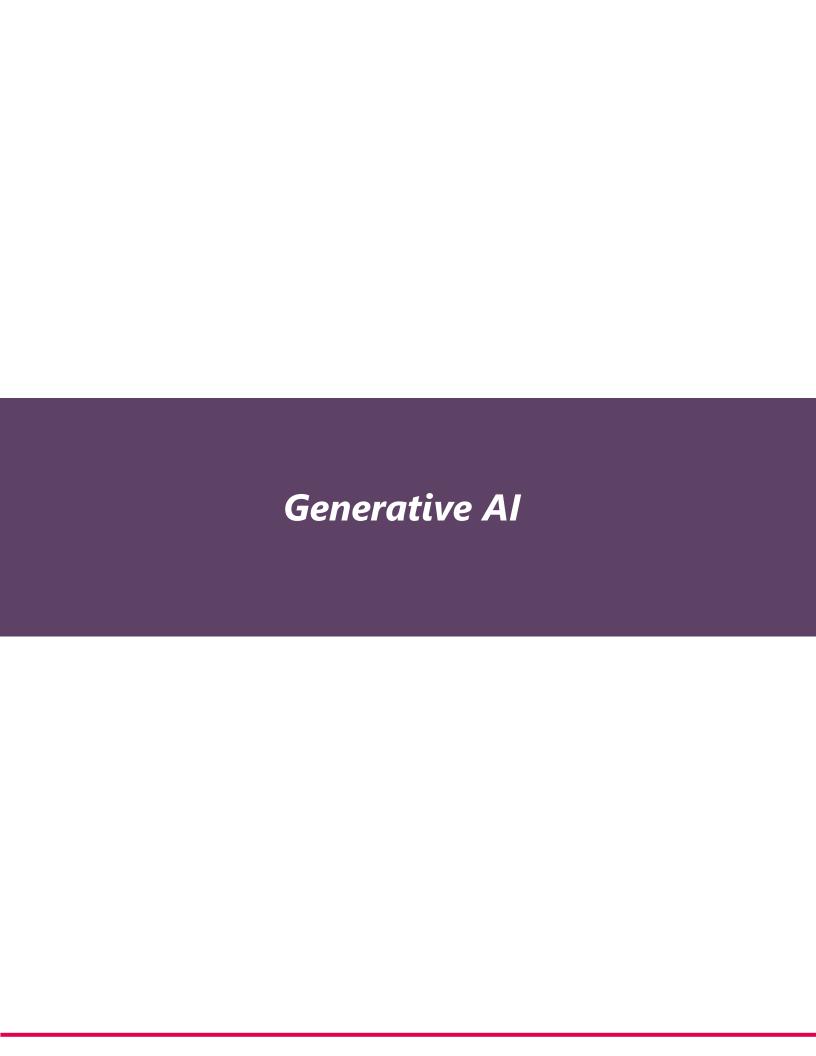
# Generative Al— Disrupting the Insurance Industry

**May 2024** 

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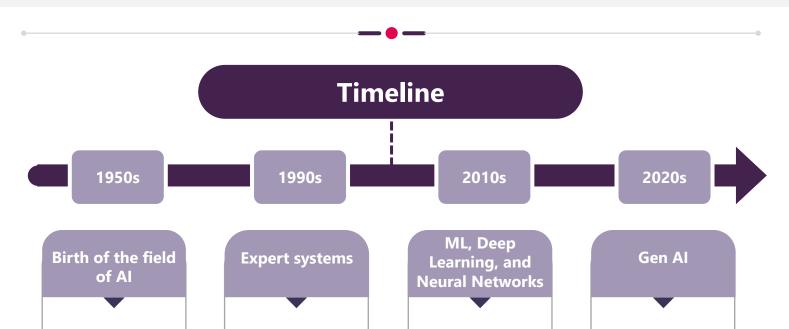


# **Gen AI – Introduction**

#### What is Gen AI?

Gen AI, a subset of AI in general, can create diverse content autonomously via understanding a large set of data. For example, ChatGPT and DALL-E, generate text and images, and in a few cases mimic human voice responses, resulting in revolutionized content creation processes. Also, with the pace of advancement in the Gen AI space, these systems are producing lifelike outputs and improving on them every day. These Gen AI systems are now being leveraged by businesses for product design, marketing, and customer engagement

