

AI in the enterprise:

Emerging trends, prevalent use cases and its impacts



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So, what is Generative AI?

If AI is machines performing intelligent tasks, and ML is machines learning from data to improve those tasks, then **GenAI is the breakthrough where machines create original content so convincingly human that they not only mimic us but surpass our best experts**, redefining creativity and expertise through deep learning (*'copy experts'*) and reinforcement learning (*'surpass yourself every time'*).



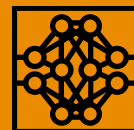
Artificial intelligence

The theory and development of **systems** embedded in an environment, that **sense, make decisions**, and **act** to achieve a **specific purpose** e.g., IBM's Deep Blue chess computer in 1996.



Machine learning

AI where **systems learn** from data to improve task performance **without explicit programming**. e.g., typical product recommendation engines, predictive maintenance tools or churn scoring models.



Deep learning

ML using multi-layered deep neural networks (inspired from the brain) to process and model **complex patterns** e.g., face recognition, object detection, voice to text or language translation systems.



Generative AI

Deep (very deep) Learning models (such as ChatGPT, Claude, Leonardo etc...) that use a large amount of data and large pre-trained models to **generate new content** (text, image, audio, video), e.g., generate new realistic faces, mastery of language, multi-expert capacity etc...

Limited to data scientists

Now accessible to developers
... and all end users!

The Impact

Generative AI
will transform
every business

Scale further
Work faster
Reduce costs
Enable new
business models

Businesses can...

Scale without resource
constraints

Empower your workforce to **focus on higher value** transactions

Enable workers to have
access to industry-
leading knowledge

Enhanced customer experience: Convert the
unique knowledge of your business into **new
services you can provide** to customers

Improve the speed
and quality of all text
and coding work

Improve the **speed and
quality** of decisions

Automate for efficiency
and lower costs

Accelerate time to realize value



The Impact

What it is

ChatGPT and Bard are UIs that makes it easy for anyone to interact with a large language model (LLM) like a chat message. To the user, it appears that AI is answering complex questions with the same expertise as a highly intelligent individual — with perfect grammar.

What it is NOT...

LLMs do not understand what they say. They are not self-aware. They will not replace people, but people who are able to use AI to do their work will replace those who can't.

Popular generative AI task categories:



Text



Code



Generative
interfaces



Speech
& audio



Visual
media

Generative AI can...

Create.
Improve.
Summarize.
Q&A.

Example Capability

Text



- Contact center dialog
- Improve Marketing content
- Produce product documentation
- Test plan creation
- Summarize service requests
- Analyze customer feedback

Code



- Generate python code
- Improve and optimize SQL
- Explain and document code
- Update code to new standards and platforms

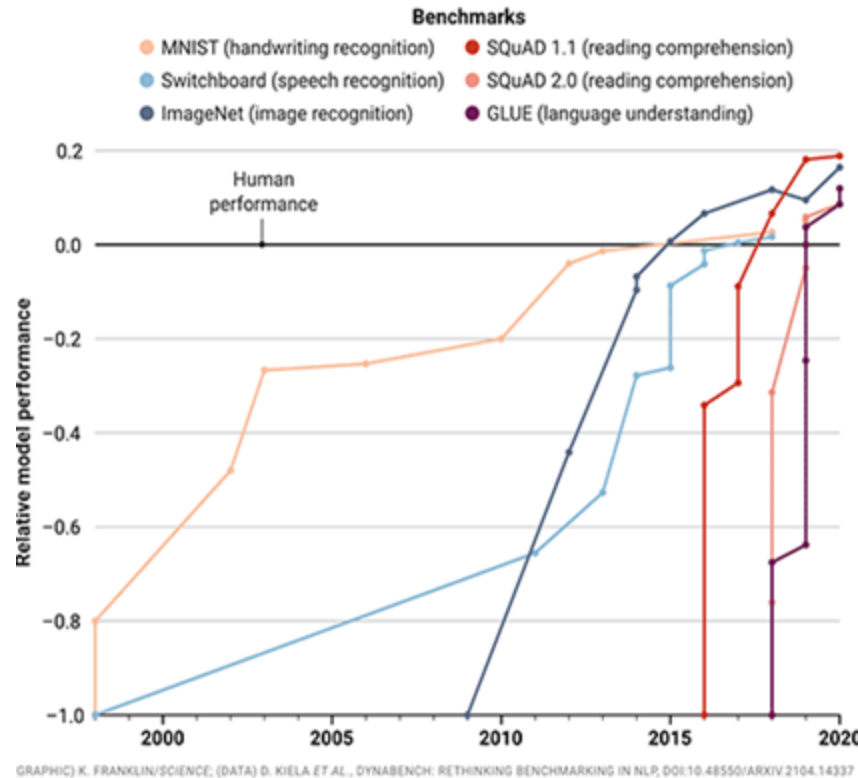
Data



- Validate data
- Generate sample and test data
- Understand differences in data
- Fill in missing data points

AI Now

Generative AI is
outperforming
people today...
...and it is
accelerating.
Act now.



AI training costs are declining 60% YoY

By 2030, AI training costs will be \$500 for the same output that cost \$5M in 2020

Generative AI Platforms Boost Worker Productivity by 14%*

Productivity is much higher in keys areas across a company's value chain

MSFT has invested \$10B in OpenAI

GPT-4 production in Azure will accelerate growth in Data and AI Services

ChatGPT has the largest and fastest user base

than any other technology in history
100M user in 60 days!
1B monthly views in third month

ChatGPT gets an "A"

- LSAT 163 (88%)
- Bar exam 298 (90%)
- SAT score of 1410 (>90%)
- 99% GRE score
- AP Macroeconomics 84 (100%)

In 4 years, AI language systems advanced 10,000x...

...at lower costs! 67% drop in Aug 22, and 90% drop in Mar 23.

Google Has Released Bard for consumers and PaLM2 LLM.

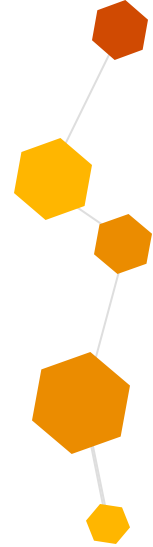
We are one of the first companies in the world with access

AWS announced Bedrock as their LLM and to support a range of other LLMs.

