can Moj
Enterprise Account Executive, Parloa

Our conversations revealed a shared sense that regulators might require companies to provide clear explanations of how their algorithms make and arrive at their decisions. This has the potential to be challenging and costly from a compliance perspective and a potential barrier to maintaining early competitive advantage for innovative first movers in this space.

²³ <https://www.dig-in.com/news/insurance-regulators-are-asking-if-ai-models-are-biased>

Filling the talent and skills gap

Using and managing Generative AI successfully requires skilled professionals. Many of the most proficient users of Generative AI have backgrounds in AI, data science, machine learning and machine intelligence. Predictably, demand for individuals with these relevant skills has increased, as their experience becomes more valuable. Insurance carriers must consider how they attract, recruit, and retain staff, in an increasingly competitive fight for candidates.

Obtaining and maintaining a workforce that is proficient in the use of Generative AI will also require upskilling and training existing members of staff. HR departments must decide what their strategy (in terms of training vs obtaining new talent) will be to have to be to deliver upon their long term organisational objectives.

“Always keep the door open for good talent. Hire for culture and attitude, not skills, as skills can be acquired. AI is no different in this regard.”



Renaud Million
CEO, Spixii

“To bridge the emerging skills and talent gap in AI and data science, incumbent businesses should focus on both internal development and external partnerships.

This includes investing in prompting training programs for generative AI as this is the topic they should now work on instead of focusing on upskilling staff in AI and data science competencies. Furthermore, fostering a culture of continuous learning and innovation within the organization can attract and retain talent in these fields.”



Damien Philippon
CEO and Co-Founder, Zelros

Legacy system integration

Most incumbent insurance firms operate legacy IT systems and infrastructure. This could pose a significant challenge when trying to both integrate and access the most progressive Generative AI technologies, and have implications for the cost of implementing Generative AI across an organisation (something that tends to become harder, the larger an organisation is). For some firms, realising the ability to use Generative AI in their workforce could mean both costly and laborious changes to their existing technology and infrastructure.



Creating a dynamic change culture

Much of the current public discourse around Generative AI is not positive. Firstly, many commentators fear that Generative AI has the potential to make professionals in a number of roles redundant. Secondly, there are concerns over the power that AI might have to make autonomous decisions that we are not fully in control of, and the implications that this might have for society.

Insurance companies must create a working culture that celebrates change and leverages it for the benefit of employees, emphasising the potential that Generative AI has to positively transform organisations, as opposed to the threat that it might pose. Framing Generative AI as an opportunity is an imperative. With Generative AI streamlining operations, employees must be valued, respected and prompted to consider how Generative AI can work for them to achieve the objectives of their role.

Firms should provide ample training, support, and education for their employees, and communicate clearly with their customers how Generative AI is adding value to their offering. Any new technology must be implemented in line with firms' existing vision, values, and mission, allowing it to be embraced as a force for good, rather than feared as an employment threat.

“Incumbent businesses should focus on fostering a culture of continuous learning and innovation. This can be achieved through upskilling existing employees, investing in partnerships with educational institutions for talent development, and embracing flexible, project-based collaborations with experts in the field.

Leveraging platforms which simplify complex AI and data science tasks with a low-code approach can also empower teams with varying skill levels to implement advanced AI solutions.”



Sebastian Glock
*Director of Product Marketing and
Technology Evangelist, Cognigy*

Regulation and data privacy

The EU is pressing ahead with AI regulation²⁴, the UK has set out its proposals in a white paper²⁵, and several US states have already passed laws regulating its use.²⁶

The consequences of non-compliance with regulations can be severe. We have already seen companies like Meta being handed with substantial fines²⁷ as a result of failing to comply with EU GDPR regulations. Insurance companies are not exempt from these regulations, and as this technology continues to develop and new concerns and risks are discovered, regulatory pressure is likely to only increase. The need for “explainability”²⁸ when it comes to AI has never been more pressing.

As insurance companies handle increasing volumes of sensitive customer data, adhering to data privacy regulations is of particular importance, in addition to actively engaging in the development of regulations specific to Generative AI use.

“Instead of solely relying on external hiring, organizations should also nurture existing talent pools by creating internal learning ecosystems, establishing dedicated AI and data science academies or innovation centers of excellence within the company, where employees from diverse backgrounds can engage in continuous learning, collaborative projects, and mentorship opportunities.”



Rashid Khan

Co-Founder and Chief Product Officer, Yellow.ai

“While it is essential to have appropriate safeguards and governance mechanisms in place to protect data privacy and ethical considerations, an overly restrictive approach may hinder the potential benefits of AI in the insurance industry.

We need to find the balance that allows for innovation while learning and adapting to understand what is viable and acceptable in terms of data usage and AI applications. This needs to be done at an industry level, with a broad range of perspectives around the table.”



Chaz Perera

CEO and Co-Founder, Roots Automation

²⁴ https://www.eiopa.europa.eu/publications/ai-insurance-sector-industry-adoption-and-regulatory-developments_en

²⁵ <https://www.gov.uk/government/consultations/ai-regulation-a-pro-innovation-approach-policy-proposals/outcome/a-pro-innovation-approach-to-ai-regulation-government-response>

²⁶ <https://www.lexisnexis.com/community/insights/legal/capitol-journal/v/state-net/posts/ai-in-insurance-the-good-the-bad-and-what-worries-regulators>

²⁷ <https://www.politico.eu/article/eu-hits-meta-with-record-e1-2b-privacy-fine/>

²⁸ <https://www.mindfoundry.ai/blog/explaining-ai-explainability>

Best practice for implementing Generative AI in insurance

There is a risk that the rapid evolution of Generative AI has outpaced the development of ethical guidelines and regulatory frameworks. As a result, multiple industry commentators and organisations argue for some consensus in regulation, in order to ensure that insurance companies are able to make use of Generative AI responsibly and safely, both for policyholders and themselves.²⁹ In this chapter, we review some of the leading commentary on responsible use of AI, including how to mitigate the risks associated with using it and defining what responsible AI use is. We then suggest a range of clear best practices for the implementation of Generative AI in your organisation.

“AI tools are incredibly beneficial for insurance teams, but they must continue to prioritise data privacy and risk management. Cybersecurity threats and tactics shift rapidly, along with privacy regulations around PII, PHI, and PCI. When vetting AI tools, insurance companies need to ask about how the provider incorporates privacy into their offerings and request specific certifications, such as PCI DSS, SOC II, etc.”



Marc Bernstein
CEO and Co-Founder, Balto

Mitigating both the usage risks and technological risks of Generative AI

Winston Yong (IBM) splits the key risks of AI use in insurance into two parts - technological risk and usage risk. On the technological side, companies face the following challenges:

- **Data confidentiality.** Using Generative AI exposes corporate data to public scrutiny.
- **Security.** Third parties may be able to copy AI models, causing economic and intellectual property loss to the model owner.
- **Algorithm transparency.** The ‘black-box’ characteristic of AI systems can make the decision process of AI algorithms hard to understand, despite regulator demand for transparency.

²⁹ <https://www.insurancetimes.co.uk/interviews/creating-ai-regulatory-framework-set-to-be-significant-piece-of-work-in-2024/451119.article>

In terms of usage, the risks can be summarised as follows:

- **Data inaccuracy**, either through bias or error.
- **Abuse**, e.g. facial recognition being used for the illegal tracking of people's movement.
- **Over-reliance**; when users have difficulty determining appropriate levels of trust and start accepting incorrect AI recommendations.

To mitigate these risks, Yong suggests a three-pronged approach to human-centric governance:

1. Training for employees involved in developing or using AI tools.
2. Vendor assessment schemes to assess the robustness of vendor controls and ensure appropriate transparency in vendor contracts.
3. Establishment and regular updating of policies to set processes, roles, accountabilities and mandated guidelines for AI development and use.

“Fairness in AI requires clean datasets to train AI models on unbiased data to prevent discriminatory practices in areas like pricing and claims. It also requires “explainable AI”; developing AI that can explain its decisions, allowing human intervention when necessary.”