> In short, Gen AI is going to reshape how organizations approach creativity and innovation. By harnessing vast datasets, these AI models showcase the potential for transformative advancements in content creation and beyond



Alan Turing introduced the Turing Test, a popular test for human-like intelligence in computers

IBM's Deep Blue supercomputer beat the world chess champion in 1997, a landmark display of the power of expert systems and computing power

Google DeepMind's AlphaGo beat the Go world champion in 2016, proving the capabilities of Al systems and showcasing its potential to solve the most challenging problems ChatGPT went live in November of 2022

"In my lifetime, I've seen two demonstrations of technology [GUI and GPT] that struck me as revolutionary"

-Bill Gates

# Gen AI is at an early stage still, but it is already widespread

### The growing popularity of Gen Al

In recent years, there has been a rapid expansion of Gen AI tools which has encouraged various industries to incorporate them more extensively into their operations across different business functions. Despite its nascent availability, various organizations are now commonly adapting Gen AI and others are planning to ramp up their overall AI investments due to advancements in Gen AI. Consequently, the landscape of industries is witnessing a significant inclination towards leveraging Gen AI for competitive advantage

> As we look ahead, the horizon for Gen AI appears limitless – according to McKinsey report Gen AI could add about 0.6%<sup>1</sup> to the overall average labor productivity growth annually by 2040

### **Adoption of Gen AI across multiple industries**

### Respondents across industries say they are already using Gen AI tools

Reported exposure to Gen AI tools, % of respondents

Advanced industries

Business, legal and professional services

Consumer good/retail

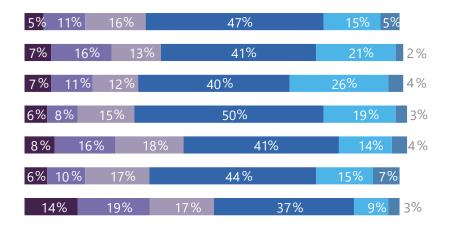
Energy and materials

Financial services

Healthcare, pharma, and medical products

Technology, media, and telecom

- Regulary use for work
- Regularly use outside of work
- No exposure



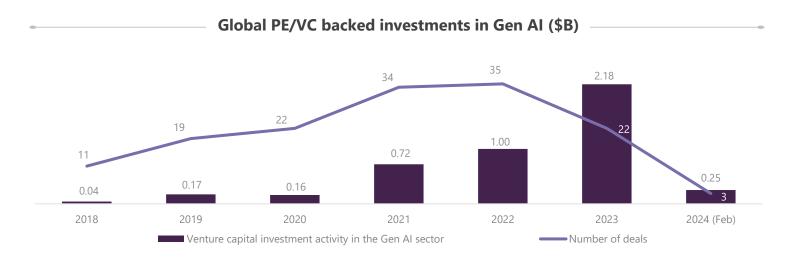
- Regularly use for work and outside of work
- Have tried atleast once
- Don't know

#### **Market forecasted numbers**

- The Gen AI market is predicted to double every two years, reaching \$200 billion<sup>2</sup> by 2032, according to Deloitte
- According to McKinsey, Gen AI has the potential to unlock **35%** to **70%** more economic value than traditional AI deployments, besides bringing **15%** to **40%** of new use cases compared to traditional AI applications

# Gen AI has seen a rise in investments

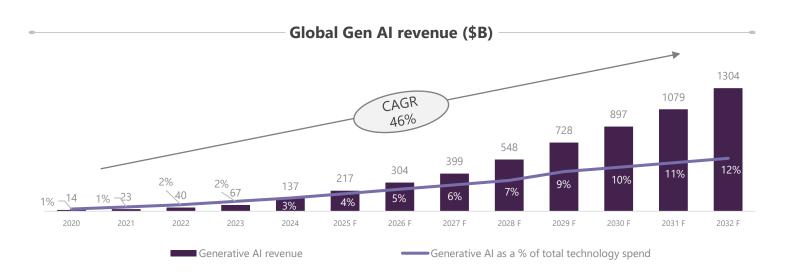
### **Deals and investments in Gen Al**



### Private equity-Venture capital backed investments in Gen Al:

With Gen AI on the rise – Various industries are now leveraging their potential via targeted investments, for instance:

- Venture capital funding of Gen AI in 2023 grew by 118% reaching \$2.18 billion as compared to \$1 billion in 2022
- However, the number of deals decreased moderately from 35 in the year 2022 to 224 in 2023



#### **Gen AI revenue and total technology spend:**

- Many industries including the insurance sector have started to embrace Gen Al solutions thus, expecting Gen Al revenue to increase from \$40 billion in 2022 to \$1.3 trillion in 2032 with a CAGR of 42%<sup>5</sup>
- Furthermore, the technology spending in Gen AI is projected across industries from **1%** to **12%**<sup>5</sup> by 2032 Indicating a significant shift toward Gen AI-driven solutions



# The insurance opportunity

# Gen AI is gaining traction in insurance industry:



**62%** of insurers are keenly interested in Gen Al adoption

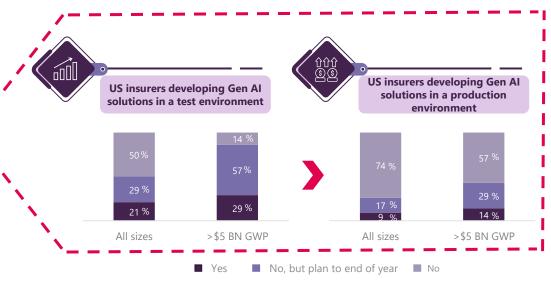


**25%**<sup>7</sup> of insurers are set to implement Gen Al solutions in production by year-end



The projected Gen Al market in insurance is expected to reach **14.4** billion<sup>8</sup> by 2032

# Insurers are making strides toward Gen Al production-ready solutions



➢ Oliver Wyman/Celent conducted a survey of C-suite executives in the insurance industry, from May 15 to May 22, 2023. Around 33 executives responded, with eight representing companies over \$5 billion in revenue

### Key ecosystem developments in the insurance space

#### 1. Sixfold

Launched the first Gen AI-based tool designed to streamline the underwriting process and evaluate risk by gathering extensive data from multiple third-party data sources – identifying patterns and consolidating the data into customized underwriting reports for underwriters

#### 3. Chubb

The insurer is leading in the implementation of Gen AI technology. Their strategy centers on using Gen AI to improve core functions like underwriting and claims processing, boosting efficiency and reinforcing their position as an insurance industry innovator

### 2. Dias Technology

Partnered with the Paladin Group and launched UnderwriteGPT, an advanced underwriting tool utilizing a large language model (LLM) and Gen AI – enabling acceleration of the underwriting and risk management process – which has resulted in improved pricing and coverage options for policyholders

#### 4. GEICO

Uses a user-friendly virtual assistant powered by Gen Al. This assistant engages in conversations, understands customer queries through message intent recognition, and guides users by redirecting them to relevant sales pages – enhancing customer engagement and improving the user experience

# Unlocking Gen AI potential

With Gen AI on the rise – Insurers are now leveraging its potential via targeted investments that can be aligned with their business strategies. By focusing on four key value dimensions – **profitability, cost savings, operational efficiency, and customer centricity** - insurers are able to unlock values and drive better results

### 1

#### 1. Growth

- Strategical investments are helping insurers to tap into new growth opportunities, enhance product offerings, and expand market reach hence, driving profitability
- While insurers are contemplating Gen Al applications to boost revenue, the technology sector has already capitalized on this
  - For instance, most telco leaders such as AT&T, SK Telecom, and Vodafone have developed Gen Al solutions that range from pilots to full-scale deployments and have made much-publicized early Gen Al commitments and launched trials