We are a pilot partner for Bedrock

* Per National Bureau of Economic Research for customer service roles

The divide between **reality** and **ambition**



32%

Organisations that have
adopted Generative AI
in the past 12 months.

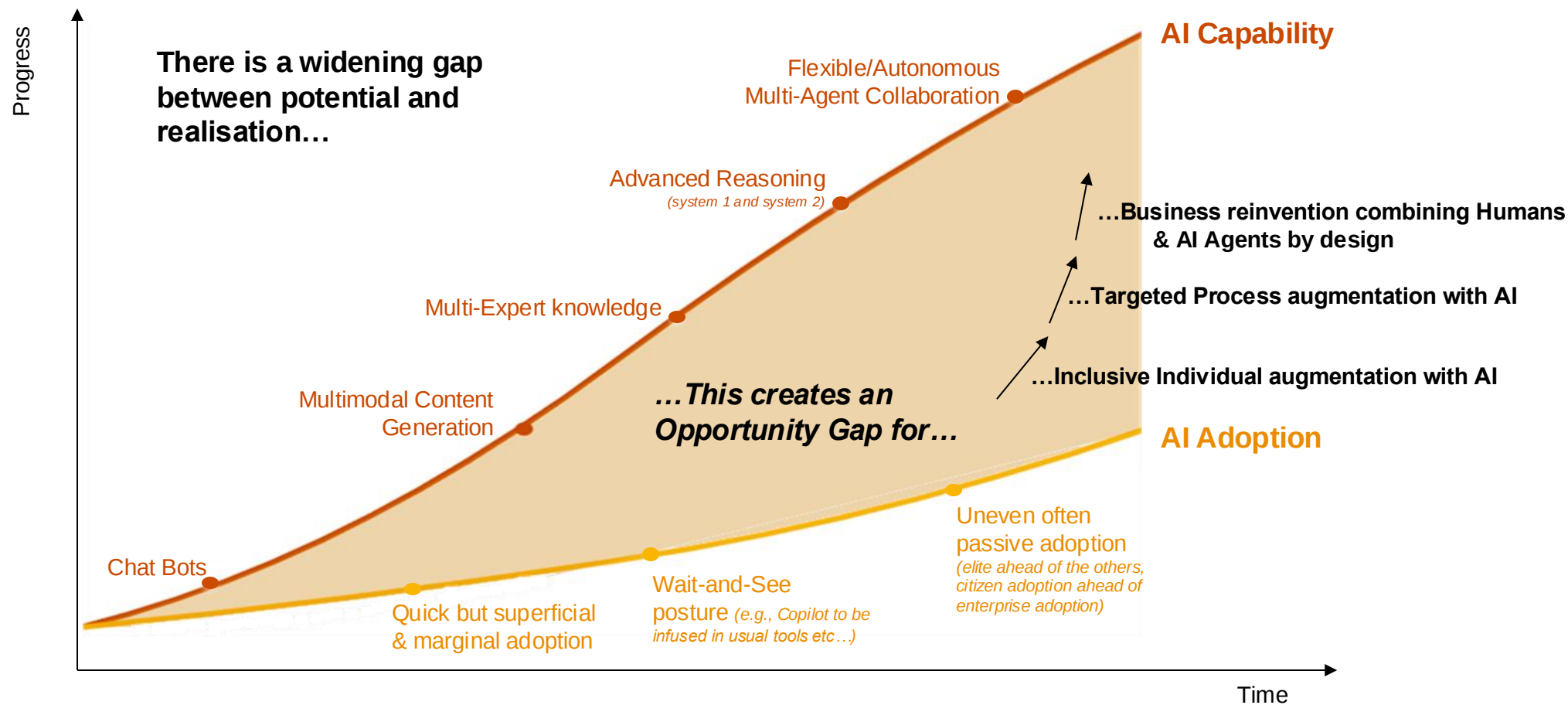


70%

CEOs who believe that
Generative AI will significantly
change the way their
company creates value
in the next three years.

Source: PwC's 27th Global CEO Survey (2024)

While AI capability is growing exponentially, Adoption is lagging behind



The AI trust deficit



8 in 10 Australian businesses are already exploring or applying Generative AI.

Source: PwC, 2023



7 in 10 CEOs believe that generative AI will significantly change their company within 3 years.

Source: PwC, 2024



1 in 10 Australian businesses are ready to navigate the risks of using AI.

Source: Fifth Quadrant, 2022



5 in 10 employees feel positively towards the impact of AI on their career.

Source: PwC, 2023

Top 10 emerging AI risk and governance challenges



AI **disclosures and transparency** throughout the supply chain.



Navigating complex and ambiguous **intellectual property rights** for AI models, their inputs and their outputs.



Determining the right level of **oversight and review for AI outputs** depending on the nature of the system and use case.



Maintaining visibility over the **costs and value realisation** of AI systems and use cases.



Proactively addressing the impact of new AI systems and use cases on the **workforce**.



Keeping pace with evolving global **regulatory obligations**.



Maintaining compliance with **privacy law** and evolving consumer expectations on the use of **personal information** in AI **model training**.



Streamlining the **review process for new AI use cases** so that it's more agile and risk-based, so that it's possible to respond to new strategic opportunities and threats **at-pace**.