Leandro Dallemule
Global Head of Insurance, Planck

For technology-centric risks, he suggests that firms expand their IT governance to include:

1. An expanded data and system taxonomy to ensure the AI model captures data inputs, usage patterns, required validations and testing cycles, as well as expected outputs.
2. A risk register to quantify the impact of risks, the firm's vulnerability to them, and the extent of monitoring protocols.
3. An analytics and testing strategy to execute regular testing around risks related specifically to AI system inputs, outputs, and model components.³⁰

³⁰ <https://www.ibm.com/blog/the-risks-and-limitations-of-ai-in-insurance/>

Legal considerations for mitigating AI-related risks

While none of what follows should be considered as legal advice, we would like to highlight some points to consider from a legal perspective, when it comes to using AI and Generative AI:

- Do not share anything with Generative AI that you wouldn't be happy to share publicly. Data inputted into Generative AI tools could reappear in the results generated by others using the same tools. Companies submitting data into such tools are also effectively disclosing it to the companies - whether Microsoft, Google, OpenAI or others - that own the tool. This could expose companies to liability for entering that data.
- It is particularly important not to share:
 - Confidential information
 - Customer data
 - Sensitive research or market information
 - Source code
 - Information firms are contractually obligated not to disclose to third parties
 - Legally privileged or sensitive material
- Prohibit third parties from sharing the above information with Generative AI models.
- Be sceptical about the information Generative AI provides. Generative AI 'makes-up' information so frequently that there is a specific term for it: "hallucination". Users should scrutinise and check the output of Generative AI thoroughly.

- Do not rely on Generative AI to make important strategic, organisational, or staffing decisions. This carries the risk of treating individuals unfairly and breaching discrimination or data protection laws. From a legal perspective, Generative AI cannot be held responsible for poor decisions; only individual humans, corporations or limited liability companies can.
- Using Generative AI images, content, video or other output may open you up to breaches of copyright or intellectual property rights, because all AI content is generated from existing content, much of which is legally protected. Companies using Generative AI content may also find themselves infringing privacy rights, data protection rights, causing defamation, misusing confidential information, breaching equality laws, breaching consumer protection law, or insider trading.
- Don't ask Generative AI for legal information, as any advice offered will not be subject to legal privilege or protection. There is no Generative AI equivalent to professional indemnity insurance which all lawyers must have in place.
- If you share Generative AI output with colleagues or third parties or keep a record of it, you must inform them that it has been (even in part) generated by AI. This allows them to follow any rules the organization has in place when they consider using it. Anyone using this information later will then know its source and be able to act appropriately, regardless of where or when they find it.
- Ensure Generative AI outputs are traceable. That way you can remove them if they later become unlawful or commercially unsafe.
- Monitor the development of AI laws and regulations carefully in all jurisdictions in which you operate so you can adapt processes and policies as needed.³¹

³¹ <https://www.farrer.co.uk/news-and-insights/using-generative-ai-gai-the-rule-book/>

Responsible AI practices - a summary

AI is both exciting and contentious.

Implementation of AI in the insurance space is no different. Failure to ensure that bias is mitigated, and that its use is legal, has the potential to bring the entire industry into disrepute and invite restrictive and unwelcome legislation. Helpfully, Google - alongside other tech providers such as SAS and IBM - has drafted a list of “Responsible AI practices” which at present represent something of a ‘gold standard’ for organisations at the beginning of their AI journey.³²

“The development of AI has created new opportunities to improve the lives of people around the world, from business to healthcare to education. It has also raised new questions about the best way to build fairness, interpretability, privacy, and safety into these systems.”

Google



Google’s general recommendations for using AI:

- Use a human-centred design approach
- Identify multiple metrics to assess training and monitoring
- When possible, directly examine your raw data
- Understand the limitations of both your dataset and your model
- Test, Test, Test!
- Continue to monitor, update, and iterate the system after deployment

³² <https://ai.google/responsibility/responsible-ai-practices/>

Google's recommended practices for ensuring AI fairness:

- Design your model using concrete goals for fairness and inclusion
- Use representative datasets to train and test your model
- Test and check the system for unfair bias
- Analyze how it performs

Google's recommended practices related to AI interpretability:

- Plan out your options to pursue interpretability
- Treat interpretability as a core part of the user experience
- Design the model to be interpretable
- Choose metrics to reflect the end-goal and the end-task
- Understand the trained model
- Communicate explanations to model users

Google's recommended practices around AI privacy:

- Collect and handle data responsibly and transparently
- Leverage on-device processing where appropriate
- Appropriately safeguard the privacy of machine learning models

Google's recommended practices concerning AI safety and security:

- Identify potential threats to the system both before, during and after AI deployment
- Develop an approach to combat potential threats
- Keep learning to stay ahead of the curve

PwC's nine core ethical AI principles:

Professional services firms have also explored principles for using AI responsibly, as AI permeates their realm. PwC embarked on a broad project covering ethical AI principles, and neatly summarised what they found into nine “core” principles.³³ We believe these are helpful, and could assist insurance firms in creating and updating their governance policies and processes related to AI.

PwC's epistemic principles:

- 1. Interpretability (explainability, transparency, provability):** An AI system should be able to explain its model decision-making to multiple stakeholders.
- 2. Reliability, robustness, security:** AI systems should operate reliably and safely over long periods of time using the right models and datasets.

PwC's general ethical AI principles:

- 3. Accountability:** All stakeholders of AI systems are responsible for the moral implications of their use and misuse. There must be a clearly identifiable and accountable party.
- 4. Data privacy:** Individuals should have the right to manage their data when it's used to train and run AI solutions, as well as managing how that data is reused for other purposes.
- 5. Lawfulness and compliance:** All stakeholders in the design of an AI system must act in accordance with the law.
- 6. Beneficial AI:** The development of AI should promote and reflect the common good, such as sustainability, cooperation, and openness.

³³ <https://www.pwc.com/gx/en/issues/data-and-analytics/artificial-intelligence/what-is-responsible-ai/pwc-responsible-ai-maturing-from-theory-to-practice.pdf>

- 7. Human agency:** The level of perceived ethical risk should dictate the degree of human intervention required as part of AI solutions' decision-making or operations.
- 8. Safety:** Throughout their operational lifetimes, AI systems should not compromise the physical safety or mental integrity of humans.
- 9. Fairness:** The development of AI should result in individuals within similar groups being treated fairly, without discrimination, and without causing or resulting in harm. AI should also refrain from using datasets that contain discriminatory biases.



Towards a clear set of best practices for implementing generative AI in insurance

Having explored and reviewed a range of extant literature, we have compiled and summarised what we believe to be the current best practices related to Generative AI implementation in the insurance space. In particular, our review included, but was not limited to, the principles laid out by Google and PwC, and recommendations from McKinsey,³⁴ Insurtech Insights,³⁵ Mind Foundry,³⁶ and over a dozen leading AI startups and scale-ups.

Step 1:

Define clear objectives:

Identify specific areas where Generative AI can add the most value, and articulate your objectives for its use. This will guide how you implement Generative AI, and how you measure its effectiveness. Examples of areas where Generative AI can be used include customer service, claims processing, underwriting, and fraud detection.

Step 2:

Ensure data quality and availability:

Collaborate with data scientists and domain experts to identify the right data sources to train your Generative AI models effectively and ensure that you comply with the relevant regulations.

Step 3:

Develop training pipelines:

These must include pre-processing and preparing data, selecting appropriate training algorithms, and validating models through continuous monitoring and improvement.

Step 4:

Ensure cross-functional collaboration:

Engage with domain experts, data scientists, IT teams, and business leaders to better align Generative AI with business needs, and effectively integrate it with existing systems and processes.

³⁴ <https://www.mckinsey.com/industries/financial-services/our-insights/insurance-2030-the-impact-of-ai-on-the-future-of-insurance>

³⁵ <https://www.insurtechinsights.com/three-best-practices-for-implementing-ai-in-insurance/>

³⁶ <https://www.mindfoundry.ai/blog/insurance-and-generative-ai-seeing-past-the-headlines>

Step 5:

Address ethical and transparency considerations:

Ensure that the data used to train models is unbiased and appropriately diverse. Monitor Generative AI model outputs for any bias or emerging discriminatory patterns. Be transparent with customers about how Generative AI usage affects their insurance experience.

Step 6:

Understand and comply with all relevant regulations:

Make it an organisational imperative to keep abreast of the regulatory landscape related to Generative AI in the insurance industry. Understand the legal and compliance requirements related to data privacy, security, and transparency, and adhere to all relevant regulations.

Step 7:

Monitor and evaluate performance:

Track key performance indicators (KPIs) related to customer satisfaction, operational efficiency, and business outcomes. Regularly assess the operational impact of Generative AI and adjust to its use to optimise performance as required.