#### 2. Cost savings

- By integrating Gen Al-driven solutions into their operations, insurers are streamlining expenses across various functional areas such as marketing, underwriting, and customer services
- According to a recent report by sprout.ai, leveraging Gen Al within the insurer operations has the potential to deliver cost savings – estimated at around 56%<sup>9</sup>



### 3. Operational efficiency

- Gen Al is enabling insurers to streamline various manual processes, such as customer form filling, customer support, and in certain cases underwriting thus, enhancing the overall efficiency
  - For instance, in customer support, Gen Al tools like Code Interpreter for ChatGPT are enabling sales and support teams to automatically generate and handle customer documents

### -

### 4. Customer centricity

- Gen AI has been assisting insurers to achieve high customer centricity by helping them to develop efficient customer communication channels
  - For instance, personalized communication done by Gen Al chatbots has seen increased efficiency and accuracy driving customer satisfaction

# Streamlining the insurance processes

Gen AI is reshaping the insurance industry's landscape, optimizing processes from customer inquiry to customer support. Its implementation in the insurance value chain streamlines operations, enhances accuracy, and fosters personalized customer interactions, making a pivotal shift in the industry's efficiency and service delivery



### **Gen Al is transforming the insurance value chain**







manner

It enhances the efficiency of virtual assistants and chatbots in gathering and analyzing customer data, enabling them to provide personalized recommendations and assistance

**Information** 

gathering

# **Quote** generation

Facilitates the generation of insurance quotes based on customer inputs and historical data, ensuring accuracy and relevance

# Claims processing

Streamlines the claims processing workflow by guiding customers through the process, collecting relevant information, and facilitating communication between all parties involved

# TÝ)

#### Underwriting

Assist underwriters in assessing risk factors and determining appropriate coverage options based on historical data and predictive analytics

Customer support

Enhances customer support by providing instant, roundthe-clock assistance to policyholders, addressing inquiries, and resolving issues efficiently

Major impact

Source: Evalueserve analysis

# 1. Claims processing

Verisk launched the Discovery Navigator platform, a Gen AI tool, revolutionizing insurance claims processing. It speeds up manual record reviews by up to 90%10 while achieving accuracy as high as 95% significantly enhancing operational efficiency

### Al through the insurance claims lifecycle



### 1. FNOL (First Notice of

Utilizing chatbots for automated customer service enables the provision of multilingual support

Automate the registration of

FNOL claims, recognition of

demands, and extraction of data

Implement automation for QA of

claims, ensuring completeness,

checking for duplicity, verifying

#### 3. Claims submission

- Automate the validation of claims data against policy contracts and schedules
- Provide call center executive support through Q&A
- Implement automation for adjuster report insights, including asset details, location, damage, date, and cause of loss

#### 6. Customer communication

Enables chatbots to respond to questions from customers and assist during the claims process to enhance the overall customer experience

#### 4. Claims assessment

- · Automate the processing of large amounts of historical data to help estimate initial loss reserving
- Perform sentiment analysis and assess past claims information. Use automated processes to ascertain a claim's litigation propensity

#### 5. Claims evaluation

- Identifying anomalies and potential fraud cases by analyzing claim data
- Forecasting claims: Estimate the number and value of future claims
- Analyzing the available text and image data to automatically estimate damage

Lifecycle

- The insurers have historically relied on manual processes and human expertise for claims handling, leading to timeconsuming procedures. Advanced technologies like Gen AI are offering new possibilities that have significantly reduced claims processing time – for instance, it has been estimated that Gen AI is expected to reduce claims processing times by up to 90%11
- Now, with new Gen Al tools coming in, many insurers are using them in damage assessment, fraud detection, error prevention, claims processing, and customer support via automating several stages – significantly reducing effort and operating costs
  - According to the BCG report, Gen AI is expected to have an impact on claim processing with a 3%-4%<sup>12</sup> reduction in claims payout and a 20%-30%<sup>12</sup> reduction in loss-adjustment expenses
- Also, Gen Al is providing insurers with valuable data-driven insights into claims patterns, customer behaviors, and emerging risks, enabling them to make far more accurate and informed decisions