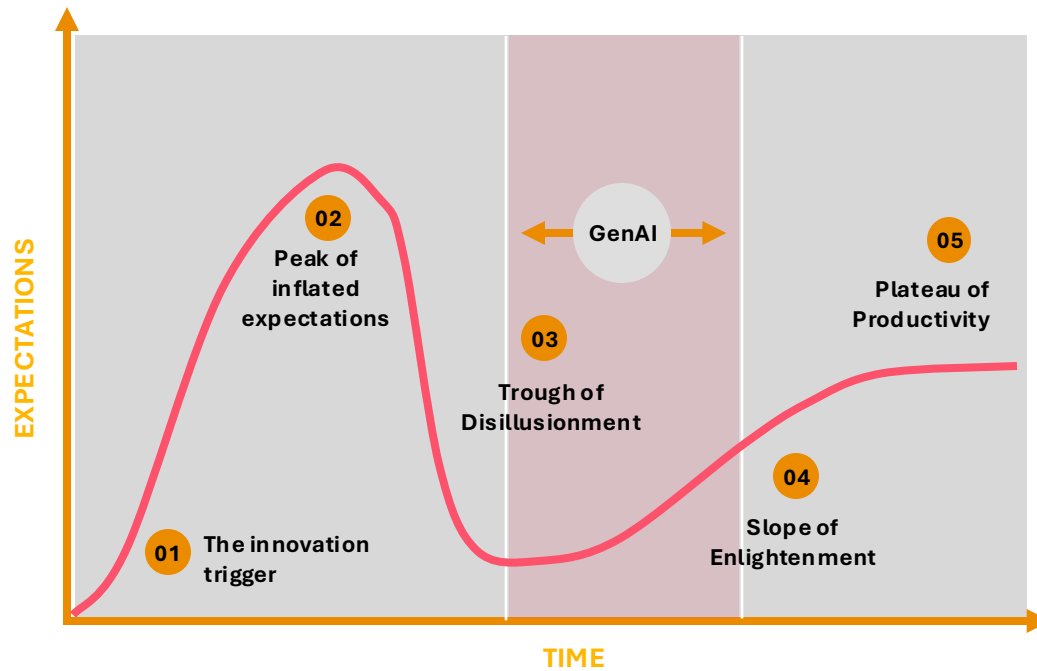
Defining a **risk position** on the appropriate use cases for AI within the organisation.



Responding to the threat of AI-enabled **cyber attacks** and **model exploitations**.

Generative AI impact and overview of the hype

‘Hype Cycle’: While Generative AI has generated excitement, the realisation of value is still a work in progress.

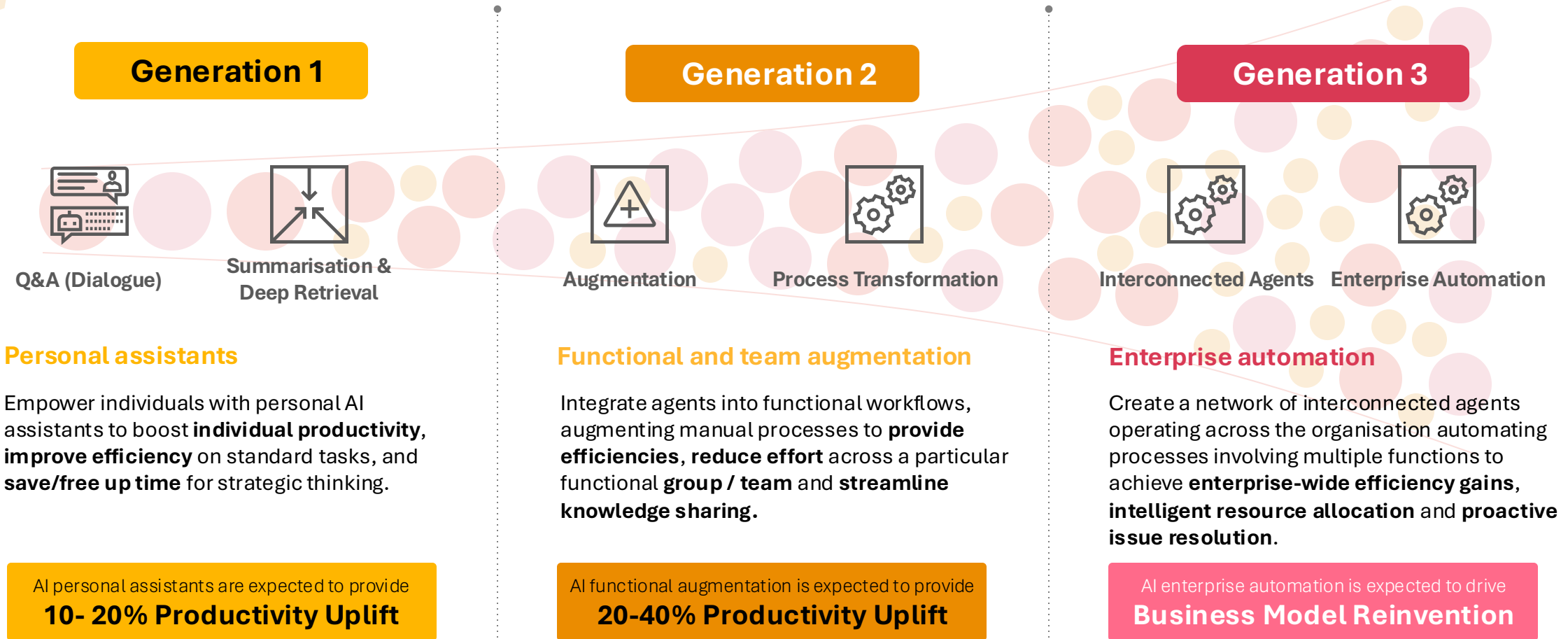


- 01 **The innovation trigger** starts when an event, like a technological breakthrough or a product launch, gets people talking.
- 02 **The peak of inflated expectations** is when product usage increases, but there's still more hype than proof that the innovation can deliver what you need.
- 03 **The trough of disillusionment** happens when the original excitement wears off and early adopters report performance issues and low ROI. **Most organisations are here**
- 04 **The slope of enlightenment** occurs when early adopters see initial benefits and others start to understand how to adapt the innovation to their organizations.
- 05 **The plateau of productivity** marks the point at which more users see real-world benefits and the innovation goes mainstream.

Generative AI is dominating discussions on AI and has reached (and in some cases passed) the Peak of Inflated Expectations. The hype surrounding these models, generally focuses on cherry-picked examples of output rather than a realistic assessment of their strengths and weaknesses. **There is still a large gap between the expected potential impact and actual usage in the market, making it even more necessary to aggressively prioritise and stay focused on high-value use cases.**

Generations of Generative AI

Generative AI aims to enhance productivity, efficiency, cost control, and revenue via augmentation and automation. This impact is expected to grow over three generations, focusing on AI-driven individual productivity, team productivity and business model reinvention.



PwC as “Client Zero”

We’re modernizing our internal **platforms** to embed this new, secure generative AI environment. We’re building on our existing foundation of using AI to deliver productivity gains **across tax, audit and consulting** services to clients.