“To safeguard against unintentional bias and ensure ethical AI usage while maintaining excellent customer experience, companies should adopt practices such as establishing “bias bounties” to incentivize the identification and elimination of biases in AI systems, and promoting explainability and transparency to ensure AI algorithms are understandable and equitable.

Additionally, pursuing AI system certification through external audits can verify adherence to governance standards, showcasing a commitment to Responsible AI protocols across industries.”



Damien Philippon
CEO and Co-Founder, Zelros

Step 8:

Invest in ongoing training and support:

This will help ensure employees are equipped with the necessary skills to work effectively with Generative AI, both in terms of handling data and interpreting models, but also in enforcing ethical guidelines. Make sure to deploy practices able to foster a culture of continuous learning, transparency and reflexivity.

Chapter 4:

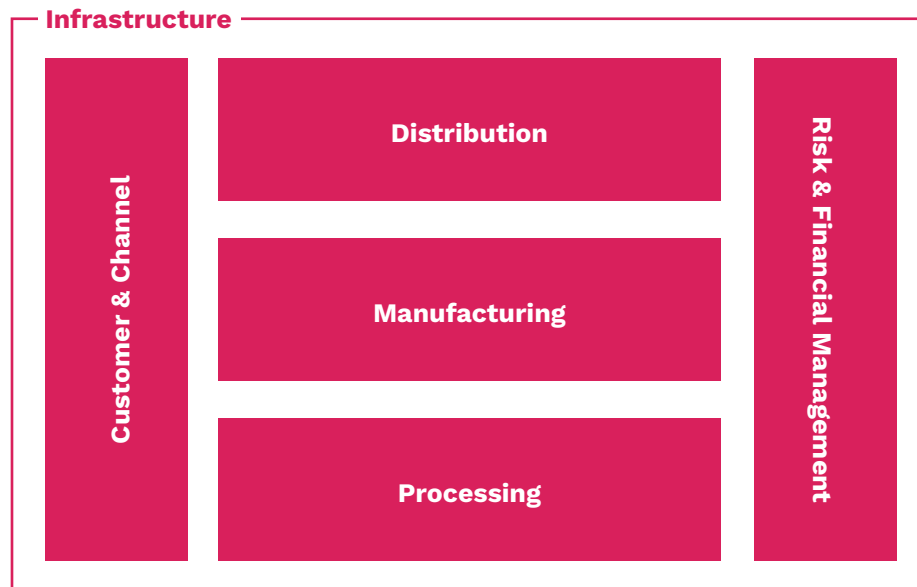
The AI-Powered Insurance Operating Model

Real-world case studies of how AI and Generative AI are already transforming the insurance industry

There is little doubt that AI and Generative AI have transformative potential in the insurance industry. However we are now seeing that this potential is moving beyond the theoretical to the practical, with a plethora of exciting applications of AI available as examples.

This chapter analyses six key operating model competencies required for the successful implementation of AI within insurance. It then lists a selection of criteria that organisations can use for selecting which AI startups and scale-ups to collaborate with, before highlighting real-world applications through a range of case studies.

The six dynamic AI-powered operating model competencies



Insights — the portfolio of enterprise planning, market research and data mining capabilities

Distribution — the fully integrated layer of customer-facing activities that leverages every interaction to generate customer and enterprise value

Manufacturing — the set of processes that results in the development and assembly of differentiated products and services to address customer segment needs

Processing Operations — the essential set of business utilities, fulfilment processes and transaction support functions that optimises operating costs and enhance employee and enterprise productivity

Risk & Financial Management — the ability to effectively manage aggregated risk and portfolio-based activities, leading to an improved asset and capital position in the marketplace

Infrastructure — the integrated set of technologies, processes and personnel that supports and enables the execution of business strategies, including both IT infrastructure and business support functions

Key criteria for insurance firms when choosing AI and Generative AI startups to collaborate with:

- 1. Generative AI Expertise:** Proficiency in employing Generative AI in their offerings.
- 2. Specific Generative AI expertise:** Proven expertise related to Generative AI and their particular offering.
- 3. Proven industry interest and focus:** Domain specific focus that is sensitive to unique industry specific nuances.
- 4. Maturity/Funding stage:** An organisation that is aligned in terms of product development stage and testing.
- 5. Reputable Track Record:** Credibility, when it comes to existing and former customer relationships.
- 6. Geographical scope:** Relevant specific geographical operational capability.

Customer & Channel Insights

16x Marketing
10x Customer Relationship
10x Business Intelligence

36x

Distribution

10x Contact Servicing
10x Selling
10x Channel Management

30x

Manufacturing

10x Proposition
7x Product Development
8x Product Maintenance

25x

Processing Operations

40x Underwriting & New Business
5x Policyholder Services
27x Claims Management
19x Payments, Billing & Collection