# 2. Underwriting

McKinsey forecasts that integrating ChatGPT in insurance could generate \$1.1 trillion<sup>13</sup> in new revenue, with \$400 billion from pricing, underwriting, and promotion technology upgrades and \$300 billion from improved customer service

### Al through insurance underwriting lifecycle



#### 1. Product design

 Innovative, data-driven product offerings

#### 4. Virtual assistant

- Customized policy recommendations based on risk profiles and customer preferences
- Instant comparison of various products and coverage options in real time

### 9. Customer/ Broker communication

 To increase customer satisfaction, create customized customer communications, such as policy information and renewal reminders

### 2. Product customization

 Al assists in enhanced product structures, user forms, rules, and documents

#### 5. Submission intake

- Examine and evaluate the content in the body of the email
- Produce coverage explanations, policy summaries, and customer communications
- Automate inspection and comparison of documents
- Assess vendor-sourced information, including press releases and customer reviews

### 6. Submission assessment

 Analyze extensive historical data to prioritize submissions according to factors like effort, premium, and customer buying probability

### 8. Quote generation

To accelerate policy issuance, and streamline the purchasing process, simplify the quote generation process

### Business

insights



#### 3. Customer profiling

 Al-driven solutions to support prospect qualification, opportunity targeting, as well as customer segmentation

#### 7. Risk assessment & rating

 Automate the analysis of customer, policy, and historical data to offer insights and recommendations to underwriters, ensuring more precise risk assessment and pricing

Lifecycle

- Underwriters have taken the most advantage of generative AI in terms of analyzing extensive data and accurately
  developing potential risk profiles. Parameters like historical claims, customer information, and external factors can
  be/are being used by generative systems to generate risk profiles and recommend appropriate coverage levels with a
  high accuracy
- However, with major advancements in Gen Al algorithms, underwriters' advantages can soon turn into disadvantages
  with respect to their job security and creation as Gen Al has the potential to make manual underwriting obsolete –
  leading to job losses
  - For instance, as per McKinsey, manual underwriting will become obsolete by 2030 for the majority of personal and small-business insurance products, encompassing life, property, and casual insurance
- This does not hold true when looked from insurers' perspective as Gen AI will significantly reduce underwriting employment costs thus, driving their bottom line

# 3. Customer support

Insurance companies use AI-powered chatbots to reduce the workload on human agents and provide 24/7 customer support to immediately answer customers' queries

#### Policy recommendations



A customer checks an insurance company's website to get advice on choosing the best coverage for their requirements

Gen AI evaluates the past and preferences of the client. The system makes recommendations for customized insurance plans based on the data it has collected, taking coverage, rates, and deductibles into account

#### Policy serving



A customer wants to modify the coverage levels or update beneficiary information on her/his current insurance policy

Gen AI chatbot helps the user in managing policy servicing choices by interacting and helping with necessary actions and supporting documents – making it more convenient for the users

#### Claim assistance



The policyholder is guided through the claim's procedure by the Gen Al chatbot, which also gathers pertinent paperwork, incident details, and visual evidence

The chatbot handles the submission of claims, furnishing policyholders with status updates and streamlining correspondence between adjusters and policyholders

#### **Customer support care**



When a policyholder initiates a claim with an insurer, they must provide all necessary details and supporting documentation

Gen AI has the ability to understand what customer is seeking – it detects customer emotions during calls which leads to more positive interactions, higher customer satisfaction, and improved resolution rates

#### Risk assessment



When policyholders require assistance from their insurers, they seek guidance and support for evaluating potential risks and hazards associated with their coverage

Gen AI can significantly impact risk assessment in the insurance industry by providing more accurate and efficient risk evaluations. By analyzing vast amounts of data, Gen AI can identify patterns and trends that help insurers make better decisions about coverage and pricing

# Risks and challenges due to Gen AI

Gen AI offers substantial benefits to the insurance industry but also possesses significant risks and challenges due to new technological developments

### Key risks and challenges associated with Gen AI in insurance sector

### **Regulatory compliance**

As the use of new and complex Gen AI algorithms is rising, this may not fit into existing regulatory frameworks in the insurance space as the advancements in Gen AI might outpace the development of regulatory frameworks that can create challenges in ensuring accountability, transparency, and responsible use