This includes running a **Gen AI Factory** with a robust **pod-operating model** of data scientists, technology experts. We’ve analyzed **300+ use cases**, **proven out and completed 8% as of June**, with more in progress. The majority of the use cases related to **agile delivery transformation, document search and knowledge access, and report generation**.

Adopting Generative AI is disrupting the way PwC operates with these internal PwC use cases.

Sample use cases summarized below:

#	Use Case	Description	GenAI Pattern(s)
1.	Automated document response	Generate high quality responses to document requests; with consistent, clear and accurate responses.	Content generation
2.	Capital Markets and Accounting Advisory Services (CMAAS)	Prepare contract reviews, summarization of the transaction terms, and prepare low/medium complexity accounting analysis for mergers and acquisitions with less time and resourcing.	Summarization, Content generation
3.	User story and Script Generation	Develop applicable user stories based on a DDL statement and develop optimized prompt statements for test cases.	Content generation
4.	M&A Financial Due Diligence	Summarize critical information for public company deals, while identifying the most important findings for clients in a manner that is automated, efficient and accurate.	Summarization
5.	Document Summary and Search	Summarize a set of documents, understand the content, extract relevant information, and answer questions quickly/accurately.	Summarization
6.	Statement of Work Generation (SOW)	Utilize Natural Language Processing (NLP) and Machine Learning (ML) techniques to analyze an SOW document, extract the relevant information and generate a customized cover letter that highlights the organization’s strengths and accomplishments to the client in a confident sales tone.	Summarization, Content generation
7.	M&A Tax Due Diligence Reporting	Draft an automated response to a Tax Due Diligence (TDD) report (“issue spotting”) questionnaire and draft key sections of the TDD report itself.	Content generation

Example: Interpreting and applying policy in day-to-day decision- making

ACME Corporation
Capitalisation Policy

- Purpose**
This accounting policy establishes the minimum cost (Capitalisation amount) that shall be used to determine the capital assets that are to be recorded in ACME Corporation's annual financial statements (or books).
- Capital Asset definition**
A "Capital Asset" is defined as a unit of property that: (1) has an economic useful life that extends beyond 12 months; and (2) was acquired or produced for a cost of \$500 or more. Capital Assets must be capitalized and depreciated for financial statement (or bookkeeping) purposes.
- Capitalisation thresholds**
ACME Corporation establishes \$500 as the threshold amount for minimum Capitalisation. Any items costing below this amount should be expensed in ACME Corporation's financial statements (or books).
- Capitalisation method and procedure**
All Capital Assets are recorded at historical cost as of the date acquired.
Tangible assets costing below the aforementioned threshold amount are recorded as an expense for ACME Corporation's annual financial statements. Alternatively, assets with an economic useful life of 12 months or less are required to be expensed for financial statement purposes, regardless of the acquisition or production cost.
- Reconfining**
Invoice substantiating an acquisition cost of each unit of property shall be retained for a minimum of four years.

appliancesonline
10/10/2015

Thomas Pagram
7 Blue Ridge
Wendy Latham QLD 4337
Australia

TAX INVOICE
Invoice No. 001088883
Invoice Date 15/06/2015
Page 1
Est. Order No. 000108883
Delivery Date 15/06/2015
Account No. 000000004

Quantity	Item No.	Description	Unit Price	Disc %	Amount
1	ACC096	ELE RF DOOR CONVERSION KIT	35.00		35.00
1	ME6104ST1	SAM MW 28L 1000W SENS/COOK S/S	203.00		203.00
1	WM7	EURO WM F/L 7KG 1200RPM 4.5"	508.00		508.00
1	ACOLCONNECT	Connection			

Deliver To: WIN-QLD Delivery Instructions: Invoice Total: 746.00



Tom Pagram 4:32pm

Which items in the invoice should be capitalised and which ones should instead be expensed? Include a line-by-line summary in a table including a description of the line item, an assessment of whether the line item meets each of the capitalisation decision criteria, and the overall capitalisation decision outcome for the line item



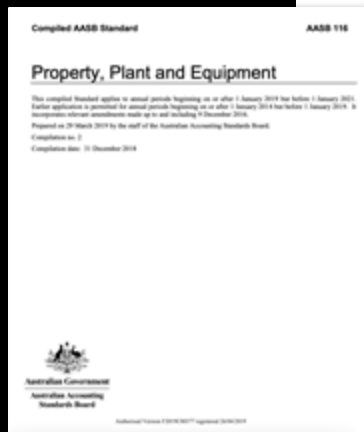
AI Assistant 4:32pm

Based on the information provided, the following table summarizes the capitalization decision for each line item:

Line Item	Description	Cost	Economic Useful Life > 12 Months?	Cost > \$500?	Capitalisation Decision
WM7	EURO WM F/L 7KG 1200RPM 4.5*	\$508.00	Yes	Yes	Capitalise
ME6104ST1	SAM MW 28L 1000W SENS/COOK S/S	\$203.00	Yes	No	Expense
ACC096	ELE RF DOOR CONVERSION KIT	\$35.00	No	No	Expense

The "WM7" line item meets both capitalization criteria (economic useful life > 12 months and cost > \$500), so it should be capitalized. The "ME6104ST1" line item has an economic useful life greater than 12 months, but its cost is below the minimum threshold of \$500, so it should be expensed. The "ACC096" line item does not meet either of the capitalization criteria, so it should also be expensed.

Example: Assessing changes to regulation and identifying changes to policy frameworks that may be required



Tom Pagram 5:14pm

Please prepare a report with recommendations in markdown format of how we can improve the policy in alignment with AASB116



AI Assistant 5:16pm

Based on the information provided, the following recommendations are proposed to improve ACME Corporation's Asset Capitalisation policy in alignment with AASB116:

Definition of Capital Asset

The definition of a "Capital Asset" in ACME Corporation's policy should be updated to align with AASB116. A capital asset should be defined as an asset that has a useful life beyond 12 months and meets the recognition criteria of AASB116, which states that the future economic benefits associated with the asset are probable and the cost of the asset can be reliably measured.