91x

Risk & Financial Management

27x Risk, Compliance & Legal
6x Reinsurance
22x Financial Management

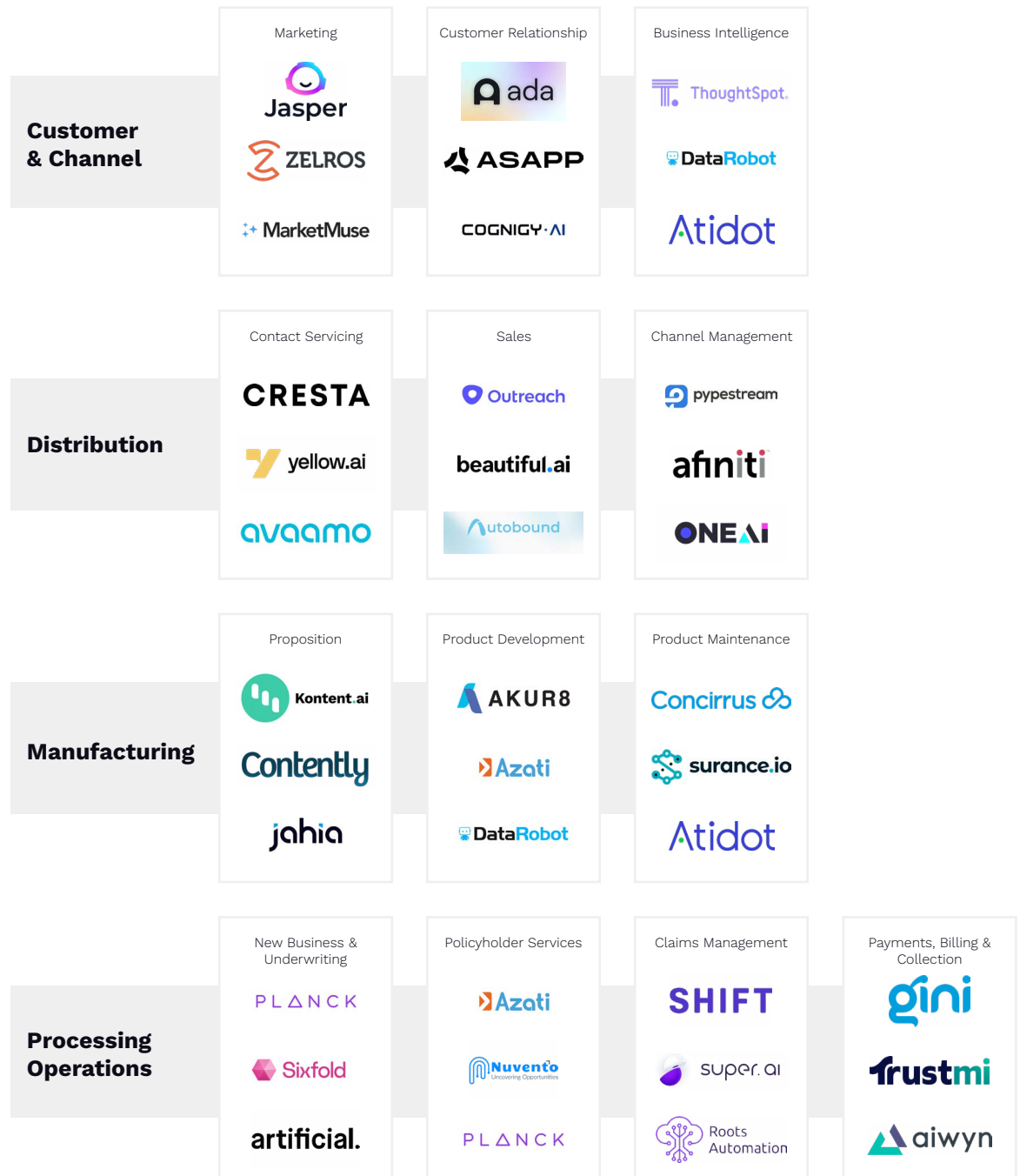
55x

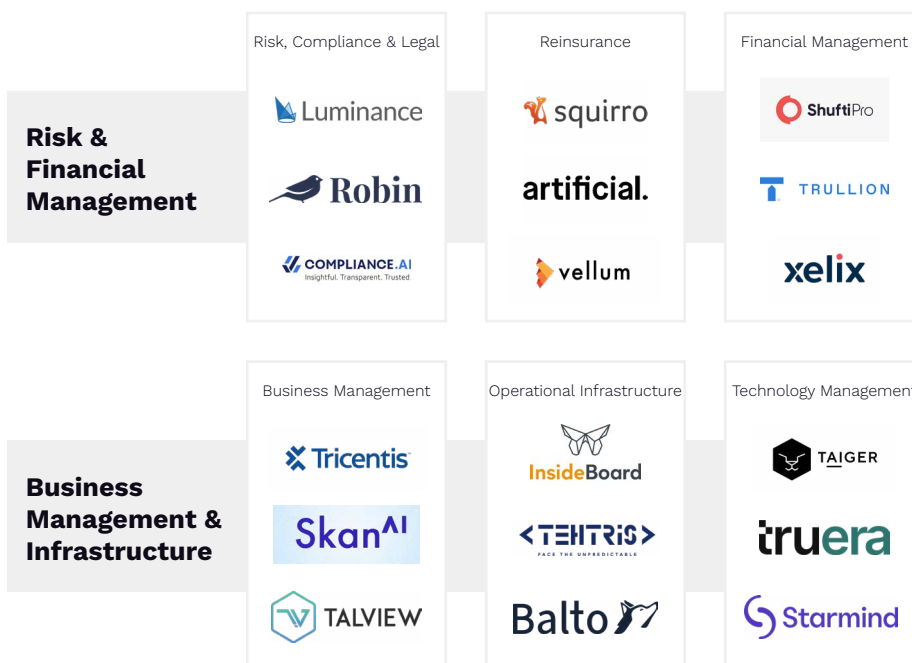
Business Management & Infrastructure

10x Business Management
10x Operational Infrastructure
12x Technology Management

32x

The AI and Generative AI startups having the most transformative impact on insurance to date





Insights

Customer and channel

Integrating Generative AI technologies capable of revolutionising customer engagement and providing unparalleled customer insights.

Why It matters:

Today's highly globalised insurance market is increasingly competitive. Understanding customer preferences and making evidence-based decisions is an essential part of remaining competitive through personalising products and services, and improving ultimate customer satisfaction.

AI can not only help to respond in a dynamic way to customer preferences, and use big data to drive decisions, but also to learn more about customers and enhance the insights that organisations have in relation to them. AI can demonstrably improve efficiency and help with the steps necessary to increase customer satisfaction, helping organisations to first acquire and then maintain their edge.

How generative AI and AI is transforming customer and channel insights:

Marketing campaign management and planning:

Reshapes campaign management by enabling hyper-personalization, automating creative processes, and providing real-time, actionable analytics. While this technology can amplify human creativity and decision-making, there are ethical considerations, including data privacy and algorithmic bias.

Customer relationships:

Elevates customer education and customer service by automating routine content creation, enhancing chatbot capabilities, and providing real-time analytics. While the technology promises efficiency and personalization, firms must navigate ethical challenges and address any relevant legal considerations.

Business Intelligence:

Revolutionizes analytics across areas including customer engagement, underwriting, and CRM performance. Whilst AI can enable predictive insights and personalised strategies that outperform traditional methods, practitioners must beware of potential data privacy issues, as well as any baked-in algorithmic biases.

Customer and channel insights

Case study 1:

Jasper



Jasper is a provider of an AI and SaaS-based platform for content creation. It uses an AI interface and offers users a platform for creating content to be used in sales and marketing.

It allows users to develop both text, image, and video content, and then display this content intelligently as part of sensitive and specific marketing campaigns.

What problem do they solve for insurance companies?

Creating artwork is laborious, and personalising communications has typically been both difficult and expensive. Jasper offers insurance companies the ability to generate art and images for ads, thumbnails, and illustrations using AI.

It provides users with access to a template library, and the option to train their AI with specific brand knowledge and product catalogs. Users can create end-to-end marketing campaigns quickly by inputting a single brief.

These features enable insurance companies to enhance their marketing and art direction by accessing quickly-generated materials, streamlining the creation of campaigns, and using the platform to maintain consistent brand messaging.

jasper.ai

Domain Area:
Marketing Tech

Founded:
2020

Funding:
\$143,000,000

Country:
United States

City:
Austin

Their platform offers:

- **Chat support**, a human-like conversation with a chatbot to assist users with tasks, conduct research quickly, and answer user questions.
- **Artwork creation**, uses AI to generate images and artwork in seconds that can be used for ads, thumbnails, illustrations, and more.
- **Copywriting & template library**, AI trained in over 50 specific skills including writing high-converting headlines and generating SEO optimized blog posts.
- **Brand specific**, AI can be taught to follow brand guidelines and incorporate organisation-specific information into its output. This includes specific company facts, unique product catalogs, audience preferences, and a style guide. This ensures user-specific messaging is always relevant, personalised, and on-brand.

- **Campaigns**, can seamlessly create end-to-end marketing campaigns with one brief.

Capabilities include:

- Text/Content Generation
- Image and Video Generation
- Marketing Automation and Search Engine Optimization (SEO)
- Multilingual Support and Localization
- Application Programming Interface (API)

Clients include:

Robinhood, CB Insights, Intel, Google, Zoom

Customer and channel insights

Case study 2:

Zelros



Zelros specialises in AI-powered sales and marketing solutions for the insurance industry. Their products and services help capture data from conversations between policyholders and insurance advisors, helping to make sales and claim management processes more effective.

Insurance advisors can leverage these solutions to enhance their ability to up-sell and cross-sell personal insurance products.

What problem do they solve for insurance companies?

Insurance advisors have limited capacity, and interact with numerous different customers every day. Keeping interactions personal and focused, and balancing listening with selling, can be a real challenge.

Zelros helps insurers to offer hyper-personalised product recommendations across a number of channels. With Zelros, insurers can boost client acquisition, cross-sell, and up-sell, increasing agent effectiveness.

Zelros stands out by making their AI platform low code, speedy to understand and use, and proactive from an ethical perspective.

zelros.com

Domain Area:
Marketing Tech

Founded:
2016

Funding:
\$16,500,000

Country:
France

City:
Paris

Their platform offers:

- **Display Banners**, marketers can use Zelros to create and display banners on portals in order to increase impressions and nudge prospects/customers.
- **Segmentation Lists**, Zelros enables marketers to enrich existing data with third-party sources and export their segmentation lists to their marketing automation tool, for email and SMS campaigns.
- **Landing Pages**, Zelros anticipates customer needs and helps marketers to build a proactive approach to personalised customer experience. It does this by assisting with generating personalized messages, unique offers, and recommendations that reflect an understanding of customer needs and behaviours

- **Analytics**, Zelros measures both potential & actual reach of every message provided to customers. It learns from user interactions (e.g. clicks, feedback, opening rates, ..) to present increasingly relevant messages.

Capabilities include:

- Text/Content Generation
- Marketing Automation
- API
- Responsible AI

Clients include:

MAIF, Quility, Matmut, Credit Agricole, Insurance Supermarket International

Insights

Distribution

AI and Generative AI models can transform the distribution of insurance by enriching decisions with data, automating processes and analysing data more efficiently, personalising communications, optimising sales, and measurably improving a plethora of elements that make up overall customer experiences.

Why it matters:

Distributing insurance products and services is a substantial challenge, involving a number of complex stages between provider and customer. Generative AI can be immensely useful in reshaping and optimising customer interactions, streamlining processes, and simplifying often complex distribution. Collaborating with AI companies proficient in advanced coding, automation and analytics can empower carriers to enhance customer engagement across a number of different channels and touchpoints, and ultimately have a positive impact on sales.