For example, insurers using Gen AI models for auto/home insurance risk assessment may encounter regulatory challenges due to unclear guidelines which can lead to delays in product approvals. This may lead insurers to stop using Gen AI fully for underwriting until the rules catch up with new technology

### **Training bias in Al**

Training bias creates inequalities and unfair discrimination against certain demographic groups. Biased Al algorithms may lead to underwriting discrimination, unfair claim processing, and inaccurate risk assessment

For instance, insurers using a Gen AI underwriting model trained in one state to develop outputs for another state, using historical crime data for fraud detection could result in unfair premiums or inaccurate risk prediction

## Over-reliance on technology

In the insurance industry, while technology can greatly enhance the efficiency and effectiveness of the insurance processes, over-reliance on technology can introduce new risks and lead to a lack of accountability

Insurer's heavy reliance on Gen AI for automated claims processing can enhance errors due to lack of human oversight in complex cases, which could impact the accuracy of claims settlements

### **Cybersecurity risks**

Deep fakes, phishing, prompt injections, and ambivalent actors are cybersecurity threats in insurance. These risks can compromise security and erode customer trust

➤ The potential threat actors may exploit the Gen AI technology to manipulate or fabricate evidence in claims or underwriting processes, leading to fraudulent activities for insurers and policyholders

#### **Data privacy concerns**

Training models on proprietary and private data pose risks such as data breaches, unauthorized access, and privacy infringements

> The collection of sensitive user data, medical records, and financial information by insurers using Gen AI can pose risks of data exposure, breaches, and reputational damage if not handled safely and transparently

# Industry experts' views

Insurance company CEOs are strongly emphasizing the need for flexible integration of rules-based analysis, third-party data, and AI to meet high expectations transparently. They are also aligned with AI technology's positive impacts on the insurance sector such as – foreseeing customer needs, expediting the processing of claims, and providing better coverage at a reduced cost

### **Shai Wininger**

#### **CO-CEO of Lemonade**

"This technology will help us better anticipate customer needs, respond to more claims instantly, and ultimately provide better coverage at lower costs"

### **Sully McConnell**

### **Head of Insurance at Snowflake, Inc.**

"An important area of focus for organizations looking to differentiate through Gen Al is around data management, quality and governance"

### **Ross Mayne**

#### **CEO of Munich Re**

"We believe combinations of rules-based analysis, third-party data, and Gen Al should work together flexibly, seamlessly, and transparently to meet the very highest expectations of insurers, distributors, and consumers"

### Yougang Zhu

# Committee Secretary and Chairman of Ping An

"Insurance companies will have the ability to better understand customers and risks"

#### CEOs across industries bet big on Gen Al:

- ▶ 100%<sup>14</sup> of CEOs are making or planning significant investments in Gen Al
- > 84%<sup>14</sup> of CEOs are accelerating Gen AI investments to maintain competitive advantage
- ➤ 68%<sup>14</sup> of CEOs say Gen Al uncertainty creates challenges for adoption

# Conclusion

Generative AI (Gen AI) represents a significant advancement in artificial intelligence, empowering human creativity and innovation. Its integration has the capacity to revolutionize the insurance sector by facilitating innovative services, and business models, and enhancing overall productivity throughout the industry's value chain. Unlike other disruptive technologies such as automation and machine learning, which focus on streamlining existing processes, Gen AI stands out for its ability to create fresh and imaginative content without requiring extensive programming knowledge. Its user-friendly nature makes it accessible to people of all technical backgrounds, making it a promising tool for transforming the insurance industry

In recent times, when a customer is applying for insurance on their first car. They express their needs and preferences through a chat box powered by Gen AI. This information is then sent to an "anonymizer" bot, which generates a digital twin stripped of any personally identifiable details. With the digital twin, the insurer can tailor quotes specifically for the customer archetypes. Once the customer selects a plan, the insurer can expedite the underwriting process by employing methods such as Statement of Value (SOV) extraction, third-party data enhancement, and digital risk profiling

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