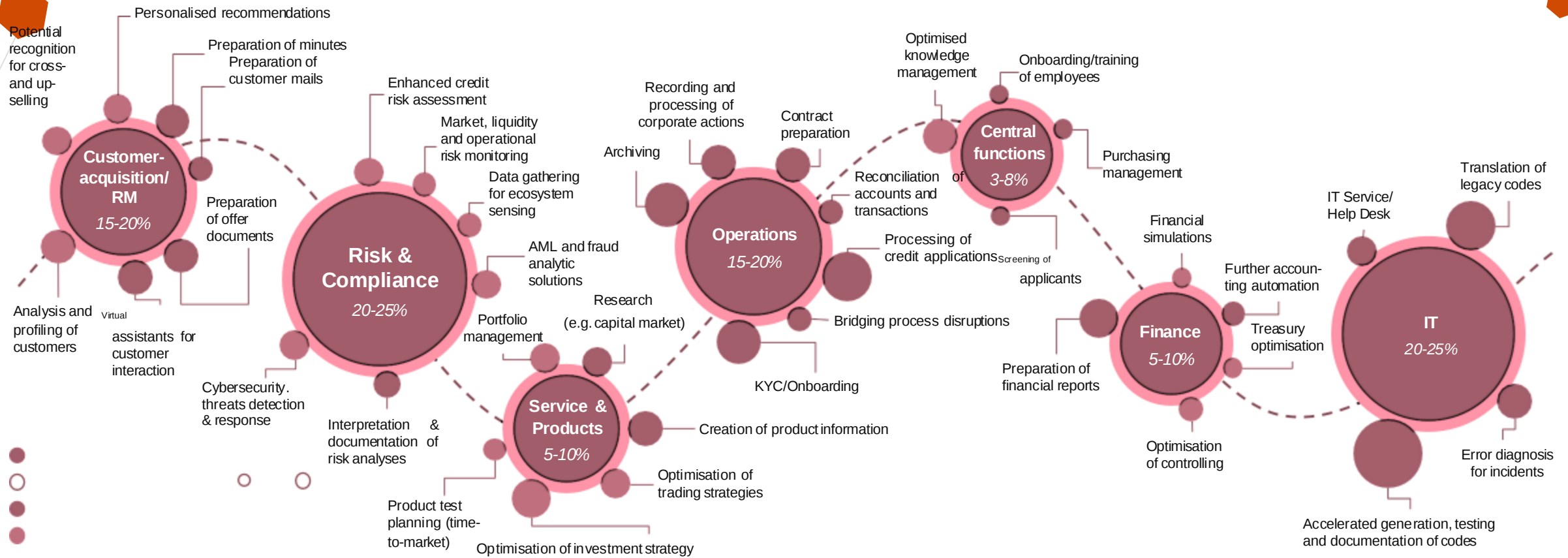
Capitalisation Thresholds

ACME Corporation's policy should be updated to reflect the recognition criteria of AASB116. The minimum capitalisation amount should be based on the recognition criteria of AASB116, which requires that the future economic benefits associated with the asset are probable and the cost of the asset can be reliably measured. This may result in a higher minimum capitalisation amount than the current threshold of \$500.

Capitalisation Method

ACME Corporation's policy should be updated to reflect the capitalisation method described in AASB116. All capital assets should be recorded at their cost and depreciated on a systematic basis over their useful life. The

The opportunity we see from AI across industries



Use cases we have delivered for our clients

Regulatory Report Automation

Automated the generation of Safety Management Studies (SMS) reports for all operational assets.

Human Resources Strategy

Generative AI strategy, roadmap, solution design and process maps to establish Gen AI foundations within the Human Resources function of a large multinational mining organization.

Fraud Analytics

Corroborating data points through a Generative AI model with a fraud lens, Analysts were able to connect patterns and extract hidden insights that would have previously gone unnoticed due to inexperienced.

Customer Complaints Analytics

Enrich agents' understanding of complaints by creating supplementary insights on complaint categories, complaint urgency, customers' desired resolution, recommended next steps, as well as drafting email responses to improve response times.

Discovery Assistant

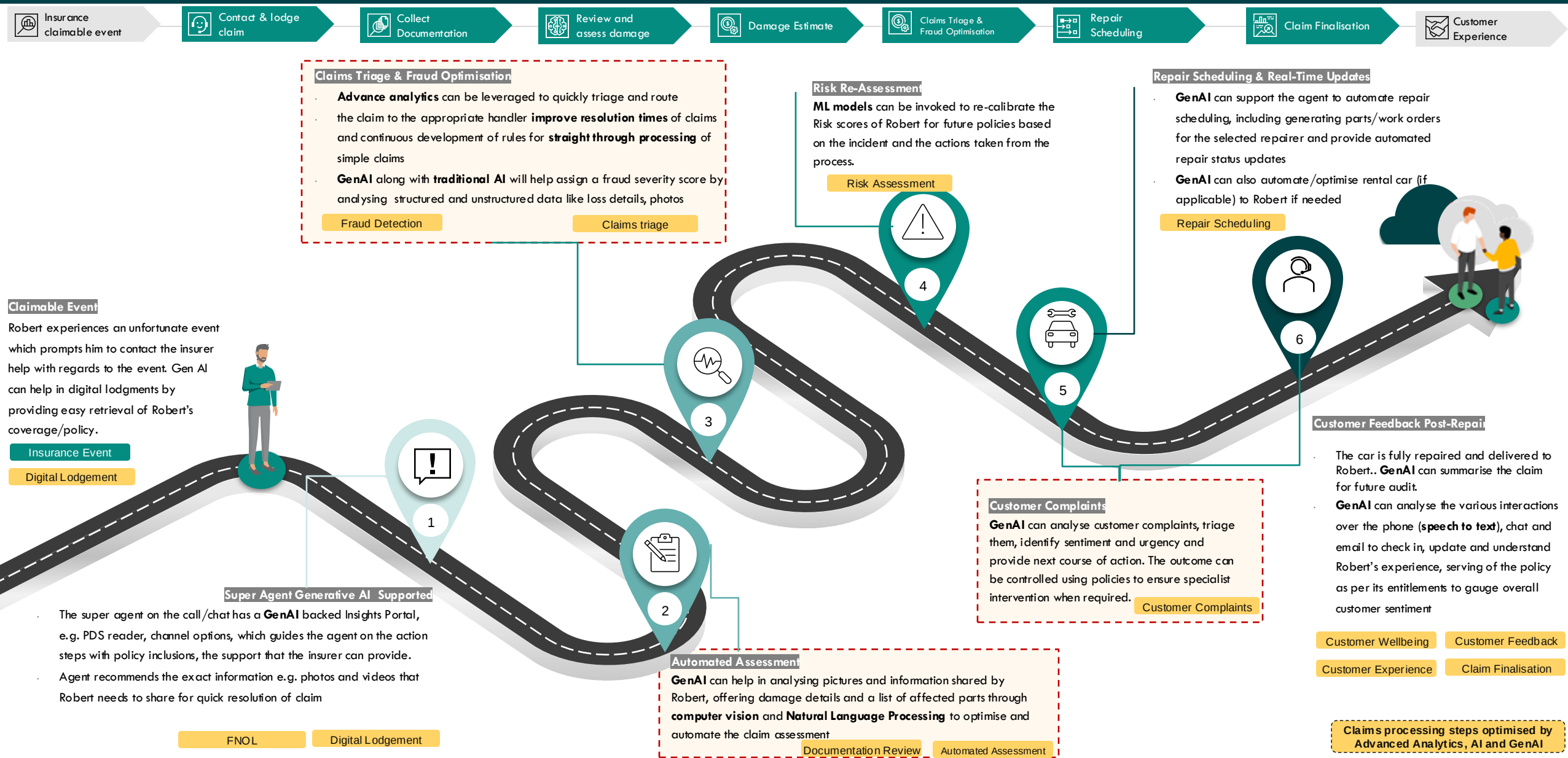
Automatic discovery of data and reporting landscape to identify migration/modernisation requirements (Rebuild, Retire, etc.), identify data lineage for reports, identify usage of reports and quality of data and reports.