How generative AI and AI is transforming distribution:

Contact servicing:

Offers personalised services at scale, with chatbots analysing consumer data in real-time. This increases operational efficiency and enables real-time risk mitigation, eliminating friction in the customer journey and contributing to enhanced satisfaction and loyalty.

Sales:

Enables dynamic pricing, hyper-personalisation, and prioritisation of insurance offers, which all impact conversion rates. While automating processes can speed-up onboarding, enhance the user experience, and empower agents to shift from transactional to advisory roles, firms must monitor how AI is used to check for customer satisfaction, and possible data misuse.

Channel management:

Enables flexible communication and distribution of services via customers' preferred channels, auto-adjusting agent incentives and facilitating real-time tactic and strategy shifts. Building-in awareness checks related to ethical governance (particularly surrounding data and fairness) is essential.

Distribution

Case study 1:

Cresta

CRESTA

cresta.com

Domain Area:

Customer Service
Software

Founded:

2017

Funding:

\$151,000,000

Country:

United States

City:

Palo Alto

Cresta offers AI-powered tools for contact center agents, including real-time coaching, workflow automation, and performance analysis.

It automates repetitive tasks and provides insights into sales performance. Notable clients include Intuit, Cox, Nature, and Harvard Business Review.

What problem do they solve for insurance companies?

Insurance agents have their hands full, juggling customer questions, retrieving specific information, and ensuring that all of their action is compliant.

Cresta helps representatives through their Real-Time Agent Assist product, so that they can resolve policyholder questions quickly, provide them with timely information on the policies based on their needs, and meet compliance standards in each interaction.

The platform offers:

- **Cresta Agent Assist,** Cresta's Real-Time AI amplifies top-performer best practice across your team, guiding agents through customer conversations with coaching and assistance, and automating routine elements.
- **Cresta Director,** Cresta automatically evaluates agent adherence to key behaviors and allows managers to instantly prioritise specific conversations that require attention.
- **Cresta Insights,** Cresta analyzes 100% of conversations with superior Natural Language Understanding (NLU) and turns unstructured data into powerful, actionable knowledge.
- **Cresta Virtual Agent,** Cresta's Generative AI models understand conversation drivers and business outcomes. This helps Virtual Agents to prioritise cases that offer the greatest ROI.

Capabilities include:

- Text/Content Generation
- Workflow Automation
- Insights Reporting
- Performance Feedback & Coaching
- API

Clients include:

Sleep Number, Cox, Holiday Inn, Blue Nile, EarthLink, Intuit, Nature, Harvard Business Review.

Distribution

Case study 2:

Beautiful.ai

beautiful.ai

Beautiful.ai is a provider of AI-based software that is used for making presentations. It offers a web-based platform that helps users create and edit visual presentations.

It provides smart templates that automatically adjust slide design as content is added. It also incorporates an image library with photos and icons that can be used in the presentation.

What problem do they solve for insurance companies?

Creating that perfect deck of slides is fiddly and time consuming, but the details really matter.

Beautiful.ai's intuitive and collaborative presentation software lets users create professional branded sales collateral quickly and efficiently, drastically reducing the need for expensive designers and tedious formatting.

beautiful.ai

Domain Area:

Productivity Software

Founded:

2016

Funding:

\$16,000,000

Country:

United States

City:

San Francisco

The platform offers:

- **Slide templates and scaffolding**, ‘never stare at a blank slide again’. Describe the presentation users are looking for, and let DesignerBot design slides for users.
- **Rapidly move from idea to editing**, once users’ AI presentation is generated, they are able to use Beautiful.ai’s Smart Slide templates to make quick edits. Add flow charts, infographics, Venn diagrams, XY plots and more to adapt the presentation to reflect users’ content.
- **Assistance with creative writing**, unblock users’ writer’s block with their DesignerBot. Features include summarising, expanding text or rewriting in a different tone. Translation tools are integrated to the platform.
- **Image generation from text**, convert users’ ideas into images by asking DesignerBot to generate an AI image with a detailed search prompt. Describe the image style, tone, and mood to receive options.

Capabilities include:

- Customer Prospecting
- Text/Content Generation
- Images & Video Generation
- Sales Force Support

Clients include:

MEMIC, Verde Capital Management, CMIT Solutions, OddBytes, The Phoenix Suns

Insights

Manufacturing

Generative AI is revolutionising product manufacturing processes and fundamentally changing how insurers design and build their offerings, customise their products, and optimise customer experience.

Why it matters:

By using self-evaluating code able to deliver streamlined and customised customer journeys, AI and Generative AI is revolutionising how insurers design products and services. Harnessing Generative AI effectively enables carriers to tailor insurance propositions, automate content creation, and optimise risk management, ushering in a new era of efficient, data-driven, customer-centric product creation.

How generative AI and AI is transforming manufacturing in insurance:

Proposition design:

Enables dynamic product bundling, real-time market adaptation, and speedy creation of personalised risk profiles. It fast-tracks compliance, makes offerings context-aware, and mandates ethical algorithm use, setting new industry standards for customization, speed, and ethical responsibility at a design level.

Product development:

Enables smarter, faster, data-driven, more-targeted product innovation, by reducing the time taken to bring a product to market. Also offers dynamic risk assessment and automated compliance while streamlining costs. Ethical and transparent algorithms can be baked-in.

Product maintenance:

Enables continuous optimization and proactive identification of issues. Allows for real-time policy adjustments and offers robust version-control for compliance. Cost monitoring can be used to ensure profitability, whilst built-in ethical oversight maintains standards in a dynamic and financially-sustainable way.

Manufacturing

Case study 1:

akur8



Akur8 is a provider of cloud-based insurance pricing solutions for the non-life insurance industry. It offers solutions for data exploration, data uploading, visualisation & preparation, portfolio performance monitoring, and more.

It uses artificial intelligence technology for market reconciling, demand modeling, and analysis.

What problem do they solve for insurance companies?

Effective pricing is an insurance fundamental that organisations approach with significant care and attention. However, effective pricing is expensive, time-consuming, and innovation-averse

Akur8 uses Machine Learning & predictive analytics to both accelerate and optimise insurers' pricing processes while maintaining transparency, auditability and absolute control over the models created.

akur8.com

Domain Area:

Insurance IT

Founded:

2018

Funding:

\$180,000,000

Country:

France

City:

Paris

The platform offers:

- **Streamlining of rate-making cycle**, Akur8's end-to-end rate-making solution enables insurers to streamline their rate-making cycle, cutting friction involved in each step, minimizing manual work, and fostering a common language across teams.
- **Maximize the impact of pricing strategies**, Akur8 uses machine learning to bolster pricing decision-making, allowing insurers to test pricing strategies and gauge their impact on crucial business performance indicators. This helps managers make better-informed decisions and choose the pricing strategies that are most closely aligned with their overarching objectives and business constraints.
- **Strengthen pricing governance**, Akur8's end-to-end solution enhances insurers' pricing governance and information flow across teams. It helps organisations establish a standardized approach for discussing and analyzing pricing strategies, ensuring greater consistency, traceability, and reproducibility of models. This fosters a deeper comprehension of the pricing process, freeing up time for higher value-added business decision-making.

Capabilities include:

- Product Design
- Coverage Placement
- Actuarial
- API

Clients include:

AXA, Munich Re, Generali, ERGO, MAIF

Manufacturing

Case study 2:

DataRobot



DataRobot is an AI and cloud based data science platform provider. They build products that help to automate the modelling lifecycle, enabling users to build predictive models.

It uses parallel processing to train and evaluate models in R, Python, Spark MLlib, H2O, and other open-source libraries like Tensorflow, Caffe, and MXNet.

What problem do they solve for insurance companies?

Carefully calculating risk and working-out the correct price to charge customers is time-consuming and labour-intense, but a fundamental part of delivering desirable products to customers and generating value for an insurer.

DataRobot's product enables insurance companies to optimize their pricing strategies using advanced machine learning and AI. By analyzing data, insurers gain insights that they can directly use for accurate risk prediction and competitive pricing decisions, boosting profitability and giving customers a better experience through tailored products and services.

datarobot.com

Domain Area:

Business Intelligence

Founded:

2012

Funding:

\$1,050,000,000

Country:

United States

City:

Boston

This platform offers:

- **Life Insurance Underwriting**, optimizes decision-making to help build and sustain profitable customer relationships - improves mortality, lapse, and other model assumptions.
- **Insurance Pricing**, automates many repetitive and time-consuming tasks, significantly reducing the time needed for rate filing.
- **Fraudulent Claim Modeling**, automates the model training and retraining process, resulting in a much shorter deployment cycle.
- **Conversion Modeling**, provides quick insights into what is driving whether or not customers buy users' policy so that users can take meaningful action to increase conversion rates.
- **Claim Payment Automation Modeling**, predicts which claims should be auto-paid based on claim characteristics at the time of filing.

- **Claim Development**

Modeling, uses not only numbers and characters, but also text features. With the addition of text, users get true insights from variables such as claim adjuster notes, leading to more accurate predictive models.

Capabilities include:

- Coverage Placement
- Actuarial
- API
- Product Design

Clients include:

Mapfre, Tokio Marine, Matmut, Domestic & General, U.S. Army

Insights

Operations

Generative AI and AI tools are reshaping insurance operations by optimising underwriting and personalising customer touchpoints.

Why it matters:

Generative AI can enhance underwriting by automating high volume data analysis and assessing risk based on multiple external data points. AI-powered chatbots can simplify a high proportion of new business applications whilst personalising renewals and automating adjustments. AI can also help to predict policy cancellations, automate claims and boost policyholder retention.

How Generative AI and AI is transforming insurance operations:

New business acquisition and underwriting:

Revolutionises underwriting and customer onboarding by using AI powered chatbots for engaging with customers and processing their applications. AI can employ predictive analytics and OCR technology to streamline underwriting, speed up policy issuance, reduce errors, assist with data management and decision-making, and automate risk assessment.

Policyholder services:

Enables real-time policy adjustments, personalised claim handling, and automated customer support. This, in turn, can increase rates of customer retention and improve operational efficiency. This tech also aids with predictive issue resolution, improving the management of policies and therefore overall customer experience.

Claims management:

Automates fraud detection, expedites claim approvals, and provides dynamic resource allocation. Can assess claims based on intricate patterns and historical data, reducing manual error and claims leakage, as well as making real-time claims adjustments in the case of some machine learning models.

Operations

Case study 1:

Planck

PLANCK

Planck is an AI-enabled database for underwriters and insurers.

It features solutions and tools for underwriting, claims management, policy administration, data insights & monitoring, sales & marketing, billing, risk monitoring, and more. It also offers data collection and data processing for insurance underwriting.

What problem do they solve for insurance companies?

Underwriting in commercial insurance is a manual and time-consuming process. Traditional methods require extensive human effort and input in order to assess risks accurately.

Planck's AI-driven platform automates data aggregation, analysis, and insight generation, expediting underwriting. This results in reduced processing time, improved risk assessment accuracy, and increased overall efficiency for insurance companies.

planckdata.com

Domain Area:

RegTech

Founded:

2016

Funding:

\$71,000,000 (Acquired)

Country:

United States

City:

New York

The platform offers:

Submissions Validation, when the carrier receives a submission, the Planck platform generates a real-time risk profile based on an automated search and analysis of the submitting organization to validate the declared information. This review highlights any inaccuracies so the underwriter can focus on assessing risk rather than manually hunting for data online.

Underwriting

Recommendations, when the carrier receives a submission, the Planck platform automatically processes and assesses the application: rejecting it, sending it for quoting, or highlighting discrepancies that require manual inspection or further proof of evidence from the applicant.

Additional Risk Factors, when the carrier receives a new submission, Planck creates and returns additional insights and risk factors that were not part of the application form.

Capabilities include:

- Real-time Risk Assessment
- Robotic Process Automation (RPA)
- Data Mining
- Computer Vision
- Decisioning

Clients include:

Attune, Chubb, Republic Indemnity (Great American Insurance Group), Sampo

Operations

Case study 2:

Roots Automation



rootsautomation.com

Domain Area:

Robotic Process Automation

Founded:

2018

Funding:

\$44,000,000

Country:

United States

City:

New York

Roots Automation is a provider of an AI-based digital coworker for automating work processes. It uses robotic process automation (RPA) and artificial intelligence (AI) technology to automate teams' repetitive business-rules-driven processes.

It also provides solutions to help engage the team, share progress, initiate conversations and learn from those interactions in real-time.

What problem do they solve for insurance companies?

The insurance industry loves rules, process, and routine, for good reason. A by-product of this is that a massive amount of worker's time is often spent on routine and repetitive tasks, with limited added-value.

Roots Automation's Digital Coworkers help by automating routine tasks. This boosts operational efficiency, aids consistency, and accelerates processes while freeing up human employees to focus on customer interactions and complex problem-solving.

These AI-powered assistants also enhance compliance, accuracy, and scalability, ultimately leading to improved customer experiences, cost savings, and increased job satisfaction among employees.

The platform offers:

- **Insurance Information Collection and Analysis**, their Digital Underwriting Assistant gathers and assesses insurance data, helping with the risk assessment process and offering underwriting support.
- **Policy Approval and Rejection Communication Support**, timely communication of policy approvals or rejections to underwriting teams, insurance agents, supervisors, and clients.
- **Data Compiling for Policy Guidelines**, bringing together data and analytics required to inform insurance policy guidelines and coverage decisions.
- **Underwriting Application Management**, acting as a liaison between underwriters and clients, tracking, managing, and prioritizing insurance applications.

- **Accurate Record Maintenance**, ensuring precise, up-to-date records in underwriting software by meticulously verifying document accuracy and completeness.

Capabilities include:

- Computer Vision
- Robotic Process Automation
- Optical Character Recognition (OCR)

Clients include:

Protective Insurance, Berkshire Hathaway, Progressive, SCOR, Pearl Insurance

Insights

Risk and financial management

Generative AI and AI-powered tools can provide data-driven insights, predictive analytics, and automation to providers, re-inventing risk assessment and compliance.

Why it matters:

Generative AI and AI-powered tools can provide users with a strategic advantage through enriching insights with data, using AI to run predictive analytics, and automating previously labour-intensive processes. AI tools can reinvent risk assessment, automate compliance, support legal processes, and improve the accuracy of risk calculations. These technologies also optimize financial controls, treasury operations, and fraud detection, safeguarding insurers' operations and reputation.

How generative AI and AI is transforming risk and financial management:

Risk, compliance, and legal:

Automates regulatory reporting, performing real-time risk assessment and facilitating dynamic policy updates. Interprets complex regulations and auto-updates compliance documents, ensuring continuous alignment with evolving legal frameworks. Also helps firms proactively manage financial exposure and legal liabilities via predictive risk modelling.

Reinsurance:

Enhances risk profiling, dynamic pricing and capital allocation by simulating scenarios. Automates contract generation, expediting compliance and terms alignment. Creates catastrophic models that identify portfolio vulnerabilities for better risk mitigation.

Financial management:

Automates and optimises budget forecasting, capital allocation, and liquidity. Predicts revenue streams and costs, enabling more accurate financial planning. Simulates multiple financial scenarios, helping to develop better investment strategies and protect capital reserves. Real-time analytics offer immediate insights into financial performance, enabling speedy and proactive adjustments.

Risk and financial management

Case study 1:

Luminance



Luminance AI uses AI to power its contract analytics and due diligence platform. It autonomously processes extensive legal documents, identifying risks, anomalies, and gaps in data rooms.

Core features include clause identification, data visualization, and anomaly detection. Informed by legal experts, it precisely classifies and labels documents, clauses, individuals, locations, and languages—transcending basic keyword searches.

What problem do they solve for insurance companies?

Legal documents are lengthy and complex, and processing them is a time-consuming and labour intensive challenge. Luminance uses AI to help effectively review legal documents. They use a mixture of supervised and unsupervised machine learning to enhance efficiency, cut expenses, and offer valuable advice, accelerating legal reviews.

Their tool is able to comprehend extensive legal documents, instantly presenting vital data, clauses, and anomalies visually to reviewers.

luminance.com

Domain Area:

Legal Tech

Founded:

2015

Funding:

\$67,300,000

Country:

United Kingdom

City:

London

The platform offers:

- **Contract Management - Luminance Corporate**, uses next-generation AI to enhance and expedite the entire contract lifecycle process and automate legal processes. With Luminance, organisations can see all of their contracts in one platform, showing both the status and workflow of contracts currently under negotiation as well as an AI-powered index of executed contracts.
- **Contract Reviewing - Luminance Diligence**, uses AI to enhance and expedite a large range of contract review projects, from M&A due diligence and lease reviews, to ensuring compliance with data protection regulations, contract consolidation exercises, and re-papering.