Customer Experience Analytics

Hierarchical root cause analysis taking transcripts from inbound customer calls and processing them using LLM to generate call profiling, sub-categories of call reasons and characteristics of frequent callers.

GenAI can support in multiple ways across the Claims lifecycle

Leveraging Generative AI in combination with traditional analytics, the insurance claims process can be significantly optimised to automate and provide support the insurance agent to efficiently and accurately process the claim.



Generative AI to detect fraud

Unlock new levels of claim savings and operational efficiency using Generative AI. Generative AI analyses unstructured data to uncover novel fraud patterns, reduces false positives, and equips investigators with actionable intelligence.



The Challenge

Advancements in technology have heightened the susceptibility of the insurance industry to fraudulent activities. Insurance offerings are primary targets for fraud, leading to substantial expenses and elevated premiums. Insurance companies have large volumes of unstructured data like claim descriptions, claim adjustor note, repairer notes, vehicle images that are difficult to leverage fully but could help generate insights to improve fraud detection with GenAI capabilities

Key Considerations of Stakeholders:

Fraud Triage/Investigation Team

- Improve efficiency of triage team by summarising the reasons of suspicion from various data sources
- Improve effectiveness by reducing false positives and increased claim savings.

Fraud Analytics Team

- Improved capabilities to deliver data-driven AI solutions to identify suspicious fraud behaviour
- Increase effectiveness by building a solution that can easily cross reference various types of claims and customer data.

PwC



Our Solution

Our solution leverages available unstructured data to enhance the detection of fraudulent claims by identifying insights and unearthing patterns from both unstructured and structured data like incident data, claim notes, policy data and historic fraud data.

Harnessing the power of **Generative AI** to autonomously analyse and process vast amounts of structured and unstructured data, our AI powered solution will help deliver a range of key insights and recommendations. Key features include:

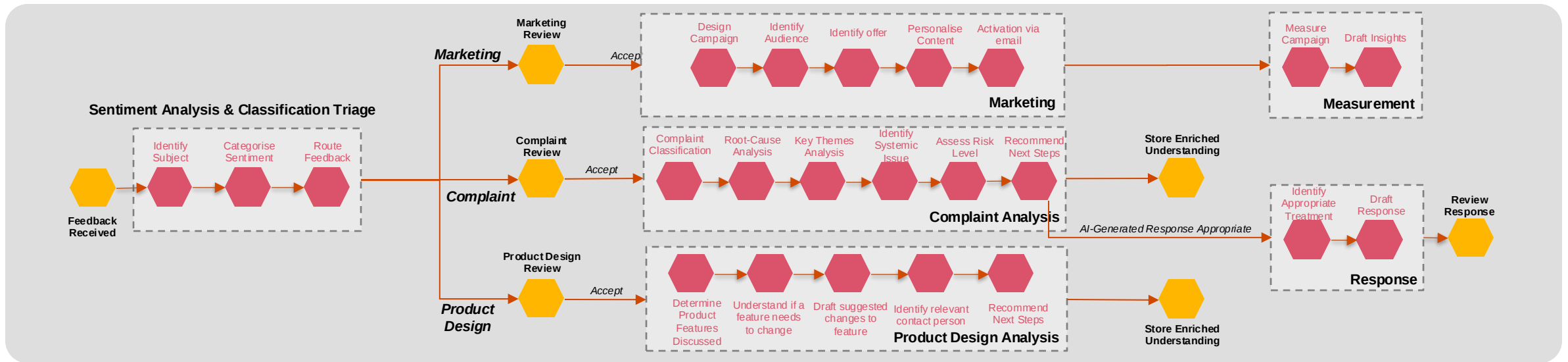
- Automated extraction of information from unstructured data into a consistent structured data format
- Generates easy to understand narratives in natural language that articulate reasoning of fraud indicators for each claim
- Conversation AI view for to understand insights from unstructured and structured data to create new/optmise fraud detection rules



The Benefits

1. **Increased Claim Savings:** Optimizes claims savings by prioritizing high-impact fraud alerts, enabling your team to uncover more fraud with existing bandwidth
2. **Reduce False Positives:** Sophisticated modeling dramatically cuts false positives compared to legacy tools, ensuring investigation team focuses on truly suspicious claims increasing efficiency
3. **Uncover New Fraud Patterns:** Our advanced AI examines unstructured data like notes and documents in addition to structured data, detecting novel fraud patterns that evade rules-based systems
4. **Operational Efficiency:** Natural language summaries analyze and synthesize indicators from disparate data sources, equipping investigators with actionable intelligence to drive faster decisions
5. **Continuous Improvement:** Investigation team can continuously engage through a conversational AI view to understand fraud typologies to continuously improve rules

Generative AI in customer feedback and complaints management



Feedback Agent

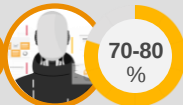


Gather and process customer feedback



Process customer feedback and retrieve feedback context and Analyse customer sentiment (+ve, -ve). Trigger downstream action based on feedback details

Marketing Agent

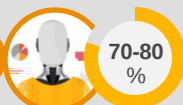


Design and execute customer campaigns



Design marketing campaigns for customer(s) based on their feedback. This includes selection of audience based on customer cohort and selection of appropriate offer from a pool of approved offers. The Agent personalises the content and executes the campaign on the available marketing channels.

Complaint Agent

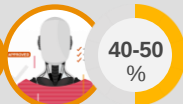


Identify and process customer complaints



Confirm customer feedback and validate as a complaint and classify it according to relevant category. Analyse the complaint to identify any systemic issues and risks associated. Recommend next steps to human approver for further action

Product Design Agent



Assist in product design



Process the feedback in context of the product and product design details. Analyse if product features need change or correction. Draft product suggestions for relevant team and recommend next steps for further action.

Talent & Skills

New roles emerge when considering AI at scale, including AI Engineering, Prompt Engineering as well as AI and business analysts that understand unique Generative AI (and more broadly AI) applications. PwC has identified core roles and responsibilities to enable a Gen AI “pod” model. The right mix of talent also allow us and our clients to more meaningfully match technology with individual needs.



Pod Leader

Is responsible for the overall direction of the use case and ensuring we are quickly getting to proof of value with GenAI for the sponsored use case. Makes overall decisions on the business objectives for the use case.



Business Analyst

Is responsible for the detailed breakdown of the use case objectives and ensuring the pod team is progressing on weekly deliverables for the sponsored use case.



Prompt Engineer(s)

Is responsible for designing and fine tuning prompts to meet the objectives of the use case. Works with model mechanic to validate LLM results and adjusts prompts accordingly.



Model Mechanic(s)

Is responsible for validating the results of the LLM responses and working with the Prompt Engineers to fine tune models to try and achieve more accurate and consistent results.



Data Engineer

Is responsible for accessing, preparing, organizing the unstructured data and embeddings for creating LLM-based solutions.



Data Scientist

Is responsible for ensuring the problem can be solved efficiently using an LLM, with data available and the business objectives. Informs the work of the prompt engineer to maximize accuracy & performance.

Data Science team, supports pod teams and helps prompt engineers as well as model mechanics build/refine their skills

What's next over next 6-12 months...

- **Multi-modal:** models will get increasingly multimodal with ability to address images, video, audio & text.
- **Variety & Fit:** There will be an increase in LLM availability enabling the enterprises to select the right fit model based on use case.
- **Consistency & Reliability:** Newer version of LLMs will be more accurate and relevant. We already saw a major jump in reliability between GPT3.5 and GPT 4
- **Autonomy:** Models will become increasingly autonomous with ability to complete selected tasks with limited supervision.
- **Scale-up reality:** Model scale-up challenges get addressed with a combination of hyperscalers (e.g. Azure, AWS, GCP) and startups and open source.
- **Industry use case maturity:** Industry specific use cases along with associated models and tech stack become more mature.

Recommended steps to consider when going through your GenAI journey.

1

Taking a trust-by-design approach via Responsible AI and establishing **security policies and secure environment** for generative AI

2

Defining **AI strategy** to prioritize transformational use cases and enterprise readiness

3

Building initial patterns by establishing a core team to help accelerate speed, repeatability and control

- Most common early focus areas include a private Chat GPT application, software development lifecycle solution and customer sales/service solutions

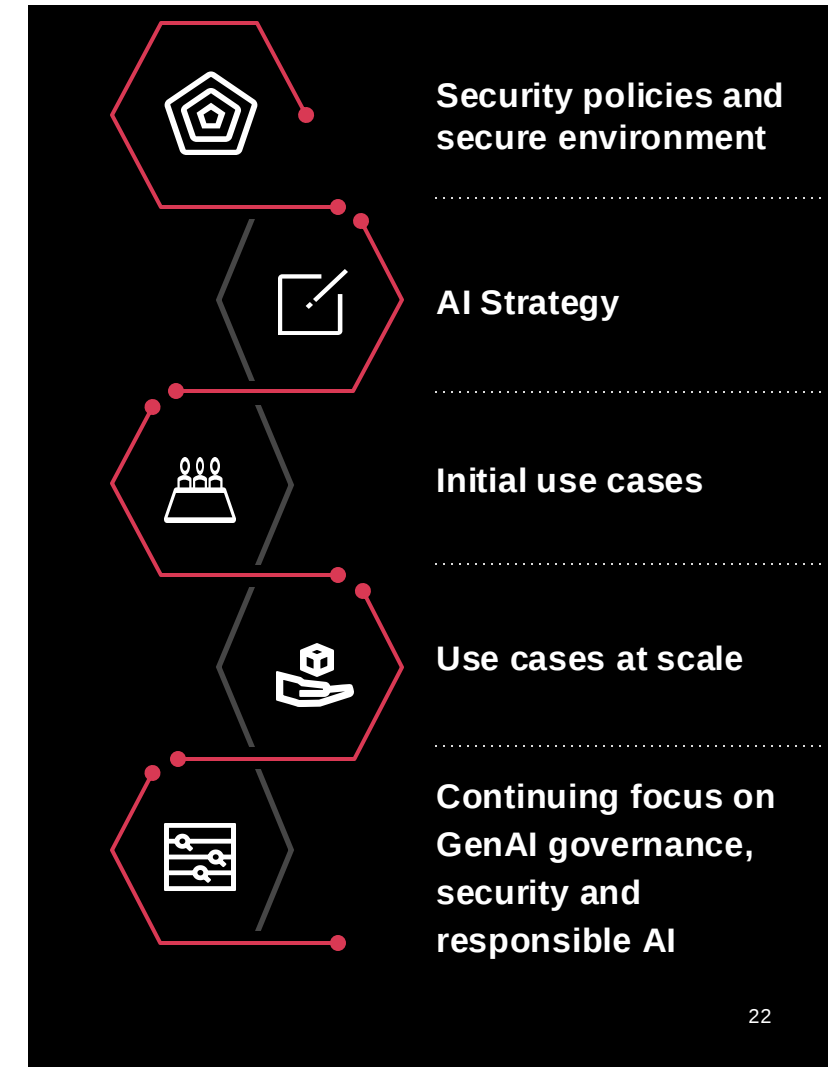
4

Scaling use cases, building into workflows and applications and adapting use case patterns across the business