- **Luminance Discovery**, employs advanced AI for an eDiscovery platform. Speeds-up tasks like Early Case Assessment and Data Subject Access Requests. Specific designed versatility to ensure flexibility with varied investigations and litigation. User-friendly tech, with no prior programming needed.

Capabilities include:

- Inference
- Deep Learning
- Natural Language Processing (NLP)
- Pattern Recognition

Clients include:

Clyde & Co, Dentons, Featurespace, Bird & Bird LLP, proSapient

Risk and financial management

Case study 2:

Squirro



Squirro is a cloud-based contextual intelligence and insights solution. It brings together internal and external customer data to deliver a near real-time picture of both levels of client engagement as well as market trends.

It collects and analyses data across multiple sources including Service Desks, configuration Management Databases, Internal Chat, and external feeds to give a real time picture of customers.

What problem do they solve for insurance companies?

User experience and customer satisfaction is hard to get right. Combine this with increasingly complex and tedious demands on employees time, and it is easy to see why professionals have their hands full.

Squirro's Reinsurance solution acts as a Smart Assistant, delivering timely insights and recommendations to them. It combines AI with human intelligence to offer a natural user-interaction experience.

Squirro uses pre-configured connectors and over 50 pre-trained ML and AI models for data analysis and risk assessment.

squirro.com

Domain Area:

Big Data Analytics

Founded:

2012

Funding:

\$15,500,000

Country:

Switzerland

City:

Zurich

This platform offers:

- **Intelligent automation**, view all relevant documents and information in one dashboard. Automatic extraction of key attributes and numbers from submission documents lets underwriters focus on evaluating critical risks.
- **Focus and comprehension**, Squirro guides underwriters directly to the most recent relevant documents. Key attribute extraction helps them verify their adapted exposure. Natural language understanding detects critical clauses, making light work of lengthy and complex documents.
- **Intelligent risk management**, a 360° cockpit for sales and technical underwriters monitors exposure and capacity allocation across key risks, business units and markets.

Capabilities include:

- Deal origination
- Counter party recommendations
- Relationship mapping
- Pitch Insights
- 360° client cockpit

Clients include:

Helvetia, ING, SwissRe, Standard Chartered, NatWest

Insights

Business management and infrastructure

Generative AI and AI-based tools are revolutionising how insurance businesses and their infrastructure are managed, from strategic planning to operational efficiency, procurement, and risk management.

Why it matters:

Generative AI and AI-powered solutions offer organisations the opportunity to use big data to drive insights, enhance how risks are managed, automate customer experiences, and optimise various elements of procurement. These technologies can elevate quality standards, HR efficiency, data security, compliance, and operational efficiency. AI can support learning and development, advance technological capabilities, and simplify both IT infrastructure and routine administrative tasks.

How AI and generative AI is transforming insurance functions:

Business management:

Automates the planning, design, and deployment of technology solutions, facilitating agile development cycles and compressed ideation-to-implementation timelines. By analysing vast datasets, AI can pinpoint gaps in existing infrastructure and automatically suggest tech solutions that align with business objectives. Identifies feature importance based on user behaviour and market trends, ensuring that only value-added features make it to the development stage.

Operational infrastructure:

Automates routine tasks, optimises workflows, and enhances decision-making. Empowers departments to pivot from being cost-centres to value-generators. Facilitates real-time system performance and security monitoring, enabling proactive as opposed to reactive strategies.

Technology management:

Analyses IT performance metrics in real-time, enabling smarter resource allocation — be it server space, bandwidth, or human capital. AI-powered chatbots and virtual assistants can handle routine IT queries, freeing up the technicians to focus on complex challenges and managing innovation.

Business management and infrastructure

Case study 1:

Talview



Talview is an AI-based video interviewing and assessment platform. The product is an automated recruitment platform, incorporating a chatbot, AI-based video interviews, online assessments, and automated proctoring.

The product is available in the Google Play Store and the Apple App Store on a subscription-based pricing plan.

What problem do they solve for insurance companies?

Recruiting top talent is challenging and competitive. Talview's Talent Measurement Platform helps insurance companies streamline their talent management processes, and recruit better talent, faster. It manages all elements of the pipeline, including screening, interviewing, assessments, and proctoring.

This enhances overall efficiency and decision-making throughout the talent lifecycle. Talview's AI-powered platform offers a comprehensive view of talent potential, enabling quick, confident, and bias-limited decisions, helping further equal opportunities to applicants.

talview.com

Domain Area:

HR Tech

Founded:

2017

Funding:

\$22,500,000

Country:

United States

City:

San Mateo

The platform offers:

- **A Recruitment Chatbot,** that seamlessly integrates with ATS (Applicant Tracking System), HRIS (Human Resources Information System), or CRM systems, automating candidate screening, assessment, and interview scheduling, and efficiently responding to enquiries.
- **Online Assessments,** Talview's Online Assessment Platform is speedy and customisable, allowing users to create pre-hire assessments with to evaluating both hard and soft skills. These assessments can be tailored for desktop or mobile devices.
- **Remote Proctoring,** Talview's advanced online proctoring solution verifies candidate identity and safeguards knowledge authenticity. It enables real-time monitoring of candidates and sends alerts when suspicious activity is detected.

Capabilities include:

- Behavioural Insights
- Knowledge Assessment
- Video Interviews
- Text To Apply
- Linguistic Insights

Clients include:

MetLife, Bajaj Allianz, HCL, Amazon, Cognizant

Business management and infrastructure

Case study 2:

Balto



Balto has created an AI-powered cloud-based guidance tool for contact centers. This tool includes real-time coaching for agents, smart checklists, dynamic prompts, notifications, sticky notes, and an intelligent leader board.

It offers real-time manager management, which features agent performance analysis, win-rate analysis, and trend analysis.

What problem do they solve for insurance companies?

Insurance agents typically work with challenging goals, which can be hard to reach. Balto uses AI to help improve agent performance. Their real-time guidance assists agents and supervisors with avoiding missed sales opportunities, correcting compliance errors, and ensuring that customer interactions are positive.

This better customer experience can lead to increased revenue, improved customer satisfaction, and higher agent retention, ultimately benefiting the insurance company's bottom line.

balto.ai

Domain Area:

Customer Service
Software

Founded:

2017

Funding:

\$57,600,000

Country:

United States

City:

St Louis

This platform offers:

- **Real-Time Guidance**, that enables agents to confidently work through every conversation, resulting in happier customers, increased revenue, and greater employee satisfaction.
- **Real-Time Coaching**, allowing managers to support their agents in make-or-break moments. Managers are automatically alerted about coachable moments, able to instantly join the call, and provide the coaching their agents need to save calls before they're lost.
- **Real-Time Quality Assurance**, instantly scores calls, allowing users to concentrate on enhancing call quality. Helps prevent recurring mistakes, pinpoints the underlying causes of low scores, and extends best practices across the entire team.

- **Real-Time Notetaker**, automates the summarising of calls, relieving agents of this time-consuming task. It streamlines post-call work by generating notes with a single click, offering seamless integration within the platform.

Capabilities include:

- Win Rate Analysis
- Command Center
- Sentiment Analysis
- Dynamic Prompts

Clients include:

National General Insurance, Coverance Insurance Solutions, AmTrust, eHealth, RingCentral

Chapter 5:

The Future of Generative AI in Insurance

AI has the potential to transform customer experience in insurance into something that is more intuitive, more flexible, and more affordable. Using AI to explore the huge volumes of data at insurers' disposal has the potential to help deliver increasingly personalised tailor-made insurance products that are available to more customers at fairer prices.

“We see rapid expansion of AI and AI-powered tools into every part of the insurance industry. From AI based self-risk assessments by insurers of all sizes, to automated submission generation, to fully AI powered UW of SME accounts... AI will transform the insurance, industry similar to how predictive and CAT models transformed the industry in the 70s.”



Sandeep Haridas
*EVP, Head of Business and Chief
Strategy Officer, Intellect AI*

The AI-powered insurance company of 2034

As AI and Generative AI continues to advance over the next decade, here are some of our predictions for ways in which we will see the industry change:

Claims assessment and claims processing

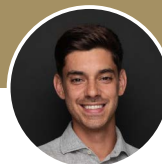
Claims processing in 2034 remains a primary function of carriers, however, automation now drives more than half of all claims activities. Advanced algorithms handle initial claims routing, increasing efficiency and accuracy.

IoT sensors and an array of data-capture tech, such as drones, replaces manual first notice of loss. Claims triage and repair services are triggered automatically upon loss. AI plays a central role in automating claims processing tasks such as data extraction, document verification, and fraud detection. Insurance employees focus on complex claims that require human decision-making and empathy.

Customer service and support

AI-powered chatbots and virtual assistants will handle most customer inquiries through voice and text, following self-learning scripts that interface with the claims, fraud, medical service, policy, and repair systems, providing prompt and accurate responses. Insurance employees will concentrate on complex customer queries, addressing escalated issues, and providing personalized guidance.

“Prepare to upskill your customer service agents. This is twofold: agents will be able to be true experts, not switchboard operators, because AI can take care of routing and authentication. The bulk of their work will be dealing with third-tier requests and specialized situations that require human finesse. Additionally, agents need training on how to work with an AI solution’s interface, so that they can both train and oversee the AI solution.”



Viktor Can Moj
Enterprise Account Executive, Parloa

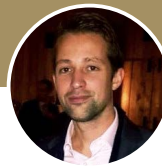
Risk assessment and underwriting

Underwriting is now the preserve of “principal data underwriters”, highly skilled individuals with a mandate to use enterprise data to design, develop, and deploy artificial intelligence machine learning in the execution of their role, as well as a firm grasp of ethics and an awareness of the potential for AI to introduce harmful biases into business models.

This “principal data underwriter” is able to build, train, and deploy AI models – all without writing a single line of code. They can extract value and achieve business results from AI, but are also able to identify the tensions, trade-offs, and downside risks.

“The most transformative change in the insurance industry over the next five to ten years will stem from AI (namely GenAI/LLM) adoption, significantly aiding rather than replacing underwriters. We can envisage a future of AI-driven workflows where underwriters focus on the most crucial and nuanced decision points.

This shift will not only boost efficiency but also elevate the role of underwriters to more specialized and high-value tasks. AI won’t replace underwriters, but underwriters using AI will replace those who don’t!”



Alexis Renaudin
Head of Data, Artificial Labs

Underwriting of low-value, high-volume policies is automated and supported by a combination of machine learning and deep learning models powered by internal and external data accessed through APIs and trusted third party data providers.

Insurers aggregate data from reinsurers, manufacturers, and distributors, enabling underwriters to make swift and dynamic pricing decisions, enabling proactive outreach with a bindable quote for product bundles tailored to buyers’ risk profiles and coverage needs.

Product development and innovation

Insurers are able to create personalised policies and coverage options in just a few clicks, often following automated AI-generated prompts. Insurance employees work closely with AI to understand customer needs, identify market trends, and design innovative insurance products.

Ethical and compliance oversight

Insurance employees monitor AI systems, addressing bias or discrimination concerns and ensuring compliance with regulatory frameworks and privacy standards.

“Ensure that the solutions you build and the providers you partner with can fulfil AI ethics, both the current regulatory standards and those that will soon appear.”



Javier Cubelos Ordás
Chief Data Officer, Bdeo

Relationship management and sales

Insurance employees focus on building and maintaining valuable and empathetic relationships with clients, especially in complex and high-value business lines. They leverage AI-generated insights and recommendations to offer tailored solutions and provide a human touch to the customer experience.

Insurance employees continue to provide personalised advice, handle complex scenarios, and exercise personal judgement and their experience in decision-making processes.

Conclusion and Next Steps

The development of AI has moved beyond its infancy towards a critical point whereby the status quo related to conventional operations is being challenged. We are already seeing evidence of AI and Generative AI influencing areas that include customer experience, distribution, operations, risk, finance, and business management.

With incumbents facing increased pressure from competition, climate change, better informed and more discerning customers, and innovative challenger organisations, many are asking how AI can help them to stay on top. Partnering with start-ups and scale-ups at the leading edge of AI in insurance represents an opportunity to innovate and grow together, if the right organisations can be selected to partner with.

“First decide the business goals, then focus on use cases which need to be AI-enabled, then set a metric to achieve and then find a software and AI partner who can execute. Too many companies focus only on learning the technology without deciding on the business goals, use cases and metrics first.”



Ram Menon
Founder and CEO, Avaamo

“Find great partners and forge strong partnerships. The field of AI is moving too fast for one insurance organization on its own to build, maintain and retain everything needed today, and tomorrow.

As AI becomes more embedded into core operations and our day-to-day lives, incumbent Insurance companies will increasingly compete with tech giants for talent, tools, and customer loyalty.”



Chaz Perera
CEO and Co-Founder, Roots Automation

We believe that embracing AI proactively can give organisations an advantage. However this opportunity comes with significant caveats. After engaging with a range of organisations at the leading edge of AI in the insurance space, we noticed that much of their advice overlapped. This can be neatly summarised as the following:

Step 1:

Clarify which business objectives might benefit or be accelerated through the use of AI.

Step 2:

Define how you will measure the effectiveness, value-added, and overall impact of AI.

Step 3:

Devise protocols and policies to guide how AI is used on a day-to-day basis. Ensure these are regularly updated, in-line with current best practice, in accordance with relevant regulations around data privacy and security, and robust enough to stand up to incoming AI-specific regulation in any applicable jurisdictions.

Step 4:

Outline specific criteria for shortlisting and choosing an AI technology partner, based on things that matter to you. We advise you to include exploring their experience in the industry, existing corporate relationships, maturity of offering, and their approach to ethics.

Step 5:

Consider how existing employees will be trained in using any AI tools, and how their training will be kept up-to-date. Create policies where necessary, and foster a culture of continuous learning and improvement.

Step 6:

Seek out specific talent where needed, and build a compelling talent value proposition for team members that need to be brought-in.

Step 7:

Regularly review and test data quality, and proactively explore how you will clean data, and mitigate potential historic bias or errors.

Be prudent, thoroughly test, and remember that many organisations will be facing the same challenges as you. If you're interested in partnering with the most exceptional organisations using AI in the insurance space, then please get in touch.



Sabine VanderLinden is a renowned leader in the insurance and financial services sector, with over 25 years of experience driving innovation and transformative growth.

As the CEO and Venture Partner of the Alchemy Crew Ventures, she leads corporate-led venture labs dedicated to accelerating the adoption of emerging technologies through open innovation and collaborative experimentation.

Sabine is passionate about bridging the adoption gap between established corporations and disruptive tech ventures, fostering ecosystems that enable sustainable impact and shared success.

Her extensive expertise in InsurTech, corporate venturing, and ecosystem development positions her at the forefront of industry evolution, guiding organizations toward agility and resilience in an ever-changing landscape.



Dr. George Shelton is committed to unleashing innovation through deep personal engagement with both corporations and startups. With a distinguished career as an award-winning communicator and pioneer in fundraising and philanthropic research, Dr. Shelton empowers organizations to achieve values-driven seismic impact.

His expertise in strategic communication, social entrepreneurship, and leveraging diversity as a competitive advantage uniquely equips him to identify and cultivate high-potential ventures.

Dr. Shelton's collaborative approach fosters successful partnerships that propel organizations toward sustainable success, enabling them to navigate the complexities of technological integration and market dynamics with confidence and agility.



About Alchemy Crew Ventures

Alchemy Crew Ventures is a venture lab for the insurance sector and financial services institutions. Using open innovation, digital experimentation techniques, and ecosystem thinking, we collaborate with established corporations to accelerate the curation, validation, and adoption of emerging tech ventures.

The Crew facilitates the execution of a reinvention engine also called a venture client model that fast-solves some of the most pressing challenges across the finance sector by unearthing latent customer needs and developing winning propositions. By using a structured collaborative framework, its approach short-cuts experimentation between corporations and with global tech ventures with unique business models to significantly de-risk corporate-led commercial initiatives.

Alchemy's global acceleration platform codifies knowledge on emerging tech players to create a long-term sustainable impact through authentic execution and the sharing of key learnings. Alchemy Crew Ventures combines the collective knowledge of networks of experts from all around the globe to contribute to the emerging networked economy. The team works with leading insurers including Nissay, Travelers or Zurich among the few.

**You can find more about our work at
www.alchemycrew.ventures**