- Generally includes new tooling and integration services with enterprise data and applications

5

Continuing focus on GenAI governance, security and responsible AI



Generative AI can help 'you' lead

CEO

- AI-enabled use cases to **update** the corporate vision/mission/strategy
- **Drive the definition and implementation** of a GenAI strategy

CFO

- **Gain productivity** from employees by automating accounting, control, and compliance tasks
- Make **more informed decisions** on the potential return of expenses

COO

- Optimize customer experience, **reduce service costs**, and enhance service staff productivity
- Catalogue and analyze internal operational capabilities, highlighting areas for **quick-win AI opportunities**

CTO

- Build virtual assistants to **support DevOps teams** in product testing and release management by identifying performance and troubleshooting issues

CIO

- Identify a digital solution that can automate tasks, **freeing up resources** for more strategic work
- Replace physical events, processes, and products with **digital** ones

CMO

- Rapidly develop creative content, **increasing the number of personalized marketing experiences**
- **Deliver insights more quickly** by serving as a plain text input to query analytic data sources

CHRO

- **Personalize** the employee experience, from interviews, to offers, to onboarding and performance reviews
- **Recognize** when candidates similar to successful employees are being recommended

CRO

- Roll-out new risk management measures to the company as **quickly and efficiently** as possible
- **Upskill employees** on an ongoing basis in risk management

CCO

- Identify **new regulatory requirements** or changes in enforcement paradigms
- Shift from periodic to **real-time compliance monitoring**

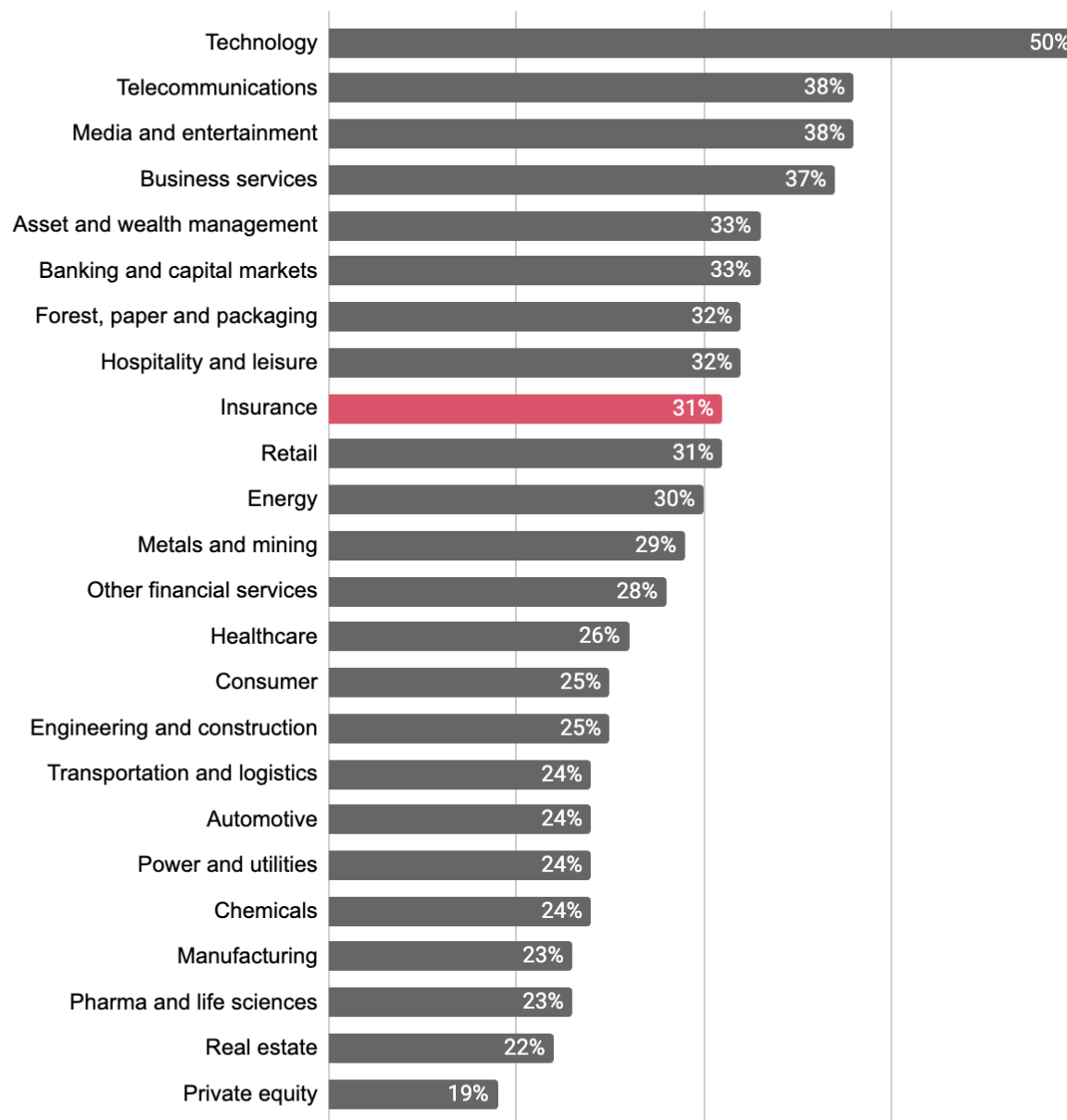
CISO

- Implement an **integrated process** with stakeholders to review AI use cases for risk
- **Upskill employees** on an ongoing basis to increase AI use

31%

Almost all industry is adopting Generative AI in at least one area of their business in the past 12 months.

n=274



Source: PwC's Global 27th CEO Survey, 2024